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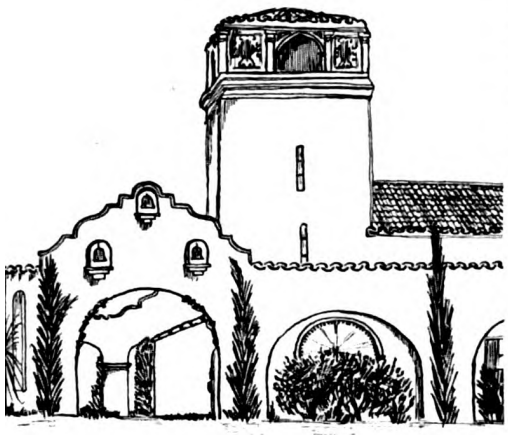

OLLEGE OF OSTEOPATHIC PHYSICIANS
ND SURGEONS • LOS ANGELES, CALIFORNIA

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VOLUME I.

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Clinical Lectures
ON
CASES OF DIFFICULT DIAGNOSIS.

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LECTURE II.

STRICTURE OF THE ILEO-CÆCAL VALVE.

GENTLEMEN,—At our last meeting we were considering the subject of perforation of the vermiform appendage; and we found that by a careful consideration of its symptoms, and the physical signs accompanying it, the existence of the complaint could be generally diagnosed. I now wish to draw your attention to another disease of the cæcum that is very difficult of recognition. The cases are often so obscure that I have not ventured upon an exact diagnosis in any of those that have come under my own notice, but have had to content myself with the opinion that there was a stricture in some part of the intestinal canal. It will, however, be evident that, unless we can satisfy ourselves as to the position as well as the nature of the disease in a case of this kind, the treatment must be vague and uncertain. I will first read to you the cases to which I have referred, and you will see at once how greatly they differ from each other in their history, in their clinical aspects, and in the cause of the obstruction discovered after death.

CASE 1. Sarah J——, aged twenty-nine, admitted into the London Hospital on November 6th, 1874. She complains of a fixed pain near the umbilicus, coming on directly after food. She has no vomiting and no heartburn, but suffers from slight acidity and excessive flatulence. Tongue rather dry, thirst, bowels much confined, and only act with the assistance of aperients; pulse 84. She has latterly lost flesh. Catamenia have not appeared for seven weeks. The abdomen is greatly distended and is divided into longitudinal ridges, which are continually altering their position, their motions being very apparent. There is no tenderness on pressure. The uterus is normal, and no cause for intestinal obstruction can be discovered by vaginal examination. The percussion note is very tympanitic in every part, but the left side is more prominent and more clearly tympanitic than the right. After drinking no gurgle can be detected in the stomach by succussatory percussion. She states that she had always enjoyed good health until three months ago, when she was suddenly attacked with severe pain near the umbilicus, accompanied by diarrhœa. This attack lasted eight days, and ever since that time she has suffered from attacks of pain of the abdomen, which are increased by exercise as well as by food, and from occasional vomiting, which chiefly comes on in the evenings.—Dec. 24th: The vomiting has ceased since her admission, but she still complains of pain at the umbilicus, coming on a short time after food. The bowels now act regularly with the aid of enemata. The movements of the intestines have become more visible and are very well marked.—January 8th, 1875: The pains are now much more severe than formerly, and the whole of the front of the abdomen seems to be occupied by a mass of moving intestinal coils. She had vomited a large quantity of pure bilious fluid mixed with mucus. Pulse 120, small and feeble. She died rather suddenly, without any alteration either in her symptoms or the physical signs.

Post-mortem examination.—The small intestines were found to be enormously distended, especially the ileum; this contained a dark-coloured fluid; their walls were much thickened and numerous hæmorrhages were found in the mucous coat; the ileo-cæcal valve was much contracted, and numerous small openings existed in its place between the small and larger intestines; some solid fæces were in the ascending colon; the descending colon was much contracted. The other organs of the body were in a healthy state.

CASE 2. Fanny F——, aged twenty-seven, admitted August 29th, 1877. She complains of severe pain of the abdomen, coming on in paroxysms, attended with occasional vomiting; the pulse is 100, the tongue furred; appetite bad; temperature 100°; the bowels have been confined for two weeks. The abdomen is much distended and tympanitic; no dulness can be discovered in any part, but there is increased tension and resistance to pressure in the right iliac region, although no tumour can be felt there. The motions of the intestines are visible over the whole abdomen; they are constantly present, but seem to be most distinct in the umbilical region. Catamenia irregular. On examination by the rectum, a round, hard mass can be felt, apparently in Douglas's pouch, and the uterus seems to project forward. She gives a very confused account of her illness; but as far as can be learned from her, she had four years ago suffered from what she calls a "miscarriage," and the child came away in pieces, during a period of five months. After this she suffered for two years from severe pains of the abdomen, which came on at intervals. These paroxysms of pain then left her, but two months ago she was again attacked with severe pain in the bowels, accompanied by a hard swelling and a feeling of movement in the abdomen, and with vomiting. After her admission the bowels were freely opened by enemata, and a large quantity of brown-coloured fæcal matter was evacuated.—28th: The liver dulness extended from the upper border of the fourth rib to the upper border of the seventh, and some dulness was found in the right flank. The patient was examined under chloroform, and a small, rounded, hard swelling was discovered in the recto-uterine pouch. A copious enema was thrown up above the tumour, but it was not retained. The temperature rose to 102°, but no pain was complained of.—29th: The patient seemed to be somewhat relieved, but she suddenly became collapsed when straining at stool, and vomited some fæcal-looking fluid. She died the same evening.

Post-mortem examination.—Many of the coils of the intestines were adherent, and a communication existed between the cæcum and a portion of the small intestine adherent to it, whilst the sigmoid flexure was adherent to the rectum, and a communication also existed between them. The lower end of the ileum was much dilated and hypertrophied, and the ileo-cæcal valve was contracted to the size of a swan's quill. There was a cyst connected with the left Fallopian tube, and a fœtal parietal bone is also mentioned in the notes; but its exact situation is very difficult to make out, as in one account it is stated to have been situated in the sigmoid flexure, in the other in the cyst.

CASE 3.—James G——, aged forty, admitted June 6th, 1883, complaining of pain in the abdomen of a paroxysmal character, coming on every three or four minutes, and attended with vomiting of all food. The pain is so severe that it prevents him from sleeping, and he cannot lie in any position very long. The bowels have not been moved for nine days. Pulse 92; temperature 99·6°. The abdomen is slightly tense and painful on pressure, and the movements of the intestines are very visible; no tumour can be felt, but there seems to be more fulness to the left than to the right of the spine, and the percussion note is rather duller there. The rectum is large, and no stricture can be discovered. Large enemata were employed, but no stool was obtained. He had resided in Assam for seven years, and had visited various parts in India, but had generally enjoyed good health. He contracted syphilis twenty years ago, had malarial fever and ague some years ago, and had suffered from slight attacks occasionally since then. He first felt griping pains in the abdomen about one month since, and took aperient medicines, which produced purging, but did not relieve the pain. During the last month he has taken purgatives about half a dozen times, the last three times with little or no effect. On the last occasion (June 5th) it produced pain and uneasiness with nausea, and about seven or eight hours afterwards he vomited, and continued to do so at short intervals for many hours. He has at present a sore on the leg, apparently syphilitic, which has been unhealed for the last four years. 11th: He was carefully examined under chloroform, but no stricture could be discovered. He describes the pain as commencing at the level of the umbilicus, and then passing down each side, each access of pain being attended with great rumbling of wind.—13th: He has had two slight stools to-day; the first was liquid, the second solid, but of small size; the abdomen is not so tense, and is not tender on pressure.—15th: He seems easier, the pain coming on at intervals of about one hour, but relieved by change in his position. The abdomen is less distended, and there is dulness over the cæcum and ascending colon. The movements of the intestinal coils are

very apparent. He varied from this date, the pain and vomiting being one day easier, another day more severe. The operation of colotomy was first performed, but the colon being found contracted the small intestine was opened, with the result of giving vent to a large quantity of liquid fæces. He was greatly relieved, but some colicky pains still continued, and he was attacked with pneumonia on July 1st, of which he died on July 6th.

Post-mortem examination. There were some old peritoneal adhesions in the pelvis; the ileo-cæcal valve was much contracted, and only admitted the point of the forefinger; there was some thickening of the ileum near the valve with a semilunar ulceration, and a little further along the ileum was a raised patch with ulceration. The other organs were healthy.

The three cases I have just quoted are the only instances of this disease that have fallen under my own notice, or at any rate they are the only ones in which stricture of the ileo-cæcal valve was proved to be present by post-mortem examination. I have only been able to discover one other in the post-mortem records of the hospital, and no history of the case can be found. The account merely states that a sailor, forty-five years of age, died in July, 1851, and the ileo-cæcal valve was obstructed by a scirrhous growth completely surrounding the intestine and leaving an aperture through which only a crowquill could be passed. The large intestine was contracted; the small intestines were distended with fluid and flatus, they were of a dark-slate-colour and much congested, and the muscular coat was thickened. Cases of cancer of the cæcum are recorded, but as there is no mention of stricture of the valve these cannot be taken into the account. In an admirable paper on Intestinal Obstruction by Dr. Hilton Fagge twenty-two cases of intestinal obstruction are quoted as having occurred at Guy's Hospital from January, 1854, to November, 1868, and only one is mentioned in which the cæcum and ileum were the seats of stricture, the former intestine "being puckered by scar-like patches of cancer on the peritoneal coat," but no mention is made of any stricture of the valve. M. Duchaussoy collected twenty-seven cases of stricture of the intestines, in only one of which the cæcum was the seat of disease, but no mention is made of the state of the ileo-cæcal valve. I have, however, been able to collect twenty-six cases of stricture of this valve, recorded by various authors; and although in many the details both of the morbid conditions and of the symptoms during life are very meagre, they will, I hope, furnish materials that may assist us in our study of this rare form of disease.

You will remark that, although the cases I have quoted all showed a contraction of the ileo-cæcal value, there was a considerable difference in the morbid conditions associated with it. Let us look, for instance, at Case 1; in it, although the valve is described as obstructed, there is no mention of any disease of the intestines or of the adjoining structures, and it is stated that a number of small openings in the site of the valve existed between the ileum and the cæcum. In the catalogue of the Dupuytren Museum, in Paris, a similar case is described, in which at the contracted part there were a number of bridles crossing the opening, and thus affording the appearance of a sieve. It is suggested by the writer of the catalogue that the stricture had originated in an intussusceptum, and that the bridles were the remains of small portions of the included intestine that had escaped the sloughing process. This was, in all probability, also the origin of the contraction present in Case 1; for you will remember that the patient referred the commencement of her complaint to an illness which lasted for eight days, and had commenced suddenly with severe pain near the umbilicus, accompanied by diarrhœa. The objection will probably occur to you that females who were the subjects of both of these cases are more rarely affected by this form of invagination than the other sex; but if you bear in mind the sudden nature of the attack, occurring in a person who had been always previously in good health, the length of the primary illness, the gradual development of the symptoms after it, and the peculiarity of the morbid appearances found after death, you can have but little doubt that this explanation of the case is correct.

When we last met we were considering the abscesses near the cæcum produced by ulceration of the vermiform appendix, and you might reasonably suppose that a contraction of the ileo-cæcal valve would often result from such a condition. This is, however, not the case, for I have only been able to find one example of the kind, which is recorded by Dr. Hensinger. The patient had eleven years before her death suffered from an attack of perityphlitis; and on post-mortem examination the ileo-cæcal valve was found to be completely closed, the communication between the small intestine and the cæcum being maintained by three fistulæ, which passed from one to the other through thickened tissue, the remains of an old abscess around the cæcum. The rarity of this termination of perityphlitis may be explained by the fact that most of such cases end fatally within a short period, and that when life is prolonged for many weeks the abscess is discharged, either through some of the neighbouring organs or by the pus making its way to the surface of the body.

In eight cases out of twenty-six the ileo-cæcal valve is stated to have been contracted, and in six it is recorded as contracted and indurated, without any mention being made of a malignant growth accompanying it; so that in more than half of the whole number the morbid change seems to have been due to chronic inflammation alone. In one instance, recorded by Dr. Wickham Legg, the contraction was believed to have been congenital, for the patient had suffered from severe attacks of colic since the age of five, and a large number of cherry-stones were discovered above the stricture. It was suggested by Schroeder van der Kolk, in a case that came under his observation, that the stricture might have originated from ulceration produced by the impaction of a foreign body; but this must be a very rare cause, as I have been unable to find any history of a previous intestinal obstruction, either in the cases that have occurred in this hospital or in those recorded by other observers. But it has been frequently remarked that the cæcum was also thickened, and when we remember how frequently this portion of the intestinal tube suffers from inflammation, we should feel surprise that the valve is not more commonly the seat of stricture. It is not uncommon to find tubercular and typhoid ulcerations on the mucous membrane of the ileo-cæcal valve, and it is strange that such lesions do not more frequently lead to permanent narrowings; but I am strongly inclined to suspect that a moderate amount of stricture is more common than is supposed, and that it is often overlooked on account of the absence of symptoms during the life of the patient.

Let us now turn our attention to the third case, where there was thickening and ulceration of the mucous membrane at the lower part of the ileum, in addition to the stricture of the valve. This man had suffered from syphilis, and had an ulcer of the leg, apparently syphilitic, at the time of his admission. A very similar case is recorded by Dr. Bartels, in whom, although the patient denied ever having had syphilis, there was found after death contraction of the ileo-cæcal valve and extensive ulcerations of the cæcum and small intestines, and also indurations in the lungs, which were considered as decidedly syphilitic. Now, these cases are of great interest, not merely as showing that ileo-cæcal stricture may be the result of inflammation of the neighbouring intestines, but also as pointing to syphilis as the probable cause of the local mischief. The very striking cachexia so often accompanying syphilis is scarcely to be explained by the lesions we are accustomed to find after death; but, if it could be proved that the secreting and absorbing surfaces of the gastro-intestinal tract are as often the seat of mischief as the skin and mucous membrane of the mouth, we should make a considerable advance in our knowledge of the effects produced by this malady. That this must often occur I am fully convinced, for I have seen most obstinate cases of gastric ulceration and of dyspepsia following syphilis which have quickly yielded to the use of iodide of potash and other remedies of a similar character. In order, however, to discover the presence of such changes, after death it would be necessary to employ careful microscopical investigation, for important alterations are often present in the mucous membranes without producing any alterations that can be recognised by the naked eye. In nine out of twenty-six cases the stricture is stated to have been produced by cancer, and in two of these the cæcum was also affected. I would here draw your attention to the extreme rarity with which primary carcinoma affects the cæcum, as compared with the frequency of its presence in the stomach, colon, and rectum; for any theory that may be brought forward to account for the origin of this malady must take into consideration its predilection for certain parts of the gastro-intestinal tube as compared with others.

As might be supposed, inasmuch as strictures of the

ileo-cæcal valve are produced by different agencies, the amount of obstruction greatly varies. Thus in five cases the little finger could be barely passed through the valve; in one this could not be effected; in another the opening was only one quarter of an inch in diameter; in five it only admitted a quill, and in one a needle; in one it was almost completely closed, and in four no opening at all could be observed. Of course the effects of the constriction also vary, for wherever it was very narrow the small intestines were found to be vastly distended with fluid, the muscular coat of the ileum was hypertrophied, and the results of vascular congestion were seen either in recent extravasations of blood or in the slate colour of the walls of the gut; the colon was nearly contracted, although in many cases it contained a small amount of fæces. In Case 2 adhesions were found between a coil of the small intestine and the cæcum and between the sigmoid flexure and the rectum, and communications had been established between these portions of the intestinal canal, so that the effects of the distension must have been considerably lessened. I have found three other cases on record in which a similar process had taken place; in one a communication had been established through the appendix vermiformis, which was much dilated, and was adherent to the ileum; in the others intestinal fistulæ had been established between the small and large intestines. Old adhesions have been often met with, and are probably the results, as in Cases 2 and 3, of a previous attack of local peritonitis, or of inflammation excited by the great distension to which the gut had been subjected.

(To be concluded.)

Remarks
ON
LARYNGEAL PARALYSIS AND INEQUALITY OF THE PUPILS, AS TENDING TO AID AND ALSO TO MISLEAD IN THE DIAGNOSIS OF THORACIC ANEURYSM;
WITH SOME OBSERVATIONS ON THE
STATE OF THE PUPIL AFTER DEATH AND THE EFFECT OF ATROPINE.

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THE occurrence of laryngeal symptoms, and particularly of laryngeal paralysis, as also the appearance of inequality of the pupils, have been known for many years as affording important evidence of the presence of aneurysmal and other thoracic tumours. Two patients who were in my wards at the same time afforded illustrations of the value of these signs, and also of the danger of trusting too much their significance.

In the one case we had a well-marked pulsating tumour in the upper part of the chest, extending into the right side of the neck. The history of the case went back for more than a year. The examination after death showed that the aorta was dilated and that a large aneurysm arose from the arch in front of the origin of the great vessels. The pneumogastric and recurrent nerves on the right side were found considerably stretched over the tumour, and somewhat adherent to it as well. An attempt was made to include the sympathetic in the dissection of the parts removed; but although it was distant from the position of the tumour that it must have been implicated, it was found that it had been partially destroyed in removing the aneurysm and its connexions. The laryngeal symptoms had appeared three months before death, and on admission the right vocal cord was found to be paralysed. During his stay in the ward (six or seven weeks) the dyspnœa was often extreme, and he had had several attacks, almost fatal in character, due to spasm of the glottis, terminating with a crowing inspiration. These attacks were aggravated by the growth of the tumour leading, a few days before death, to displacement of the larynx and trachea to the left of the middle line. The only point in this part of the history worthy of note is that the tumour and paralysis were on the right side. It would seem from the statements of authors that this symptom is much commoner when the tumour is on the left side. The state of the pupils was noted particularly on admission; they were quite equal. Their size was measured by means of the scale enclosed in Nettleship's pocket case, the round black spots in which are numbered so as to express the diameter in millimetres. Both pupils when shaded were 7½ mm.; when exposed to bright light, 4½ mm. On being measured again, three weeks before death, when a marked inequality had appeared, the figures were: right pupil when shaded, 4½ mm.; when exposed to light, 4 mm.; left pupil when shaded, 6½ mm.; when exposed to light, 5 mm. This inequality persisted to the end of the case, and was frequently verified as essentially the same in degree. The exact condition at the moment of death was not noted, but at the post-mortem examination, thirty-six hours later, I found both pupils dilated and quite equal. This dilated and equal condition of the pupils after death, where myosis dependent upon aneurysm was present during life, was noticed in the earliest cases recorded of this symptom.[1] This condition of the pupils after death in cases of paralysis from aneurysm is just what might be anticipated; for such tumours do not usually destroy the nerves implicated, and so when relief to the aneurysmal pressure occurs at the time of death the paralytic condition might pass away at the end; and, further, after death the sphincter of the pupil, like other muscles, becomes no doubt relaxed; and so the condition of the pupil should not be different from what is observed in other cases immediately after death occurs. Some observations have been made in my wards on this point, for which I am indebted to the sister of my wards, on whose care in such a matter full reliance can be placed; and although not sufficiently numerous to warrant an authoritative statement on the subject, I may say that if observed *immediately* after death, the pupils were usually found moderately dilated, or sometimes even very markedly so, from 6½ mm. to 8½ mm. being common; none were noted under 5 mm., and once even 10 mm. was found. No doubt the influence of age, the nature of the illness, and other conditions affect the state of the pupils at the time of death. But on pursuing the inquiry after the removal of the body to the dead-house, my assistant, Dr. Williams, and I found that the pupils often changed their size shortly after death, and speaking only from a few cases, I believe there is a marked tendency towards contraction, so that in a young child the reduction found was from 7½ mm. to 4 mm. within sixteen hours, some distinct diminution in size being found in various other cases. In the case of a person recently dead, the influence of atropine in causing very marked dilatation of the pupil is readily shown[2] by putting a few drops of a strong solution of atropine into one eye and none into the other, when a comparison can be made in an hour or two. Sometimes the effect of the atropine appears just to be sufficient to neutralise the tendency to contraction as manifested in the diminution of the other pupil. Even when put in immediately after death, we did not see the *extreme* dilatation so often produced by strong applications during life. If some hours be allowed to elapse after death before atropine is added, the effect is less pronounced; and it seemed as if after four or six[3] hours the susceptibility to atropine was almost lost. The atropine, however, may continue to act even after well-marked rigor mortis has been established. This was a point to which I directed attention, as it seemed to me that the progressive contraction of the pupil after death was concurrent with, and might be dependent on, the development of rigor mortis. Even, however, when the action of the atropine is well marked on the dead eye, its influence is short-lived. This may account for its not producing the extreme dilatation so often seen during life. Within a few hours of its production, say

[1] Dr. W. T. Gairdner, Clinical Medicine, Edin., 1862, p. 534. The case was observed in 1855. See also a case observed by Dr. Walshe in 1853, mentioned in a footnote to his Diseases of the Heart, 4th edition, London, 1873, p. 496.

[2] Curiously enough, the effect of the instillation of atropine has actually been proposed as a test of death (!), but the dilatation of the pupil in dead eyes, and even in those which have been removed, seems to be well known. See Dr. Argyll Robertson's interesting paper in the Edin. Med. Journal, Feb. 1869, vol. xiv., p. 703.

[3] This I find is the average time named by Maschka, within which marked post-mortem changes can be recognised in the eye. Handbuch der gerichtlichen Medicin, Band III., S. 308. Tübingen, 1881-82.

twenty-four hours after death, we usually found the dilated pupil had become reduced to the size of the other; this of course presents a strong contrast to the persistence of the dilatation of the pupil for some days with which we are familiar during life. These facts are of course open to various interpretations, but they seem to me, particularly the one last mentioned, to lend some support to the theory of the dilatation of the pupil from atropine being due not only to its paralysing the sphincter, but also to a direct stimulation of the dilator of the pupil.[1]

In leaving this interesting subject, I may say that I am aware that my observations are too few to warrant a conclusive statement of the case, and as my opportunities for following up such an inquiry are not likely to enable me to do so myself I have requested one of my former assistants to study the behaviour of the pupil after death, and he has already made some progress in the inquiry.

In the second case, where the signs of laryngeal paralysis and inequality of the pupils helped to mislead us, there were very obvious signs and symptoms of cardiac disease, great dyspnœa, enlargement of the heart, and a double murmur, audible down the sternum. But there was also evidence of dilated aorta, as shown by an area of undue dulness on percussion extending from the upper boundary of the heart towards the right sterno-clavicular articulation, and also by an undue pulsation in the jugular fossa. Moreover, we had at times a very distinct sense of impulse immediately under the left clavicle. There was also substernal pain, and this extended down the left arm, but there was no swelling. The pulses were throughout quite equal, and the tracings had a well-marked aortic regurgitant character. Frequently, also, we had, from the time of admission, a slight inequality of the pupils; this was not persistent, but when present the left pupil was always the larger of the two. These facts led me to suspect, almost from the first, the presence of an aneurysm occupying chiefly the descending part of the arch of the aorta, acting on the sympathetic by causing irritation and so leading to dilatation of the left pupil. The patient, a man of forty-two years, had an old history of rheumatism, but not of syphilis. The total duration of his illness from first to last was fully two years; he was in the wards on three separate occasions, and the observation of the case extended over a period of thirteen months, during the whole of which time the suspicion of aneurysm was entertained. The symptoms varied in degree, but remained much the same in kind. Repeatedly pain and friction in the left side indicated the presence of a pleurisy: towards the end of the case a little dropsy, with slight albuminuria, supervened; and the termination was marked by hæmoptysis lasting a few days. The physical signs always pointed to an enlarged aorta, but there was no pulsation over this area, and the pulsation felt under the left clavicle on the first admission ceased to be perceptible; the pulsation in the jugular notch became much less, and the murmurs shifted their position of maximum intensity, so that the diastolic murmur was heard best to the left of the cardiac dulness instead of over the sternum, as before. The pupils continued all through the three residences to show at times a slight inequality, the left being the larger. With these changes in the physical signs, without anything more than a temporary amelioration, the idea of aneurysm was still entertained, and it was supposed that it might have grown downward or backward, so as to remove it from, rather than approximate it to, the surface within reach. The lungs remained tolerably free from signs of any serious change; there had been the repeated pleurisy on the left side, there were frequently some bronchial râles, and towards the end the left lung seemed more implicated. No marked dulness and no great enfeeblement of the respiration were detected. About two months before death the patient thought he had contracted a cold, and there was more cough. This was noticed to have a laryngeal quality, and after the first violence of the cough subsided a laryngoscopic examination showed the left vocal cord to be paralysed. The larynx had been examined soon after his first admission, and found normal. This new symptom, still pointing to the left side, seemed to remove all the hesitation naturally felt up to this point in the diagnosis of aneurysm; this was now regarded as well established. The laryngeal symptoms persisted to the end, but examination of the parts by the mirror was only practised twice or thrice, owing to his weak condition.

[1] This opinion as to the action of atropine on the living eye is supported by the authority of von Graefe. See Dr. Argyll Robertson's paper already quoted, Edin. Med. Journal, vol. xiv., p. 705.

The post-mortem examination was made by Dr. Newman. The aneurysm so confidently looked for on the left side did not exist, there was, indeed, a dilated aorta, and even the beginning of a small pouching towards the right side just above the valves; this might, no doubt, have developed into a regular aneurysm, if the patient had lived, but it had evidently nothing to do with the laryngeal paralysis on the left side. The aortic valves were quite incompetent, much diseased, and very hard and calcareous; this no doubt accounted for the murmurs; the heart was enormously enlarged. The cause of the left-sided laryngeal paralysis seemed to be due to the state of the left lung, which was found adherent and of a brownish colour; it had the appearance of being compressed and shrunken. The recurrent laryngeal nerve was found to pass through a mass of enlarged glands, just at the arch of the aorta. These existed at the root of the left lung and in the posterior mediastinum. They were of a brownish colour, like the left lung itself, but were not hard. The larynx was somewhat congested.

The explanation of the laryngeal paralysis seemed to depend on the dragging downwards of the left recurrent nerve, due to the greatly enlarged heart, and favoured by the shrunken left lung; and this downward displacement might account for the lessened pulsation in the jugular fossa and under the left clavicle, as the case went on. The implication of the recurrent nerve in the glands cannot be wholly set aside, although their softness would no doubt lessen the chance of their causing irritation, or at least of producing paralysis. The inequality of the pupils was not of the degree or of the kind to warrant much stress being laid upon it, and may fairly be set down as an accidental occurrence, although when it concurred with laryngeal paralysis it was somewhat misleading.

The explanation of the laryngeal paralysis on the left side suggested above was the only plausible method of accounting for this misleading symptom which we could think of at the post-mortem examination. I did not then know that such a cause of laryngeal paralysis was actually recognised; but on mentioning the case at the time it occurred to Dr. John McIntyre, one of my former pupils, who has now devoted himself to laryngology, he told me that in the Vienna cliniques this view seemed to be so well recognised that the diagnosis of such a condition was frequently discussed at the examination of patients. I have not been able to lay my hand on any published statements on the subject, although I believe such records do exist. We must, therefore, bear in mind that the occurrence of laryngeal paralysis on one side, in the course of a case with symptoms pointing to the chest and strongly suggestive of aneurysm, does not necessarily imply the existence of aneurysmal disease or of thoracic tumour.

A COMBINED ICE AND ETHER-SPRAY FREEZING MICROTOME.

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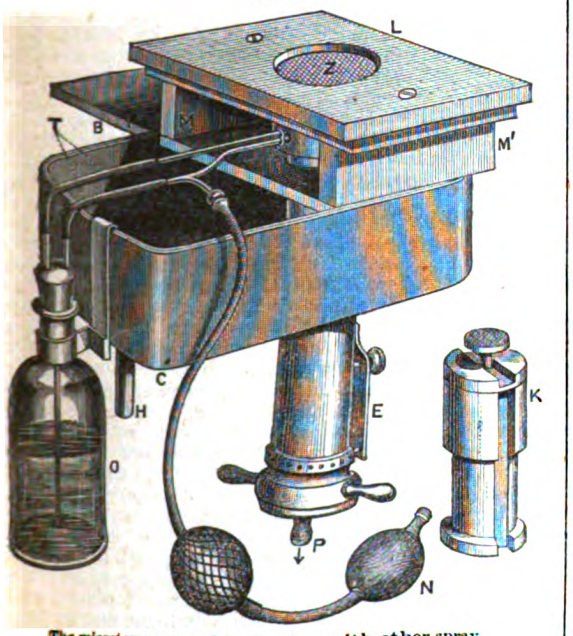
DURING the thirteen years that have elapsed since I invented the freezing microtome, the method of freezing has come into general use as an aid to microscopical research in physiology and pathology. It has also become of much service in aiding the practical study of these subjects, especially when they have to be taught to large numbers of students. The original ice and salt freezing microtome described by me in the *Journal of Anatomy and Physiology* for 1871, vol. v., was somewhat faulty. The improved form of the instrument (Fig. 2) described by me in THE LANCET, 1873, vol. ii., has been constantly used in my laboratory since that time. We have no difficulty in making with it from four to five hundred sections of the retina, kidney, or other organ, in the course of an hour. When large numbers of sections are required, it is, I think, always advisable to use a mixture of ice and salt as the freezing agent, on the ground of economy, and also because *large* pieces of tissue can be frozen quickly by it and kept frozen any length of time. We made a fair trial of the ice-freezing microtome devised by Williams and made by Swift of London, in the hope that its large freezing-box and method of regulating the thickness of the sections might

still further expedite the process of section making, but after a time we gladly returned to the use of my instrument, as more convenient and more reliable.

The first microtome in which ether spray was used as the freezing agent was invented by Dr. Bevan Lewis, and described in the *Journal of Anatomy and Physiology* for 1877, vol. xi. The principle of the ether-spray microtome is excellent when only a small number of sections are required, and the circumstance that the freezing agent is always at hand renders it very convenient; but it is not suitable when a thick piece of tissue is to be frozen and many sections made. I have found that even the modified ether-spray microtome described by Dr. Lewis in his work on the "Human Brain" (Churchill, 1882) leaves room for improvement. Eighteen months ago I added to my ice microtome an ether-spray apparatus for freezing, so that the instrument may be used as an ice microtome at one time and as an ether-spray microtome at another. (Fig. 1.) As the combined instrument is less costly than two separate instruments, and as the ether-spray arrangement differs in some particulars from any hitherto invented, I have thought that an account of it might help some of the readers of THE LANCET in carrying out their microscopical studies of normal and diseased tissue; and I may further help those who finished their medical studies before the

FIG. 1.



The microtome arranged for freezing with ether spray.

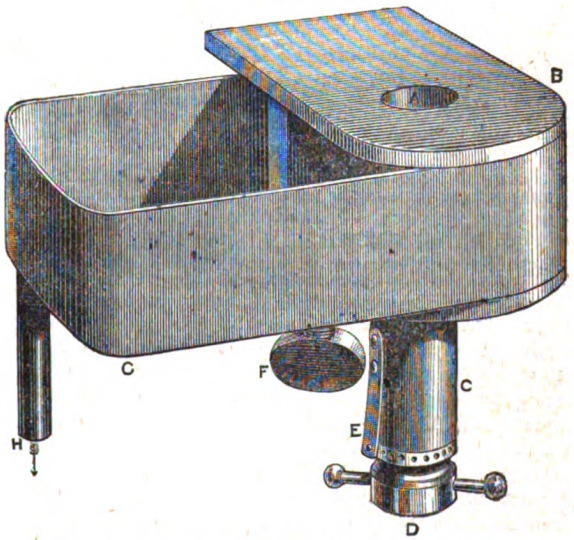
freezing microtome was invented, by briefly giving the chief details that must be attended to in using the instrument.

Preparation of the Tissue. — As a rule, the tissues should be steeped in the usual hardening agents mentioned in the books for three weeks or a month before they are sliced in the microtome. The prepared tissue should then be cut into pieces of desirable size and shape, and if it has been immersed in alcohol, every trace of that reagent must be removed by placing it for about six hours in a large jar of water. It is then transferred to a thick solution of gum arabic (gum one part, water two parts), in which it is left over-night, so that the tissue may be thoroughly permeated by the gum, to prevent it from becoming crystalline when frozen.

Use of the Microtome with Ether Spray.—The instrument is arranged as shown in Fig. 1. The tissue, which should not be more than a third of an inch thick, is laid on the roof of a zinc box (Z) and covered with gum. Ether, which must be anhydrous, is then blown from the bottle (O) by the elastic bellows (N) against the lower surface of the zinc plate. The condensed ether flows down through the tube (P), and is collected in a vessel. The spray-producing tubes (T) can be readily pulled out of the slot under Z for examination. The tissue is soon frozen, and it remains frozen for about five minutes in a cool room, without any further production of spray. The elastic pump can easily be connected with a sufficiently long piece of elastic tubing, and arranged on the floor in such a manner that, after the tissue is frozen, the freezing can be maintained by working the pump at intervals with the foot, thus leaving the hands free for the process of section-making. The zinc box on which the tissue is laid is insulated by vulcanite from the brass cylinder worked by the screw below it, and it is so made that, while ether is economised, a low temperature is obtained for a considerable time.

Use of the Microtome with Ice.—The glass plate (L) is unscrewed. The supports (M and M'), the tubes (T), the ether bottle and bellows, are removed; Z is unscrewed, and the plug (K) screwed in its place, and sunk deep in the well. The glass plate (L) is then screwed on the brass plate (B) and the instrument is ready for use (Fig. 2). Snow or finely pounded ice and salt are alternately placed in the freezing box (C) in small quantities, and stirred round the well with a piece of wood. A cork is placed in the tube (H) and removed only when the freezing box becomes full of water. Gum solution is poured into the well, and the tissue introduced, after a layer of ice has formed around the interior of the well, so that there may be no danger of any part of the tissue being without an envelope of frozen gum. The mouth of the well should then be covered with a thin sheet

FIG. 2.



The microtome arranged for freezing with ice and salt. (The glass plate screwed to the top of the instrument is not shown in the engraving.)

of gutta-percha, and a flat leaden weight placed on it. The whole instrument should then be enveloped in thick flannel, or some similar cloth, until the freezing is complete.

When arranged as shown in Fig. 2, the instrument can be used for the old method of embedding a tissue in melted paraffin and similar substances. In my laboratory the cutting of tissues by any but the freezing method has for years been abandoned in all cases excepting when sections are to be made without a machine. A great advantage resulting from the use of the method of freezing is that the embedding agent is readily got rid of by throwing and steeping in water for a time, leaving the most delicate tissues uninjured, and unencumbered by pieces of the embedding agent, as is the case when any embedding agent similar to paraffin is employed. Another important point is that the various methods for hardening the tissues so that microscopic slices of them may be sufficiently coherent for manipulation need not be pushed to the extent that was necessary when the tissue had to be cut embedded in paraffin. Consequently, finer preparations can now be obtained, and with an ease and certainty formerly unknown.

In making the sections with the above instrument the knife is pushed on the glass plate at a right angle across the well. I am aware that with this arrangement the knife does not remain sharp so long as is the case when it is not glided on any surface, but is supported at one or both ends of the blade by some framework. But I find it of great

advantage to have the knife held in the hand, so that it may be readily lifted and the sections quickly brushed with a goat's-hair brush into a basin of water, or, as in the case of the embryo, quickly drawn one by one from the knife laid flat upon a glass slip. Each section can thus be readily floated from the knife into a pool of water on the glass slip, so that every part of it is kept *in situ*. This ready handling of the sections in the mass or singly is impossible with the microtomes devised by Williams and Roy. Commonly the sections are brushed from the knife into a large jar of water, into which the gum diffuses from them. At the end of half an hour or so they are collected with a straight needle in small numbers at a time, and transferred to a second jar of water, in which they are left for the same time. They are then transferred to a third jar, and at the end of half an hour they are transferred in the same way to a stoppered bottle containing methylated spirit, in which they are kept till required for staining and mounting.

The indicator (E, Fig. 1), though useful to the beginner in helping him to make sections of uniform thickness, is soon abandoned, as the manipulator soon learns to regulate the extent of the screw's motion by his sensation. The knife suitable for my instrument requires to be specially made. Both instrument and knife are made by Gardner, instrument maker, South Bridge, Edinburgh.

AN EXAMINATION OF THE SUPPOSED ACTION EXERTED BY THE ANTAGONISM BETWEEN ACIDS AND ALKALIES IN MODIFYING THE TONICITY OF THE HEART AND ARTERIES.

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AND
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THERE are two forms of muscular contractility which are called into play during the functional activity of the heart and arteries: the one form is quick, of brief duration; while the other is persistent. This latter form is designated the tonicity of the heart muscle and arterial muscles. Although occurring in the same structure, these forms of contractility offer differences alike in nature and function. It is not our purpose at present to attempt to consider in what directions these differences in nature lie, or to attempt to analyse the mechanism of rhythm. In function, while the quick rhythmic contraction subserves the purpose of propelling the blood, the slow persistent contractility determines the actual capacity of the heart and vessels. Both forms of contractility are influenced by central and peripheral conditions. Thus the arteries can be contracted or dilated by central vaso-motor influences. Again, the arteries are subject to local or peripheral influences, which act either through a hypothetical vaso-motor controlling system situated in the vascular walls, or directly, as by the action of the circulating medium upon the muscular walls of the containing vessels.

Dr. Gaskell has shown[1] that acids and alkalies, when allowed to circulate in contact with the interior of the heart and arteries, exercise powerful influence upon their tonicity. His experiments are briefly as follows. To ascertain the action of dilute alkaline solutions upon the cardiac muscle, the frog's heart was removed from the body and fixed upon a perfusion cannula. To record the beat and obtain circulation through the heart, Roy's tonometer was used. Normal saline—i.e., ·75 per cent. of sodium chloride—was sent through the heart, and caustic soda was then added to the circulating fluid until it was of the strength of 1 in 20,000 salt solution. The heart very slowly and very steadily passed into systole—i.e., a condition of marked tonicity. A similar result followed when the same strength of caustic soda was added to artificial blood solution. Dr. Gaskell says:—"It is clear, then, from these two sets of experiments that a dilute alkaline solution acts upon the muscular tissue of the heart in such a way as to bring it from a position of relaxation to one of contraction, and that, according to the stage in this alteration of the contractile tissue, so will be the nature of the beat produced by the ventricle; the more the muscle is drawn together by the action of the alkali, the longer is the time of full contraction in each beat, meaning by the term full contraction the complete closure of the ventricular cavity." The next series of experiments, conducted on precisely similar lines, showed that were an acid—lactic acid, 1 in 20,000—used instead of the caustic soda, that the heart rapidly stopped, remaining in diastole. "The effect, in fact, is exactly the reverse to what took place with the alkaline solution." Dr. Gaskell then undertakes to show that the actions upon the heart of acid and alkali solutions are antagonistic. A heart brought to rest in systole by an alkali was completely relaxed by an acid from a condition of full contraction to one of extreme dilatation. The reverse experiment was also performed: a heart in relaxation by the action of the acid passed into extreme contraction when an alkaline fluid was circulated. Dr. Gaskell shows further "that alkaline and acid solutions act upon the muscles of the smaller arteries in the same way as upon the cardiac muscle." Dr. Gaskell concludes "that the one factor upon which the state of constriction of the muscles both of the heart and of the arteries depends is the extent of the alkalinity of the fluid surrounding them"; and, again, "one can say, then, that the presence of an alkaline fluid must tend to keep the cardiac and arterial muscles in a state of tonicity, and that upon the extent of the alkalinity the amount of tonicity will, at all events, in part depend." And, further, Dr. Gaskell seems to lean towards a theory which would explain varying degrees of tonicity by varying degrees of alkalinity, such being produced by an acid generated during muscular contraction, aided, possibly, by an acid liberated by other structures e.g., grey matter of the central nervous system during their function. The antagonism exercised upon the heart muscle is certainly proved, but how far the ingenious theory which hangs upon it can be accepted must at present remain unsettled.

We propose to show that substances other than acids may take on a *rôle* similar to the one performed by acids. Thus the salts of potassium can, as we have experimentally proved, act quite similarly to acids, in so far as antagonising the effects of sodium alkaline salts is concerned. Thus, we found, that when a circulatory fluid, composed of simple saline with the addition of caustic soda solution of the strength of 1 in 20,000, was allowed to flow through the heart arranged in the oil chamber of a Roy's tonometer, the heart passed into a condition of persistent systole. If, now, a physiological dose of potassium chloride—i.e., 1 in 10,000—was added, although the tonicity (spasm) of the heart was lessened, the heart was not enabled to pass into a state of complete dilatation—that is, the tonicity persisted to a certain extent. Our next experiments were conducted with the bicarbonate of sodium, this salt being used in place of caustic soda, for the following cogent reasons. Sodium hydrate, as such, does not exist in the serum or corpuscles of the blood, while bicarbonate of sodium is present in considerable quantity.[2] Caustic soda, then, possesses properties which, as we shall show in the sequel, are due to attributes other than its alkalinity. A normally beating heart being taken, and the saline solution being circulated through it as before, a quantity of bicarbonate of sodium was added, equal in strength to 1 in 5000. The effect of this dose was soon apparent. The beat, which had under the influence of the simple saline solution sunk almost to *nil*, recommenced, and the heart rapidly passed into a state of persistent systole, induced partly by the increased tonicity and partly by the fusion of the beats. In subsequent experiments even larger doses of the sodium bicarbonate were employed, and it was found that the condition of tonicity (persistent spasm) was produced so much the more quickly as was the dose increased.

To return. When the heart was finally contracted a high degree of tonicity being fully established, potassium chloride was added in physiological doses (1 in 10,000). In every case the ventricle underwent complete relaxation—*potassium chloride completely counteracted the effect of the sodium bicarbonate*,—tonicity of the heart muscle giving place to relaxation, the rhythmic contractions persisting. To test this antagonism

[1] Journal of Physiology, vol. iii., p. 48 et seq.

[2] Gamgee's Physiological Chemistry, p. 66.

…shown as large a quantity of sodium bicarbonate as 1 in 200 was used—i.e., a dose very largely above the proportion of sodium bicarbonate existing in the blood when that fluid is physiological. When the effect of the sodium salt was well marked and a pronounced condition of tonicity was established, 3 cc. of the potassium salt (1 per cent.) were added to the 200 cc. of the fluid—i.e., about 1 in 6000,—with the result that complete relaxation of the induced tonicity ensued. The addition of 1 cc. more of the potassium chloride, making the proportion about 1 in 5000, produced no further effect. It is needless to enter in detail into the subsequent experiments; they showed conclusively that: 1 the addition of the potassium salt can prevent the appearance of tonicity even when large doses of sodium bicarbonate are present; doses far larger than exist in the blood physiologically or could be administered therapeutically; and (2) the tonicity once induced by sodium bicarbonate can be completely overcome, relaxation replacing it when potassium chloride is added in physiological doses.

It would, then, appear from our researches that even if the alkalinity be a factor in promoting cardiac and vascular tonicity, and we shall return to the consideration of that question immediately, it cannot, however be asserted that the presence of an acid or acid tendency is the physiological antagonist in the body whereby cardiac tonicity is lessened or annulled. All that can be asserted, it appears to us, is that the hypothetic production of an acid condition, or rather of a less pronounced alkaline condition of the blood, may be instrumental in lessening cardiac tonicity.

We have in the experiments narrated above shown that potassium salts can actually prevent the occurrence of cardiac tonicity, even when such a large quantity of alkaline sodium bicarbonate is present as is competent, when unopposed, to induce a condition of extreme cardiac tonicity; and we are warranted by the fact that such potassium salts are present in large quantity in the blood and parenchymatous tissues, in saying that the bicarbonate of sodium cannot be accredited with the power of inducing constriction of the heart and vessels. But in order that we may deal with the problem involved in the action and antagonism between acids and alkalies, it is essential that we should place before us the physiological conditions which are present in the blood, and, as far as may be, reproduce them in our experiment. And we must make due allowance in deductions drawn from our results for departures from the physiological standard. It becomes, then, at once evident that the sodium bicarbonate which is found in the plasma could not induce tonicity either in the heart or vessels, its tendency in that direction being completely held in check by the chloride of potassium which, up on Lehmann's, Schmidt's, or Serlini's analyses,[3] is present in far larger quantities than those employed by us to counteract the sodium bicarbonate. From the above facts and considerations we conclude that variations in the alkalinity of the blood must exercise very little, if any, influence upon the tonicity of the bloodvessels and heart. But with the theory that arterial and cardiac tonus depend upon the alkalinity of the circulating medium is coupled one which would explain rhythm as resulting from an alternating degree of more or less alkalinity. It would then be admitted that our experiments completely subvert such a theory, rendering it wholly untenable.

Further investigations, indeed, have tended to make us believe that the "alkalinity" as such plays a far less important part in the induction of tonicity of the heart and vessels than has been heretofore supposed. Another possible explanation offers itself—viz., that the action of the sodium bicarbonate of sodium upon the muscle causing the relation called tonicity is at bottom a *sodium* effect. On this supposition we should expect to find that as the sodium became more or less chemically saturated, so would its effects become less or more marked. And such seems to be the case, for we may, without insisting further upon this point, one really of no important bearing upon the main facts of our present investigation,—instance the behaviour of the hydrate of sodium with the bicarbonate of the same metal.

We further undertook experiments to clear up the question whether the alkalinity was the true factor at work, and we found it was not so. When the heart was supplied with normal saline, massive doses of bicarbonate of sodium were added until the circulating fluid was rendered strongly alkaline, as judged by the bluing of red litmus paper. Tonicity or persistent spasm was developed, but when chloride of potassium was added the heart relaxed. An extremely dilute solution of caustic soda (1 in 40,000) was then taken. Its reaction to red litmus paper revealed that it possessed but feeble alkalinity; nevertheless it provoked the condition of persistent spasm or tonicity, and the heart thus treated did not become so completely relaxed, even when large doses of chloride of potassium were added. As, however, the blood possesses in its sodium phosphate a possible source of alkalinity other than the sodium bicarbonate, we instituted experiments with that salt. The solution which we employed was strongly alkaline. In physiological quantities we found the phosphate of sodium exercised no influence over the heart muscle, nor were marked results obtained with solutions which gave a strongly alkaline reaction. When, however, the sodium phosphate was pushed so that as huge a dose as 1 in 50 of artificial blood solution was reached some fusion with possibly increased tonicity of the heart were apparent. It is highly significant, however, to note that even in this extreme case, the addition of more potassium chloride removed the tendency alike to fusion of beat and increased tonicity of the heart. When the sodium phosphate was used with simple saline solution, we found that for a time it increased the vigour of the beat but produced little increase in cardiac tonicity, and such as appeared was promptly suppressed when potassium chloride in physiological doses was added. These experiments add further evidence that solutions, although strongly alkaline, do not necessarily increase cardiac tonicity. They show also that both the salts of the blood which are usually stated to give to that fluid its alkaline reaction, are completely overridden by potassium chloride, in so far at least as they are operative in inducing an increment in cardiac tonicity.

In experiments the results of which appear in the Transactions of the Royal Medico-Chirurgical Society, vol. lxvii., p. 78, it was shown that even highly alkaline solutions of the sodium bicarbonate do not as such determine constriction—that is, tonicity of the bloodvessels. Thus, as for the heart so for the bloodvessels, we find there are bodies which promote tonus, and that although some alkaline salts are included among them, yet there are others which oppose tonicity.

To sum up, then, we find from our experiments that the tonicity of the heart and vessels produced by alkaline solutions of sodium salts, such as are present in normal blood, will not only not appear in the presence of an acid, but will not be induced in the presence of potassium chloride; thence it is inconceivable how, in the teeth of the fact that large quantities of this salt potassium chloride—exist in the blood, the tonicity of the heart and arteries can be due to varying degrees of alkalinity. And we further find the alkalinity of the solution does not determine its power of producing tonicity in the muscles of the heart and smaller vessels, and so we suggest that this result may accrue from the degree of chemical saturation of the sodium present in the sodium salt.

[3] Quoted by Gamgee: Physiological Chemistry, p. 69.

TWO CASES OF GASTROTOMY FOR EXTRA-UTERINE GESTATION.

BY JAMES BRAITHWAITE, M.D. LOND.,

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CASE 1.—Mrs. A——, when three months advanced in her third pregnancy, was seized with severe pelvic pain, so severe that it was necessary to administer morphia hypodermically. The whole of the remainder of her pregnancy was passed in misery from pain and sickness, with obstinate constipation. Towards the end of the pregnancy her medical attendant, Dr. Green of Leeds, convinced himself that it was a case of abdominal extra-uterine gestation. He could distinctly make out the position of the child through the abdominal walls. I saw the patient with Dr. Green a fortnight after the occurrence of a sanguineous vaginal discharge with some pain, which indicated that the uterus had thrown off the deciduous membrane. I need not say that when this occurs the death of the child may be considered certain. I found the patient in a very low con-

dition and looking worn from prolonged suffering. The position of the child could be readily made out, showing that no placenta intervened; a very important matter as regards the success of an operation. The cervix uteri was widely open and trumpet-shaped. The first two fingers of the left hand could be readily passed quite up to the fundus, the uterus being only three inches in length. Of course the only question was, What to do with the patient? for there could be no doubt as to the diagnosis. We decided to remove the child at once, as the condition of the patient could not admit of delay. This was done on May 5th, 1883. The incision was central; no peritoneum was met with, and the sac was closely adherent to the abdominal walls. The child was lifted out by its feet, but it proved so large that it was necessary to extend the incision upwards another inch. This unfortunately detached the cyst from the abdominal wall, and a coil of bowel protruded into view at the upper part of the wound. The cyst was carefully stitched to the lower surface of the wound with a continuous catgut suture. The placenta was deeply situated, but to what part it was attached was not positively ascertained. The cyst was of considerable thickness, already black from decomposition and lined with a smooth shining membrane (the amnion), which readily peeled off. After washing out the cavity with warm carbolic water the wound was closed with silver wire sutures, the cord being left hanging out at the lower end of the wound. A large glass drainage-tube was also inserted. During the next three weeks the whole of the placenta came away through the lower part of the wound. The cyst came with it, and I recognised the catgut which had been used at the upper margin of the abdominal wall incision. Much of the black and putrid mass was removed by daily traction upon the projecting parts, but unless great care was used hæmorrhage occurred. When the whole of the placenta and cyst had come away, the wound healed up rapidly, and the patient made a good though slow recovery, and she is at the present time as well as she was before her illness.

CASE 2.—Mrs. W——, of Holbeck, a patient of Dr. Dobson's, with whom I saw her in September last year, aged thirty-five, has been married ten years, but never pregnant until the present case occurred. Menstruation all her life quite regular and natural; the last period was about Oct. 15th, 1883. On Dec. 3rd, having missed exactly seven weeks, she was slightly unwell, and had at the same time, to use her own words, "a very violent pain" in the body. The symptoms were such as would be produced by rupture of an early tubal gestation viz., pain and collapse. She recovered from this, but the body went on increasing in size just as in normal pregnancy. At the end of August a sanguinolent discharge occurred, and this may therefore be taken as the time when labour would have taken place had gestation been uterine. The movements of the child, however, ceased to be felt about the end of the first week in August. By examination of the abdomen the outlines of the child were not perceptible as in the last case, but some thick substance intervened, which subsequently turned out to be the placenta. This much increased our difficulty in the diagnosis. There was a projection outwards of the abdominal walls in the right inguinal region, which felt not unlike a foot. There were no fœtal or placental sounds audible. The uterus measured only two inches and three-quarters and the cervix was well open, so that the finger could be passed up to, but not through, the os internum. The pulse was weak, and the condition of the patient such that, being quite certain it was a case of abdominal extra-uterine gestation, we decided to remove the child at once. This was done on Sept. 11th 1884 at the Women and Children's Hospital. The incision was central, and we came, as expected, directly upon the placenta, the edge of which, however, was found about two inches to the right of the incision. Careful separation of the placenta in this direction did not produce hæmorrhage. An incision at right angles to the first was now made, and the edge of the placenta being pushed back the feet of the child were seized, and it was removed without much difficulty, the placenta yielding to the pressure without being torn or separated from its attachment to the abdominal walls. It seemed to me that a single layer of peritoneum intervened between the placenta and the abdominal wall. This was carefully divided upon a director. This was no doubt the peritoneum proper to the abdominal wall. Whether the child was enclosed in a cyst or not we were not quite certain at the time of the operation; but, as proved afterwards, this was the case. There were no veins in the abdominal walls at the seat of the placental attachment except just at the lowest angle of the central incision. These I was careful to avoid wounding; they were, however, only of small size. The wound was closed with silver wire, the funis being left out, and a drainage-tube inserted, both at the extreme right of the lateral incision. An attempt to separate the placenta with the finger and traction in about two weeks set up hæmorrhage, and it was not attempted again until the discharge became very decidedly purulent at the end of six weeks. The whole of the placenta which had not been removed, for some small portions had been, was at the end of six weeks separated by the finger and removed without much difficulty. It weighed thirteen ounces. The patient is still in the hospital, but is nearly well. In introducing the finger for removal of the placenta I felt the cyst walls, which appeared to be pretty firm and thick.

The first thing worth remarking in the history of these cases is the occurrence of severe pain early in gestation, attended with some degree of collapse. This indicated rupture of the Fallopian tube, in which, up to that period, the fœtus had resided, and its escape in the first case into the interior of the broad ligament, and in the second into the peritoneal cavity. I assume that the explanation of these cases given by Mr. Lawson Tait is the correct one, and I believe it to be so—namely, that all cases are originally tubal, that rupture always occurs, but that this rupture may be in different parts of the tube; if on the lower surface of the tube the fœtus is let down between the folds of the broad ligament, and then develops, the placenta retaining its original hold upon the interior of the tubal cyst; if the tube ruptures on its upper surface the fœtus escapes into the peritoneal cavity; and if the mother survives it develops there just as it would have done in the uterus. It seems pretty clear that in my second case the placenta was detached from its original position and took root again in a fresh one, and that the interior of the abdominal walls. This situation of the placenta is rare, and I think it may without much difficulty be diagnosed by the thickness of the structures intervening between the fœtus and the examining hand.

The first case would be called one of subperitoneal pregnancy, because the peritoneal cavity was altogether external to the fœtus and its cyst. The course of the peritoneum at the time of operation would be down the abdominal parietes to the umbilicus, then reflected upwards over the anterior surface of the upper part of the cyst, then over its summit and down its posterior surface, so that up to the level of the umbilicus the peritoneum had been separated from the abdominal walls by the growth of the child upwards; whilst above the umbilicus the cyst covered with peritoneum projected into the peritoneal cavity.

In the second case the child was contained in a false cyst, composed of a fibrinous effusion, which shut it off completely from the peritoneal cavity. This, however, is not necessarily present in intra-peritoneal pregnancy, and the child may be found loose in the peritoneal cavity. It is worth remarking that if the peritoneum is not stripped upwards with the growth of the fœtus in subperitoneal or extra-peritoneal pregnancy, the cyst is found covered with peritoneum anteriorly, just like an ovarian cyst. An instance of this is the case related by Dr. Heywood Smith,[1] in which a thin cyst was found not adherent to the abdominal walls and covered with peritoneum.

It is very remarkable that in the first case the cyst itself died at the same time, or about the same time, as the child and the placenta; for it was found black at the time of operation, and was subsequently thrown off with the placenta. *A priori*, one might have supposed that such a thick cyst would have retained its vitality. Probably its contact with the dead placenta accounts for this. In the second case the cyst did not die, although its vascular supply must have been insignificant, or absent altogether; whereas the vascular supply of the first cyst must have been very considerable.

It seems to me a remarkable thing that when the cyst and placenta in the first case formed a black sloughing mass, which was directly in contact with the peritoneum externally, there were no signs of peritonitis or septicæmia. No doubt the external surface of the peritoneum has different properties from those of the internal and more absorbent one.

[1] Obstetrical Journal, vol. v., p. 554.

SCHOOL WORK AND DISCIPLINE AS A FACTOR IN CHOREA.

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In an analysis of 200 examples of chorea which have been under my own care during the last ten years, there are as many as 121 where—either because there is an absence of all apparent exciting cause, or else (and this more frequently) because there is room for contention as to which of several events ought properly to occupy that place—the actual mode of origin of the affection is left in doubt. There remain seventy-nine cases of known causation, and of these fourteen were due to schooling. In other words, a continuous observation, embracing a large number of cases and excluding those which are uncertain or equivocal, finds one in six to represent approximately the proportion of children suffering in this particular way, owing to circumstances directly connected with their education.

It is true that these figures must not be rigidly insisted on. On the one hand, it is to be remembered that not all of the 200 are in the pupil state; on the other, that the chorea of schooling, or (to be in harmony with a well-worn expression which the subject suggests) of over-schooling, is pretty certain to appear as such, while the chorea from other kinds of nervous shock to which children are peculiarly liable is very likely indeed to seem spontaneous. No doubt the fourteen sufferers I have named ought to be taken from a larger number than seventy-nine; still there they are. School training is responsible in greater or less degree for chorea; it is responsible for it in a degree which, by comparison with other causes, is not inconsiderable.

But it is said it is not the schooling that should be blamed, but the underfed condition of the scholars. And in favour of that view it may be urged that chorea is a disease of the poor rather than of the rich. But it is not by preference a disease of the very poor. No one, I think, with large experience of sick children would say that this affection belongs to the group which we learn to associate with extreme poverty and neglect. Chorea is a disease of the poor because, speaking generally, the poor are less careful and observant and more happy-go-lucky than the rest of us as regards both themselves and their children. It is a disease of the London poor because crowded streets and railways and overcrowded dwellings afford abundant occasions of alarm and disquiet, and because, other things being equal, the London child is feebler and less able to cope with its surroundings than the country child.

During the last six months as many as eighteen examples of chorea (not included among those just quoted) have been admitted under my care to the Hospital for Sick Children. In nine of them various reasons are assigned for the affection, which on inquiry appear to be veritable exciting causes. In six it is school work which figures in this relation. Two of these are girls who had been excited and sleepless in prospect of a school examination, one of them having moreover received a severe caning for being late, which left its mark for some days. Of a third girl, a pale, frail, child of eleven, in the sixth standard, who for a month before had complained of pains in the head and heart, it was alleged that she was kept at her lessons every day, including meal time, up to nine o'clock, and had had no time for play for months. In a fourth instance, a boy aged ten got chorea quite suddenly whilst in school after a caning on his hand. It was a second attack; the first had been due to a drunken man falling upon him. The two that remain had been "bothered" over schooling and sums, and to one of these I will refer more particularly presently. There are, besides, a child who had been run over in the street, one who had been frightened by seeing a mad dog shot, and a girl of eleven, already choreic, but allowed to run up and about, who became much worse on seeing a boy kill a kitten in a very cruel manner. The list serves to illustrate the injurious effect upon poor children, not only of excessive school work, but of naked exposure to the dangers and brutality of a crowded city. It is remarkable that all the patients save one are girls.

And not only may school operate injuriously upon children apart from any particular error or deprivation in the way of food, it is even possible to classify and to graduate the mischief done in this particular way. There are the excitement and mental strain produced by competition; there are the effect and the fear of school punishment; and there are the worry, disappointment, and despair over lessons that are too hard or too many. Such causes will sometimes of themselves produce chorea; and sometimes, and perhaps more often, they will bring about such nervous instability that the least additional strain will show itself in that way. The severest and most rapidly fatal case of chorea I ever met with was that of a girl, a pupil teacher, who, on her way to an examination, the prospect of which had excited her very much, was still further disturbed by a carriage accident, in itself quite trivial.

Apart from combined causes of this sort, which do not now concern us, there is the question as to which of all the various rigours of over-schooling is the most effectual in the production of chorea. If I were called upon to answer that question in a single word, experience would teach me to say *sums*. In the two patients just mentioned, where the worry of school work is the alleged exciting cause, the particular form of the trouble in both is ciphering. One of these children, indeed, so well illustrates the way in which this comes about in scores of similar cases that in spite of its apparent triviality it is really instructive, and I may be pardoned for quoting it. This girl, aged nine, healthy and ruddy, but of excitable temperament, is stated by her mother to have been troubled and sleepless owing to school lessons, and especially sums. The choreic movements are slight, but general, and the voluntary muscles still within control. Some days after admission, when the child is first questioned on the subject, the mention of sums at once excites weeping. This form of emotion, it may be said by the way, is an excellent criterion for use in chorea. Children will readily assent to whatever is stated of them, and mothers are prompt and ingenious to discover causes for an affection of this kind, which is still overladen with superstition in the minds of the ignorant. But when bare mention of some actual incident—a beating, or a dark cupboard, or a strange dog, or some school hardship—occasions a flood of tears there need be little doubt, I think, that we have reached the real, although of course not necessarily the sole, source of the malady. In the present instance, so soon as the first outburst was over, the child was willing to enter into details. The particular form of her affection was long division, or what she called simply "division." Short division she had never known, it had been skipped. And it might very well have been, as the child herself seemed to think, that the sudden transition from subtraction to long division, due to some unexplained accident, was the beginning of all the trouble. As evidence of her capacity the child worked a sum in long division before us sitting up in bed. It is an operation familiar enough, I suppose, to teachers, but curious and suggestive to watch where the performer is a nervous and choreic child. The method employed was no doubt that which had been taught, and it was this. The left arm is clutched round the slate, the fingers being hooked to its right upper corner, and it is maintained in writing position by being pressed against the pit of the stomach. Face, lips, and tongue concur with the right hand in the work to be done. The slate pencil is held low, and, the tip of the forefinger being always moist, figures in the immediate vicinity of writing operations are in danger of getting accidentally rubbed out. This is particularly the case at the moment when, to signalise the fact that a figure has been brought down from the dividend, a little cross is made just above it. At the slightest suggestion of error the work is suspended, the finger rewetted, and the doubted number rubbed out. From the frequency of such erasures and the mode of effecting them, the working surface of the slate becomes wet and sticky, insomuch that it presently ceases to afford sure holding for the pencil point. In the bad places, indeed, owing to repeated correction, there is a confused mixture of saliva and pencil mark which can no more be written upon than a coat of varnish. The seriousness and persistence with which the child encounters all these difficulties, the conscientious completion of each figure and prompt wetting of the finger to score it out, the cheerfulness and alacrity displayed when the time comes for some formal and obvious act, such as drawing lines and affixing crosses, the way in which severity of mental conflict is shown by a tighter grasp upon the slate and increased pressure upon the stomach—all this makes a picture which to the un-

initiated is half comical and half touching. This child was working her sum in long division in bed and before indulgent critics. I am told it is the custom at some schools to stand round in a class and work sums at a uniform rate by word of command. Suppose a child, like this patient of ours, to have been already harassed and haunted by sums and driven to the verge of chorea, her hands and feet restless and unruly. Then suppose her standing in class, with heels together in the "first position," ciphering. Is there any kind of work that can be thought of so admirably contrived to develop the complaint we are considering?

From this point of view, indeed, it is not the patient that is to be pitied, it is the poor child who is working up to that condition and qualifying for chorea by daily endurance, failure, and penalty. Once the affection declares itself, and there is an end to all this suffering. The defaulting scholar becomes the indulged patient, happy enough if only left to such rest as she can command, and not troubled about coördination. Chorea comes as a friend. Yet it is amazing how long it will remain unrecognised; how, almost habitually, the characteristic movements of an affection, which ought to be familiar to every teacher and parent, are at the first mistaken for awkwardness or perversity.

And this brings me to the object and end of this paper. We write about these things, but we cannot mend them much. Sums will be worked in the new year much as they were in the old, children will be brought prematurely into long division, the pressure of schooling will be ill adjusted, here too much and there too little, teachers will be impatient and exacting or lax and negligent, just as before. We must not expect too much. Yet what a world of suffering might be saved suffering which is in the highest degree cruel and unjust—if every school teacher, and especially those in London, were required to know the more obvious signs of St. Vitus's dance; know them, I mean, not as we do, but sufficiently to be able to pick out for skilled examination such children as have suspicious symptoms. All children are fidgety, and all fidgetiness is not chorea; yet any signs of extra fidgetiness, any manual defects which are new and striking, ought always to suggest chorea and to lead to inquiry. This is more especially the case when the child has just been put into a higher class or into a new rule of arithmetic, or when she is in training for examination. When the careful child becomes careless or the dexterous awkward, when writing suddenly deteriorates or place in class is repeatedly lost, when slates and books are much dropped, or there is obvious facial movement in writing and reading, in all such cases I do not say there is chorea, for natural perversity and "temper" have to be taken into account, but I say there is ground for that suspicion, and particularly with girls and those who have had the disease before.

We hear sometimes regrets expressed that disease has been suffered to run its course to a fatal termination, and that the doctor has been called in too late. And we have to admit that from the nature of the malady no medical aid would have been of much avail. With chorea the case is different. There is little enough of danger in it, but such as there is arises from the fact that helpless children, unable to express themselves, and even with a sort of belief that their involuntary errors are really of the nature of sin, are left for an indefinite time exposed to all the hardship and rebuke which their condition entails. All this may be prevented and a vast amount of child suffering spared, if only we can teach the teachers how to observe.

Wimpole-street, W.

CASE OF EPILEPTIFORM SEIZURES, WITH UNUSUALLY SLOW PULSE.

BY F. ST. GEORGE MIVART, F.R.C.S. ED.,
SURGEON TO THE WESTERN GENERAL DISPENSARY.

J. K——, aged sixty-one, a "caretaker." Has served in the army (never out of England), and also in the police force, particularly the police department of the Excise. No history of neuroses in his family. Has never had syphilis or acute rheumatism. Has always been temperate, and on the whole has enjoyed moderate health, except that, to use his own words, "he has suffered from his heart." He himself refers this to hard work and long hours of exposure to cold and wet while in the police force, and remembers being much troubled at times while on duty by the throbbing of his heart. Since then until within the last few years he has frequently suffered from palpitation, which has usually come on at night, and sometimes has been so severe as to shake him in his bed. On these occasions he could generally feel his heart beating rapidly. He never had a fit of any sort until six years ago while working in a garden, when he appears to have had one fit of an epileptoid character and short duration. Two years later he had another fit of a similar character. Both these attacks came on when he was stooping forward with his head low down. He has noticed that stooping always makes him very giddy, and he has consequently avoided that posture as much as possible. His next attack was on the 23rd of March last. While sitting on a chair his wife says she saw him suddenly fall forward, and he had then three fits in succession, apparently of the *petit mal* variety. He would seem by the description given me to have been much cyanosed. On all these occasions before the seizure he was conscious of a buzzing sensation in his head. I saw him on the following day. He was then in bed, unable to stand, complaining of giddiness and a feeling of confusion, also a sense of constriction at the chest with difficulty of breathing. He is a tall, well-built man, but looks flabby and anæmic. Pupils equal and normal; urine and temperature both natural; tongue a good deal coated, bowels confined; pulse regular, tolerably firm and full between the beats, which are at the rate of only twenty per minute; heart's impulse almost imperceptible except very faint movement at the tip of the sternum. The presence of sibilant rhonchi and wheezings renders the auscultation of the heart a little difficult, but apparently there is only one sound audible accompanied by a bruit, heard best towards the apex. The sound of heart is synchronous with the radial pulse. Owing to the patient's employer being anxious for his removal I was unable to visit him again for some weeks, as he was taken to a remote suburb. I saw him again on the 18th of April, nearly a month after my first visit. He said he felt better. He had had no more fits, though he still felt very giddy on any sudden movement. In appearance he is more markedly anæmic than before. I examined him both in the erect and recumbent positions, and in each the pulse-rate was the same viz., 24,—while the artery was still firm and full. In the erect posture I found his cardiac sounds more audible, and was able to detect a soft systolic bruit somewhat like a prolonged first sound at the apex and round towards the axilla. I could also distinguish an apparently aortic systolic murmur. The impulse of the heart was more perceptible; the urine was dark coloured, acid, sp. gr. 1018; and the potassio-mercuric iodide test showed a trace of albumen. On visiting the patient a month later I found the physical signs unchanged, but he says he feels decidedly better, and he can now walk from room to room. His pulse-rate is still the same—viz., 24 beats per minute,—but after walking up and down the room several times it rose to 26. I very much regret I have never had an opportunity of examining the pulse during a seizure.

The question, of course, arises as to whether the seizures were really epileptic. That they partook largely of a syncopal character cannot, I think, be doubted, and the distinctly cardiac history of the case points to this. The decreased impulse of the heart makes it probable that the aortic murmur is due to atheromatous deposit about the valves. Possibly, also, there may be some aortic stenosis, and there can be little doubt that the heart is fatty. This being so, more or less anæmia of the brain is not unlikely, and attacks of syncope from this cause can be understood. "Between syncopal attacks and those of minor epilepsy," says Dr. Russell Reynolds, "there is perhaps a much closer analogy than is generally supposed." Now, there was undoubtedly a considerable epileptic element in the attacks described. My idea is that the seizures were simply swoons modified by the patient's epileptic tendency.

Green-street, Grosvenor-square, W.

DAVIS, the fireman, who was seriously injured in the railway collision between a Great Eastern and a Midland train, near Camden-road, on Monday night, died in the Royal Free Hospital, Gray's-inn-road, on the 30th ult. He was suffering from a compound fracture of the skull, and was in a semi-unconscious condition from the time of his admission until his death.

ON LIFE-SAVING FROM DROWNING BY SELF-INFLATION.

BY HENRY R. SILVESTER, M.D., B.A. LOND.,
FOTHERGILL MEDALIST, ROYAL HUMANE SOCIETY.

"He long survives who lives an hour
In ocean, self upheld;
And so long he, with unspent power,
His destiny repelled;
And ever as the minutes flew,
Entreated help, or cried 'Adieu!'" COWPER.

THE reduction of the specific gravity of animal bodies by means of hypodermic inflation is a subject which has for some time engaged my attention. I have endeavoured to elucidate it by an experimental inquiry, my object being to diminish the great mortality from drowning. From the earliest ages attempts have been made to render the human body capable of floating in water, but these efforts have mainly been in the direction of attaching to the body, when immersed, various substances of less specific gravity—such, for instance, as the inflated skins of animals, life belts, &c. Atmospheric air, from its extreme lightness, —namely, 815 times lighter than water—has been most frequently employed, but there has been some difficulty in finding a suitable envelope for containing it. It is atmospheric air which is universally employed by nature to produce buoyancy. Many fishes possess hollow sacs filled with air, and these sacs are developed occasionally from the ventral, though more commonly from the dorsal wall of the pharynx, œsophagus, or stomach. In the Teleostei the membrane lining the branchial chamber is prolonged into sacs, which lie at the sides of the body. The Diodons and Tetrodons render themselves buoyant by swallowing air, which filling the first stomach, they become inflated like a balloon. In the case of birds there are in some as many as nine air sacs, two of which are situated in the cervical region, whilst in some of the Lacertilia the membrane of the larynx between the circular cartilage and the first ring of the trachea protrudes in the form of an air sac.

It will be within the recollection of your readers[1] that I have already demonstrated at the International Fisheries Exhibition the possibility of inflating the subcutaneous space in animals so as to render them sufficiently buoyant to be employed either singly or yoked together to convey persons from a wreck to the coast; but since animals are not always present in cases of shipwreck, and human lives may be saved by being enabled to traverse a few yards of deep water, I have demonstrated the possibility of producing in man himself the condition known as surgical emphysema. In August, 1883, at King's College Hospital, by means of a blowpipe and elastic syringe, I inflated at the wrist the subcutaneous tissue of the whole body with the result that in a few minutes sufficient air passed under the skin to support a weight in water of between forty and fifty pounds. This amount is considerably more than would be required to preserve a person from drowning, nine or ten pounds being considered sufficient. Although one can imagine the existence of circumstances which would justify such a proceeding as the above, yet the practice of it would require a certain amount of surgical knowledge. Moreover, it would be impracticable except under favourable circumstances; and there are probably few persons capable of accomplishing it in their own bodies. I have accordingly sought for a much easier and more ready means of rendering the body buoyant in water, and which could be accomplished without the employment of any apparatus, and, in fact, which might be performed without assistance in a moment, under the most adverse circumstances, and by the most ignorant, if once instructed in it, and without danger or pain, and suitable alike for the roughest sailor or the most delicate female. The intention of the proposed operation is to cause the skin of the neck and upper part of the chest to be sufficiently distended with air to support the weight of the body when immersed. The inflation being effected by the person on himself by means of his lungs without the intervention of appliances. The operation consists in making a small puncture—not larger than would allow, for instance, of the passage of an ordinary blowpipe—in the mucous membrane of the inside of the mouth, the object being to open a communication for the passage of air from the cavity of the mouth into the subcutaneous spaces of the neck. The situation chosen for the puncture is in the angle formed between the gum of the lower jaw and the side of the under lip or cheek, about opposite the first molar tooth of the lower jaw. The point of the instrument perforating should be passed down a short distance between the skin of the side of the face and the superficial fascia of the neck, its point being guided by the finger placed on the outside of the face and neck, taking care not to puncture either the skin or the superficial fascia. This having been done, and the instrument removed, in order to inflate the skin of the neck and chest, the patient should close the mouth and nose, and make a succession of forcible expiratory efforts, when the air contained in the cavity of the mouth will pass freely into the subcutaneous tissue of the neck. These expiratory efforts, inspiration being effected through the nostrils, should be continued until the skin is fully distended with air, which will pass readily to both sides of the neck and down the chest as far as the nipples; and this is all that is required to render the body buoyant in water. Should it so happen that the superficial fascia has been punctured and the air pass beneath it, the only difference in effect would be that the extent of air would be limited by the attachments of that membrane to the clavicle below and the border of the jaw above. The amount of air which the skin of the average neck is capable of holding without undue distension has been measured, and found to be enough to support ten pounds, and this is amply sufficient to support the body immersed in water. The time required for inflation is found to be less than three minutes. The neck may be kept in an inflated condition by closing the puncture by pressure on the outside of the cheek by the finger, or by keeping the mouth distended with air; and when required the air may be immediately discharged from the neck by allowing the puncture to remain open, or by suction.

The advantages may be summed up as follow:—1. The proceeding is perfectly harmless and almost painless, quickly done, and almost immediately recovered from. 2. It may be learnt in a few minutes, no technical knowledge being required, and may be accomplished by the person himself without assistance. 3. No special apparatus is required. In an emergency the point of a penknife, or even a sharp pointed splinter of wood, is all that would be required. The inflating apparatus is the person's own lungs. 4. The air could be repeatedly reinflated, and even during prolonged immersion.

Clapham-common, S.W.

[1] See THE LANCET, July 7th, 1883, "Hypodermic Inflation."

TRANSFUSION IN A CASE OF CHRONIC PHTHISIS.

BY T. W. CARMALT JONES, F.R.C.S. EDIN.,
SURGEON TO THE WESTERN OPHTHALMIC HOSPITAL.

ON May 14th of last year, in consultation with Mr. De Gruyther of Holloway, I saw Mr. C——, a diamond cutter, aged thirty-four. He had been suffering from phthisis for about nine years, but had been able on and off to go to work. Latterly he had found his strength failing and nine or ten weeks before I saw him he had given up work. For seven weeks he had not been outside the house, and for the last fortnight he had kept his bed continuously. He was then so weak that he was unable to get out of bed or to stand without assistance; the most he could do was to sit up in bed and get to the edge of it and let his legs hang down. He was very thin, the hands shrunken and the skin loose; the face was pale with a patch of pink colour on each cheek; the skin of the face looked sodden and clammy, though he said that he was never troubled with sweating, except after a bad fit of coughing. The expression was anxious; the fingers were clubbed; pulse 135, full and soft, but easily stopped; temperature 100°; breathing rapid with a rattling bubbling sound, audible across the room. By the bedside was a jampot half full of tenacious, purulent sputum, streaked with thin lines of bright blood. He said he had on several occasions brought up large quantities of blood. After examining the chest we agreed that there was a large cavity in the right apex, extensive consolidation, and possibly, also, a cavity in the left. The

heart was normal; no albumen in the urine, of which he passed about a pint and a half a day; but feet and ankles were slightly swollen. The bowels acted daily, motions formed, no blood. Tongue furred; mouth not aphthous. The abdomen was slightly prominent, but soft, not tender, and was resonant down the left side. He did not complain of pain or discomfort after food, or any other signs of dyspepsia. Mucous membranes of eyelids and lips were pale. The patient said he took his food well and enjoyed his meals. His habits appeared to be to have a cup of tea and a piece of toast about 6 A.M., a couple of fried eggs or some fish at 11, and to dine at 6 P.M. off a chop or steak. He did not like milk and did not take much of it. Sometimes he would take a glass or two of port. The friends thought there was very little hope for the patient, and, to use their own expression, wanted to know if we could "patch him up for a few weeks." Considering that the patient was so anæmic, but still had a considerable amount of vitality in him that he could take his food so well and was not being exhausted by night sweats, I suggested transfusion. The patient was willing to try anything, and his wife offered to give the blood.

The next day (May 15th), having procured an Aveling, with the assistance of Mr. De Gruyther and a sister of the patient I transfused about two ounces directly from a vein in the wife's arm to a vein in the patient's arm. During the process the patient exclaimed, "I feel so hot; open the door." The wife rather complicated matters by vomiting during the transfusion, and was rather faint afterwards; but the patient was in no way worse, and said he should be ready for his dinner at the usual time. On the 16th Mr. De Gruyther reported: "Patient is better to-day; his pulse seems to me to be improved, and is 120; he himself feels better." On the 19th I saw the patient, and found his pulse 128, but much less easily stopped than on the 14th. He had taken his food as usual, and said he felt stronger. He further said that on the 17th he had got out of bed and had walked across the room to an arm-chair without assistance, a thing he had not been able to do for a fortnight. The wounds in both cases looked well, and there were no signs of inflammation or tenderness over the course of the veins. On the 21st Mr. De Gruyther again reported: "Our patient is progressing very favourably; his pulse was about 120 to-day and firm; he walks without aid." On the 22nd, one week after transfusion, I saw the patient. I found him sitting in an arm-chair, having moved into the next room. He had walked from one room to the other without assistance. He looked much happier; the pulse was stronger and 128. He said he felt stronger, and that he was sure he should be better if he could only get some sleep, that he had hardly had any sleep from 9 P.M. till 5 A.M. the previous night on account of his cough. The patient's wound was almost well, the one in the wife's arm showed a small slough. On the 25th Mr. De Gruyther wrote: "Our patient had a weak pulse of 116 yesterday, and he himself felt weaker. He says he had a better night on Friday (May 23rd) after inhaling five minims of eucalyptus oil in a metal respirator. The slough from the wife's arm has not come away." On the 26th Mr. De Gruyther wrote: "Our patient is not so well to-day."

May 28th.—Thirteen days after transfusion I saw the patient. I found him setting on a couch in a room next his bedroom; he had walked there with difficulty, and with assistance. His expression was much more anxious; his pulse was 130, and very easily stopped; his appetite was very bad, and he could only take liquid nourishment, such as egg and milk or beef-tea. He had lately discovered that he could take milk. His ankles were swollen. I found that on Friday, the 23rd, he had walked by himself with ease down the passage of his house out into a small garden or yard at the back and had sat in the sun for some hours, and had thoroughly enjoyed it, and that he had slept better that night. On Saturday, the 24th, he had done the same thing again, but had walked with even greater ease, and had felt still stronger. Sunday, the 25th, was a cold day, and he did not go out. On Monday, the 26th, he had not felt so well; on Tuesday, the 27th, he had felt worse, and on Wednesday, the 28th, he had gone back considerably. The cough was still the great trouble, it prevented his resting; but the amount of sputum was considerably less than when first seen, and there had been no sign of blood in it since the transfusion. The wife complained of pain in her arm, the slough had come away, the wound was healthy and healing, but there was tenderness along the course of the median vein, and the vein was thickened and cordlike. On May 30th Mr. De Gruyther wrote: "Yesterday our patient was a good deal weaker; he took a fair amount of nourishment, and had better rest at night."

June 3rd.—I saw the patient, and found him on the couch; pulse stronger, 120. He would take no medicine of any kind; he looked happier again; his appetite was better, and he fully intended to go out into the garden again as soon as practicable.

June 12th.—The patient had been out in the garden several times since June 3rd, but he had gone back. Pulse 120, weak and small. Both legs were much swollen and œdematous. The abdomen measured thirty-one inches and a half; it was tense and full of fluid. Very little albumen in urine, but some dyspnœa at times. A day or two after this date the patient was taken in a cab to the German Hospital, where he remained until July 27th, when he died. I have not been able to hear whether there was a post-mortem or not, but I think it is most probable that it was not allowed.

Westbourne-street, W.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.* lib. iv. Proœmium.

ST. GEORGE'S HOSPITAL.

A CASE OF RUPTURE OF THE GLUTEAL ARTERY AND ONE OF AMPUTATION AT THE HIP-JOINT ILLUSTRATING MORE RECENT METHODS OF ARTERIAL COMPRESSION.

(Under the care of Mr. HAWARD.)

FOR the following notes we are indebted to Mr. R. Margerison, surgical registrar.

John D——, aged twenty-four, received in May last a blow on the right buttock from the buffer of a locomotive. When admitted soon afterwards into St. George's Hospital, the buttock presented near its most prominent part a contused and lacerated wound large enough to admit a finger. Out of the wound dark blood oozed very freely. The soft parts were very extensively undermined, and beneath them was a large and increasing collection of blood. This blood collection did not pulsate and no bruit was audible. A pad was firmly bandaged over the buttock for three hours. In this interval the collection of blood had greatly increased, and when the pad was removed large quantities escaped. Ether was then administered and the right iliac artery compressed with Davy's lever. When once introduced far enough, this instrument acted perfectly. Mr. Haward enlarged the wound to a length of some six inches. The gluteal muscles were found to be torn across, and beneath them existed a large cavity full of blood. This was quickly turned out, bringing into view the sciatic notch and the open mouth of the gluteal artery. This and a great many other muscular vessels were secured with catgut ligatures. No blood was lost during the operation and the man's recovery was uninterrupted.

The case shows well the value of the lever, and in connexion with this subject of compression of the large vessels of the abdomen it seems well to mention a case of amputation at the hip-joint for sarcomatous disease, which also occurred in Mr. Haward's practice. Here the abdominal aorta was very effectually controlled by a contrivance more or less like that suggested by Sir Joseph Lister. The blunted apex of a pyramidal piece of wood was fixed over the abdominal aorta by an elastic bandage. The apex of the pyramid was about one inch square and covered with felt. The base measured about three inches square and presented instead of a plane surface a broad and shallow groove. The elastic bandage passed round the pelvis and along this groove. When fixed it was placed in the charge of an assistant, who, grasping the wood with both hands, could very easily and

nicely direct and regulate the pressure. This contrivance caused no dyspnœa and completely checked all bleeding.

HOSPITAL FOR EPILEPSY AND PARALYSIS, REGENT'S-PARK.

SEQUEL TO THE CASE OF EXCISION OF A TUMOUR FROM THE BRAIN.

(Under the care of Dr. HUGHES BENNETT and Mr. RICKMAN J. GODLEE.)

IN our issue of Dec. 20th we supplied our readers with some notes of a case in which a tumour had been excised from the substance of the brain on Nov. 25th, with the condition of the patient up to the 15th ult.; to which date the progress of the case had been entirely satisfactory. We are now enabled to give the sequel, which has unfortunately terminated in the death of the patient. On the morning of Dec. 16th the man was suddenly seized with a rigor, followed by fever, sickness, and pain in the head. A hernia cerebri of large dimensions supervened. The pyrexia increased and continued, the patient emaciated, gradually sank, and died on Dec. 23rd, the intelligence remaining intact to the last.

On post-mortem examination meningitis was found at the lower border of the wound, spreading downwards towards the base of the brain on the same side, the whole of which was inflamed and covered with plastic lymph. With the exception of the loss of cerebral tissue, caused by the operation, the brain was otherwise practically normal. We understand that the details of this interesting case will be brought before the profession in due course.

DUNDEE ROYAL INFIRMARY.

ACUTE CEREBRAL MENINGITIS; RECOVERY.

(Under the care of Dr. SINCLAIR.)

FOR the following notes we are indebted to Dr. A. M. Stalker, pathologist, late house-surgeon:—

J. R——, aged eleven, mill-worker, was admitted on March 31st, 1882, suffering from an illness which had commenced five days before. There was no history of illness or injury previous to this. The symptoms were pain and stiffness in the neck, especially on the right side, with general malaise and weakness. The boy's friends said he had been carrying unusually heavy loads on his shoulders two or three days before he began to complain.

State on admission.—Patient has a feverish look; lips dry and cracked; tongue dry, furred on dorsum, and glazed at tip and edges; appetite gone; bowels constipated, motions natural in colour; some abdominal pain; heart and lungs normal. Pulse 108; respiration 28; evening temperature 102·4°. Pupils contracted and equal. Tache cérébrale brought out on abdomen and arms. Patient has tendency to delirium; never lifts his head, complains of frontal headache, cries out suddenly, the cry having a cerebral character. There are diffuse stiffness and pain in the neck, most marked on the right side. For some days the patient continued in much the same state, being generally delirious at night and quieter during the day. Bromide of potassium and opiates were given when necessary, cold lotions were applied continuously to the head, and a blister raised on the back of the neck. Temperature in the morning 101° to 102°, in the evening 103° to 103·8°; respiration normal; pulse 112 to 120, regular. From April 9th to 17th there was some improvement, the pulse and temperature being rather the normal, and the patient being quieter. The pupils were now unequal in size, the right being larger than the left. At this time the temperature rose on two successive nights to above 104°. Croton oil was effectually applied to the back of the head. The symptoms showed general improvement, though slow, till the end of April, when the temperature fell to normal, and the other symptoms disappeared. Bowels remained normal all through. Discharged on June 10th, quite well.

Remarks by Dr. SINCLAIR.—That the possibility of enteric fever was never seriously entertained will excite no surprise after a perusal of the clinical history of this case. Was it tubercular meningitis? Was it an instance of that malady which I am not alone in believing to be extremely rare—viz., acute simple idiopathic meningitis? Or was it a case of meningitis due to an obvious external cause? I must say that tubercular meningitis has never come forcibly before my mental vision in a case of this description, least of all, perhaps, in the earlier stages of its course. That the patient did not die does not by any means exclude the possibility of a tubercular origin; but the age was rather against such an explanation, because, although the disease sometimes occurs beyond the age of ten, it is much commoner before that age, and commoner still between the ages of two and five. It will be observed also that there was no prodromal stage, with its wasting of the adipose and muscular tissues, its languor, mental torpor, unstable emotions, and irritable temper. The pulse was never slow and irregular in the stage immediately succeeding the stage of invasion. The temperature at the time the patient came under observation and subsequently was nearly always too high for this explanation. The idiopathic theory seems to me untenable so long as any other agency can account for the morbid condition. We had here to deal with a previously healthy boy eleven years old. A sudden invasion, a well-marked attack of cerebral meningitis, probably an effusion of lymph, and a complete mental and physical recovery. We had a history of an unusually heavy load having been carried on the shoulders a few days before the onset of the attack; and this I am convinced gives us the solution of the difficulty. The unusual exertion caused, I believe, a determination of blood to the head, and initiated a sequence of events very similar to those which follow closely upon that vaso-motor paralysis which is apt to be induced by exposure to the direct rays of the sun or artificial heat. The recovery was complete, although slow. How much of the result was due to good nursing and careful feeding and how much to the local treatment I am not prepared to say.

CEREBRAL ABSCESS DUE TO CHRONIC SUPPURATION OF THE MIDDLE EAR; DEATH; AUTOPSY.

(Under the care of Dr. SINCLAIR.)

For the following notes we are indebted to Dr. D. J. Reid, late house-surgeon:—

J. Y——, aged twenty-two, carter, admitted on August 17th, 1883, with the following history:—The patient had a rigor three days ago and another last night. Since then he has complained of pain in his head, especially on the left side.

On admission he was so sick that he had to lie down at once. Tongue covered with a creamy fur, and the papillæ enlarged. There was no eruption on the body. His aspect was heavy; pupils natural. He had slight photophobia. Temperature 102°; pulse 144; urine acid, sp. gr. 1024, with slight albumen.

August 18th.—Temperature 103·6°; pulse 84. Ordered dry cupping to the nape of the neck; hair cut short; ice-bag to head. Ordered twenty grains of bromide of potassium every six hours. Had a rigor at 1.45 P.M., and was livid. Morning temperature 103·4°; evening, 101·6°, and at midnight 103·4°.

19th.—Temperature 101·2°; pulse 108; slept fairly well; headache gone. Evening temperature 99·8°; had a rigor at 7.35 P.M., when the temperature rose to 105°.

20th.—2 A.M., temperature 105·6°; 9 A.M., 103°; has had diarrhœa since last night; stools of a "pea-soup" character; 6 P.M., temperature 98·4°.

21st.—9 A.M., temperature 98·4°; 6 P.M., temperature 101°; bowels opened twice to-day.

22nd.—9 A.M., temperature 99·2°; 6 P.M., 100·4°; bowels opened twice; severe headache.

23rd.—Morning temperature 102°; spleen enlarged; slight cough; lungs normal. Ordered a diaphoretic mixture twice daily. Evening temperature 104·4°; bowels opened once to-day.

24th.—Morning temperature 100°; evening, 100°; rigor this forenoon.

25th.—Died this morning at 6.15.

Autopsy.—Abdomen: No peritonitis; omentum injected; intestines filled with loose dark yellow stools; considerable injection of upper half of large and lower two feet of small intestine; some enlargement of solitary glands; no ulceration; spleen large and congested; liver and kidneys normal. Thorax: Heart and lungs normal. Head: Dura mater slightly adherent posteriorly. On removing the brain a small collection of ill-smelling pus was found over the upper surface of the petrous portion of the left temporal bone, between the bone and the dura mater. There was some inflammation and very superficial softening of the temporo-sphenoidal convolutions in the immediate vicinity of the abscess. On sawing through the petrous portion of

the temporal bone the cavity of the middle ear was also found to be filled with ill-smelling pus. There was no discharge in the external auditory meatus, although the tympanic membrane was entirely wanting.

Remarks by Dr. SINCLAIR.—We had here to deal with an entirely different state of matters from that which existed in the preceding case. But I think the two cases may be profitably studied in juxtaposition. The ages of the patients were different; the first a boy, the second a young adult. The results were different; in the former recovery, in the latter death. There may be some difference of opinion as to the cause of the malady in the boy's case; there can be none in the man's. In the case now under discussion it is true the invasion was apparently sudden. But the clinical history was unfortunately very brief, and was marked by rigors and a very irregular range of temperature. The post-mortem examination showed clearly that the fatal result was due to causes which could not possibly have been averted when the patient came under treatment a week before death. The secondary abscess of the brain was beyond a doubt due to an old-standing middle-ear suppuration. To the practically indefinite possibilities for mischief of which this local affection is capable attention has been frequently drawn both by physicians and specialists. In the *Edinburgh Medical Journal*, June, 1881, I drew attention to these dangers, and cited three fatal cases in support of my argument. One died from cerebral abscess, one from pyæmia, and one from pyæmic pneumonia. Such cases appeal specially to the general practitioner, who usually sees them long before the specialist. In its early stages the treatment of suppuration of the middle ear does not usually present formidable difficulties, and should in most cases, with a very moderate amount of skill and care, be brought to a successful issue. Yet, as I ventured to say in the paper just mentioned, "Everyone who sees much of ear diseases is painfully familiar with two reasons assigned by medical men for allowing tympanic suppurations to proceed unchecked that they cannot be cured, or that they should not be cured. The former answer presumes an amount of intractability which belongs to few suppurations in otherwise healthy individuals; the latter ignores the anatomical seat of the disease."

THE GENERAL HOSPITAL, BIRMINGHAM.

CASE OF SUBSPINOUS DISLOCATION OF THE HUMERUS.

(Under the care of Mr. HASLAM.)

J. McC——, aged thirty-two, applied at the hospital, saying that he woke up in the middle of the night feeling pain in his right shoulder, and that this was due to some twist in bed. (It was afterwards ascertained that he had had a fit.) On examination there was found to be considerable pain about the shoulder on any attempt to move it, the arm was fixed with the scapula, flexed to an angle of 45°, slightly rotated inwards, and the axis of the bone was directed to a point just posterior to the glenoid fossa. On feeling for the head of the bone below the acromial end of the clavicle a distinct depression was felt with hollow tension of the anterior fibres of the deltoid. On inspection posteriorly a slight swelling was noticed just below the junction of the spine of the scapula with the acromion process, and on manipulation this was found to be due to the upper end of the humerus resting on the dorsum of the bone. No reliable measurements could be taken as he had sustained an injury to the elbow when a boy which had totally disarranged the bony prominences. Reduction was easily effected under anæsthetics by a movement of abduction, extension, and rotation outwards.

THE BRITISH OPHTHALMIC HOSPITAL AT JERUSALEM.—This hospital, which was founded in 1882 by the English branch of the Order of St. John of Jerusalem, has, during the first twelve months of its existence, relieved patients to the number of 2546. Owing to the resignation of the resident officer and the difficulty of meeting with an eligible successor, its operations were suspended during the greater portion of last year, but they have now been resumed, and the medical officer reports that the interregnum has only increased the eagerness of the people to avail themselves of his services. The limited funds at the disposal of the Committee will not permit the reception of in-patients, and subscriptions are asked for to remedy this state of affairs.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

Conclusion of the Discussion on Charcot's Disease.

A SPECIAL meeting of this Society was held on Dec. 23rd, Sir Andrew Clark, President, in the chair. The meeting was prolonged till 10.45 P.M., in order to bring the discussion to a termination.

Sir ANDREW CLARK said that the discussion had elicited the information that Charcot had been misunderstood, and therefore with a view to preventing further mistakes he would briefly summarise the position which Charcot took. Arthropathies may occur independently of any specific influence from any specifl nervous disease. Further, an ordinary osteo-arthritis may occur in the course of tabes dorsalis. There were many injuries and diseases, acute and chronic, of the nerves, spinal cord, and brain, which produce arthropathies of various kinds, and amongst them was one which from its pathological appearances and the assemblage and progression of its clinical symptoms deserves and, indeed, demands a specific name, and this was Charcot's disease itself.

Mr. MACNAMARA said there was abundant evidence to show that Charcot's disease was not very uncommon, seeing that from a single London hospital Mr. Lunn had in a brief period collected five typical cases of the disease. There could be no doubt that some diseases of joints were dependent upon altered nervous influences. And the influence of the neurotic element would serve to elucidate and explain some of the mysteries which surround diseases of the joints. A joint may be regarded as an interruption in the continuity of bones; embryology clearly points out this, and histology confirms it, for the synovial membrane was a modified form of periosteum, and there were a large number of osteoblasts about the junction of the periosteum with the synovial membrane. Disease confirms the same ideas, for in chronic non-suppurative affection of joints osteophytes were met with at the junction of the synovial membrane with the bone; these outgrowths were not peculiar to chronic rheumatic anthritis, or to Charcot's disease, since they were found in all joints affected with chronic non-suppurative disease. Ununited fractures and syphilitic gumma of bone exhibited similar changes. Dry bones were extremely unreliable guides in dealing with the pathological nature of joint disease. It was more than eleven years ago since Dr. Buzzard said that chronic osteo-arthritis may also occur in locomotor ataxy. Clinically the difference between Charcot's disease and chronic rheumatic arthritis was still more marked, and detailed reference to Mr. Barker's case showed the typical differences extremely well. After some time the left knee-joint was entirely disorganised, and this fresh arthritic attack was preceded by disorders of the nervous system. The painless course and the fact that the disease never leads to ankylosis of the joint, and that in not a few cases the patient recovers, were striking, for the direct opposite obtained in chronic rheumatic arthritis. The morbid process was that of a rapidly advancing rarefying ostitis. In reply to Sir Andrew Clark, he said that he believed chronic rheumatic arthritis was almost always attended with pain, and that condensation of bone was the chief process.

Dr. BROADBENT said there was nothing in the extent of his experience which would lead him to have taken part in the debate, but the protraction of the debate would possibly allow of a few remarks. One of the most important points which was touched upon by Sir James Paget was the notion that the articular affection was a new disease. This feature, he thought, had not been rightly appreciated, for the information at hand left no room for the identification of this disease with chronic rheumatic arthritis. Sir James Paget's authority was unrivalled on the subject. It was descending to the level of mere cavil to endeavour to connect the two diseases by intermediate links, especially when those links are based on dry specimens of bones. Further, the clinical features establish a complete distinction. In the history of disease, vital processes are of far greater importance than morbid anatomy. There were at least four different ways in which joints became deformed, which give results like those seen in chronic osteo-arthritis. Under the term chronic rheumatic arthritis there came at least two distinct diseases;

that occurring in young females was perfectly distinct from the affection termed morbus coxæ senilis. Then there was the arthritic disease: the result of tabes dorsalis, and very similar results may be due to neglected chronic synovitis. What is the new morbid factor in the arthropathy of tabes dorsalis? The views which he held would coincide very much with Charcot's conclusions. Sir James had spoken of the search after the causation of the disease, implying that it was the resultant of different possible morbid processes, such as rheumatism, gout, rheumatic arthritis, syphilis, and so forth, with the view of tracing the dominant influence. But Dr. Broadbent believed that such an object was a hopeless quest, and was a research which would have no particular value. Syphilis was amongst the antecedents of tabes dorsalis, and so we might admit a remote connexion between syphilis and the disease in question. The "slipshod" treatment, the neglect of radical treatment of early syphilis, was possibly responsible for the increased frequency of such nervous diseases. He considered that the view which endeavoured to establish a relation by like causation was a very hopeful one. A derangement of nutrition of the joints may be brought about by disorder of the nervous system, which might be excited reflexly in chronic rheumatic arthritis, and directly in Charcot's disease as the result of a persistent irritative lesion of the spinal cord. If this could be established, we should have gained an important step. It was an explanation of chronic rheumatic arthritis through tabes dorsalis, and not an explanation of tabes dorsalis through chronic rheumatic arthritis. This was very much the position taken up by Dr. Ord, and he considered that the weight of evidence tended strongly in that direction. With regard to the illustration of Charcot's disease by herpes zoster, he did not see so much incongruity as Dr. Moxon did. For it must be remembered that herpes leaves cicatrices, may damage an eye, may lead to atrophy of the entire area supplied by a nerve, and so he felt that the comparison did hold good and was a fair illustration. In his grave philosophic way Mr. Hutchinson had referred to the passive influence of the nervous system, but Dr. Broadbent asked whether the explanation was in accordance with our experience. Was it true that Charcot's disease was generally found in those parts in which the anæsthesia and flinging action of the limbs were most apparent? In his experience the reverse was the case. It was not unfrequent for the ataxy to be discovered after the occurrence of these tabetic phenomena. All that he had ever seen pointed to the exactness of Professor Charcot's views. He had been sorry that Dr. Moxon in proposing a vote of thanks to Charcot should have thought fit to adopt a tone of sarcasm, not to say mockery. He would be sorry indeed to miss Dr. Moxon's presence from our meetings and periodicals, for that would be one pleasure less in life, and would be a great loss to medical science, but still he thought we should have been better spared it on that particular occasion. He considered that such a method of giving a vote of thanks compromised the Society. Dr. Moxon tried also to throw discredit on Charcot's work, and, burlesqued as the information on metallotherapy was, yet it was plain that Dr. Moxon must be in absolute ignorance of the nature of this metallotherapy and Charcot's attitude towards it. Burq had eccentric ideas no doubt on the influence of different metals on unilateral anæsthesia, but Charcot had all along adopted the attitude of a spectator, and would no more think of partaking in any extravagances than Dr. Moxon himself. No one had a stronger respect and regard for Dr. Moxon than he had.

Mr. CLEMENT LUCAS said that he differed *in toto* from the speech of Sir James Paget and those who followed him. Different stages of inflammation were very much alike at their commencement. It was at the beginning of fevers and other maladies that distinction was impossible. Many speakers seemed unable to disentangle themselves from rheumatic arthritis. Chronic joint diseases must present certain similarities. In Dr. Moxon's case of traumatic arthritis of the ex-salesman's shoulder there were outgrowths of bone on the scapula. The question of a new disease had a double answer given to it by Sir James Paget. In a general sense the disease might be regarded as a new one, but in a special sense it was a combination of other diseases. The latter was the thought was a combination of errors. It was the duty of curators to collect typical specimens, and it was possible that all specimens of Charcot's disease may have been thrown away as not typical; these considerations might explain the absence of specimens of the disease in our museums. The reference to the differences presented by syphilis in different constitutions by Sir James Paget next occupied Mr. Lucas. All diseases ran different courses in different persons, and yet they did not lose their identity. Syphilis was syphilis all the world over. He regretted that more attention had not been paid to the clinical signs of Charcot's disease. The case shown by him at the Society last year was referred to with a view of showing how peculiar the early stages and subsequent progress of Charcot's disease were, gout or rheumatism being wholly unlike it. We ought to give the credit of the discovery to M. Charcot.

Dr. MACLAGAN thought Charcot's disease was totally distinct from gout, rheumatism, and chronic osteo-arthritis. In its pathogenesis we could not divorce the disease from tabes dorsalis. Because a white leg occurred in the parturient woman we could not say that the local condition had nothing to do with the general one. The general vitality of the ligaments was lowered, and there was loss of sensibility in these structures. The healthy state of the ligaments was essential to coördinate movement. The ligaments being at fault, whilst the muscles retained a great deal of power of movement, loss of coördination resulted. The ligaments give way in the early stage just as the bones do in the later stages. There was a tendency to spontaneous fracture. The inhabitants of La Salpêtrière did not use their arms much, and so it was the lower extremities in which the joint disease occurred most frequently. The arms of a cooper were more likely to be the site of joint disease owing to the excessive use of those limbs. We owed a great deal to Charcot, and the miliary aneurysms as causes of central hæmorrhage were specially mentioned in this relation. In answer to Sir Andrew Clark, he said that he agreed almost completely with the views of Dr. Pye-Smith in believing that a new disease was impossible.

Dr. CHARLTON BASTIAN said that his own experience of Charcot's disease was limited, though he had been on the look out for it since 1868, and had seen very many cases of locomotor ataxy. He concluded, therefore, that the joint disease was not a necessary appanage of the ordinary lesions of locomotor ataxy, and this was precisely Charcot's position. He believed that when the joint disease was present there must be an extension of the ordinary pathological process either into the anterior grey matter or elsewhere. Some points seemed to have been lost sight of by Dr. Moxon and Dr. Pye-Smith. The ordinary lesions of locomotor ataxy are situate in the posterior columns of the cord, and if it be such a common disease as we have every reason to suppose it is, it is strange that the joint affection is so rare. Such considerations must tend to throw considerable doubt on the views which attribute to loss of sensibility and to spasmodic action of muscles a share in the etiology of the disease. Moreover, the joint disease frequently manifests itself at the very early stages of locomotor ataxy; at other times it comes at irregular periods of the disease. The influence of neural disturbances in the causation of simpler joint affections was well seen in certain cases of hemiplegia. A simple arthritis may come on in the limb only on the paralysed side; there was tenderness over the nerve trunks, with atrophy of muscle. Such conditions were associated with sclerosis of the lateral columns of the spinal cord, and in some cases recorded by Charcot there was extension from the sclerotic region into the contiguous grey matter, and it was to this extension or coincident changes in the nerves of the limbs that the arthritic disease was probably due. Sometimes joint changes occurred in the course of progressive muscular atrophy, and a remarkable case in which there was an unusually rapid onset was narrated. The pain, tenderness, and inflammation of the joints led to the diagnosis of rheumatic fever by the doctor in attendance. During the past two years it had been shown that the ordinary kind of symptoms of locomotor ataxy may exist without central changes, for there were only peripheral lesions to be detected. Future investigation would have to decide on the precise relation of the association, but we need not postulate the existence of special trophic nerves, for the cutting off of ordinary nerve impressions was sufficient to bring about secondary degeneration in the brain and spinal cord as well as atrophy of muscles with fatty degeneration. Perhaps one-half of the trophic lesions owed their existence to this absence of neural incitations, whilst a large proportion might be produced by unnatural influences passing along sensory nerves, these influences arising from changes in their tract or at

their roots. Cutaneous eruptions, damage of the cornea, and the peculiar atrophies described by Sir James Paget probably owned this pathology. There was no reason why sensory nerves should not transmit impressions in the opposite direction to their usual one. The joint affection may be due to disorder of the sensory nerves or nuclei; he threw this idea out as a suggestion. At present it was impossible to go further in the direction of a precise pathogenesis. The notion that it was a new disease was diametrically opposed to the conclusions of Charcot and to his own views; it was simply that the disease had not previously been recognised, for we could not doubt that the same kind of influences were at work in every period of civilisation.

Mr. HOWARD MARSH referred to the interest which Sir James Paget had introduced into the debate by his remarks on the subject of the evolution of disease. As neither Hunter, Langstaff, nor Stanley had left behind any specimen of Charcot's disease, Sir James concluded that the disease was new, and that it had arisen out of the mingling of constitutional affections like syphilis, rheumatic gout, and a special tendency to disease of the spinal cord. Stanley worked at diseases of the bones down to 1850, so that by Sir James's argument the affection must have become prevalent only within the last thirty or forty years. But the work of Paget himself extended down to at least 1865, and, as it was as unlikely that he had overlooked it as that Stanley had, we must, by this argument, hold that it was new since 1865, a conclusion more difficult to accept than that Hunter had overlooked it. The theory of recent evolution seemed untenable on three grounds. First, he could not see from what elements it had been so lately produced, for syphilis, osteo-arthritis, and nervous diseases had been mingled long before even Hunter's day. Secondly, the time less than even a single natural life, and less than even two generations —assigned by Sir James was probably too short for the evolution of a new disease presenting such remarkable features as Charcot's disease. Thirdly, in any process of evolution the original form gradually faded out and the new form took its place; but syphilis, for example, had remained unchanged for at least a hundred years. Osteo-arthritis and Charcot's disease seemed to him closely allied, not only pathologically, but even clinically, if the whole group instead of extreme cases were compared. He was aware that the argument that because two diseases could be connected by a number of intermediate links there was no essential difference between them must not be carried too far, for this was a form of argument by which it was easy to show that there was no difference between a saint and a sinner or between black and white. Still it was entitled to considerable weight when the intermediate cases were carefully selected. He had recently seen a case of disease of the hip-joint which began ten years ago as a well-marked example of osteo-arthritis, but which had very gradually acquired the characters of a typical Charcot's joint; yet the patient had no symptoms of disease of the nervous system. We were at present ignorant of the true nature of osteo-arthritis—whether, as many thought, it was a disease of nervous origin, or, as others suspected, himself among the number, a common name for several distinct affections not yet distinguished from each other; and thus we were not in a position to say how, if at all, Charcot's disease was related to it. Charcot's disease seemed, as Dr. Buzzard had remarked, to be located primarily in the bones, which underwent an active and destructive alteration. No bones that were suffering merely from deficient repair would present the features observed in these cases. Mr. Hutchinson had shown a skull and lower jaw in which, corresponding to the distribution of the fifth nerve on one side, the several bones were intensely hard, greatly thickened, and deformed by irregular nodular swellings. Such an example seemed to point to some abnormal influence of the nervous system. To the naked eye the changes of Charcot's disease somewhat resembled those found in mollities ossium, in which the bones become rarefied, brittle, soft, and easy of fracture. Somewhat similar changes were to be seen in some cases of fragilitas ossium. The origin and true nature of such diseases, including the osteitis deformans of Sir James Paget, were altogether obscure. Charcot's disease must be compared in every way with such diseases, and its own features must be carefully worked out before its true position in pathology and clinical medicine could be determined.

Dr. BARLOW asked whether, with regard to the view that Charcot's disease was indistinguishable from rheumatoid arthritis, the latter affection itself was so definite a clinical entity. Does such an association of the diseases add anything to our knowledge? Look at the different ways in which rheumatoid arthritis begins. First, in some cases it was impossible to distinguish it from senile degeneration, and senile degenerations of cartilage may be very extensive at the ends of bones and practically free from pain in old people. It could not be denied that acute rheumatism did sometimes develop rheumatoid arthritis. Heberden's nodes were sometimes associated with deposits of urates of soda in the joints, as shown recently by Dr. Dyce Duckworth; the coexistence of gout and rheumatism was spoken of by Hutchinson, but it was also a tenable hypothesis that the bony outgrowths were themselves due to gout. Dr. Barlow had seen malum coxæ senilis supervene on acute specific disease. The case of an old lady, who had a virulent attack of scarlet fever which was followed by changes in the knee and hip, was narrated. Another case had supervened on an attack of measles in a child. Gonorrhœal rheumatism was said by some not to be distinguishable anatomically from rheumatoid arthritis. He had observed two cases of spondylitis deformans in individuals aged forty; acute rheumatism in one and gonorrhœa in the other seemed to have played a part in the causation. Rheumatoid arthritis had also been shown by Dr. Ord to begin in connexion with dysmenorrhœa. Thus rheumatoid arthritis is merely an anatomical term, meaning a condition brought about by a great many processes. The life history was the thing which must come into play in judging of the nature of a morbid process. He had observed affections of joints in cases of hemiplegia, progressive muscular atrophy, and infantile palsy. In a case of old-standing infantile palsy the hip-joint may show decided resemblances to tabetic arthropathy in the mobility of the joint, the looseness of the ligaments, and the atrophy of the upper end of the femur. Sometimes, in the *acute* stage of infantile palsy, he had observed swelling round about joints, associated with tenderness, redness, and heat of skin, occurring within the first two weeks of the febrile illness; the swelling was more like gout than anything else, and came within the circle of the febrile disturbance of the affection. In a case of myelitis in a young lady, which came on with the symptoms of spinal apoplexy, an effusion in the knee-joint appeared and subsided three times. Brain disease was also associated at times with similar arthritic changes. With regard to the *modus operandi*, he concurred with the views of Dr. Bastian, that much further investigation was required, but that it seemed probable that joint changes might arise not only in connexion with central but with peripheral nervous disturbances.

Dr. BERNARD O'CONNOR spoke of the pathological conditions in dry arthritis, and contrasted the changes with those of Charcot's disease. The influence of nervous lesions in the causation of arthritic changes was also discussed.

Dr. HADDEN believed that Charcot's disease was a distinct and separate malady. The clinical and pathological evidence was sufficient to establish this conclusion. As to the disease being a new one, he had considerable doubt. A description was read from Stanley's work, in which there seemed to be abundant evidence to show that the case described was one of locomotor ataxy associated with joint disease, which seemed to be fairly typical specimens of Charcot's disease. Charcot had described changes in the anterior horns of the spinal cord; the multipolar cells were atrophied in parts just above the lumbar enlargement, and in the cervical swelling in cases of disease of the knee and shoulder respectively.

Dr. BASTIAN interposed to say that he knew of these changes, but he questioned what precise relation they had to the joint disease.

Dr. HADDEN, in continuing, believed that there might be some close connexion between the changes in the cord and the arthritic disease, for there was also rapid wasting of the muscles. He postulated the view that an anterior polio-myelitis of certain sets of cells was the cause of the joint disease.

Mr. HOPKINS discussed the possible influence of traumatic elements in the causation of the bone and joint changes of locomotor ataxy; the symmetry and anæsthetic state were spoken of as evidence in favour of traumatic influences. A case was referred to in which there was effusion into the thigh and into the knee-joint, with laceration of ligaments and fracture of bones.

Sir ANDREW CLARK said that the Society was to be congratulated on the way in which the discussion had been initiated, continued, and completed. It had been a most interesting and important discussion, for more varied and distinguished visitors had never joined in a debate. It was further a pronouncement of English opinion, and communicated to the busy practitioners accurate, extensive, and important information. Moreover, he hoped that it would do justice to a distinguished foreign physician to whom we owed so much. It might be interesting at this period to pass in review the opinions of the various speakers but that this had already been so ably done by one of the medical journals (THE LANCET). Another method of studying the debate was to collect and contrast the ideas which have been evolved during the discussion. Despite the wish of Dr. Broadbent and others, Sir Andrew forbore to take further part in the discussion, averring that he considered it inconsistent with the functions of the Chair.

Mr. MORRANT BAKER said that he should not reply *seriatim* for fear of being accused of "emptying the church down to the sexton." Chronic osteo-arthritis was neither rheumatism nor gout. He considered Charcot's disease was a fairly definite disease, and characterised by the same pathological changes as chronic osteo-arthritis. It was not fair to take out-of-the-way cases. If typical specimens of the affections were taken, no real distinction could be found to exist pathologically. He did not think that Charcot's disease was an accidental combination of chronic osteo-arthritis with tabes dorsalis. It was impossible that we could expect the clinical symptoms to be the same in all cases. He referred to a case under Mr. T. Smith's care, in which the hip-joint was diseased in a manner precisely like that of Charcot's disease, but there were no symptoms whatever of tabes dorsalis. He had had the rare experience of finding Charcot's disease in cent. per cent. of the cases of locomotor ataxy which had come under his care. In Charcot's disease the small joints were affected; there might be eburnation of bone and fibrous degeneration of cartilages, so that he could not agree with Mr. Barwell. He did not concur in the belief that the disease was a new one. The differences from chronic osteo-arthritis were not so startling, and he believed that Charcot's disease had been overlooked because it was uncommon. The rare specimens might have been thrown away on Mr. Lucas's showing. With Mr. Hutchinson's view on premature senility he fully agreed. The term "rheumatic arthritis" might with advantage be discarded. Words were made to be our servants, but after they were once created they might become our masters. He would like to see invented a term which would imply "decay without repair" without ambiguity. In many of the cases the joints had not been subjected to any unnatural friction, and so he opposed the theory advanced by Dr. Moxon and others. He believed that the disease had nothing to do with syphilis. It was said by Dr. Moxon that the charm of genius was to play around the ordinary, and he considered that the speech of the author of that phrase was an admirable example of its truth. He thought with Mr. Hawkins that injury had something to do with the causation of Charcot's disease, and fractures of bones in tabetic patients. It was not for him to dogmatise, but he still maintained that Charcot's disease was most probably an osteo-arthritis occurring in tabes dorsalis.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

WE are asked by one of the Secretaries of this new Society, Dr. Fancourt Barnes, to publish the following:—

At a meeting held on Dec. 27th, at the rooms of the Medical Society of London, under the Presidency of Dr. Routh, the British Gynæcological Society was instituted after some discussion. The following is a list of the officers who were unanimously elected by the meeting:—Honorary President: Dr. Robert Barnes. President: Dr. A. Meadows. Vice-Presidents: Drs. Aveling, Granville Bantock, Routh, Thomas Smith, Mr. Lawson Tait (Birmingham), Professor A. R. Simpson (Edinburgh). Council: Dr. Sinclair Coghill (Treasurer), Dr. Grigg, Messrs. T. Nunn, Noble Smith, Alfred Rees, Drs. Walter and Lloyd Roberts (Manchester), Purefoy (Dublin), Mr. Paul Swain (Plymouth), Drs. Matthew Dunbar, A. Sheen (Cardiff), T. More Madden (Dublin), John Wallace (Liverpool), John Thorburn (Manchester), with others to be added at the first general meeting. Treasurer: Dr. A. W. Edis. Hon. Secretaries: Drs. Heywood Smith and Fancourt Barnes. The first meeting of the Society will be held in April.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

A MEETING of this Society was held on Dec. 18th, 1884, Mr. W. A. Garrard, President, in the chair.

Dr. KEELING introduced a patient whose Scapula had been removed nearly two years before for a Tumour involving the Bone and surrounding Muscles. There had been no return of the disease and the arm was a fairly useful one.

Dr. KEELING also showed a youth whose Left Arm had been nearly torn off and his Skull Fractured by a machinery accident. After necrosis of two inches and a half of the shaft of the humerus the ends of the bone had been tied together with wire, and splints applied. Complete recovery has taken place, the patient being now able to work at his trade as usual.

Dr. KEELING exhibited a woman in whom one half of the Scalp had been torn off in consequence of her hair being caught by a revolving machine band. The complete healing of the raw surface had been much aided by repeated skin-grafting.

Dr. DYSON exhibited a patient with Aortic Disease. His age was forty-five, and he was a brewer's drayman. The interest of the case consisted of a loud high-pitched musical diastolic murmur, the maximum of intensity being over the lower part of the sternum; the murmur was audible all over the front of the chest and in the back, also in the large arteries. There was also a systolic aortic murmur. A thrill of the same distribution as the murmur was also present. Signs of the above commenced last Easter, but it was not until Dec. 1st that the patient left off working. On that day he had a sharp anginal attack.—Remarks were made by the President, Dr. Banham, Mr. Barber, Dr. Porter, Dr. Keeling, and Mr. Baldwin.

Dr. DYSON showed a Heart from a man aged twenty-five. History of rheumatic fever many years back, but only subjective symptoms of heart disease for four years. The heart, which weighed nearly two pounds, showed signs of pericarditis, dilatation, and hypertrophy of the left auricle and left ventricle, disease of the aorta and aortic valves, also well-marked mitral stenosis. The prominent symptoms and physical signs during life pointed to aortic incompetency. A mitral murmur was present but not well defined. The kidney also was shown; it was large and cirrhosed. The liver and spleen were immense. Convallaria was administered in this case, and seemed to act quite as well as digitalis. The urine was albuminous.—Dr. Porter and Mr. James made observations.

Dr. BANHAM introduced a patient whom he considered was suffering from Tumour of the Brain. There was partial hemiplegia with some anæsthesia of the left side, slight paresis of the right side, deafness of the left ear, nystagmus of the left eye, and atrophy of both optic discs, especially of the left. Headache and vertigo were also occasional symptoms. The defect of sight and hearing had been progressing for the last four years, but no paralysis beyond slight weakness of the left arm appeared until January last, when one night he was suddenly seized with cramps and rigidity of the limbs, followed in a few hours by left hemiplegia. The affection of the right side had slowly developed since. The history of the patient and the negative results following specific treatment were entirely opposed to the hypothesis of the syphilitic nature of the disease, and Dr. Banham inclined to the opinion that there was a tumour of the pons Varolii, implicating also the cerebellar peduncles, and that the sudden augmentation of his symptoms in January last was due to hæmorrhage in connexion therewith.

Dr. BANHAM also gave brief notes of a case of Urticaria, occurring in an intelligent woman of twenty-five years of age, which had recurred almost daily for two years past, and which had been accompanied frequently with dysphagia to such a degree that when she sat down to a meal swallowing was often found impossible, and the attempt induced such serious attacks of choking as greatly to alarm those about her. The patient had never given any indications of hysteria. He saw this patient for the first time three weeks ago, gave her careful directions in regard to diet and the regulation of the bowels, and ordered her a mixture of bismuth and nux vomica, to be taken before meals. Within

a day or two the attacks of urticaria subsided as well as the dysphagia. He thought it not improbable that the difficulty of swallowing had arisen from the mucous membrane of the throat being affected in a manner similar to that of the skin.—Dr. Keeling and Mr. Barber made remarks.

Mr. SIMEON SNELL exhibited a baby with Nævus at the Inner and Upper Angle of the Orbit, under process of cure by electrolysis; and showed also Priestley Smith's Model for Demonstrating the Horizontal Movements of the Eyes.

Mr. RECKLESS exhibited the specimen of an Ovum and its Decidual Membranes, of about eight weeks' growth, removed from a woman aged forty-one, the subject of old-standing retroflexion of the uterus. A peculiarity was that the ovum appeared to have been arrested at the entrance into the uterus, and developed in the corresponding corner; and that the placental portion formed a complete coat of the uterine cavity. A further point of interest was the vexed question of the possibility of pregnancy in a well-marked retroflexed uterus.

Reviews and Notices of Books.

A Treatise on the Continued Fevers of Great Britain. By CHARLES MURCHISON, M.D., LL.D., F.R.S. Third Edition. Edited by W. CAYLEY, M.D., F.R.C.P. London: Longmans, Green, and Co. 1884.

IT is now twenty-two years since the first edition of this work appeared—a work that speedily obtained a world-wide recognition, and established for its lamented author a reputation which was fully deserved. In 1873 he published a second edition, much amplified and extended; and now, after the lapse of another period of eleven years, appears this third edition, the preparation of which has been fittingly placed in the hands of his former colleague, the present Senior Physician to the London Fever Hospital, where Murchison gained so much of his experience on the subject. Much praise is due to Dr. Cayley for the judicious manner in which he has exercised his function as editor. He has not excised more than was absolutely necessary, and has been almost too sparing of additions; but, as he states in his preface, he "believed that he could best meet the wishes of the medical profession, as well as of Dr. Murchison's representatives, by making as few alterations as possible." In taking this course the editor has left the work, so far as its method and all its important details are concerned, practically as Murchison wrote it; and where additions have been made, they concern in the main the few points which have of late years received much attention. In one direction, that of the dependence of specific fevers upon the presence of micro-organisms, there has been less said than might have been thought necessary; yet it is evident that in Dr. Cayley's opinion the facts at present advanced on this head with regard to typhus and typhoid fevers do not warrant too firm an adhesion. As regards relapsing fever, the evidence is more precise; and Obermeier's discovery of the spirillum was made in the same year (1873) that the previous edition of Murchison's works was published. The description of this micro-organism, and the later investigations of Vandyke Carter and Koch, form therefore a distinct and necessary addition to the section dealing with the pathology of this disease. Seeing that this discovery was one of the first to be substantiated of the actual relation between a specific micro-organism and a disease, one is able to form some slight idea of the remarkable advances made in bacterial pathology within the past decade. In typhus and in typhoid fevers the evidence of specific microzymes is as yet very inadequate. Dr. Heneage Gibbes, who contributes to this volume an account of the typhoid micro-organisms, confesses that he has been unable to find any clear points of distinction between putrefactive bacteria and the so-called bacillus of typhoid (Eberth). He gives illustrations of these micro-organisms, but believes their specific function will be ultimately disproved. Moreover, he has found that they are very variable in number and distribution in the organs of typhoid fever cases. In another part of the work, Dr. Cayley, after speaking of the apparent necessity for putrefaction to take place in typhoid stools before these are rendered contagious, hints not obscurely as to the possibility of a conversion of putrefactive into pathogenic bacteria. A few quotations will best serve to illustrate his view. Thus, on p. 12, where Dr. Murchison speaks of the particulate theory of contagion and the *de novo* origin of fevers, the editor adds:

"Since this statement of Dr. Murchison's views on the nature of contagion the discovery of the microbes of relapsing fever, anthrax, fowl cholera, hog typhoid, and probably those of malaria, tubercle, and other specific diseases, together with the results of inoculation and cultivation experiments, has afforded fresh support to the notion that contagious fevers are due to parasitic organisms, and this must now be regarded as, in all probability, the correct view of their nature. But this view by no means disproves the possibility of their arising *de novo*, apart from the theory of spontaneous generation, which few would be inclined to accept. For the researches of Pasteur and others have shown that the properties of these organisms may be modified in an extraordinary degree by placing them under different conditions; hence it is quite conceivable that the germs of a disease like typhoid or typhus fever might under ordinary circumstances be harmless, and only acquire virulent properties when under the influence of pent-up stagnating sewage, or overcrowding and imperfect ventilation, in the same manner as the bacillus of anthrax may be rendered more or less virulent by being cultivated with the access of more or less oxygen."

Again, speaking of the typhoid poison being produced by decomposing material, Dr. Cayley writes—

"Putrefactive decomposition is, however, always accompanied, and most probably occasioned by, the rapid development of micro-organisms, and as there are strong grounds for regarding the poison of enteric fever to be constituted by one of those organisms, it would seem highly probable that the putrefactive change is one of the conditions necessary for their development from the germs contained in the stools of cases of enteric fever."—p. 487.

These passages suffice to show the direction in which Dr. Cayley thinks we ought to seek an explanation of the apparent *de novo* origin of these fevers, as well as to link the now widely accepted germ theory with the facts of actual practical experience of the mode in which contagion may occur. Whether the views are such as will commend themselves to those who doubt the connexion here hinted at between putrefactive and pathogenic organisms we shall not attempt to decide.

Except in the particular of the spirillum, there has been little to add to the chapters of the work dealing with typhus and relapsing fevers. From the latter disease Great Britain has for several years past been almost free; and as to the former, the cases are now reckoned by tens where they used to occur in thousands. To be sure there are a few cities in this country where typhus still prevails to an unenviable extent; but in others, and notably in the metropolis, the fever is one which has remarkably diminished. So that of the three great "continued fevers" of Great Britain, of which this treatise affords so exhaustive a study, there is practically but one which still constantly confronts the practitioner. The editor finds, too, that most advances have been made in the knowledge of symptoms and lesions in this fever, and has thoroughly brought the work up to date. The most copious addition is that dealing with the antipyretic treatment (p. 656, *et seq.*), where the methods and results of cold bathing are clearly and concisely stated with illustrative cases, and a like discussion of recent antipyretic remedies—notably kairin—is introduced. Thus, judiciously edited, the work retains all the characteristics which Murchison impressed upon it;

and those who have not yet perused it may well turn to this edition without fear of missing any of the wide and scholarly erudition, the careful and exhaustive descriptions of clinical, pathological, and etiological facts which served to give it from the first an unrivalled place in our literature, a position which it is likely to retain. The time may come, if the sanitarian is to be believed, when the matters treated of in this volume will have little more than historical interest, like the Plague or the Black Death. Such a consummation is, however, very remote, and many generations of practitioners will be led to seek in this treatise for the knowledge which will enable them to deal with disease that may daily confront them.

A Text-book of Human Physiology, including Histology and Microscopical Anatomy. By Dr. L. LANDOIS, Professor of Physiology in the University of Greifswald. Translated from the Fourth German Edition, with Additions, by WILLIAM STIRLING, M.D., Sc.D. Vol. I., pp. 514, with numerous Illustrations. London: Charles Griffin and Co. 1885.

THIS work, which enjoys high repute in Germany, is admirably adapted for the practitioner; whilst giving an excellent summary of the present state of the science of physiology, the author never forgets the practical side of his subject, and the advantages which the treatise offers in this respect are so great that notwithstanding it is one of the largest text-books on physiology, being exceeded only, we think, by Longet's work, and perhaps by the new edition of Funke, which threatens to appear in three huge volumes, it has yet passed through four large editions in the same number of years. It has been translated by one who is well known for the scientific work he has accomplished, and who is in all respects competent for the very serious task he has undertaken. Dr. Stirling has materially added to the value of the work by inserting a very considerable number of illustrations, and by introducing in brackets many facts which render the subject more intelligible, and which have either been overlooked by the author, or have been made out since the German edition was printed. As examples of this, we may instance the account of the oncograph, under the head of the spleen; of Meade Smith's method of making an intestinal fistula; of the structure of Brunner and Peyer's glands, and of the solitary follicles; of the fluids contained in serous sacs; of Hammarsten's theory of the coagulation of the blood; of Luciani's experiments on the cardiac pulsations; of the nature of a cardiac contraction, and many others.

The plan adopted by Landois may be illustrated by a short account of the mode in which he treats the important subject of respiration. He commences by a brief account of the histology of the bronchi and lungs, to which, as in so many other places, extension and important additions are made by Stirling, comprising the observations of Débove, Frasch, Hamilton, Klein, and of Stirling himself, on the air-cells and on the pleura, with two instructive and original woodcuts. Then follow in succession the mechanism of respiration; an account of the quantity of gases respired, and the circumstances modifying the vital capacity; the number of respirations and the conditions influencing them; the time occupied by the respiratory movements, to which Stirling adds a figure with description of Marey's stethopneumograph; the pathological variations of the respiratory movements, which is a valuable section, treating of dyspnœa, the Cheyne-Stokes' phenomenon, and Harrison's [illegible]; a general view of the respiratory muscles with their nerve-supply; the action of the individual respiratory muscles; the relative dimensions of the chest, so important from a physician's point of view, with the pathological variations of the percussion sounds; the normal respiratory sounds, with their pathological variations; the pressure in the air-passages during respiration; peculiarly modified respiratory movements, as coughing, sneezing, and the like; the chemistry of respiration, including the composition of the air, the daily quantity of gases exchanged and the conditions modifying the gaseous exchange, the diffusion of gases within the lungs, the dissociation of gases; cutaneous respiration; internal respiration; respiration in a closed space; dyspnœa and asphyxia; respiration of foreign gases; effects of accidental impurities in the air; ventilation of rooms; formation of mucus in the respiratory passages and the characters of pathologically modified sputa, which is illustrated by a good woodcut showing the various objects found in sputum; the action of the atmospheric pressure; the section ending with a brief comparative and historical notice. This enumeration will suffice, we think, to show the exhaustive and eminently practical manner in which the subject of respiration is treated, and, to avoid confusion, we have omitted any reference to the very numerous points which are elucidated by a line or two, and sometimes by a whole paragraph, from the pen of the translator. With this, and the numerous other text-books on physiology at his command, no student should, we think, fail in his examination on this subject.

The Medical Student's Manual of Chemistry. By R. A. WITTHAUS, A.M., M.D., Professor of Chemistry and Toxicology in the University of Buffalo, &c. London: Sampson Low and Co. 1884.

DR. WITTHAUS has given to the medical profession a book which has long been wanted, a simple manual of chemistry, in which matters important to medical science are kept systematically in the foreground. The teacher, and still more the examiner, are apt to forget that chemistry is but a small part of the work of the medical student. It is impossible to overrate the importance of that part, but it cannot and ought not to be a very large part. To demand from the student of medicine a knowledge of all departments of chemistry is unreasonable, and tends naturally to induce flimsiness in study. A good deal of general knowledge is of course essential to the comprehension of the laws of the science, and we are by no means anxious that the student shall attempt the impossible task of learning the applications of a science the principles of which he does not understand. But, on the other hand, he is often compelled by the exigencies of the examination to "get up" a great deal that has no bearing at all on the future work of his life, and is quite unnecessary for the illustration of chemical theory. What possible good is there in compelling a medical student to learn the details of manufacturing chemistry? Is it likely that he will wish to manufacture carbonate of soda or to smelt copper ores, and, if he does, will he ever attain sufficient knowledge from any hospital course? His time at the hospital is very precious, and at present it happens that so much of it is wasted by purely irrelevant studies that he is seldom able to study properly the actual bearings of science on his own profession.

Dr. Witthaus has made a praiseworthy attempt to supply a sensible course of instruction for students of medicine, and we think that, on the whole, he has succeeded. He has cut out all, or nearly all, that he could from the time-honoured course. His descriptions of manufacturing processes are brief and confined almost entirely to general principles, and he has reduced to a minimum the history of many elements—silicon, for example—which have no importance in medical science. On the other hand, the space so gained has been filled with details of practical value to the physician. Toxicology is interwoven with the text, and a good deal of pharmaceutical and physiological chemistry as well. Thus, many pages are given to arsenic, phosphorus, mercury, and in each case methods of special analysis and an account of officinal preparations are given.

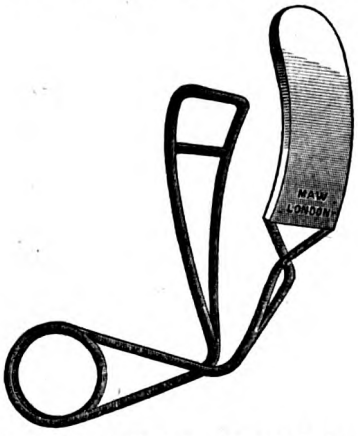
The arrangement of the elements is peculiar, and we doubt whether it is in all cases convenient. The greatest novelty is the inclusion of carbon and the so-called organic chemistry in the systematic orders of classification. About one-half the book is really given to organic chemistry, but it comes in the middle of the book after the non-metals, among which arsenic and antimony are included, and before the metals. Of course, no classification can be perfect, but this appears, on the whole, to be the best. The carbon or organic portion of the book is very good, although by no means beyond criticism. It was, for example, wise to arrange the series according to the hydrocarbon type, starting from the paraffins, but unwise to adopt the old-fashioned name of hydride for the paraffins. Schorlemmer has shown that marsh gas is no more entitled to the name of methyl-hydride than to that of methylene-hydride, or methenyl-hydride. The convenient name of methane suggested by Hofmann is now generally adopted.

We have little wish to point out errors or omissions in so good a book, as most of them are certain to disappear in the next addition. We may, however, venture to remind the author that the isolation and liquefaction of ozone, the chromic acid test for peroxide of hydrogen, the dissociation of iodine, and the use of the endiometer in analysis are matters too important to be omitted. We must notice, too, a grave error on page 174, line 5, where 180 parts of glucose are represented as yielding 44 instead of 88 parts of carbonic acid. There are, indeed, a good many inaccuracies which must be corrected if the book is to take permanent root as a text-book.

New Inventions.

NEW SELF-ADJUSTING TONGUE-DEPRESSOR.

THE engravings illustrate the construction and application of the tongue depressor. The instrument is self-adjusting, and when placed in position the operator can use both hands for any manipulation. It consists of two metallic plates in combination with a wire recoil spring. The larger or tongue plate is polished on the upper surface, and this assists in the illumination of the mouth; and on the under side it is roughened, to prevent it slipping forward



on the tongue. The smaller, or submental plate, is curved to fit easily and securely under the chin behind the maxillary symphysis. The wire spring occupies very little space, and is bent downwards so as to be out of the way of the surgeon. The blades can be easily opened, and to assist their expansion a loop of wire is fixed on each side of the spring to support the thumb and finger.[1] The instrument can be employed for depressing the tongue in any position, and therefore it will be found serviceable in minor operations about the mouth, and also in rhinoscopic and laryngoscopic examinations. The submental pressure is especially useful in patients who are intolerant of oral instruments, and this method of fixing the tongue often appears to reduce the reflex irritability of the parts. The tongue

depressor is very neatly made by Messrs. Maw, Son, and Thompson in three convenient sizes, and can be obtained from that firm at a very moderate price.

J. WARD COUSINS, M.D. Lond., F.R.C.S.,
Surgeon to the Royal Portsmouth Hospital.

[1] These wire loops are not shown in the engraving.

COTTAGE HOSPITAL CONSTRUCTION.

To the Editor of THE LANCET.

SIR,—My attention has been called lately to several new cottage hospitals which have been erected within the last few years, and which have been designed upon the pavilion principle. In the second edition of my book on Cottage Hospitals I published a plan of a model hospital for fifty beds, constructed upon this plan, but I omitted to caution the inexperienced that the pavilion system is too costly and extended for hospitals having less than fifty beds. In several of the more recent cottage hospitals the extravagance of the pavilion system for institutions with less than fifty beds is demonstrated. I have just received the particulars and conditions of two new hospitals, one at Newbury and the other elsewhere, which have been thrown open to competition, and this has induced me to ask you to be good enough to call attention to the facts here stated, and to allow me to suggest an alternative plan, based upon an exceptional experience, combined with a careful consideration of the faults apparent in several of the more recently constructed cottage hospitals.

Briefly, the plan which seems to me to be preferable to the pavilion system for small cottage hospitals is one designed upon the straight model. This will enable all the wards to be placed upon the ground-floor, with perfect cross ventilation. The matron's and nurses' rooms and the bath and operation rooms will also be provided on the same floor. Upstairs there will be the kitchens, with sleeping accommodation for the servants and staff. A lift communicating with the kitchens and ground floor should be provided. To secure the complete isolation of the kitchens when necessary, and to avoid many evils which might otherwise arise, a special staircase should connect the outside and back portion of the premises with the kitchen, by which access could always be obtained to the latter without entering the hospital. This plan also affords the widest scope for future extensions, should such be necessary at any time. I have made a calculation from which it appears that a hospital, with from eight to twelve beds, constructed upon this principle, may be built at two-thirds of the cost of one with the same number of beds constructed upon the pavilion plan, which is now so popular. I would send you a plan of my new design, but I fear you would hardly be able to find space for it in your correspondence column.

I am, Sir, yours truly,
HENRY C. BURDETT.

Gloucester-road, Regent's-park, N.W., Dec. 30th, 1884.

THE LANCET.

LONDON: SATURDAY, JANUARY 3, 1885.

WE trust the year 1885—though opening in somewhat anxious circumstances will prove a happy one for the nation and the profession. In many respects it is likely to be at least an interesting one to the profession, both in educational and in scientific matters. It is obvious that the "medical authorities"—to use the language of the Medical Act—in the different divisions of the kingdom are behaving as if a new departure were being taken and a new lease of privilege granted to them. The undertaking of the Scotch and English corporations to forego their right of granting their lowest diploma, *singly*, cannot fail to be followed before very long by similar action on the part of the Irish corporations. This welding of the licensing authority in each division of the kingdom, though not brought about in the way we had desired, and by no means so thorough as we could wish, ought to be followed by consequences of great moment to the profession. The competition between individual licensing corporations in each division of the kingdom will cease. Unfortunately, competition between united corporations in one part of the kingdom and united corporations in another part will continue, as well as a certain tendency to vulgar competition between universities granting degrees and corporations granting diplomas. But we must be thankful for small mercies till the House of Commons shows itself capable of legislation worthy of the name. So we shall charitably assume that, with a consolidation of the examining boards and an apparent reduction in the number of competing "interests," examinations will be really improved in regard to fairness as well as severity, and that medical education will gain in thoroughness. We may venture to hope that such a change in the examining bodies will have the effect of lessening the rush into the profession—the more so as, Sir LYON PLAYFAIR notwithstanding, the supply of the profession already exceeds its "waste" by several hundreds a year. There is one other "consummation devoutly to be wished"—namely, that the consolidated and strengthened bodies will have the consciousness of a little more strength to discharge the censorial and judicial functions which they owe to their members and to the profession at large. Such functions are fundamental and essential. The idea of Bodies that should license and authorise without controlling, or in case of need censuring, has no reasonableness either from the common-sense point of view or in the light of the history and traditions of the profession. The abeyance of censorial functions, however, is obvious, and is as painful as it is obvious. Every week members of some one or other of our great medical corporations are guilty of conduct which outrages the traditions of the profession, and is practically fraudulent as regards the public. But action is seldom taken by the bodies whose diplomas are thus dishonoured; and the public suffers. It is surely not too much to hope that the Corporations acting together will feel more strength and disposition to uphold professional morals and conduct. It will rarely be necessary to proceed to extremities. Many a man goes wrong, loses the respect of his professional brethren, and perhaps incurs their contempt, who might have been saved and kept in honourable and professional ways by a timely and kindly word from the censors of his College. Human nature is weak, and in the early days of professional anxiety and impecuniosity it sometimes needs a word of advice, and even remonstrance. Such a word is now scarcely ever spoken by the "medical authorities." For want of it a man often takes to courses which involve his removal from the Register. With the Conjoint arrangements of 1885 we hope for better things—not only for better education and better examinations, but higher professional spirit and conduct.

In scientific respects we enter hopefully upon the new year. There are many "worlds" of disease yet to conquer, requiring for their conquest not only the researches of the chemist and the physiologist, but the sound, steady, and sustained observations of the practitioner. There is no excuse now for any practitioner not contributing something to the great and ever-accumulating sum of medical knowledge, and still less for his not making daily additions to his own stock of practical and scientific data. The best thoughts of the best minds are our common property in these happy days of professional and scientific journalism. The opening year is full of promise. But, according to our forecast, it is full of duty. Medical problems of vast interest to mankind are pressing for solution. New remedies claim attention. New methods of treatment are replacing old ones. Even "new diseases" are spoken of by such experienced and keen observers as Sir JAMES PAGET. And old diseases, over which we had fondly hoped that Science had asserted its control, still display their ancient virulence. We have great battles yet to fight, not only with disease, but with popular ignorance and, alas! with cultivated ignorance.

LAST week we published a brief and general statement of the answer given by the Council of the Royal College of Surgeons on the 19th ult. to the recommendations of the Association of Fellows. The exigencies of space required a statement so concise that we were prevented from recording the various limitations, qualifications, and excuses which were made use of by the Council in accepting, modifying, or rejecting the recommendations of the Association of Fellows. These limitations, qualifications, and excuses do, however, form the most interesting portions of the Report of the Committee of the Council that was appointed to consider the recommendations. If the result arrived at by the Council be tried by an arithmetical test, it may be pronounced tolerably satisfactory, inasmuch as the Council has accepted, with or without alteration, *nine* recommendations, and rejected only *seven*. With this balance of two recommendations in its favour, some may think the Association of Fellows should felicitate itself and be thankful. Unfortunately, others may think that political problems cannot be solved in this simple manner. Quality as well as quantity has to be considered; and if the answer of the Council be looked at in this light, it is scarcely an exaggeration to say that the less important recommendations of the Association of Fellows have been accepted, while the more important

have been rejected. Indeed, the result might be formulated thus: *The less important the recommendation the more perfect the acquiescence of the Council therein; the more important the recommendation the more complete its disapproval.* An illustration or two will establish the general truth of this proposition.

The Association of Fellows recommended what had previously been adopted at the general meeting of Fellows and Members held at the College last March—namely, that there shall be an annual meeting of Fellows and Members at which the Annual Report of the Council shall be *presented, discussed, and, if approved, adopted.* The Council has adopted the minor part of this recommendation, but rejects the graver. The meeting may be held and the report may be presented, but it shall not be discussed. Surely this is solemn trifling! An annual meeting might have been held any time during the last fifty years; no alteration in any Charter or Bye-law is needed for holding it, as such meeting will be held under Section XVIII. of the existing Bye-laws, which was adopted fifty-three years ago, and, curiously enough, adopted expressly to prevent such meetings. And as to the Report of the Council, nothing will be gained by mere presentation: it is already *presented* every year in the College Calendar, under the title, "Secretary's Report." Again, the Association of Fellows recommended that on the receipt of a requisition signed by thirty Fellows or Members, the President shall convene a meeting of Fellows and Members. The Council falls back upon one of its notorious Resolutions, and is willing that a meeting may be held on requisition, "*provided that the objects of such meeting be approved by the Council.*" Lastly, of the recommendations accepted by the Council, the Association suggested that the Minutes of each meeting of the Council shall be suspended in the hall of the College for the inspection of Fellows and Members. Here, too, in affecting to accept the recommendation the Council inserts a condition which stultifies the concession. Only the "confirmed" Minutes are to be so suspended; in other words, those Fellows and Members who take an interest in what the Council does may from time to time know what it *has done*, not what it is doing or going to do. The Fellows must indeed be "coy and hard to please" if they be not content with being told in the middle of October what their representatives in the Council did in the middle of July or August. In any case, we cannot too highly extol the courtesy and grace of the Council in allowing the Members of the College ever to have an inkling of what has been done.

Thus it is with some of the recommendations which the Council has accepted. The conduct of the Council is, however, still more remarkable in respect to the recommendations it has rejected. Among the more important of these recommendations of the Association of Fellows are—(1) That not more than one-half of the members of the Court of Examiners shall have seats in the Council; (2) that the President of the College shall be elected annually by the Fellows; and (3) that no alteration in the constitution or relations of the College shall be made without the consent of the Fellows and Members convened to discuss such alteration. To anyone outside the Council these recommendations may seem not only reasonable and just, but directly conducive to the dignity, prosperity, and permanence of the College. But within the Council another opinion prevails, and it has pronounced against alteration. Hitherto the Council has adhered to the custom of always electing the senior member of the Council to the presidential chair; and it cannot be denied that in many cases the result has been unexceptionable. Not seldom, however, the result has been the reverse of satisfactory. There are not a few persons who believe that the custom is in itself clumsy and capricious in operation, and often in its effect derogatory to the dignity of the office of president. Judged by some instances in the not very remote past, it may safely be predicted that no election made by the whole body of Fellows could possibly be less fortunate than some of the elections which the Council has made. The contention has at least plausibility that if the Fellows were to elect the President the chances would be greatly increased that the choice would fall on the fittest—fittest not only as regards personal qualities and public spirit, but fittest also as regards professional eminence and administrative capacity. The advantages likely to accrue to the College from such a free, unprejudiced, and impartial election of the President, would doubtless be as great as its promotors anticipate. But probably even these advantages are small when compared with those that would ensue if the Council were rendered more independent of the selfish and personal influences of the paid examiners *in posse* or *in esse*, who now dominate the Council; and if, further, the legislative functions now monopolised by the Council were shared with the whole of the members of the body corporate. The particulars of the very vote recorded at the last meeting of the Council against one of the recommendations of the Association of Fellows demonstrate the evils that attend a preponderance of the influence of examiners in the deliberations of the Council. By the nature of their office, examiners are personally and pecuniarily tempted to be more zealous in maintaining the *status quo* than in favouring changes that might, among other things, curtail their own privileges and emoluments. When the motion was put that the President should be elected by the Fellows, only five members of the Council voted in favour of it, while fourteen voted against it. It is noteworthy and significant that of the five who voted for it—namely, Messrs. ERICHSEN, HOLMES, and CADGE, Sir JOSEPH LISTER, and Mr. ALLINGHAM—not one is at present an examiner, and only two have ever held the office; while of the fourteen who voted against it—namely, Sir JAMES PAGET, Messrs. MARSHALL, FORSTER, SAVORY, LUND, WOOD, POWER, BRYANT, HULKE, and CROFT, Sir WILLIAM MACCORMAC, Messrs. LAWSON, HILL, and DURHAM—no less than ten are, or lately were, examiners, and three of the other four were applicants for the last vacancies in the Court of Examiners. These facts speak for themselves, and will assuredly justify the Association of Fellows in refusing to accept the latest answer of the Council as final. The other principal recommendation of the Association rejected by the Council is of still graver import—namely, that no alteration shall be made in the constitution or relations of the College without the consent of the Fellows and Members specially convened to consider such alteration. The Council, in total disregard of the political and social

feelings of the times, naïvely answers that if such alterations were subject to the approval of the Fellows and Members, the proceedings of the Council would be rendered inconclusive, and the business of the College could not be carried on. It therefore adopts the complacent opinion "that the government of the College should still be vested in the Council." It is perhaps only natural that the Council should desire to keep the management of the College entirely in its own hands; but even this anxiety will not excuse such astute politicians confounding the distinct and separate functions of legislation and government or administration. As we understand this particular recommendation of the Association of Fellows, it was not designed to take the *government* of the College out of the hands of the Council, but merely to ensure that the whole of the Members of the Corporation should participate with the Council in *legislation*, or law-making. The absurdity of the position taken by the Council becomes manifest when it is remembered that some alterations in the constitution or relations of the College cannot be made except by an Act of Parliament, and none can be effected without the sanction and approval of one of the principal Secretaries of State. Thus the matter at present stands: The Home Secretary, say, must in every case be satisfied as to the necessity and propriety of any proposed alteration; not so the eighteen thousand Members and Fellows of the College, who are commonly assumed to have some stake in the College, and are apparently the persons most intimately affected by the constitution and relations of the College. The Council, relying upon past experience, encourages the belief that the wishes of the Fellows and Members may be safely ignored, and even despised. Do the Fellows and Members themselves concur in this opinion?

WE are able to present our readers this week with the sequel of the case of cerebral tumour submitted to operation, which has excited so much interest, even beyond the limits of the profession. We believe that a carefully detailed account of the case will be furnished in due course to one of the medical societies, and we must postpone until then any discussion of the value of the line of practice here followed out. The general features of the case are, however, well-known. A young man, otherwise healthy, presented himself to Dr. HUGHES BENNETT suffering from paralysis of the left arm, frequently recurring spasms in the left side of the face and tongue and the left arm and leg, together with double optic neuritis, severe lancinating pain in the head, and obstinate vomiting. These symptoms had been gradually coming on for three years. Dr. HUGHES BENNETT inferred from this combination of symptoms the presence of a tumour close to the front of the upper part of the right fissure of Rolando, and at his request Mr. GODLEE exposed this part of the brain, cut into it, and removed as far as possible a gliomatous tumour about the size of a walnut. For a time all went well, the pain and vomiting were completely relieved, and the paralysis but slightly increased subsequently. A hernia cerebri developed and attained a considerable size, and after some few days the patient had a rigor followed by pyrexia, and died with meningitis and cerebritis spreading down from the lower edge of the wound to the base of the brain.

Unfortunately, someone who wisely concealed his identity under the signature of "F.R.S.," with more zeal than discretion, removed the discussion of this important case from the arena of science to that of the public press. In a letter to *The Times*, it was referred to as a test case of the value of vivisection, and with some assurance the gauntlet was thrown down to the opponents of this method of research. A long and on the whole unedifying rediscussion of this question has followed, which has done little more than give an opportunity to both parties to state their case, and which certainly has not advanced the position the question had previously attained. We have on many occasions expressed our opinion upon the general question of vivisection, and have nothing further to add on that point. We hold that the attempt to prove that it is essentially an immoral practice has not been successful, for man's right to turn the lower animals into means of his own advancement includes that of gaining knowledge from them, a right which is enhanced when that knowledge can be turned to direct practical use to man himself. We also believe that vivisection has been of distinct value in the advancement of physiological and pathological science, but that none the less it is a practice that should be most carefully regulated and watched, and guarded by any means which will lessen the amount of pain inflicted, and secure that the utmost care be taken in the experiments. It has been clearly shown that, so far as Great Britain is concerned, the practice of vivisection has been free from what may at all fairly be called "cruelty," and in the great majority of cases in which the experiments are painful the animal is anæsthetised. It is therefore grossly unjust on the part of those who oppose the practice always to refer to it in terms that can only apply to it as practised in some foreign laboratories, and as if "vivisection" and "torture" were equivalent terms.

It is simply impossible to deny that the precision of the diagnosis of the seat and extent of the lesion in the brain of Dr. BENNETT'S patient would have been impossible a few years ago, and is a brilliant proof of the great advance recently made in this domain of medicine. Nor is it possible to contend that this advance would have been made without recourse to vivisection. It is true that clinical data taught the same lessons as Dr. FERRIER'S experiments, but the point to be borne in mind is that Dr. FERRIER, unaided, was able in a few months to establish facts that would have taken years and generations of observers in all countries to determine by clinical data alone. By recourse to the experimental method our knowledge was obtained with a rapidity and a certainty that was impossible by other means. Undoubtedly Nature is incessantly performing experiments for us, and it is well when we can discern them; but her experiments lack the concentration and very often the precision of those performed in a laboratory, while they are in many instances witnessed by those unable to discern or appreciate the truths they teach. Hence what clinical experience did very slowly and withal imperfectly, HITZIG'S and FERRIER'S experiments did quickly and so powerfully that their lesson is now the property of every well-educated practitioner. To Dr. BENNETT must be left the task of describing the steps by which he was led to his precise diagnosis, but we can hardly think it possible that he would deny that it

was the knowledge obtained by experiment that chiefly influenced him. The clinical and surgical question raised by this case is one that must be very carefully discussed at a time when, and in an arena where, party feeling is wholly excluded, and we trust that no injudicious partisan will render this impossible by untimely action. For ourselves, we prefer to wait until we have a far more exact account of all the details of the case than has yet been made public, before entering upon a discussion of so much moment.

DURING the last few years the views of the profession generally with regard to puerperal fever have assumed a definite form. The epidemic view of its nature which had been so long and so generally received, and which by its assumptions paralysed all efforts towards the prevention if not towards the cure of the disease, have been all but universally discarded, and the septicæmic view of the nature of the disease has taken its place. So long as the origin of the disease remained a mystery, so long was every effort to prevent it powerless, while the mystery surrounding it only increased the terror in which it was held. When its origin became known and the mode in which it spread recognised, the disease was shorn of a very great portion of its terrors. Although, when once it has made its attack, it still preserves much of its fatal character, yet we know now how to destroy its source and to a great degree prevent its onslaughts. Lying-in hospitals, which have been the scenes of its ravages, can now be conducted with as much freedom from risk to their parturient inmates as when they are delivered in their own homes. This is due to two factors -- first, our increased knowledge of the etiology of the disease; second, that which naturally follows the first, our power of preventing it. This knowledge is not the result of a lucky hit, nor of work in the dark, but of careful and laborious inquiry conducted on scientific principles. The etiology of puerperal fever was first studied, then naturally followed the study of its treatment. Our present treatment of it, our power of preventing it, is the outcome of the investigations of PASTEUR, LISTER, and others. Puerperal fever is septicæmia—the result of infection of the wounds made in the parturient canal during labour. The uterus immediately after natural labour is aseptic, for it is a fresh surface which has not been exposed to infected air. The vagina, however, is not aseptic, but there are reasons for believing that the discharges in the genital passages, although capable of infecting others, do not infect the person who generates them; in other words, there is no such thing as self-infection in normal labour and lying-in. On the other hand, there is much evidence to show that infection is caused not only by the examining fingers and instruments, but also by the atmosphere. In favour of this view is the frequency of infection in primiparæ, for in them there are usually deep tears of the vaginal orifice and perineum, and consequently larger surfaces capable of receiving infection exposed to the air; while in multiparæ such surfaces are smaller and fever is less frequent. The prevention of puerperal fever resolves itself into the prevention of infection of the raw surfaces in and about the vagina; and this is done by the use of antiseptics, so as to disinfect the attendants and also the vagina. Soon after the use of antiseptics was introduced into surgery they were employed also in midwifery, and attempts were made to carry out LISTER's practice in its entirety. Baths, the spray, vaginal and uterine injections, were had recourse to, and with good results. Such a practice, however, is not only not desirable, but in many cases is impossible. The spray and baths have therefore been discarded. The uterine douche has been found not to be free from danger, and it also has been abandoned, except under special circumstances, when it may prove of the greatest use. On the other hand, vaginal injections have been, and are, still largely used in cases of normal labour. With their use better results have been obtained than without them. Objections have been made to their regular employment, but these rest chiefly on theoretical grounds. It has been said that it is not possible to disinfect the genital passages by these means, but the fact remains that foul decomposing discharges can be washed away, the passages be rendered sweet, and the temperature permanently reduced in the course of a few hours from 104° to the normal, by disinfection of the uterus and vagina by irrigation. If in such cases the disinfection is not complete, yet in practice it proves sufficient and effectual to remove the patient from a state of the greatest danger to one of safety. Vaginal injections may not be universally necessary, but, in all large towns at least, they are a means of safety which should not be disregarded. The cases requiring disinfection of the uterus are of great rarity. All cases in which the discharge is offensive do not demand it; but if the discharge is offensive after the vagina has been irrigated, the uterus itself is foul, and its cavity should be washed out and disinfected. These measures should be regularly observed in all hospitals and in large towns, and in all cases in which manual or instrumental interference has been required.

Annotations.

"Ne quid nimis."

MEDICINE IN ART.

ASSUMING that Thackeray was justified in prescribing to painters and sculptors a "little more reading," with a view to enlarging their choice of subjects, may we suggest the history of the healing art as a comparatively virgin field for the exercise of their genius? It abounds in critical situations and dramatic episodes, nowhere so well told as in Puccinotti's "Storia della Medicina" (4 vols., 1850-66), a masterwork far too little known in England, and strangely ignored in the "Encyclopædia Britannica's" latest article on the subject. Take, for example, the figure of Fabrizio d'Acquapendente, who stands at the close of the mediæval and the commencement of the modern period—of what an interesting group might not that mighty demonstrator and teacher form the centre? In the anatomical amphitheatre of Padua his class has just risen for the session, carrying away with them the noble Latinity of his peroration, with its impressive insistance on "Dissectio" (anatomy), "Historia" (recorded observation), "Actio" (function), and "Utilitates" (practical ends), as the "Quadrilateral" of medicine, when in come Galileo and young Harvey, arm in arm. Now for the painter's art! The scene is a spacious hall with an exit door to the spectator's left, and an entrance door to his right, admitting a flood of radiance to illumine the sombre shadows on the side opposite. Near the entrance door

stands the anatomical table on which Acquapendente has still before him the fresh, open vein-trunks for the demonstration of their valves, and just beside the preparation lies his famous book, "De Ostiolis Venarum." Young Harvey, already a four years' student with Acquapendente in Padua, stands close to Galileo at the table, both of them facing the full light of the entrance door, Harvey aglow with curiosity, his left hand resting on the table, while with the forefinger of his right he indicates the valves that rivet both eye and mind, and recognises their heartward direction as discovered by his master. Galileo, before presenting to the Venetian Republic the telescope with which he made out the satellites of Jupiter, is handing it to his beloved Acquapendente, at the same time showing him an instrument case he has just put down on the table, containing his geometrical compass, square, and balance. With a genial confidence of look he seems to say to the anatomist—Henceforth these will be the weapons of the natural philosopher; by these will truly be known and demonstrated the things of creation as they are in themselves and in their relations, according to number, weight, and measure. Acquapendente, who dominates the centre of the picture, extends his right hand to take the telescope, and with his left on Galileo's shoulder he listens proudly to his fellow-worker, as if with the consciousness that he too, in his forty years' study and teaching of the science of the human body, has made new and pregnant discoveries on the gradual ascent from observation to experience. Among the shadows at the exit door to the left of the spectator, with his back to the illustrious triumvirate, retreats a long lean figure, with Aristotle's treatise, "De Cælo," under his arm, which he seems to hug as if in disdain of the instrument with which Galileo discovered the satellites of Jupiter. This is the rigid peripatetic, Cæsar Cremonini. Such a picture, according to Puccinotti, comprises and expresses the closing facts of mediæval science and the opening vista of the modern. Are there no contemporary Parrhasios and Zeuxis to compete for the honour of transferring it to canvas?

CARE OF THE SICK AND WOUNDED IN WAR.

THE *Illustrated Naval and Military Magazine* for December, 1884, contains two papers bearing on subjects of interest to our profession. The first is a translation, by Lieut.-Colonel Suther, of a paper on the "Principles of Sanitary Service in Mountain Warfare; by Michaelis, Principal Staff-Surgeon and Sanitary Officer of the 14th Corps at Innsbruck." The object of the paper is to bring to notice a modification of the Tyrolean Kraxe as being remarkably well adapted for the carriage of the sick and wounded in mountainous districts, where wheel or even mule carriage is impossible, and where, from the nature of the ground, a stretcher could not be used. The Tyrolese Kraxe, with its head-board and padded head-rest, has been in use for centuries for the carriage of heavy weights over the mountains, and a modification of this, of which four illustrations are given in the paper, has been successfully employed, and has been found to be well adapted for the special conditions of mountain warfare. The paper merits the study of the military authorities, and of those responsible for the care of the wounded. The second paper is entitled "Recollections of the Red Cross," by Major Burgess, late H.A.C., and gives an interesting account of the early days of the English branch of the Society. Major Burgess appears to have taken an active part in organising the arrangements in 1870 for the aid sent from England for the relief of the sick and wounded in the Franco-German war, and he tells his story in a very readable manner. But he appears disappointed with the course which the Society has since followed, describing it as "what once was, but is now only by name, the 'National' Aid Society." The present management of the Society does not satisfy Major Burgess, and the Charity Organisation Society also comes under his censure. Although we do not agree with all that is said about their shortcomings, we think the paper well worthy of perusal, recording as it does the commencement of one of the great philanthropic movements of the age, and giving full credit to those who laboured for it in the days of its early struggles and difficulties.

UNIVERSITY OF LONDON.

THE next meeting of Convocation is fixed for Tuesday next, the 6th inst., at 5 P.M. There are many questions of interest to medical graduates on the agenda paper. The most important are: that Convocation should again urge upon the Senate the desirability of holding the Preliminary Scientific Examination twice a year; that Convocation should meet three times, at least, in every year; that the Annual Committee consider and report as to whether there is a general feeling of dissatisfaction with the University on the part of the teaching bodies; and lastly, that a special committee of twenty-five members be appointed to consider the proposals lately published by the Association for Promoting the Establishment of a Teaching University for London, and to report thereon to Convocation at an early meeting. The graduates are evidently alive to the necessity of reconsidering the position of the University; but we fear that the Senate will hardly approach the question from the same standpoint. It is most important that medical graduates should not permit the present crisis to pass by without asserting their position and compelling their just demands on the executive.

THE FUNCTIONS OF THE THYROID.

THE lately awakened interest in the singular condition known as myxœdema, and especially the relation inferred between it and imperfection of the thyroid gland, following the results, observed by Kocher, of extirpation of that body, will have been further stimulated by the two lectures which the Professor Superintendent of the Brown Institution has lately given at the University of London. The method of determining the function of a gland by extirpating it and observing the effects of such removal is one which has often been practised, but is not always wholly satisfactory. Kocher's description of the "cachexia strumipriva" accords with the "myxœdema" of Dr. Ord, the "cretinoid state of adult women" of Sir W. Gull, and the results observed by Mr. Horsley in monkeys after extirpating the thyroid with perfect antiseptic precautions. Whereas such effects of thyroidectomy in man require a period of years for their evolution, in Mr. Horsley's monkeys the whole series of symptoms is passed through in a few weeks. Thus the operation is succeeded by nervous symptoms, commencing with tremors like those of paralysis agitans, followed by paresis and hebetude; a condition of oligæmia and leucocytosis; the appearance of mucin in the blood, subcutaneous tissues, and salivary glands, puffiness of the face and eyelids, and subnormal temperature, ending in a fatal issue within five or six weeks. In spite of this difference in the rapidity with which the loss of the thyroid takes effect in monkeys, the resemblance of the one set of results with that of the other is too close to be disregarded, and Mr. Horsley may be justified in his conclusion that the thyroid has a double function—partly glandular, excreting mucin; partly hæmatogenous. This may be true; and if it be so, an importance is given to mucin which is excreted in considerable quantity from epithelial surfaces which should raise it in estimation. That the retention of an excess of this material in the body should be injurious and fatal to the organism is a wholly new conception; but it is apparently based upon arguments as conclusive as many that

are employed to demonstrate the functions of other organs which are more intimately known to us than the thyroid. The Brown Professor may be congratulated on the manner in which he has initiated his term of office, and we may hope that he will signalise it by continuing to pursue inquiries which may throw light upon much that is yet obscure in physiology and pathology.

WHOLE-MEAL BREAD.

THE late exhibition of bread stuffs at Humphrey's Hall, Knightsbridge, although it was not so largely attended as was expected, has been the means of reviving attention to the subject of whole meal, so strongly advocated by the Bread Reform League and by its indefatigable honorary secretary, Miss Yates. If the chemists alone had to decide the question of the relative values of whole meal and ordinary white bread, the public would have to wait a long time before it could obtain a satisfactory reply; for on this point chemists differ more than doctors. If we interpret the opinion of the profession of medicine correctly there is a growing disposition in favour of the whole-meal bread, on practical rather than on theoretical and chemical grounds. The bread which contains all the constituents of the wheat, except the outer, insoluble, and irritating portion of the seed, seems, when the appetite for it has been obtained, to be more satisfying and digestible than the white and fashionable product which is found on most tables, of rich and poor alike. It is believed, too, that for children the whole meal is the best for sustaining growth and for building up the skeleton strongly and in perfect form. The supply of whole-meal bread is now much facilitated by the improvements that have been introduced in the decorticated or granulated flour, to which Lady John Manners has called public attention in her late paper on Wheat-meal Bread. In the decorticated whole meal the extreme outer coating of the wheat grain is, by a special process of abrading, to the perfection of which Dr. Morfit has rendered able service, cleverly removed. After the abrading process is completed the whole of the grain is reduced to a fine flour, in which there is retained all the substances that are nutritious and digestible. Considering the fact that the whole-meal bread when it is properly manufactured is easily assimilated, we are led to the conclusion that it must be more nutritious generally than other bread, in which starch predominates. But we do not wish to be dogmatic, and would prefer, before pronouncing a strong opinion, to hear what medical men from their unlimited field of observation have to say. It is for this reason we direct attention to a topic which must soon be very widely discussed amongst all sections of the community.

CREMATION IN AUSTRIA.

A BILL to legalise cremation has been introduced in the Austrian Parliament; and, as its provisions are only of a permissive character, there is good prospect of the project becoming law. Many other States are also meditating legislation on this subject, and it may therefore be advisable to see what are the principal features of this scheme. The Austrian Bill stipulates that cremation may only be practised when the authorities have given special permission, and when the deceased has expressed in writing or before witnesses the desire to be cremated. In the absence of any such declaration, the heirs, trustees, or administrators of the estate of the deceased may obtain special permission to cremate his body. In no case, however, will such authorisation be given if any doubt whatsoever exists as to the cause of death. Cremation must not take place earlier than forty-eight hours after death unless the authorities issue instructions to the contrary, or in cases of epidemic disease. Cremation must not in any way modify religious rites and ceremonies. The body may be burnt either with or without the coffin, if the sanitary authorities have no objection to the latter course. In this case, however, the coffin must be burnt subsequently. The ashes gathered and placed in urns shall be given to the relatives, or, in default, kept in rooms specially constructed for this purpose on the spot. On each urn the name of the deceased shall be inscribed; but the urns may be destroyed after a lapse of twenty years, and the ashes buried in the cemetery, unless they are claimed by the relatives.

FATAL WOUNDS OF THE HEART.

IT was with feelings of relief and satisfaction that the public and the profession learned of the respite granted by the Home Secretary to Elizabeth Gibbons, who had been convicted and sentenced to death for the alleged murder of her husband at Hayes, near Uxbridge. In our last issue we strenuously urged the propriety, nay, the necessity, of such a course, especially as the verdict of the jury seemed to have been founded mainly on facts deposed to and opinions given by the medical witnesses, facts which undoubtedly raised a presumption of murder, but which, on the other hand, did not warrant the correlative conclusion; for, as we pointed out, they were consistent with either of two other alternatives—viz., (1) several mortal wounds may be inflicted suicidally in rapid succession; and (2) no individual wound found on the body of Mr. Gibbons was so placed that it might not have been the result of accident or an attempt at self-destruction. The former proposition receives support from a remarkable case of suicide, the particulars of which have recently been published. An overworked student of University College, London, compassed his own death by shooting himself through the chest (the bullet traversing the wall of the left ventricle of the heart) and head. After the first shot "the young man walked several paces, and was steady enough to reload the pistol and take most accurate aim at the base of the brain, where the second ball was found on opening the skull." Death did not take place until twenty minutes after the heart was wounded. It must not be supposed, however, that such a sequence of events is likely to happen except in very rare instances. Dr. Kirkman, writing from Hastings, Dec. 25th, tells of a crow that continued its flight for 650 yards after being shot at, and then suddenly fell dead. At the post-mortem a No. 5 shot was discovered loose in the cavity of the left ventricle. Such a case is valuable as showing the uncertainty as to the time and mode of death from injuries to the heart, a question which has not met with due consideration at the hands of medical jurists. It is certain, as in the case of Dr. Kirkman's crow, life may cease from disturbance of the cardiac nervo-muscular dynamism, irrespective of hæmorrhage, or mechanical impediment to the movement of the auricles and ventricles from accumulation of blood in the pericardium. In the Woolwich tragedy now under investigation "the weapon entered the left breast and went in a slanting direction into the heart; the stab was half an inch in width, was a clean cut presenting the appearance of the weapon having been plunged into the girl's heart and instantly withdrawn, the blood around the wound coagulating and preventing bleeding." So runs the report of the post-mortem examination. To the latter deduction contained therein we must, with deference, demur, for it is difficult to tell with certainty clots formed during the act of dying from those of post-mortem date; and, again, it must not be forgotten that a narrow wound passing to the heart through strata of muscles and other tissues—the more so if it be oblique—is more likely to kill by bleeding into the pericardium than by external hæmorrhage. Where the

coronary arteries are wounded death quickly supervenes from the combined effects of shock, anæmia of the cardiac muscle, and pressure on the heart. When a medical man has to inquire into cases like those enumerated above, he should make a patient and complete observation of all the facts, and then explain them as well as may be by the rules of common sense, and by relevant scientific data. Unfortunately, medicine as a science is largely empirical. We cannot measure with mathematical exactness the causes and effects involved in the continuation of life; and therefore in proportion to the uncertainty of our knowledge should be the caution in our procedure. This precept is of paramount importance when the existence of a fellow creature is at stake.

ANTI-VACCINATION AND ITS CONSEQUENCES.

WHEN a man with the anti-vaccination craze has three of his unvaccinated children attacked with small-pox and loses them all, one cannot have any feeling so strong as that of pity—first for his ignorance, and then for the terrible price he has had to pay for it. To lose three children is bad enough, but to lose them for want of a simple operation which in the eye of the law is compulsory, and which according to experience would probably have saved them from both death and the disease, is a responsibility which must greatly aggravate bereavement. It is very like withholding bread from a starving child, or a life-buoy from a child struggling in the water. This is the sad case of a confectioner in Shoreditch, on one of whose three children, dead of small-pox, an inquest has been very properly held by Mr. Collier. Small-pox, we often point out, is the schoolmaster that will in the long run drive men to the beneficent operation of vaccination, and a coroner does great service who lets light into those homes where small-pox is allowed to have its own way. Mr. Charles Westwood will have to look far back in the history of his family or of the country for any accident from vaccination to be compared with the disaster that has accrued to his home from small-pox. Most men of fifty years' experience in medical practice will tell him that they have not known of a death from vaccination. It came out at the inquest that when the deadly plague overtook the unprotected children, Mr. Westwood sent, not for a medical man, but for a Mr. James Swindells, who advised hyssop, pennyroyal, marshmallow, and other herbs, and it was for this part of his conduct that he was blamed by the jury. Infatuated as it was, it was not so irrational as his neglect to have them vaccinated, for the most enlightened physician has nothing to compare with vaccination in opposing small-pox.

SEWAGE AS FOOD FOR FISHES.

SIR JOHN LAWES, whose distinguished services to agriculture and agricultural chemistry entitle his words to the most respectful hearing, suggests that it may, after all, be more profitable to throw the sewage into the sea than to apply it to land. The difficulties attendant on the latter system have so often been discussed in these columns that they need not be stated again. All the old hope of profit to be derived from sewage as a land manure has vanished, and the sanitarian has only now to consider how most cheaply to get rid of an ever present and dangerous nuisance. To the broad line of Sir John Lawes's argument no exception can be taken. Enormous quantities of fish are removed from the sea near our shores, and in them enormous quantities of phosphate of lime, potash, and nitrogen. Now, phosphate of lime exists in sea-water in very minute quantity, and yet it is as essential an article of food to fishes as to mammalia. If then, as Sir John Lawes contends, the sewage of large towns gives back to the sea enough, or more than enough, to compensate for the food material annually taken from it, it may well be that continued and even increased prosperity may accrue to the fisheries. Of course there would be no need to continue the present disgusting system of throwing the sewage in a raw state into a river used as the highway of nations. Even after defecation the sewage would still retain nearly all the nitrogen and much of the mineral constituents. In one respect, indeed, such a defecation would be a great advantage to the fishes, for it was proved in evidence before the late Royal Commission that the sewage throughout a large area of the Thames absorbs, practically, the whole of the dissolved oxygen on which the respiration of fishes depends. This evil would be diminished by defecation, but would only be cured entirely by a much greater dilution. The speculation is a very interesting and important one, but a great deal of further inquiry will be necessary before it can be adopted as a basis for action. We must know, for instance, from a consideration of oceanic currents whether the sewage thrown into the estuary of a river will remain near the shore, or be carried away to deep water. Even the sewage of London would be but a small contribution to the waters of the ocean.

SUCCESSFUL REMOVAL OF THE LOWER PORTION OF THE RECTUM FOR CANCER.

DR. NICCOLINO NIERI reports, in the *Gazzetta degli Ospitali* of Dec. 10th and 14th, the history of a case which illustrates in a marked degree the advantages of direct surgical intervention for the relief of cancer of the lower bowel. C. S——, aged sixty-one, born at Scorticata in Romagna, is of sound parentage and constitution, and the mother of eight healthy children. She first felt a sense of weight and occasional lancinating pain in the rectum last January. Defecation became frequent and painful, and blood was mingled with the evacuations. Cold hip baths and unctuous applications, prescribed in the belief that the affection was hæmorrhoidal, failed to give relief. The pain increased, and radiated into the loins and into the right and left hypochondria; the appetite lessened, digestion became impaired, defecation more difficult, and a yellowish sanious discharge issued continuously from the anus. Emaciation progressed; the increasing pain caused sleepless nights; the motions passed were thin; tympanites developed; and a tumour, due to accumulated fæcal matter, was felt in the left flank. By digital examination, Dr. Nieri ascertained the existence in the lower third of the rectum of a hard, irregularly shaped tumour, ulcerated in some parts, and almost completely surrounding the gut. Regarding it as of a cancerous nature, he advised extirpation, which was performed on the 23rd of August last, while the patient was in the lithotomy position and under the influence of bichloride of methylene. Two semicircular incisions were made, about an inch and a quarter from the margins of the anus, and extending to the rectum, which was dissected for some distance from below upwards; then with the right index finger the intestine was detached for a space of five inches and drawn down; some loops of thread passed through it, above the diseased portion, kept the gut immovable during the process of severance by the galvanic cautery. The edge of the gut was now carefully secured by sutures to the skin, a drainage-tube inserted, an antiseptic dressing applied, and the patient replaced in bed, still in a state of insensibility. The loss of blood was slight, and few vessels were tied during the operation, which lasted an hour and three-quarters. Severe symptoms of shock followed, with very rapid pulse, clammy and livid face, cold extremities, and occasional vomiting. These symptoms yielded, in about an hour, to two hypodermic injections of musk, warm frictions, hot bottles to the feet, and brandy by the mouth. Six hours after the operation

the temperature was 100° and the pulse 88. With the exception of some lumbar pain and sleeplessness, the patient passed a fairly tranquil night. Next morning the urine was drawn off by a catheter and the dressing changed; the temperature was 100·4° and the pulse 101. The bowels acted the same evening without any trouble. On Aug. 25th the temperature was 99° and the pulse 116. On changing the dressing a little pus was seen at the end of the drainage-tube. Irrigation with 3 per cent. carbolised water was repeated three times daily during the next fortnight, the temperature remaining all the time about normal, and the pulse ranging between 110 and 116. At the end of three weeks from the operation the patient might be considered as cured, the wound being healed, the urine and fæces voided naturally, and no febrile symptoms present. But a sharp attack of bronchitis, due to imprudent exposure, prevented the patient's return home until Oct. 10th, seven weeks after the operation. On examining the fundament just previously, the rectum was seen drawn up and much contracted, apparently realising Chassaignac's description of "sphincterisation," or formation of a new sphincter, which he observed after removal of cancer of the rectum with the écraseur (*écrasement linéaire*). On microscopic examination of Dr. Nieri's specimen, it exhibited the appearances of malignancy. The operator has added to the interest of his narrative by recalling a few facts connected with operations for the removal of cancer of the rectum. It was first practised, and that successfully, by Faget on June 30th, 1763. Lisfranc revived the procedure in 1826. His first three cases were successful; but of his subsequent six cases only two recovered perfectly, in one the result was uncertain, and three succumbed in periods varying from twenty-four hours to twenty-five days after the operation. Velpeau, in six similar operations, had three recoveries and three deaths; while Rizzoli is reported to have performed the operation four times, with uniformly good result. Nélaton had several deaths after it; but Czerny is credited with only one death in twenty-five operations (nine without recurrence) during the last seven years (Bellage in *Centralblatt für Chirurgie*, No. 20). Cancer of the rectum has an historical medical interest, as under it succumbed Broussais, in spite of the assiduous attentions of his illustrious contemporary, Amussat. Studying Dr. Nieri's case by the light of the discussion on malignant disease of the rectum at, and since, the Copenhagen Congress, and of the abundant information given in the fourteenth chapter of Mr. Harrison Cripps's recent monograph on Diseases of the Rectum and Anus, it is reasonable to hope for fresh surgical conquests, in well-selected cases, over one of the most terrible, and usually deemed incurable, maladies.

CONVALESCENT DINNERS.

"PENNY Dinners," "Invalid Kitchens," and "Charitable Dinners for Convalescents," represent schemes which differ more or less widely from one another in their immediate aims, but which teach us, nevertheless, very much the same truth, that plain food as it is now prepared and sold is a somewhat too expensive luxury for many who greatly need it, the labouring poor. An evil so evident compels attention. It must be met in some way, but how? Much criticism, as just as hard, has been directed from time to time against the prevailing and apparently unalterable extortion which constantly maintains the high prices of bread and meat. It is quite clear that the cost of these bare necessaries of life should be cheapened if the poor man and his family are to hold their ground amongst us. Charity directed towards this end, while it avoids the granting of free meals to the idle or able-bodied malingerer, cannot tend to pauperise those who can work and can find work by removing the stimulus to exertion. Payment of some sort accordingly should form a principle, to be applied wherever possible, in the conduct of each of the systems of relief to which we have referred. The now famous "penny dinner" has proved that such payment may be very small indeed, and yet suffice for wholesome fare if the latter be suitably chosen. The Charitable Dinners Society represents a system allied to that advocated by Lord Brabazon, and appeals to a class hardly less needy than the school children. For two years it has been assiduous in providing, by means of coffee-taverns and eating-houses, substantial and inexpensive meals for deserving poor people convalescent from illness. Convalescence alone, it should be observed, and not penury apart from disease, is the object of its care. We are told, moreover, that a daily dinner for one fortnight is the measure of relief which it commonly extends to each individual. This term will probably suffice in most cases to enable a convalescent invalid at least to undertake some part of his usual occupation. The funds of the Society, though frugally administered, have of late fallen considerably under pressure of the demand to which the laxity of trade and the state of the labour market have subjected them. An appeal for subscriptions, which we hope may be suitably acknowledged by the charitable, has consequently been issued by the hon. treasurer, Lord Chelmsford. Contributions may be sent to his residence, 5, Knaresborough-place, S.W., or to the South Kensington Branch of the London and County Banking Company. While fully acknowledging the need of having a working fund in hand for the outlying and inevitable expenses of such a Society, we hope, in the interests of a very deserving movement, that everything will be done, by imposing a light tariff on the recipients of its charity, by selection of cases treated, and by the use of the cheap and wholesome diet common in rural districts, to render it, like that in aid of school children, as far as possible self-supporting.

CHRISTMAS AT THE HOSPITALS.

THE return of Yuletide brings with it the customary excitement at the hospitals. Entertainments, presents, and good cheer, all qualified as of Christmas sort, serve to lighten the somewhat weary round of hospital work. All the hospitals have been tastefully decorated, and most have given entertainments either of a public or private kind. At University College Hospital on Monday last the friends of the institution were invited by the resident medical and nursing staff to inspect the well-decorated wards and to assist at the entertainment provided for the patients and their friends. The central table in each ward was furnished with some pretty scenes representing such stories as "John Gilpin," or illustrating life in other climes, as Russia in Winter, with skating and sledging. A grand magic-lantern exhibition, styled "Christy's Old Organ," was given by Mr. Ash. The Strolling Players held a capital concert of vocal and instrumental music. Here, as at many other hospitals, the custom prevails of making each patient a suitable and useful present. At the London Hospital the two wings of the Grocers' Company's wards, opened about five years ago by the Queen, were brilliantly illuminated on Tuesday afternoon on the occasion of the annual treat to the children in these wards of the institution. Thanks to the efforts of the sisters who conduct the nursing arrangements, aided by the money and other contributions of friends of the institution, there were two enormous Christmas trees liberally bedecked with dolls and toys of every description. A vast quantity of toys was needed to supply the large number of child patients, for the beds for children in this hospital represent the largest number set aside for that purpose in any similar institution

The sight was a pleasing one to the large company assembled, and most of the children were highly delighted with the toys and cakes. For the last eighteen years it has been the custom of the managers of the Brompton Consumption Hospital to encourage the organisation of weekly entertainments for the amusement of the patients, from the beginning of November to the middle of April. On Tuesday night there was a distribution of gifts to the inmates from two enormous Christmas trees, erected in the concert room of the new building, which were laden with presents by the Misses Heddy, of South Kensington, and other ladies. On Wednesday evening the supporters of the Hospital for Sick Children, Great Ormond-street, were invited to a Christmas tree entertainment by the Lady-Superintendent, Miss Wood. A great Christmas tree, reaching from floor to ceiling of the lofty Victoria Ward, was provided by Miss Hope, one of the sisters, and was filled with a variety of pretty and useful articles. Carols and glees were sung by the nurses. We regret to say that the funds of this excellent institution, the very first of its kind, are not in a satisfactory state.

EXFOLIATION OF THE COCHLEA WITHOUT CAUSING DEAFNESS.

OUR Vienna correspondent writes:—The loss of the cochlea, according to the ingenious researches of Helmholtz, is considered to be equivalent to the loss of hearing power. A case, however, which Professor Grüber demonstrated on Dec. 12th, at the meeting of the Society of Physicians in Vienna, would seem to go far towards refuting this view. The case occurred in a lad, aged fourteen, who had been ailing for four years, and who was admitted into Professor Gruber's wards last November. It was stated that the patient suffered from an old otorrhœa with polypus of the left ear. As the patient experienced great pain, and as paralysis of the left nervus facialis existed, Professor Grüber had no hesitation in entirely removing the polypus, and in doing so came upon the cochlea in a state of necrosis. Since the operation the patient has felt better, his pains have ceased, and the paralysis of the nervus facialis has nearly disappeared; but, strange to say, the lad's affected ear has regained its power not only of recognising sounds, but of distinguishing musical notes. Only two similar cases would seem to have been recorded. One was observed by Dr. Cassels at Glasgow, the other by Dr. Christinneck in the clinic of Prof. Schwarze at Halle. Prof. Grüber did not enlarge on the features of this interesting case; but it certainly affords food for suggestive thought in reference to treatment of diseases of the ear. Hitherto, the labyrinth was considered a sort of *noli me tangere*; but now we see that the entire cochlea may be missing, and yet the aural powers be retained. On the other hand, it is not yet quite certain whether in the above case paralysis of the auditory nerve may not eventually occur.

RESPONSIBILITY IN SANITARY MATTERS.

DR. SIEVEKING presided at the last of the lectures which the Sanitary Assurance Association gave at the Parkes Museum in December, 1884. The lecturer was Mr. Mark H. Judge, who delivered an address on Public and Private Responsibility in Sanitary Matters. The question to be considered was whether any good could come out of attention to the conditions under which we live. Was it correct to believe that sanitary reformers, from Moses and Mahomed down to Edmund Parkes and Florence Nightingale, were in the right in attaching importance to the state of man's surroundings? It was to the physician that we must turn in order to set these questions at rest; from him must the architect learn how to build residences fit to live in. De Chaumont and Erichsen were quoted to show that sound sanitary conditions were essential for the maintenance of health, if not for the very existence of life itself. Some of the chief sanitary defects in houses were pointed out. It was urged that the sanitary engineer, and not the sanitary architect, should be concerned in the construction and ventilation of the main sewer. Mr. Judge criticised the powers conferred on local boards and surveyors in saying that their qualifications did not fit them for regulating the sanitary arrangements of residences. The responsibility of the householder should be increased. Fresh legislation was required on these matters.

THE EXAMINATION OF SURGEONS-MAJOR.

WE are sorry that our contemporary, the *Army and Navy Gazette*, does not approve of our views on the subject of the examination of surgeons-major in the army prior to selection for promotion, but we see no reason to change the opinions which we have throughout consistently advocated. The subject is one of great importance to the army. Promotion by seniority had a long trial in the medical department, and was found wanting. It was condemned by the Royal Commission appointed to inquire into the organisation of the department after the Crimean war, and subsequently by Lord Cranbrook's Committee. By the Royal Warrant of 1879, based on the report of that committee, all promotions above the rank of surgeon-major are to be made by selection for "merit and ability," and the grounds of the selection are to be stated in writing. This clearly bars all claim to promotion to the higher grades on the ground of mere seniority, and devolves upon the head of the department a serious responsibility. It manifestly involves the principle of the selection of the fittest, and not merely the exclusion of the incompetent. But to enable the Director-General to carry out this principle it appears to be necessary that he should have the means of testing the qualifications of the officers from among whom the choice is to be made. And we know of no method in which this may be effected so likely to answer the purpose as the examinations which have been authorised. It is true that the confidential reports furnish a certain amount of information as to the general fitness of an officer for promotion, but they are deficient on points of great importance. The system of promotion by selection, if honestly carried out, cannot fail to exert a very beneficial influence upon the medical officers by holding out an inducement to them to keep themselves well up in professional knowledge, especially in its bearing upon military sanitation. It will, in fact, supply that stimulus which in civil life is brought into operation by professional competition, and the want of which has hitherto been most injurious to the army. In the Indian service this has been less felt, as the numerous civil appointments have brought out the varied qualities of the medical officers and have been looked to as a reward for good work, but under the blighting system of seniority in the Army Medical Service there has been no such inducement to intellectual culture or professional study. We sincerely trust the system of promotion by selection, impartially administered, may be followed by the result which we anticipate, of obtaining for the army an efficient, zealous, and thorough administrative medical staff.

"SCENT."

AN attempt is being made to account for the remarkable powers exhibited by some dogs on the presumption that "scent" is a faculty *per se* altogether distinct and different from the sense of smell. This is, as all physiologists must know, a misconception. The truth is that each species of animal has some specially developed faculty of relation by which it is, more than by other faculties, placed *en rapport* with the external world. The differences are

great even among small classes of beings; for example, among dogs some use sight more than smell—as the greyhound. The sense of smell is, however, generally developed to a high pitch among those animals which have in a state of nature to hunt for their prey, or to avoid predatory enemies. There is nothing, that we can perceive, difficult to understand in the intelligence exhibited by the lower animals. The scientific doctrine of evolutionary development affords a satisfactory solution of every problem, and renders the facts plain to see.

OVER-PRESSURE IN SCHOOLS.

A SUB-COMMITTEE on "Over-pressure," appointed by the Conference of Representative Managers of London Board Schools, has arrived at the conclusion that while the effects of over-pressure are not wide-spread, they exist, and that measures of relief are needed. It is recommended that home lessons should be minimised, and altogether prohibited in the case of children below the third standard; that "keeping in" should never be resorted to except for punishment; that inspectors should be less examiners than inspectors; and that other changes in administration should be employed to reduce the evil which, in a limited degree at least, is admitted to prevail. We do not anticipate any great result from these "recommendations," even if they be adopted. What is needed is a total and immediate abandonment of the forcing system and complete discontinuance of the wholly indefensible practice of giving children lessons to learn at home. Children ought never to be worried with lessons out of school hours. While the active business of education is in progress in school, a child may be taught all that it is necessary or proper to teach it. The supposed need of lessons "out of school hours" is a product of the ignorance which prevails as to the physiology of mental processes, and especially of that reception and retention of ideas which we call *memory*. School managers and teachers need themselves to be put to school to learn the rudiments of science in connexion with these matters, and not until they have been thus instructed will they be fit or trustworthy as regards the education of the young.

THE GENESIS OF THE HUMAN MIND.

MR. ROMANES in two recent lectures delivered at the London Institution has placed the facts and primary inferences which form the bases and data of discussion on this subject in a particularly clear light. The force of his logical argument has, of course, carried him to the conclusion that the mind, like the body, of man, has been produced by the same process that has been adopted in the development of the animals below man—namely, *evolution*. No other issue was possible to an honest scientific inquiry. The difference between man and the brutes below him in the scale of mental power and faculty is one of degree, not of nature or even of area. Mr. Romanes laid great stress on the objection that man alone has been endowed with the *logos*—that is, the gift of speech or language; but, as he afterwards showed, this position is really untenable, because history and observation combine to prove that while, on the one hand, the evolution of intellect proceeds *pari passu* with the acquisition of the power of the tongue in *man* as a genus and as an individual, on the other hand, reason and "instinct" are increasingly apparent in the brutes in proportion as they develop the faculty of expression or communication among themselves and with man. We know how horses and dogs "speak" in a language of their own, communicating their desires to each other and to man; and evidence is not wanting that the conceptions they form are more than simple or immediate. They not only observe, but reason. They adapt means to ends, forming purposes and carrying them out. They make estimates of character, and not unfrequently go far beyond these lesser performances, exhibiting sympathy, regard, protective care, and even exercising ingenuity in effecting their purposes. The *logos* is as much a matter of development as anything else. It is not a gift, but an acquisition, and may be lost, as we see it lost now and again, in the case of any individual who is deprived of the educational advantages of association with those who have acquired the power of cultured speech, and are able to communicate it.

YELLOW FEVER ON BOARD A NEWCASTLE STEAMER.

OUR Newcastle correspondent, in reference to the arrival in the Tyne last week of a steamer whose crew had suffered most severely from yellow fever contracted on the West Coast of Africa, states that, in addition to the six men mentioned as having died at sea, another seaman landed at Dartmouth has also died, as well as one sent on to Liverpool, who has since succumbed from the effects of yellow fever. The *Iolanthe* carried seventeen hands, and the only members of the original crew on arrival in the Tyne were the mate and a boy. The original captain and the survivors of the original crew left the vessel at Havre, at which port she had called. Every precaution has been taken as to the disinfection of the ship and the clothes of the deceased seamen by the Tyne port sanitary officers.

THE MARY WARDELL CONVALESCENT HOME.

A VERY touching appeal is made by Miss Mary Wardell on behalf of her convalescent home for scarlet fever at Brockley-hill in the *Daily News* of Dec. 31st. She writes: "Ever since the day of its opening by the Princess of Wales, on July 14th, the flow of contributions which I was able by my personal efforts to raise has ceased. ..... Whilst doing the work of a matron, and so saving the salary of that official, I have often been obliged to undertake the work of a household servant, for which I am physically unfit, and at the same time I have endeavoured to fulfil the almost impossible task of combining a secretary's duties with these other occupations. All this I would willingly and cheerfully do had I at the same time encouragement and support from others; but the result of all my sacrifice of time, strength, and such means as I can rightly dispose of without injustice to others, is that I must borrow money to meet the expenses of the few months during which I have been receiving patients, and must shortly close the home with a heart-broken sense of failure and wasted life and energies." We are sincerely sorry to hear that there is any danger of the good work which Miss Wardell is doing coming to an end for want of support. Charitable hearts and means to do good happily abound in our midst, and we are sure there are many who will hasten to make the glad new year still more glad by assisting Miss Wardell to obtain the £5000 for which she so eloquently and so pathetically pleads.

THE PRICE OF COCAINE.

WE are glad to hear that there has been a considerable reduction in the price of the new anæsthetic, several well-known firms offering to supply the hydrochlorate of cocaine in small quantities, and for a limited period, at eighteenpence a grain. The supply is still far from abundant, and it is not improbable that in a week or two it will regain its original price. In the United States it at first commanded a dollar a grain. Messrs. E. Merck & Co., of Darmstadt and London, have, with great liberality, placed a considerable quantity of the alkaloid in the hands of one or two well-known observers in order that its properties may be thoroughly investigated.

A HOSPITAL TRAIN.

THE Italian War Office in concert with the Society of the Red Cross and the Upper Italy Railway Company has succeeded in putting up on wheels a hospital train which must prove of the highest utility, not only in belligerent operations, but also during the invasion of an epidemic. The train in question concluded on Saturday last a trial trip, or more truly a triumphal progress, at the Roman terminus, after having journeyed through Piedmont, Liguria, Lombardy, Venetia, Emilia, Tuscany, Umbria, and the Neapolitan territory, in all of which provinces it was visited by the leading authorities in medicine and engineering, and subjected to criticisms which must conduce to the perfecting of its appointments. The Upper Italy and Venetian Railway companies having provided a number of carriages on the Swiss, or rather the American, model - that is, with a corridor passing down the length of the carriage, and in continuous communication with the similar corridors of the other carriages of the train, the Red Cross Society undertook in conjunction with the Army Medical Department to furnish the material necessary to convert such a train into a thoroughly appointed clinical ward. This has been effected by ranging beds on each side of the corridor, the beds being slung in hammock fashion so as to reduce to a minimum the vibration or the shock inseparable from the sitting compartments in present use, the beds themselves consisting of palliasses laid on frames of highly elastic metal net work, suspended on supports of wood and leather. The heating of the carriages as well as their ventilation have also been skilfully secured, and a trained staff of attendants effect the speediest possible removal of the discharges of the patients, and the subsequent disinfection and deodorising. Special carriages are reserved and appointed for the hospital stores, the compounding of medicines, and the *armamentarium medico-chirurgicum*, while others on the Pullman system are attached to the train for the accommodation of its professional *personnel*. Experience will suggest improvements on this first specimen of a most necessary adjunct to the resources of army and State medicine; but even as now appointed the hospital train recently on view at the great seats of medical and engineering science throughout Italy reflects the highest credit on its promotors and constructors. Had such a means of transport been lately in working at the various scenes of choleraic infection in the Peninsula, how swiftly the removal and isolation of the sick could have been effected, and how successfully the disease, inducing panics, might have been foreclosed.

DEATH CERTIFICATES IN CASES OF INJURY.

A REPORT of an inquest lately held at the Southwark coroner's court appeared in the *Evening Standard* of Dec. 19th. It was there stated that Mr. Philip P. Jackson, M.R.C.S., had been severely censured for having given a certificate of death from natural causes, "he knowing the whole facts of the case," and amongst them that the deceased woman, Carney, had been subjected, as was alleged, to intentional violence at the hands of her son-in-law. Had this been correct, without doubt he would have merited the condemnation he received; but Mr. Jackson meets the accusation by saying that he only saw the deceased a few hours prior to her death, and further, that he did not consider the bruising on the face as having conduced to or accelerated death. Unwisely, as we think, he was not called at the inquest, where statements derogatory to his professional character were made without his having the opportunity of denying their truth. The verdict of the jury, however, was in accordance with the certificate, "the post-mortem proving nothing whatever to the contrary." Whilst of opinion that Mr. Jackson acted with perfect *bona fides*, and erred only by way of omission, we cannot help feeling that he would have acted more circumspectly had he informed the coroner of his own view of the case, and of the rumour that deceased had been roughly handled. From his own showing the patient was too ill to undergo a satisfactory examination, and it therefore became the more necessary to free himself from all responsibility in the matter. Had the post-mortem examination revealed serious injury to the brain, it could scarcely be contended that the case was not essentially one for inquiry, or that death was not accelerated by the injury.

INFECTIOUS AND CONTAGIOUS DISEASES IN SCHOOLS.

AT the meeting of the Medical Officers of Schools Association, to be held at the Medical Society's Rooms on the 7th instant, a code of rules for the prevention of infectious and contagious diseases in schools will be brought forward for approval by the Association. The Code is divided into five sections, as follows:—Section 1. General hygiene, comprising drainage, water and milk supply, the duties and undivided responsibility of a medical officer, &c. Section 2. The infirmary, its construction, arrangement, and management. Section 3 deals with the medical examination of scholars on admission, &c. Section 4 points out the general precautions to be adopted against the introduction and spread of disease; and Section 5 the measures to be adopted when an infectious disease has appeared in a school. Two appendices follow, one containing forms of certificates suggested for use with reference to the prevention of infectious disease in schools, and the other giving a list of disinfectants, with rules for their use The rules are practical and plain, and it is to be hoped that the result of this labour on the part of the Association may prove not less useful to parents and guardians, who deal with the home life of the children, than to school authorities, since without the sympathy and intelligent co-operation of the former no real progress can be made in this great department of preventive medicine.

TROPHONEUROSIS (?) OF THE TESTICLE.

A CASE which may possibly be an example of a trophoneurosis is recorded by M. Lemmonier in the *France Médicale* of December 25th. The patient was a young man aged nineteen, who sustained severe injury to the skull after a fall from a height of about six feet. Hemiplegia of the right side, and rapid atrophy of the testicle and of the right upper limb are the chief phenomena recorded. There was considerable disturbance of consciousness, but ultimately the patient appears to have recovered to a large extent. The hemiplegia was probably dependent upon compression by blood poured out as the result of the fracture of the base of the skull. No other conditions seem to have been present to account for the rapid wasting of the arm or testicle. Nélaton and others have spoken of the possibility of atrophy of the testicle resulting from causes acting at a distance.

A TROUBLESOME PATIENT.

ABOUT a fortnight ago a young man, well-dressed and in apparently good health, applied for advice at the Middlesex Hospital. He was seen by the resident medical officer, to whom he complained of pain in the perineum, which he attributed to a long-standing gleet. He was then referred to the house-surgeon, who carefully examined him, but failed to find anything the matter with him, and he was accordingly given an order to see the assistant-surgeon on his next day of attendance and told to leave the hospital. This, however, he refused to do, and expressed his intention of remaining. After sitting in the waiting-room for two

hours he was again requested to leave, and it was explained to him that he could not be taken into the hospital for such a trivial ailment, and that the assistant-surgeon would see him. He then lay down across the door and behaved in a foolish manner so that the hospital porter was told to remove him. This he did, when the man turned round and knocked the porter down, stating that he only desired to be arrested. He was then given in charge, and the magistrate remanded him for a week in order that his case might be examined more fully in the infirmary, and he has since been discharged.

THE PAY PRINCIPLE IN THE NORWICH HOSPITAL.

AT this hospital the proposed rule providing for the admission of pay patients has, after a good deal of discussion, been rejected. The Rule was as follows:—

"A limited number of patients above the ordinary class of hospital inmates may be received. Such cases must be specially in need of hospital treatment, and shall bring an introduction from a medical man. Patients of this class shall pay at the rate of £1 1*s.* per week, or such other amount as the Board of Management shall determine."

We are glad that this rule has been thrown out. Not because we deny that there are many people in need of hospital accommodation who can afford to pay, but because there seems to us a grave tendency to turn the poor out of our hospitals and to make increasing accommodation for those who can pay. This tendency needs resistance as far as the existing hospitals are concerned, which are not too much, but all too little, for the accommodation of those who cannot pay. The great development of the teaching of nursing makes it easy to establish in every great town houses for the accommodation of those who can afford payment.

EMOTIONAL JAUNDICE.

THE possibility of the dependence of jaundice on emotional disturbances in some cases is unquestionably great. The case quoted by Murchison of the soldier who became rapidly jaundiced as the result of being restrained from wreaking his vengeance on a certain individual is probably familiar to most of us. M. Rendu has recorded the circumstances under which a young woman aged twenty-five, convalescent from puerperal peritonitis, became jaundiced within three hours after an unsuccessful attempt to catheterise the bladder. The yellow colour of the skin remained four days, and the urine contained bile pigment one day longer. The sudden onset and rapid disappearance of the jaundice are in favour of its being of neurotic origin, but the presence of subsiding puerperal peritonitis rather vitiates the evidence for the case as one of emotional jaundice.

OPEN SPACES IN LONDON.

THE Metropolitan Public Garden, Boulevard, and Playground Association, in its report for the year which has just closed, affords good reason to hope that its vigorous work of reform will long survive that exhausted term. During the two years of its existence it has added many open spaces to those hitherto devoted to recreation within the metropolis. The areas thus gained have been for the most part the sites of disused burial-grounds. These and the other vacant spaces have been laid out as gardens and playgrounds, and furnished with appropriate gymnastic apparatus. There is still, however, much to do. Numerous graveyards unused for burial, for building, or for any purpose, public or private, save to guard the remains long since committed to them, invite the offices of the Association to remodel them in the interest of the surrounding districts. It would seem that the natural destiny of all enclosed land within the urban area, irrespective of its history, is to be built upon. The hygienic reasons which have weighed with us in condemning this practice have been reiterated in former articles. We therefore the more frankly and earnestly commend the wise action of the association, and we doubt not that the public and the ecclesiastical proprietors will see reason to forward its salutary work.

PROMPT SUPPLY OF SURGICAL APPARATUS FOR THE POOR.

THE absurd rules of the otherwise excellent Societies which exist for supplying the poor with surgical apparatus have led other charitable bodies into the same line of work. The council of the Hospital Sunday Fund devotes 4 per cent. of its collection to this purpose, which for the current year will amount to £1400. Now the Charity Organisation Society have established a department for the prompt and economical supply of these instruments on the same plan as the Convalescent Department. It is to be regretted that the Surgical Aid Societies should give too good reason for this competition of other bodies, which have quite enough special work of their own to do. Provided fit cases are selected, it must be allowed that the supply of surgical instruments is a most urgent and commendable form of charity.

STREET ILLNESS AND BAD POLICE AND WORKHOUSE REGULATIONS.

NEITHER the police authorities nor the authorities of the Kensington Workhouse appear to advantage in the account of the inquest on Robert Thomas Roylance Wigington, aged sixty-four, which was reported in *The Times:* –

"Early on the morning of December 22nd he was found insensible outside the booking-office at Earl's-court Station. He was taken in a cab to the infirmary of the Kensington Workhouse, where he was refused admission. He was then taken to the police-station, when he was found to be dead. Police-constable Dixon deposed to seeing the deceased taken to the infirmary. The authorities there refused to admit him. The Coroner: Why did you not call a doctor at first? Witness: Because he was in a cab and not in the road. If he had been in the road I should have called a doctor. The Coroner: A nice distinction when life or death is concerned."

There is some confusion here. But whether Mr. Wigington was found in the road or in a cab is a matter of unimportance, compared with the folly of police and workhouse rules, which hinder the nearest assistance being cheerfully and promptly offered to a dying man. Can anything be more absurd than for a workhouse infirmary, supported by public rates, to refuse admission to a dying man, or for a policeman to go wandering about London with such a man before consulting the nearest doctor?

A NEW OTOSCOPE.

A NEW otoscope, arranged by M. Rattel, was exhibited at the Académie de Médecine last month. It is lighted by means of an incandescent wire made of manufactured charcoal, which gives an illumination equal to two candles. An accumulator giving a current of electricity of a certain intensity may feed the lamp for at least six hours. The reflector is represented by a portion of an ellipse constructed in such a manner that one of the foci corresponds to the site of the lamp and the second to the extremity of the instrument, which has pretty much the form of an ordinary funnel-shaped otoscope. The light can be extinguished or graduated to any degree. The opening through which the observer looks is large enough to permit the passage of all the ordinary aural instruments.

COLLECTIVE INVESTIGATION IN GERMANY.

THE results of the inquiry into phthisis set on foot by the Collective Investigation Committee of the Verein für innere Medicin (Berlin) will be published in the *Zeitschrift für Klinische Medicin*. Dr. Meyerhoff will report upon the question of contagiousness, Dr. Oldendorff on that of heredity, Drs. Leyden and Frantzel on curability, and Dr. Kalischer on the passage of pneumonia into phthisis. The scheme of this inquiry was, it may be remembered, far more complete and exhaustive than the corresponding one undertaken in this country, and it will be interesting to learn its conclusions. The next subject proposed for investigation by the committee is the communicability of contagious diseases of children through a third person (or thing). The diseases named are: scarlet fever, measles, whooping-cough, variola, varioloid, diphtheria, and mumps.

THE DARENTH SMALL-POX CAMP.

COMPLAINTS as to the administration of the Darenth small-pox encampment continue to be made, notwithstanding the statements of Sir E. Currie that they are unfounded. These complaints relate in the main to irregularity in the supply of meals, dirty beds, and absence of proper clothing. The Asylums Board managers have certainly spared no expense in their efforts to provide everything needful for the sick, and in their own interests it would be well that a committee of investigation should be appointed. More than one complaint has been made to the effect that patients have died without any proper record of the death being kept, and relatives have in consequence suffered considerable distress of mind. If the local administration is defective it should be forthwith modified, and the first step will be to find out where the fault really lies.

HOSPITAL SUNDAY.

THE annual meeting of the constituents of the Hospital Sunday Fund, on the 23rd ult., passed off most satisfactorily, the Lord Mayor presiding. His speech was in good taste, and showed kindly sympathy with the objects of the fund. Several vacancies in the council were filled up. The entire absence of opposition or even criticism at the meeting should not be construed by the council as meaning that there is no more for them to do in the way of extending this great movement, but, on the contrary, as an encouragement to devise yet further means for developing it.

THE UXBRIDGE TRAGEDY.

ON the afternoon of the 30th ult. the governor of Her Majesty's prison of Newgate, Captain Sutton Kirkpatrick, received an intimation from the Home Office that the sentence of death passed upon Elizabeth Gibbons for the murder of her husband at Hayes, near Uxbridge, at the last sessions of the Central Criminal Court, had been respited. It is understood that those who have prepared the petition to the Home Secretary on behalf of the condemned woman will not rest their efforts to obtain an investigation into the circumstances of the case by the law advisers to the Crown, with the view of determining whether there has not been a wrongful conviction.

THE LONDON FEVER HOSPITAL.

WE most gladly repeat our commendation of this institution as one worthy to be held in remembrance. It is very meritorious and very impecunious. In the last thirty-eight years it has admitted 48,348 cases—and what cases! and at what relief and advantage to private families!

THE following very serious statement is made in the *Western Morning News* regarding the excessive punishment of boys on board Her Majesty's ship *Northumberland*, whose crew includes 140 boys. "During the late cruise, and also since her arrival home, the amount of corporal punishment inflicted is truly horrifying. Almost every morning batches of the boys, from half a dozen to eighteen in number, have been caned or birched, chiefly the former, with great severity, the sufferers often being removed in various stages of insensibility. The ship's corporal has been repeatedly enjoined to greater vigour by the officer superintending these floggings, and the bruised and bleeding backs of the boys, and their writhings and howls, have testified to the vigour of his arm. The frequency and severity of these punishments have become a matter of loud protest among the able-bodied blue-jackets, who are themselves protected by law from similar tortures. The offences for which these almost daily whippings have been inflicted are said to be of a trivial character." This, if true, discloses a very dreadful state of affairs. The matter demands immediate investigation by the authorities.

FROM the report of the examination made by Colonel Sir Francis Bolton, C.E., of the water supplied by the several metropolitan water companies during the month of November, it appears that the water sent out by the companies drawing their supply from the Thames again exhibited an unusually small proportion of organic matter for this season of the year, as did also the water derived from the Lea. All the waters were delivered in a clear and bright condition.

MESSRS. WOOD AND CO., the publishers of Lafayette-place, New York, our agents for the United States and Canada, have received an order from the Medical Purveyor of the American Government to supply the Medical Department of the United States Army with THE LANCET, so that every regimental depôt, commencing with our present issue, will receive regularly a copy of the journal.

AT a meeting of the Oldham Sanitary Committee on the 18th ult., Dr. Hill, the medical officer of health, reported that the severe and sudden illness from which some twenty or thirty persons had suffered after attending a public tea recently held in the town was attributable to the ingestion at the entertainment of unsound cured tongues.

AT a public meeting in connexion with the University College (London) Medical Society, to be held on Jan. 14th next, Prof. Ray Lankester will deliver a lecture on Bacteria and Bocilli in their relation to Putrefaction and Disease. After the lecture there will be a demonstration of Micro-organisms and Methods of Cultivation.

DR. JAMES RUSSELL, F.R.C.P., J.P., Senior Physician to the General Hospital, Birmingham, has resigned that office, after twenty-six years' service on the honorary staff of the institution. Dr. Russell's friends will be glad to hear that his retirement from public work has been occasioned by the pressing calls of consulting practice.

A NUMBER of scientific men in Paris having founded a club called "La Science," for the purpose of dining together at stated times, recently entertained M. Chevreul. M. Pasteur has been nominated chairman of the next dinner. A similar club was instituted six years ago under the name of "Banquet de la Presse scientifique."

PROF. GUIDO BACCELLI has been elected President of the Roman Academy of Medicine.

THE vestry of St. Luke's are determined to oppose the proposal of the Governors of Dulwich College to hand over seventy-two acres of land to the Metropoitan Board of Works for the purpose of a people's park. A deputation which waited upon Mr. W. M. Torrens, M.P., pointed out that the land of Dulwich was devised by Alleyne for the joint benefit of the parishes of St. Luke, St. Botolph, Bishopsgate, St. Saviour, Southwark, and St. Giles, Camberwell; and therefore to give the land as stated would be a serious loss to the parishes named, more especially St. Luke's. The deputation further showed a plan whereby a recreation ground might be provided for St. Luke's from the price at which the Dulwich land was valued—namely, £21,000.

THERE appears to be urgent need of a mortuary in the parish of St. Botolph, Aldgate. A correspondent writing to a contemporary on Dec. 30th, complains that the body of a man "who hung himself on Sunday, still lies in the room, just as it was found, and this too in the largest common lodging-house in the London Docks," and adds, "the same complaint is always made at every inquest held in this parish."

IT will have been seen by an announcement in our advertising columns that the Commissioners in Lunacy have issued notices that in future they will, in all cases of violation of the laws respecting the detention of persons supposed to be insane, proceed by indictment against the offending parties.

DR. WILLIAM MARSHALL, who acted as medical attendant to the late Duke of Albany prior to his Royal Highness's marriage, died on the 22nd ult. at Crieff, Perthshire, in the fiftieth year of his age. The deceased retired from the service of Her Majesty several years ago, in consequence of failing health.

To avoid as far as possible risk of infection in surgical procedures, Professor Esmarch is stated by the *St. Petersburger Med. Wochenschrift* to have discarded wooden operating tables and to employ only those made of metal. All the instruments used are nickel-plated and metal-handled.

THIS afternoon (Friday) the President and Vice-Presidents of the Royal College of Surgeons of England will receive a deputation from the Association of Members of the College respecting certain changes in the interest of the Members to be suggested in the new Charter.

IT is stated that the members of the Imperial Academy of St. Petersburg caution the public against the frequent repetition of experiments in "thought-reading," as a number of serious cases of illness are reported daily by the press.

THE death is announced of Dr. Grimm, Staff Surgeon and Body Physician of the German Emperor, and Chief Agent in the Organisation of the German Military Sanitary System.

WE understand that one of the members of the English Cholera Commission, Dr. Heneage Gibbes, has returned to London.

GIFTS TO HOSPITALS.—One hundred and twenty of the principal hospitals in town and country have, we understand, received, within the last few days, a donation of Messrs. Cassell and Company's periodicals for the use of the patients.

Pharmacology and Therapeutics.

THE "M'K. AND R." CAPSULED NITRO-GLYCERINE PILLS.

NITRO-GLYCERINE is such a valuable therapeutic agent that it is not surprising that new methods of administering this powerful remedy are constantly being introduced. The "M'K. and R." capsuled pills, from their small size and attractive appearance, are likely to meet with much favour. They have been tried in angina pectoris, asthma, neuralgia, and a number of other complaints in which the drug is recommended, and have been found most useful. The covering is perfectly soluble, dissolving in the mouth in about thirty seconds, and there can be no doubt as to the activity of the contents, for they produce as much headache as the most ardent pharmacologist could desire.

THE "MAORI" CIGARETTES.

We have received specimens of Dr. Douglas's "Maori" cigarettes for the relief of asthma, chronic bronchitis, and hay fever. They obviously contain nitre, and probably henbane and stramonium. They burn freely, and we are not surprised to hear that they have been found useful. It is said that they have been used with success in the wards of the Royal Infirmary at Edinburgh. They may be obtained from T. Kennedy Douglas, M.B., C.M., 2, South St. John's-place, Perth.

VALOID OF COCA.

The introduction of a new and reliable preparation of coca will be hailed with satisfaction. The valoid is made from the fresh leaves of the coca plant, each drachm representing that weight of the crude drug, including the whole of the alkaloidal and other principles. It has been extensively employed of late, and, curiously enough, is found to exert a double physiological action. In small doses it acts as a sedative promoting sleep, whilst in larger quantities, such as three or four drachms, it stimulates the nervous system and induces an increased capacity for mental exertion. It has been used with much success in sleeplessness arising from overwork or worry and anxiety, and also in the treatment of impotence, spermatorrhœa, and a number of allied diseases. It has no toxic action.

OIL OF PEPPERMINT.

Oil of peppermint would appear to be a useful application for burns, according to Dr. Brame. The part burned is first immersed in water, and then the oil is painted on by means of a fine camel-hair pencil. The chief effect is the immediate relief of the pain.

ANTIPYRIN.

Dr. Ernst of Zurich reports that he has observed in five cases the occurrence of a rash during the administration of the new antipyretic "antipyrin." The eruption, which occurred on the chest, stomach, and back, is described as consisting of small reddish irregularly circular spots, resembling pretty closely those of measles. The spots are confluent, and the patches formed, being separated by areas of sound skin, present the appearance of a rose marbling. When pressed the red colour disappears, leaving a brown pigmentation. The eruption increases in intensity of colour for about five days, and then the red gives way to a brown colour, and the rash finally disappears though the use of the antipyrin be continued.

TEUCRUM SCORDIUM.

Teucrum scordium, the water germander, is reported to have been used both locally and internally in the treatment of piles. Mr. Murjohn has prepared a liquid extract by exhausting the powdered herb with dilute alcohol, the preparation being of a blackish-green colour and given in doses of one or two fluid drachms. A soft dark green extract is obtained by evaporating this extract, which has been used in the form of pills, one grain being combined with two grains of the powdered herb. An ointment for local use is prepared by mixing one part of finely powdered herb with nine parts of vaseline.

VERBENA HASTATA.

The blue vervain has been found by Dr. Weber to be an excellent sudorific. The root, which has a bitter astringent

and nauseous taste, is the most active part of the plant, but the leaves and flowers may also be used. A fluid extract is made in the usual manner, the dose of which is one-half to one fluid drachm.

ERGOT.

Ergotinic acid, sphacelinic acid, and cornutine are the active principles of ergot according to Dr. R. Roberts. Ergotinic acid, even in large doses, did not produce very marked effects. Sphacelinic acid is a powerful poison, the amount obtained from thirty grammes of ergot being sufficient to kill a fowl, and that from 200 grammes to kill a small pig, death resulting from gangrene; this principle is probably the cause of the gangrene which sometimes attends the use of ryebread containing ergot. It causes a tetanic action in the uterus. Cornutine is the only energetic alkaloid that occurs in ergot. The ergotinine of Tanret has no physiological effect according to Dr. Roberts; but five milligrammes of cornutine causes salivation, vomiting, diarrhœa, and active movements of the uterus in warm-blooded animals, as well as contraction of the bloodvessels and a rise in the blood-pressure. The latter effects are also produced by sphacelinic acid. The only preparations which should be used are those containing these two principles.

REPORT OF THE MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD.

[FIRST NOTICE.]

THIS report is issued as a separate volume forming the supplement to the Thirteenth Annual Report of the Board, and it deals with the medical transactions of the Board during the year 1883. Vaccination appears, notwithstanding the noisy agitation of a few, to be making fairly steady advance, the children certified to be vaccinated numbering about twenty times those who, so far as certificates are concerned, remain unvaccinated; and with reference to the prevention of small-pox, it is interesting to note that the mortality from that disease amongst the unvaccinated children and the vaccinated was about as 200 to 1. Calf lymph continues to be distributed to registered medical practitioners, the number of points and tubes sent out during the year being 9311 and 2151 respectively. Mr. Shirley Murphy, the Assistant Director of the Calf Lymph Establishment, reports on similar institutions in Holland and Belgium, and he is inclined to regard the results obtained in the former country as superior to those seen in London, the difference being in his opinion due to the better age and finer skins of the calves used in Holland. The animals sent to Lamb's Conduit-street are at times too young, and they have often hardly got over the hardships to which they have been exposed by long land and sea journey, and it must be our endeavour to overcome this and allied difficulties if the local results are to be the best that can be obtained. A typical instance is given of the inquiries which are made by the Medical Department into allegations of injury by vaccination. The report is by Dr. Page; it goes to show that the allegation was wholly groundless, and that a sickly child which happened to have been in every sense of the word successfully vaccinated, subsequently suffered from diarrhœa and sickness, was then drugged with soothing syrup, and died.

The inquiry which is being conducted by Dr. Ballard into the subject of the prevalence of autumnal diarrhœa in England is still in progress, and one very interesting aspect of the investigation is referred to in the report under consideration. This has to do with the relationship which exists between the disease as seen in England (and which is often called choleraic diarrhœa) and the malady which prevails as an endemic in some parts of India, and which at times spreads over various parts of the world. It is more than probable that some of the conditions under which the two diseases appear are either alike or have much in common, and it is by no means improbable that the difference between them has to do with a modification in those conditions which is brought about by some such circumstance as climate. Any light that can be thrown upon this obscure question will well repay the long-continued study which is being devoted to the diarrhœa investigation. With reference to cholera itself, a brief account of the Egyptian prevalence of 1883 is placed on record by Dr. Buchanan, who expresses a regret, which many will share with him, that the regular examination of prevalences of cholera and other Eastern diseases is no longer maintained. Formerly this work was ably carried out by Mr. Netten Radcliffe, and it appears more than strange that the country which, of all others, has the greatest interest in studying the etiology of cholera and other Asiatic diseases should maintain at its central bureau so "limited" a staff that it has become necessary to abandon a work of the highest importance to the interests and well-being of some millions of its citizens. Reading between the lines, it is quite evident that Dr. Buchanan does not consider that the results of the inquiry which was instituted by the British Government into the etiology of the Egyptian outbreak were at all conclusive. He points out that the importation of the disease by means of pilgrims returning from Mecca was not even excluded; he is of opinion that the mere occurrence of cases of a choleraic disease in various parts of Egypt by no means justifies the inference that cholera had long been endemic in that country; and he regrets that the application "of those inductive methods of investigation which are familiar to the practised sanitary inquirer of England" were not brought to bear upon the prevalence in question.

The volume contains a number of the more interesting reports issued by the several medical inspectors, investigations as to diphtheria taking a prominent position amongst those which are thus permanently placed on record. They have all been commented on by us as they have been issued, and we will only add, with regard to them, that we are glad to notice that an increasing number of these reports now find their way into the Medical Officer's Annual Report.

The more scientific part of the volume contains a further contribution by Dr. Burdon Sanderson on the products of putrefaction in relation to the prevention of disease, the investigation being conducted in connexion with researches which are being made into the value of different methods of disinfection. Dr. Klein also takes part in this inquiry, his efforts being directed to ascertain how far various substances have the ability to destroy that power which the microphytes of disease have of directly or indirectly producing disease. There are few inquiries which are more needed than this one, for at present but little more is known as to the respective merits of the various "disinfectants" than what their inventors choose to assert for them, and in one sense it is to be regretted that the final conclusions cannot more rapidly be arrived at. The difficulties attendant upon the investigation are, however, great, and they must be dealt with step by step. Mr. Dowdeswell also contributes to this part of the report a paper on the Etiology of Charbon Symptomatique, and its relations to other allied diseases. For the present we postpone detailed comment on this group of scientific papers.

REPORT OF THE SPECIAL INDIAN CHOLERA COMMISSION.

THE *Gazette of India* publishes the following report, dated Calcutta, Nov. 28th, 1884.

From Dr. J. M. Cuningham, Sanitary Commissioner with the Government of India, to the Secretary to the Government of India, Home Department.

I have the honour to submit, for the information of the Government, a short preliminary report by the English Cholera Commission of the results of their inquiries during their visit to India.

2. Their complete report will be passed through the press when they arrive in England, and submitted to the Under-Secretary of State for India.

3. It will be observed that Messrs. Klein and Gibbes' conclusions are altogether subversive of the statements advanced by Professor Koch as to the so-called "comma bacillus" being the cause of cholera.

From Drs. E. Klein and Heneage Gibbes to the Surgeon-General and Sanitary Commissioner with the Government of India. Dated Calcutta, Nov. 27th, 1884.

We have the honour to report that the investigations which we have hitherto carried on in Bombay and Calcutta have yielded the following results:—

1. The statement of Koch that "comma bacilli" are pre-

sent only in the intestines of persons suffering from or dead of cholera is not in accordance with the facts, since "comma bacilli" occur also in other diseases of the intestines—e.g., epidemic diarrhœa, dysentery, and intestinal catarrh associated with phthisis.

2. The "comma bacilli" in acute typical cases of cholera are by no means present in such numbers and with such frequency as to justify Koch's statement that "the ileum contains almost a pure cultivation of comma bacilli."

3. The "comma bacilli" are not present in the tissue of the intestine or elsewhere.

4. The "comma bacilli" in artificial cultivations, carried out by one of us (E. K.), do not behave in any way differently from other putrefactive organisms.

5. Mucus flakes of the ileum, taken out soon after death from typical acute cholera, contain numerous mucus corpuscles, many of them, filled with peculiar minute straight bacilli. The same bacilli occur also outside the mucus corpuscles. They are never missed even when the "comma bacilli" are.

6. These small bacilli have been cultivated by one of us (E. K.), and they do not behave differently from putrefactive organisms. They are not present in the tissues of the intestine or any other tissue.

7. No bacteria of any kind, and no organisms of known form and character, occur in the blood or any other tissue.

8. A good many experiments have been carried out by one of us (E. K.), with the following results:—(*a*) Mice, rats, cats, and monkeys were fed with rice-water stools, with vomit, with mucus flakes of the ileum, fresh and after having been kept for twenty-four to forty-eight hours. The animals remained normal. (*b*) Inoculations with recent and old cultivations of "comma bacilli" and the small straight bacilli, as well as with mucus flakes, were made into the subcutaneous tissue, into the peritoneal cavity, into the jugular vein, and into the cavity of the small and large intestine of rabbits, cats, and monkeys; but the animal remained perfectly well and normal.

9. The material which we have had hitherto at our disposal has been very good and abundant, and, as far as the microscopic work goes, we do not think we shall require any more material. We therefore propose concluding our inquiry by the beginning of December, and hope soon after to return to England.

THE CULTIVATION OF THE BACILLUS OF TUBERCLE.

DR. CREIGHTON has expanded the criticism passed on Dr. Koch's method of cultivating tubercle bacillus at the last meeting of the Royal Medical and Chirurgical Society into a *brochure*, the substance of which is as follows:—In the first place Dr. Creighton points out that Koch has not availed himself in such cultivations of the "dry" method, whereby alone exclusion of foreign germs can be secured. Koch has sought, not to separate the tubercle bacilli from admixture with other organisms, but only to detach them from the tuberculous matter in which they occur. He takes a piece of tubercle from the dead-house, strips off its outer layers, and crushes the surface in corrosive sublimate. The mass thus prepared is placed on the surface of solidified blood serum in a test-tube and crushed into fragments, the tube being then kept at a temperature of 98° F. for three weeks; at the end of that time some of the dried scales which have formed on this surface are transferred to another test-tube and treated as before. Dr. Creighton contends that, although Koch gives no further information on the process, he "has departed from the first principle of pure cultivation of micro-organisms—namely, the principle of transferring only a minimal or fractional quantity from one test-tube to the next." He includes Mr. Watson Cheyne in the indictment, who followed the same process, and who assumed that thereby the original cheesy matter is wholly destroyed, the organisms alone remaining. There is no evidence, he maintains, to show that the final inoculations contained bacilli and nothing else. The substance put into the test-tubes was tubercle "and it came out tubercle, baked, indeed, to crusts and scales, but still tubercle." Moreover, the method actually employed by Koch hindered the free development of the bacilli, as it prevented the growth of other micro-organisms. Schüller, who adopted fluid cultivations direct from tubercular matter, obtained cultures of various organisms (which must have been descended from those originally present in the tubercle), and yet failed to inoculate animals with the disease by means of the bacterial fluid thus obtained. Dr. Creighton's closing remarks sufficiently indicate his position and the distrust he has of the bacilli being proved by Koch's experiments to be the specific virus of the tubercle. He says:—

"The truth is that Dr. Koch was scrupulously careful to keep his bacilli always dry and always cohering in what he calls 'colonies.' His attempts to grow them in fluids were half-hearted; the bacilli were involved in brittle conglomerates or crusts, after long exposure of the tubercular tissue to heat, and they never had a fair chance to multiply in fluid. If they had been set free in a suitable fluid medium, they would certainly have multiplied, and multiplied with marvellous rapidity. *But they would have been no longer motionless rod-shaped organisms.* They would have been moving bacteria and micrococci; we know that much from the experiments of MM. Toussaint, Klebs, and Schüller. To retain the bacillar form it is necessary to keep the organisms in tubercle always dry. That must have been Dr. Koch's main reason for practising a dry method of 'pure' cultivation, which resembled his original dry method in little more than the name. He certainly succeeded in making the rod-shaped organisms to multiply as rod-shaped organisms; he avoided the awkward breach in their morphological identity, which would have confronted him if he had let them multiply in fluids, as they are more than willing to do. At the same time he unfortunately retained in the crusts and scales the detritus of the pieces of tubercle with which he set out. Thus, under the guise of his dry method, he not only succeeded in preserving the morphological identity of the bacilli as they mostly occur in tubercular degenerations within the body, but he also preserved among his inoculation material a sufficient quantity of that which we must still consider to be alone infective in tubercle—namely, the virus of the tubercular tissue itself."

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 4353 births and 3386 deaths were registered during the week ending the 27th ult. These registered numbers were, owing to the Christmas holidays, very considerably below the average weekly numbers. The annual death-rate in these towns, which had been equal to 24·4, 22·6, and 21·6 per 1000 in the preceding three weeks, further declined last week to 20·2. During the thirteen weeks ending last Saturday the death-rate in these towns averaged 21·4 per 1000, against 23·0 and 21·2 in the corresponding periods of 1882 and 1883. The lowest rates in these towns last week were 13·2 in Birkenhead, 13·8 in Plymouth, 15·9 in Salford, and 16·2 in Brighton. The rates in the other towns ranged upwards to 26·8 in Hull, 28·3 in Preston, 28·4 in Sunderland, and 32·2 in Leicester. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 393 and 398 in the preceding two weeks, did not exceed 311 in the week ending last Saturday; these included 69 from whooping-cough, 67 from measles, 54 from scarlet fever, 36 from small-pox, 34 from "fever" (principally enteric), 28 from diphtheria, and 23 from diarrhœa. No death from any of these zymotic diseases was returned last week in Plymouth, Birkenhead, or Huddersfield, whereas they caused the highest death-rates in Leicester, Preston, and Sunderland. The greatest mortality from whooping-cough was recorded in Wolverhampton, Oldham, and Halifax; from measles in Preston, Cardiff, and Leicester; from scarlet fever in Cardiff and Sunderland; and from "fever" in Preston and Norwich. The 28 deaths from diphtheria in the twenty-eight towns included 20 in London, 2 in Norwich, 2 in Liverpool, and 2 in Sunderland. Small-pox caused 47 deaths in London and in its outer ring of suburban districts, 3 in Liverpool, and 1 in Brighton. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had been 1019 and 1026 on the preceding two Saturdays, further rose to 1076 at the end of last week; the admissions declined, however, to 161 last week, from 263, 190, and 244 in the previous three weeks. The Highgate

Small-pox Hospital contained 95 patients on Saturday last, against 99 at the end of the previous week; 14 cases were admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had declined from 511 to 416 in the preceding four weeks, further declined to 370 last week, and were 206 below the corrected weekly average. The causes of 82, or 2·4 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Newcastle-upon-Tyne, Norwich, Plymouth, Derby, Birkenhead, and Halifax. The largest proportions of uncertified deaths were registered in Sheffield, Blackburn, and Preston.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 31·8, 28·3, and 26·9 per 1000 in the preceding three weeks, rose again to 29·6 in the week ending 27th ult., and was no less than 7·4 above the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 19·5 and 20·4 in Leith and Edinburgh, to 32·1 in Paisley and 34·7 in Glasgow. The 691 deaths in the eight towns included 34 which were referred to measles, 26 to whooping-cough, 16 to scarlet fever, 14 to "fever," 11 to diarrhœal diseases, 9 to diphtheria, and not one to small-pox; in all, 110 deaths resulted from these principal zymotic diseases, against 140, 109, and 108 in the preceding three weeks. These 110 deaths were equal to an annual rate of 4·6 per 1000, which was 2·7 above the mean rate from the same diseases in the twenty-eight English towns. The 34 deaths from measles in the Scotch towns were within two of the number in the previous week, and included 30 in Glasgow. The fatal cases of whooping-cough, which had been 30 and 25 in the previous two weeks, were 26 last week, of which 14 occurred in Glasgow and 3 in Edinburgh and in Greenock. All the 16 deaths from scarlet fever, showing a considerable increase upon recent weekly numbers, were returned in Glasgow. The 14 deaths referred to "fever" also exceeded the numbers returned in recent weeks, and included 10 in Glasgow and 3 in Aberdeen. Seven of the 11 deaths attributable to diphtheria also occurred in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 231, 190, and 178 in the preceding three weeks, further declined to 174 last week, but exceeded by 66 the number returned in the corresponding week of last year. The causes of 116, or nearly 17 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 28·7 and 34·1 per 1000 in the preceding two weeks, declined again to 26·6 in the week ending the 27th ult. During the thirteen weeks ending last Saturday the death-rate in the city averaged 29·4 per 1000, the mean rate during the same period not exceeding 19·8 in London and 19·7 in Edinburgh. The 179 deaths in Dublin last week showed a decline of 50 from the number in the previous week, owing in great measure to the Christmas holidays causing delay in registration; they included 13 which were referred to the principal zymotic diseases, against 24 and 18 in the preceding two weeks. Of these 13 deaths, 7 resulted from scarlet fever, 5 from "fever" (typhus, enteric, or simple), 1 from diphtheria, and not one either from small-pox, measles, whooping-cough, or diarrhœa; they were equal to an annual rate of 1·9 per 1000, the rate from the same diseases last week being 1·7 in London and 0·8 in Edinburgh. The fatal cases of scarlet fever in Dublin, which had steadily declined from 16 to 6 in the preceding five weeks, rose to 7 last week. The 5 deaths referred to fever also exceeded the number in the previous week. Five inquest cases and 6 deaths from violence were registered in the city, and 61, or more than a third of the deaths, were recorded in public institutions. The deaths, both of infants and of elderly persons, showed a decline from the previous weekly numbers. The causes of 30, or nearly 17 per cent., of the deaths registered during the week were not certified.

ENGLISH MORTALITY IN 1884.

It will be nearly a month before the Registrar-General issues his quarterly return for the last three months of 1884. The English death-rate during that period may, however, be approximately estimated from the thirteen weekly returns, which give the mortality statistics for nearly nine millions of population living in the twenty-eight large towns dealt with in that return. On the hypothesis that the death-rate in England and Wales last quarter bore the same relation to the rate recorded in the twenty-eight large towns, as was the case in the last quarters of 1882 and 1883, it may be estimated at 19·0 per 1000, and to have been 1·6 below the mean rate in the ten preceding corresponding quarters. The death-rate in the third or summer quarter exceeded the average, owing to the heat that prevailed in the first half of August; but in each of the other quarters of the year the rate was considerably below the average. The mean rate for the four quarters of the year was 19·3 per 1000, against 18·9, 19·6, and 19·5 in 1881, 1882, and 1883, and was 1·4 below the mean rate in the ten years ending 1883. Thus the marked decline in the English death-rate which has been coincident with the operation of the Public Health Acts of 1872 and 1875 is being fully maintained. The English death-rate was practically stationary during the thirty years 1840-70 at 22·4 per 1000, signifying that the sanitary achievements of that period had only been successful in counteracting the baneful effect, from a health point of view, of the rapid increase of urban aggregation. In the five years 1871-75 the rate slightly declined to 22·0, and in the following five years, 1876-80, fell to 20·8. In the first four years of the current decade, ending on the 31st ult., a further marked decline occurred, and the mean annual death-rate in these years did not exceed 19·3. The death-rate in each of those four years was lower than in any of the forty-three previous years of civil registration. It was shown in a paper recently read before the Statistical Society that the effect of the reduction in the English death-rate in the five years 1876-80 upon the duration of life in England, if continued, would be to add two years to the life of every male, and three and a half years to the life of every female born. The continued and increased reduction of the English death-rate in the last four years is therefore an event the national importance of which cannot well be over-rated.

THE SERVICES.

Surgeon-Major Sir Samuel Rowe, K.C.M.G. (Governor and Commander-in-Chief of the Gold Coast Colony), has been appointed Governor and Commander-in-Chief of the West Africa Settlements; Surgeon-General J. Hindley, C.B., has been appointed to succeed Surgeon-General R. Gilbourne as principal medical officer on the Staff of Lieut.-General Sir A. Alison, K.C.B., at Aldershot.

BENGAL MEDICAL ESTABLISHMENT. — Surgeon-Major Archibald Hamilton Hilson, M.D., to be Brigade Surgeon; Surgeons Matthew Denis Morcarty, Gordon Price, M.D., Edward Bovill, Bartholomew O'Brien, M.D., George Albert Dundas, Henry Walter Hill, Zalnoor Allee Ahmed, M.D., William Arthur Gilligan, William Edwin Griffiths, to be Surgeons-Major.

MADRAS MEDICAL ESTABLISHMENT.—Surgeons Edward Levinge, Augustus Napoleon Rogers-Harrison, Lionel Beech, Henry Plunkett Esmonde-White, to be Surgeons-Major.

ADMIRALTY.—The following appointments have been made:—Staff Surgeon W. H. Colahan, to the *Assistance;* Staff Surgeon G. B. Murray, to Plymouth Hospital; Staff Surgeon Thomas Bolster, to the *Triumph;* Surgeons F. H. Trevan and R. J. Lawson, to the *Triumph;* Surgeon John Hunter, to the *Indus;* Staff Surgeon Henry Scanlan, to the *Nankin*, additional; Fleet Surgeon Robert Nelson, to the *Monarch;* Surgeon Samuel Johnson, to the *Briton;* and Surgeon Herbert W. G. Doyne, to the *Agincourt.*

THE DRAINAGE OF THE LOWER THAMES VALLEY.—The Local Government Board inquiry with reference to the applications of various constituent authorities for separation from or dissolution of the Lower Thames Valley Main Drainage Board was resumed for the eleventh day at Kingston on the 30th ult. Evidence was adduced on behalf of the joint board and in favour of the scheme of Sir Joseph Bazalgette for the total diversion of the sewage of the district to Crossness, immediately contiguous to the southern outfall of the main drainage works of the Metropolitan Board of Works. The inquiry was again adjourned.

MAHOMED MEMORIAL FUND.

THE following additional subscriptions have been either received or promised :—

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"Audi alteram partem."

THE EXTINCTION OF CHOLERA EPIDEMICS IN FORT WILLIAM.

To the Editor of THE LANCET.

SIR,—My attention has been called to an article under the above heading in THE LANCET of December 13th. Before entering on the subject of that communication I particularly desire to obviate any misapprehension that may arise in regard to it. I have not dwelt on the importance of having a pure water-supply, because it appeared to me superfluous to do so. No one entertains any doubt on that subject; it forms an elementary principle of sanitation, and is accepted as an axiom in sanitary science. But that is not the point. The question raised was whether the spread of cholera can be exclusively attributed to the use of contaminated water, and whether such water "communicated" cholera to a population drinking it by virtue of its containing a specific cholera contagium. I contend that this latter has never been proved; nor is it likely to be, seeing that it would be inadequate to explain all the facts, and is inconsistent with some of them. It would certainly surprise me if a regiment drawing its supply of drinking-water from an impure source did not, other things being equal, during an epidemic of cholera, suffer disproportionately from that disease as compared with another regiment supplied with pure water. But if I may rely upon the recorded experience of others, fortified with some results within my own knowledge, I should say that the habitual, or even occasional, use of a saline aperient at such times would have a still more prejudicial effect. And, if I may be pardoned the digression, I may remark before the comma bacillus culminates in a full stop, that it is very difficult to reconcile the notion of its enormous multiplication and development in the intestines being the cause of cholera, with the well-grounded, as I think, observations of practical men that diarrhœa is very prevalent in times of epidemic cholera, and that one's only chance of curing the disease is to arrest it in its initial stage—in other words, to shut up the morbific agent inside the intestines of its unfortunate host. I do not, of course, assert that all cases of diarrhœa develop into collapsed cholera; how many may do so is another thing.

It has been again and again put forward that the relative immunity of Fort William from cholera of late years is attributable to the introduction of a pure water-supply, and by a pure water-supply was meant the Municipal water. That is certainly what I have been told, and understood from documents to which I have referred. Many years ago, however, I came upon an extract from the proceedings of the Government of India in the Military Department, dated 11th October, 1871, in which it is stated that the Government did not consider it expedient to incur the expenditure necessary for the introduction of the municipal water because "the troops in Fort William had proved for years past *remarkably healthy*." (The italics are mine.) It is now asserted that there was another and improved water-supply completed in 1865 to which this result must be ascribed. So far as I can gather, however, water from the same source viz., rain water more or less filtered through clean grass ground and collected in the Havildar's tank was used up to the introduction of the municipal water, but some additional means for filtering it were added and its distribution was by hydrants instead of by mussacks. Of course, the increased facility for obtaining this water would lessen the liability of native servants to obtain it from other sources. The complaint about this tank water was not as to quality, but that the supply was limited and apt to fail. "The tank water is pronounced by the chemical examiner to Government to be remarkably pure and wholesome. This might be expected from the fact of its being rain water stored up and secured from all contamination."—(*Vide* Report, dated 19th June, 1860, signed by the Brigadier Commanding, the Garrison Surgeon, and officiating Garrison Engineer, Fort William.)

Moreover, if the past records of this garrison[1] be examined

[1] The statistics given in the accompanying table have been compiled for the most part from Dr. Bryden's works and from the Reports of the Sanitary Commissioners with the Government of India.

Table showing the Average Strength and Number of Deaths from Cholera among European Troops in Fort William between 1826 and 1882.

Year.	Average strength.	No. of deaths.	Year.	Average strength.	No. of deaths.
1826	603	46	1855	—	—
1827	901	18	1856	543	41
1828	925	13	1857	—	—
1829	896	14	1858	770	55
1830	1068	11	1859	1311	9
1831	843	4	1860	1198	40
1832	776	2	1861	1056	9
1833	685	5	1862	880	13
1834	602	3	1863	745	4
1835	738	—	1864	790	2
1836	732	—	1865	789	1
1837	683	1	1866	861	2
1838	623	8	1867	739	2
1839	667	2	1868	858	5
1840	733	17	1869	904	—
1841	692	23	1870	875	2
1842	954	59	1871	800	—
1843	1114	15	1872	828	1
1844	506	7	1873	859	1
1845	457	14	1874	954	1
1846	467	21	1875	922	—
1847	557	2	1876	934	3
1848	758	9	1877	855	1
1849	883	4	1878	941	2
1850*	—	—	1879	751	—
1851	—	20	1880	779	—
1852	—	20	1881	926	1
1853	—	13	1882	963	1
1854	—	—	1883	854	1

* The statistics of troops from 1850 to 1857 are very imperfect.

it will be found that at a date long antecedent to the introduction of the improved water—viz., between 1830 and 1840—the mortality from cholera was very low. If we take seven consecutive years within that period, as compared with seven years intervening, 1865 to 1871, between the introduction of the two water-supplies to the fort, we find that there was only a small difference between the average annual death ratio from cholera for the two periods—viz., 2·97 per 1000 for the earlier, and 2·18 for the latter period. During the ten years from 1870 to 1879 there has been a marked decline in the mortality from cholera among the European troops in the Bengal Presidency as a whole; the average mortality has been 4·18 as compared with 9·24 per 1000 in the ten previous years; and it is not asserted that these improvements in health and water-supply have been conterminous; contrariwise, the present state of that supply in Bengal is still alleged by some to be the sole cause of epidemic cholera. But if we compare the ratio of deaths from cholera among European troops in Calcutta and the neighbouring garrisons, we find that from 1866 to 1874 in Fort William it was 2·18, as against 1·15 in Dum-Dum and 0·79 in Barrackpore per 1000; and from 1872 to 1882 it was 1·13 in Fort William, 0·74 in Dum-Dum, and 0·51 in Barrackpore per 1000. Moreover, one and the same cause cannot well be productive of two opposite effects. The introduction of the municipal water into Fort William has, it is alleged, caused the relative immunity from cholera enjoyed by that garrison; but I believe I am correct in stating that its introduction into Alipore gaol in water carts deriving their supply straight from the hydrants was followed by a mortality from cholera in 1879 alone equal to that of the previous seven years, during the greater part of which period, at any rate, the convicts were supplied from the local tank. By a parity of reasoning, we are as much justified in drawing a similar deduction in the one case as in the other; and yet we know that one would be false. May not both?

Take the town and district of Dacca. A new water-supply was introduced into the former and a considerable fall took place in the cholera death-rate, which might fairly have been attributed to that as a cause; but there was contemporaneously a great improvement in the district which had not had the benefit of the new water-supply.

Now, let us advert to an example in which great pains had been taken to secure a good water-supply for a service of steamers. Dr. Crombie, now at Dacca, a competent and experienced man, kindly sent me a letter he had received from the emigration medical officer at Goalundo, dated April 9th, 1881: "It is rather strange that just as we were talking of the occurrence of cholera amongst emigrants and the water-supply arrangements on board the Assam steamers, a severe outbreak of cholera was going on on board one of those steamers. Since then we have had one of the severest outbreaks that has occurred for years, seventy-two cases with thirty-four deaths, out of a population of less than four hundred. The water arrangements were perfect, and no fault whatever could be found with the steamer."

A great many changes and improvements have been effected in Fort William besides the introduction of the water, beginning with the construction of those airy, lofty blocks known as Dalhousie Barracks in 1859, and including great improvements in drainage; in brief, there has been a sanitary improvement all round. But have we any assurance, after all, that the garrison at Fort William may not again suffer from cholera? It is more than I should care to affirm.

If it can be said that a pure water-supply will be absolutely protective against an epidemic of cholera at Fort William, this must be pushed to a logical conclusion, and the same thing can be postulated of every other place. Now, to say that the state of the water-supply will account for the recent epidemic in Egypt, France, Italy, and Spain, requires more boldness of assertion than I possess.

The question of the improved medical history of the garrison of Fort William is a very interesting and instructive one, and worthy of exhaustive investigation. There are two methods in which this may be made. One, accepting the fact, to examine into all the causes likely to account for it; the other, to accept the theory of water contamination as a fact, and then to see whether the results can be ascribed to its absence. I prefer the former method.

I am, Sir, yours truly,

J. A. MARSTON,
Deputy Surgeon-General.

Dec. 30th, 1884.

TREATMENT OF INTESTINAL OBSTRUCTION.

To the Editor of THE LANCET.

SIR,—Anyone who reads Mr. Steele's letter in your last number can only come to the conclusion that, when I said in the debate on obstruction of the bowels at the Liverpool Medical Institution that the treatment by "rest, starvation, and opium had for many years been the recognised treatment," I purposely overlooked the labours of Mr. H. O. Thomas in this direction, as set forth in his book published last year. I certainly had no such intention. It has been my privilege, both in speech and in writing, to give my highest tribute of praise to Mr. Thomas for the admirable work he has done in another department of surgery, and therefore it is very unlikely that I would seek to deprive him of his just due in this. Mr. Thomas, however, in his speech at the Medical Institution arrogated no such claims for himself as are advanced by your correspondents, but modestly told how the real credit of the method of treatment under discussion was due to none other than Sydenham. Surely Mr. Thomas must pray to be saved from his friends. I most gladly acknowledge the valuable work done by him in pushing the doctrine of rest and opium, even although to some he may almost seem to have done so to an extreme point. He has drawn men's minds forcibly to the question, and has put it upon a better defined basis. He has shown how milk is a bad form of nutriment, and has exposed the positive dangers of certain forms of mechanical treatment. For this he deserves, and has, our grateful thanks.

But if I am asked where I learnt the principles of rest and opium, I reply that I first knew of them from Laycock and Christison in 1863; although even before that I had heard Miller tell how Liston used to say that the bowels in cases of obstruction were to be opened, not with purgatives, but with opium and the lancet. In 1867 appeared Brinton's remarkable little book, and from that date I should think there is not a single teacher in Great Britain who has not taught on his lines. There has certainly not been one at the Liverpool School of Medicine, for I have asked every one of them what they have been in the habit of teaching. Looking over Dr. Cameron's notes for his lectures twenty years ago, when lecturing on obstruction, I find the following headings:—"Opium the remedy; constipation a necessary and curative symptom (principle of rest); purgatives to be avoided." Dr. Waters, in his remarks at the Institution, said that until acute symptoms had quite subsided his treatment was "absolute rest, complete, or almost complete, abstinence from food, and the exhibition of opium and belladonna." In Aitken, Bartholow, Roberts, and Quain the same text will be found preached. In Ziemssen, Leichtenstern will be found following the footsteps of Brinton. Gentlemen who cannot see anything of the rest, starvation, and opium treatment in these works are determined not to see. Mr. Treves, in the very latest book on the subject, has been accused of knowing nothing about this treatment. I read in it: "It is worse than useless to attempt to feed these patients by the mouth. The patient may have ice to suck to relieve the sense of distressing thirst, but, apart from this, all food should if possible be administered by the rectum. There is certainly no one drug of more use and value in cases of intestinal obstruction than opium."

Personally I may say that during the eighteen years I have practised in Liverpool I have seen as many cases of intestinal obstruction as falls to the lot of most men of my own age, and I never heard of any other treatment being employed, so soon as it was once discovered that the case was one of so-called obstruction, and not a mere ordinary attack of constipation. And here is where Mr. Steele quite fails to apprehend the matter. In cases of acute obstruction, with symptoms similar to those of a sharply strangulated hernia, only one treatment can be and is employed, and none other—viz., rest, starvation, and opium, and, failing these, operation. But under the name chronic obstruction we are unfortunately obliged to class a variety of cases which differ infinitely in character from those which are produced by utterly irremediable causes to those which are termed merely "functional" cases. Now, every case of chronic obstruction begins just like any simple case of constipation, and, in the first instance, is to be treated as such. Things would come to a remarkable pass if the minute a man missed his daily motion for two or three times

he was to be subjected to the treatment for serious obstruction when a dose of castor oil or a tumbler of warm water in the rectum was all he wanted. As regards the use of calomel, any physician of experience will tell Mr. Steele that minute doses of that drug are often most valuable in allaying distressing irritability of the stomach, while they cannot possibly add to the dangers of the obstruction. Concerning nutrient enemata in certain very protracted cases of obstruction, some sustenance, however slight, must be given to the patient, otherwise he will die of exhaustion before his cure is effected. Experiment has incontestably proved that with the artificially digested aliments now in use life can be wonderfully supported by rectal feeding, while bowel irritation is reduced to a minimum. Concerning the use of inflation of the bowel in certain cases of intussusception one must remember that much that has been tried in that way has been in the form of experiment. And legitimate experiment too; for, after all, even rest and opium are mightily unsuccessful in really serious cases of obstruction, however much they may do for those cases which would have got well under any treatment, like the cases of diphtheria which some practitioners are always curing in vast numbers. And there is a limited number of cases where a low intussusception has been made out with certainty in children, where inflation undoubtedly has been most successful, a fact which cannot be controverted.

I rather regret that Mr. Steele, in his eagerness to champion Mr. Thomas, should have found it incumbent upon him to charge an old teacher and friend with lack of generosity to a fellow surgeon, but to that charge I have pleaded not guilty. I must, however, with much deference to the greater knowledge of Mr. Steele, adhere to my statement that for many years, rest, starvation, and opium have constituted the recognised treatment for intestinal obstruction by all intelligent and well-educated practitioners, and that this treatment was not for the first time heard of in 1883. I am, Sir, your obedient servant,

Liverpool, Dec. 1884. W. MITCHELL BANKS.

To the Editor of THE LANCET.

SIR,—In the recent interesting debate at Liverpool upon the question of the treatment of intestinal obstruction, Mr. Mitchell Banks is reported to have made the following statement: "The second difficulty consisted in the fact of spontaneous recovery under the opium, rest, and starvation treatment, which has now for many years been the recognised practice." (THE LANCET, Dec. 6th.) I am somewhat surprised to find that no less than three of your correspondents take very decided exception to this statement. They dispute the assertion that the treatment named is a recognised mode of practice. Mr. Steele of Liverpool and "A Provincial Man" pay me the high compliment of observing that the measure is not generally recognised, because it is "not even alluded to" in my recent work upon intestinal obstruction. Mr. Steele, moreover, claims that this mode of treatment "was undoubtedly originated by Mr. H. O. Thomas." In venturing to meet the objections that these gentlemen have raised, I might be allowed, in the first place, to endorse Mr. Banks's statement. With regard to the allusions to my work that have been so kindly made, I can only say that I have endeavoured in the book named to give especial prominence to this very measure. I have urged it—speaking especially of acute and subacute cases—not only as the primary and elementary basis of all treatment, but as a measure to be adopted by routine. In the chapter on treatment I deal first with "the feeding of the patient," or, as the paragraph would be as well headed, with "the starvation of the patient," and then proceed to the use of "opium." The question of rest falls under the consideration of these two factors in the treatment.

In detailing these measures I did not imagine that I was dealing with any "new thing," but rather that I was expressing as clearly as I was able the recognised measures adopted in the first treatment of intestinal occlusion. With regard to the claim made on behalf of Mr. Thomas, I regret that I did not see his able and original monograph until the MS. of my book was entirely in type. The chief feature of Mr. Thomas's work appeared to me to consist in a very skilful and vigorous advocacy of the measure now in question—a measure the value of which I considered had been for years generally recognised. I cannot agree with Mr. Thomas in considering this particular treatment as final and all sufficient. It appears to me to be the best primary routine treatment, and the best introduction to such other and more active measures as the needs of particular cases may possibly demand. I am, Sir, yours faithfully,

Gordon-square, W.C. FREDERICK TREVES.

THE BRITISH MEDICAL BENEVOLENT FUND.

To the Editor of THE LANCET.

SIR,—You have often allowed me at this season of the year to plead in your columns the cause of the widow and fatherless, and of the old, broken-down or unfortunate who depend on the British Medical Benevolent Fund for some small addition to their comfort or, very frequently, for relief from actual want, and help was never more needed than at this moment. The scheme of the charity is well known in the profession. It has two departments, one for giving annuities of £20 or £26 (10*s.* a week) to worn-out members of the profession, their widows or daughters, after the age of sixty; the other for the relief of pressing necessity by donations. The annuitants, who are maintained by the proceeds of investments, now number fifty-three, but it is very rarely that anyone can be elected under the age of seventy. The donations are furnished out of money collected year by year, and it is on this department of the fund that the greatest pressure comes. The number of applications during the year has been 241; the amount distributed over £1900, in sums varying from £1 to £24. Examples of the cases coming before the Committee at the monthly meetings are as follows:—F.R.C.S., aged seventy-four, of excellent character, hears of the fund when he has broken into his last sovereign; he gets an immediate advance of £2 and a further grant of £15. The daughter of a medical man, a nursery governess, applies on behalf of her brother, himself qualified, who is dying of phthisis; £12 is voted, payable in weekly instalments; he dies before it is exhausted. Medical men in failing health, widows suddenly left destitute with young children or striving bravely to bring up a numerous family, daughters of medical men worn out or broken down as governesses—these are our everyday applicants. A few are kept from actual pauperism or starvation entirely through the fund. The profession has responded most liberally to special appeals for exceptional cases. This is natural and praiseworthy, yet I cannot but fear lest the chronic, prosaic misery of the clients of this fund be lost sight of. Our exchequer is nearly empty, and I again ask those who can afford it for contributions to enable us to continue our help to the less fortunate of our brethren. They will be most thankfully received by Mr. Field, 31, Lower Seymour-street, or by

Your obedient servant,

31, Seymour-street, Portman-square, Dec. 31st, 1884. W. H. BROADBENT, M.D., Treasurer.

THE UXBRIDGE TRAGEDY.

To the Editor of THE LANCET.

SIR,—In reference to the above case, I feel confident that the writer of the paragraph in your last issue was not himself present at the trial, and did not hear the medical evidence; and I would suggest that it is scarcely fair to condemn that evidence—given by Mr. Parrott and myself—as being contrary to pre-existing knowledge, upon the very imperfect, and in many respects entirely erroneous, reports in the daily papers.

The writer says: "The inferences of the medical witnesses were at variance with similar known facts in other cases on record, in which a shot has been fired by a suicide in the interval between the infliction of a mortal wound, even of the heart, and death." First, with reference to your mention of the heart wound, it would seem that the writer has fallen into the same error as many well-intentioned correspondents to the daily papers in assuming that, in order to explain the case as one of suicide, it is necessary to presuppose the possible self-infliction of other wounds after that of the heart. There is no necessity to make any such difficulty, for, viewing the case as one of suicide, there was a much more simple explanation, and one which I fully allowed—namely, that the heart wound was the last of the

three inflicted on the front of the body and face of the deceased. And not only did I allow of such a possibility, but I further stated that an examination of one of these three wounds—that beneath the clavicle—convinced me that it, at any rate, had been received before the heart was damaged. The sequence of the different injuries was thus arranged in the manner most favourable to the prisoner, and she benefited by whatever doubt there might have been on this score. You will thus see, Sir, that if the heart wound is considered as being the last of the three inflicted on the front of the body, the duration of life after its causation is not a very material point. Nevertheless, the statement that in my opinion death would result therefrom "within two minutes" was made by myself with a full knowledge that life has been prolonged, and that recovery even has followed, after some wounds of the heart.

Your paragraph is certainly vague—perhaps intentionally so—but it implies that the prisoner was not allowed by the medical witnesses the benefit of the doubt as to the possibility of the deceased firing more than one shot into himself, and, to anyone who has read the reports in the daily papers, it undoubtedly would convey the idea that I had denied the possibility of the self-infliction of all of the three wounds found on the front of the body and face of the deceased. Will you allow me to state very definitely that, both at the Uxbridge Sessions and at the Central Criminal Court, I did allow the possibility of the self-infliction of the third wound in spite of the injuries caused by the two others previously inflicted. Then, as to the wound in the back, the writer says: "Moreover, a wound in the back is peculiarly likely to be self-inflicted if the suicide falls forward or on his side while the arm still clutching the pistol is convulsively drawn, stiffened, and by the fall twisted back."

Do you really suppose, Sir, that any reasonable man would doubt that "*a wound in the back*" could be self-inflicted? The question is, Could this particular wound be self-inflicted? I said, and say again, most emphatically that it could not, and yet the writer of your paragraph, who never heard my reasons for this opinion, nor saw the wound, has no trouble in explaining the difficulty which neither the counsel for the defence nor any of the jury were able to solve.

I think, Sir, you will see that the charge made against the medical evidence has been made hastily and on insufficient grounds. Other matters went to the jury besides those reported in the daily papers, and I would ask both you and your readers to reserve their judgment until I am able to put the real facts before you.

Yours truly,

Queen Anne-street, Dec. 30th, 1884. ANTHONY A. BOWLBY.

*** We did not assume, as Mr. Bowlby seems to think, that in order to explain the case as one of suicide it is necessary to presuppose the possible self-infliction of other wounds after that of the heart," but obviously wrote with the purpose of illustrating what may be done after a fatal wound of a vital organ. We do not, therefore, deem it necessary to correct an imaginary error. Mr. Bowlby's reference to "well-intentioned correspondents to the daily papers" lies outside of the issue raised in our last week's annotation; however, we only hold ourselves responsible for what appears in our own columns. Again, Mr. Bowlby takes exception to the statement that "a wound in the back is peculiarly likely to be self-inflicted if the suicide falls forward on his side, while the arm still clutching the pistol is convulsively drawn, stiffened, and by the fall twisted back," and with veiled sarcasm *hints* that we were so puerile as to descant on a self-evident fact. It was not the mere self-infliction of a wound in the back, but the *method* of such an act under certain conditions to which we intentionally and deliberately drew attention. Our information of what transpired at the inquest and trial was received through the usually accredited channels. At present we can only express our regret that Mr. Bowlby should feel injured by what he conceives a misrepresentation of his evidence as to fact and opinion. Our comments were made in the interests of justice, and in the belief that the reason why "neither the counsel for the defence nor the jury were able to solve the difficulty" was that they were not clear as to the possibilities, probabilities, and certainties of the case in its medical aspect.—ED. L.

CHARCOT'S DISEASE.

To the Editor of THE LANCET.

SIR,—The recent discussion at the Clinical Society has excited so much attention, especially with reference to the distinctive character of the affection, that the description of the following case may be of interest. E. C——, forty-two, single woman, was admitted into the wards of the Doncaster Infirmary, under the care of Dr. Sykes. She was an inpatient some years ago with extensive ulceration of the thighs, believed to be of a syphilitic character, and the cicatrices left bear out the supposition. She is a very stout woman, with a fixed rosy complexion and a peculiarly fatuous expression of countenance, constantly smiling in an idiotic manner. She speaks slowly and with a stutter, as if her tongue were too large for her mouth. She says that she has never had rheumatism, but gives a past history of sore-throat and skin eruption. Eight years ago her mother died, which broke up the home and caused her much anxiety, and she was obliged to go into the workhouse. Soon afterwards her hands began to feel numb, the sensation spreading up both arms, and her fingers and hands were swollen so that their use was much affected; her knees next began to swell, without pain, and her legs failed her. She had frequent attacks of giddiness, and could only perform her household duties with difficulty. Her memory became bad and she was subject to sudden failings of sight. Her skin is dry, and hangs in folds over the body. All over the back and also on the abdomen are little tumours, some pedunculated, others sessile, beneath the skin, of the fibroma molluscum type. The arms, particularly the right, are œdematous, and also the legs. Cutaneous sensibility is impaired all over the body. A needle can be plunged into the arms or hands at any point without causing pain. The hands have a clumsy "spade-like" appearance, the fingers curved backwards, and the phalangeal joints seem in a state of partial dislocation. There is no thickening of the articulation of the fingers, wrist, or elbow. She can give a grip of fair and equal power with both hands. There is some difficulty of movement of the left shoulder, and on rotation distinct crepitus is elicited from the joint. The knee-joints are irregularly swollen, no synovitis is apparent, the left larger than the right, and the extensor muscles of the thigh appear to be wasted. The general appearance of the joints is "knotty," like an old tree, and, as she lies in bed, as if there was a partial dislocation backwards and inwards of the leg on the thigh. There are several hard nodular enlargements round the joint, one or two being freely movable. The movements of the joint are quite free, almost more than naturally; no pain is caused by manipulation, nor is any crepitus to be detected. There does not appear to be any enlargement of the ends of the bones themselves. If the thigh be supported the leg swings freely. She is very slow in all her movements. She can walk by herself by taking great care, but if she shuts her eye she reels, and if she then moves forwards she falls. She complains of occasional shooting pains in the head, and also in the abdomen; the latter seem to be of a constrictive character, and occasionally very acute. The area of cardiac dulness is considerably increased on percussion, the heart-sounds are very feeble, but no bruit is audible; the pulse is slow and weak. The urine contains no albumen. The catamenia have always been regular but excessive. She is highly emotional, and laughs or cries on the slightest occasion. She has been treated with iodide of potassium, without any improvement to the general condition.

I have not had the opportunity of seeing any of Professor Charcot's cases, nor of having the benefit of the experience of those who have attended his clinique, but I imagine the above to be a similar condition to that to which the name of the distinguished Frenchman has been assigned. The syphilitic element is very plain in this case, although the condition of the joints does not resemble anything usually met with in that disease. The ataxic symptoms are very distinct, and there are several points in the case that bear a strong resemblance to the symptoms of myxœdema, of which I saw several cases in St. Thomas's Hospital, under Dr. Ord. The condition of the left shoulder-joint is just like an

ordinary case of rheumatoid arthritis. In several cases of myxœdema I noticed that the patients described their symptoms as following on some severe mental trouble, such as bereavement or reverse of fortune, of which this patient also made a point. I cannot see why we should go out of our way to make out nineteenth-century diseases. Darwin, Hutchinson, and men of that type, have simply put together facts that have been staring us in the face for generations, but for want of men of "collective investigation" nature, the gold was passed over by hundreds, before it was picked up by them.

I am, Sir, yours obediently,

J. G. MARSHALL, M.D. Cantab., M.R.C.S.,
House Surgeon, Doncaster Infirmary.

Dec. 26th, 1884.

LUNACY REFORM.

To the Editor of THE LANCET.

SIR,—In the *résumé* in *The Times* of Saturday last of the supposed provisions of the New Lunacy Bill, there is one point that should not be allowed to pass without comment. I do not refer to the locum tenens' duties of the Deputy Commissioners, which are too impracticable to need contradiction; but to the barefaced suggestion to rob the medical profession of the two plums of the New Lunacy Board—viz., the posts of Chairman and Deputy Chairman. The new Commissioners, who must have served for years with the committees of asylums, must surely have had more experience of this particular kind than the well-connected but briefless barristers who are usually promoted to such posts.

The general education of the medical man is equal to that of the barrister, and the technical is certainly superior; while years of experience in the practical working of the Lunacy Laws must render a lunacy commissioner much better fitted for the post of chairman than a barrister totally unacquainted with the subject. It is the duty of alienists, as well as of the profession at large, to make every possible exertion to prevent an injustice, which at the same time is a slur and an insult to the profession.

I am, yours truly,

PSYCHOLOGIST.

Hanwell, December, 1884.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

THE NEWCASTLE INFIRMARY.

I HAVE mentioned in previous letters that a movement was on foot for the extension of the Newcastle Infirmary by the erection of a new wing. I am happy to tell you that the proposition has fallen rather flat, as it was felt by many that the wants of the city and district could best be met by a new building in a more desirable situation than that at present occupied by the institution, which was open to many grave objections, and scarcely at all up to the requirements of modern sanitary science. Lately a meeting of the medical staff has been held, and the members were unanimous in recommending a new site and building in preference to any temporary or patchwork expedient. I believe also that the necessary funds will be found with greater facility now that a new building is likely to be determined upon.

"THE PHILADELPHIA CASE."

In a former letter I referred to this question as exciting a good deal of attention among the friendly societies of the North, and indeed outside them by the profession and the public. It is now settled, and in the following manner: both parties agreed to submit the matter to medical arbitration, and to abide by the decision. Drs. Clarke, Newton, and Hume—with Mr. Hardcastle, surgeon of this city—were appointed, and after a careful consideration they found that the miner's death took place from enteric fever, and was not accelerated by the accident for which it was sought to recover compensation. The case is instructive as showing how, in a matter involving purely medical points, arbitration might be more generally employed, saving immense legal costs, and indeed, I might say, the credit of our profession in the matter of cross evidence.

A WINDFALL FOR THE CARLISLE INFIRMARY.

The Carlisle Infirmary has received a cheque for nearly £2000, which must be regarded as unexpected, and in the light of a windfall. It took place in this way. More than a generation ago a lady died in Cumberland, who left the residue of her property to the infirmary. When the executors wound up her affairs it was found that there was only about £100 left, and an unknown sum to be probably paid to the Inland Revenue. As this was not claimed, it was invested in the funds. Years rolled by, during which executor after executor died, the matter being forgotten, and the sum increasing by way of compound interest to close on £2000. The Commissioners for the Reduction of the National Debt advertised the amount. This led to an inquiry, and representatives of the lady's executors were found, who claimed and received the money, and paid it over to the infirmary last week.

DEATHS OF NORTHERN PRACTITIONERS.

Dr. Valentine Hutchinson, a well-known surgeon in Bishop Auckland, died in that town last week, at the age of sixty-two. He had practised for about forty years, and had held various public offices. Dr. John Todd Macaulay also died in this city last week, at the early age of twenty-five. He was a member of a well-known and highly respected medical family here. His career thus cut short was one of much promise, as he was known to possess abilities in the profession above the average for one of his age and experience. He had likewise gained the good opinion of his medical brethren in this city, and he has died regretted by a great number of personal friends.

MUNIFICENT BEQUESTS BY A SOUTH SHIELDS GENTLEMAN.

Mr. R. Shortridge, a well-known county magistrate of Durham, died at his residence, Cleadon Meadows, South Shields, on the 11th of December. He has left over £8000 to various local and general charities, including the following amounts: Newcastle Infirmary, £2000; Ingham Infirmary, South Shields, £2000; South Shields Dispensary, £500; Deaf and Dumb Asylum, Newcastle, £500; Convalescent Home, Whitley, £500; and £1000 between the South Shields Sick and Indigent Asylum and the Blind Institution, Newcastle. Mr. Shortridge attained the great age of ninety-one years.

YELLOW FEVER IN A NEWCASTLE STEAMER.

The *Iolanthe*, of Newcastle, having arrived in Shields harbour last week from the West Coast of Africa, was boarded by the port sanitary officer, who found that six of her crew, including the boatswain, had died of yellow fever during the voyage; the mate was also attacked, but he recovered. Had this vessel arrived during the hot weather of the past season it might have caused much alarm, though at the present time the temperature on our north-east coast is such that yellow-fever could hardly exist.

THE COUNTY OF NORTHUMBERLAND AND FOOD ADULTERATION.

The reports of the public analyst for the past year have recently been published, and although the County of Northumberland as compared with other counties occupies a fairly favourable position, yet it is to be regretted that it shows an increase of nearly 8 per cent. in the number of adulterations found in articles submitted for analysis. The adulterations, however, would appear to be of the most innocent nature. The mixture used being not sand, alum, nor fetid fats, but water. In every case the adulteration was found either in milk or spirits; thus, in fifty-three samples of milk tested thirteen were found impure. In the case of a complex fluid like milk, however, we do notlike to hear of any admixture of water, fearing that the adulterator may not be scrupulous as to the quality of the water he uses, but rather consider the quantity it will carry without risk of discovery.

Newcastle-on-Tyne, Dec. 31, 1884.

WOLVERHAMPTON AND STAFFORDSHIRE HOSPITAL.—On the 23rd ult. Mr. Vincent Jackson, honorary consulting surgeon at this institution, handed to the weekly board a cheque for £100, which he had received as subscriptions from a few ladies and gentlemen in the town towards the cost of a new building for the treatment of the surgical diseases of women.

IRELAND.

(From our own Correspondent.)

ROYAL COLLEGE OF SURGEONS.

At a recent meeting of the Council, a motion proposed by Prof. Cameron, Vice-President of the College, to the effect that women should be admitted to all the examinations of this College, was adopted, the voting being 7 for and 4 against the resolution. The matter will, it is probable, come before the Fellows very shortly. No doubt there is a difference of opinion as to the desirability of admitting ladies to practise medicine and surgery, but, if women will be qualified, it is better that they should obtain their diplomas from an institution like the Royal College of Surgeons in Ireland than from some other licensing body where only a minimum of professional knowledge is expected.

PRESENTATION ADDRESS AND TESTIMONIAL TO DR. DENHAM OF DUBLIN.

This esteemed member of the obstetric branch of the profession—a leading practitioner for many years in Dublin having intimated his intention of retiring from practice, it has been resolved by numerous friends to present him with an address and testimonial, to show the respect and esteem in which he is held. Dr. Denham formerly held the responsible post of Master to the Rotundo Lying-in Hospital, and is an ex-President of the Royal College of Surgeons in Ireland. In consequence of failing health he some time since retired from the Council of his College, having been a member of it for many years. I am confident that the many friends of Dr. Denham will regard it as a duty and a pleasure in cordially co-operating to carry out the proposed address and testimonial.

ENNIS DISTRICT LUNATIC ASYLUM.

Dr. Daxon, late medical superintendent of this asylum, having retired in consequence of failing health, has been replaced by Dr. Richard Philips Gelston, who for the past fifteen years has occupied the post of assistant medical officer at Clonmel Asylum. The appointment is worth £400 per annum, with the usual emoluments, and an increase of £20 every third year until the salary reaches £500.

DUBLIN ORTHOPÆDIC HOSPITAL.

From the report which was adopted at the recent annual meeting in connexion with this institution, it appears that there are now thirty-one beds available, which the committee hope to increase to forty as soon as funds will permit. Several speakers referred to the advisability of amalgamation between the institution and the National Orthopædic and Children's Hospital, and the Lord Mayor, who presided, was requested to inform the Corporation that for the last four years they had been most anxious for a grant. It has, however, recently been stated that the National Orthopædic Hospital is about to amalgamate with another Dublin institution.

MATER HOSPITAL FOR WOMEN AND CHILDREN.

This admirable institution having become involved in a debt of some £400, which impaired its efficiency, a bazaar was recently in order to remove this liability. Since its foundation, more than ten years since, the hospital has been of incalculable benefit, and it is to be hoped the bazaar in aid of funds may have been as successful as its promoters could desire.

PARIS.

(From our Paris Correspondent.)

COCAINE.

The medical press is full of cocaine just now; and most of the writers who have referred to it seem to speak of it as a new discovery, which they attribute to Dr. Koller. This is simply giving the young Vienna physician more credit than he ever claimed for himself, and all that can be accorded to him (and that is a great deal) is his being the first who applied cocaine to ophthalmic practice, for its anæsthetic properties had long been known. Other writers, in giving the history of coca and its derivatives, and of their therapeutical applications, have entirely ignored what had been done in France with these drugs. Dr. Charles Fauvel, the celebrated laryngologist of Paris, has, to my own knowledge, employed a concentrated extract of coca since 1869 at his clinique as a local anæsthetic in naso-pharyngo-laryngeal affections. In 1877 Dr. Scaglia, Dr. Fauvel's chef de clinique, published a report in the *Gazette des Hôpitaux*, in which the anæsthetic property of coca and its efficacy in painful affections of the throat was brought to the notice of the profession. In 1878 Dr. Coupard, another of Dr. Fauvel's chefs de clinique, published in the *Tribune Médicale* a report entitled "La Coca dans les Affections douleureuses du Pharynx et du Larynx," in which a strong alcoholic extract from the leaves of the coca is stated to have been employed for painting the throat. In 1880 Dr. Coupard, in conjunction with Dr. Bordereau, undertook a series of experiments with a hydrochlorate of cocaine, which was obtained from the plant under their immediate supervision, at which the local anæsthetic and mydriatic effects were clearly established; but, for some unaccountable reason, this discovery did not receive further attention, either in this country or elsewhere, until the announcement made by Dr. Koller at the Ophthalmological Congress held at Heidelberg in September last. The experiments of Dr. Coupard were repeated, and verified in 1882 by Dr. Laborde, the well-known experimental physiologist, who, in addition, proved that cocaine possessed general anæsthetic properties as well. To this day Dr. Fauvel employs a solution of coca for painting the throat in the various forms of painful angina, which he prefers to cocaine, as, however useful the latter may be in ocular or other therapeutics, he considers it inapplicable to affections of the throat, owing to its toxic properties. Moreover, cocaine is much more expensive and less manageable than coca, though Dr. Fauvel would admit that when the former is employed with caution it is far superior to coca for laryngoscopic examinations, for which he uses a 5 per cent. solution of the hydrochlorate of cocaine. This he much prefers to the old method of painting the pharynx with a saturated solution of the bromide of potassium, or to the German method of touching the vocal cords alternately with pure chloroform and a concentrated solution of morphine for twelve consecutive hours, in order to produce insensibility of the parts prior to operation. Besides the local employment of coca, Dr. Fauvel prescribes it as a general tonic and as a stimulant to the cerebro-spinal system in the form of infusion, pastilles, and wine; and he has observed that even when administered by the stomach, the tonic action of coca is so marked in cases of atony of the muscles of the larynx and relaxation of the vocal cords, that Dr. Fauvel has given it the name of "tenseur des cordes," and it has long been a popular remedy among singers, public speakers, &c.

DEATH OF M. J. B. GEORGE.

It is with regret I have to report the death of Mr. J. B. George, the well-known dentist of Paris, which took place on December 22nd, when he had just completed his fifty-eighth year. Mr. George had been practicising as a dentist for nearly forty years, during which time he acquired a great reputation as a skilful operator, and had one of the best practices among the *élite* of Parisian society. His son, who has just attained his majority, and has served his apprenticeship under his father, has succeeded to the practice, but being still rather young, he is ably seconded by Dr. Thomas, a renowned dentist of New York, who formerly worked with his father. Dr. Thomas had returned to New York, but on hearing of the serious illness of Mr. George he came back to Paris to give a helping hand to the son.

Paris, Dec. 30th.

MANCHESTER ROYAL INFIRMARY.—At a meeting of the Board of Management of this institution on the 29th ult., attention was called to the position taken up by the Health Committee of the Corporation in regard to payments for patients in Monsall Hospital. The Health Committee, believing that patients sent by them to the hospital are kept longer than is necessary, have refused to pay in full the accounts for the last two quarters. The deductions they make amount to about £500. The infirmary board, insisting that in such a matter they must be guided by their medical staff, passed a resolution expressing surprise at the action of the Health Committee, and calling upon them at once to pay what is due.

Medical News.

UNIVERSITY OF CAMBRIDGE.—At the examinations for Medical and Surgical Degrees held during Michaelmas term, the following candidates were approved:—

THIRD EXAMINATION FOR THE DEGREE OF M.B.

PART I.—Ds. Clarke, Caius; Griffith, Down.; Mag. Habershon, Trin.; Mag. Haviland, Joh.; Ds. Hillier, Caius; Ds. Musgrave, Magd.; Ds. Piggott, Emman.; Ds. Reid, Cav.; Ds. Ritchie, Trin.; Ds. Sherrington, Caius; Ds. Stericker, Clare; Turner; Weston, Caius.

PART II.—Ds. Emerson, Clare; Griffith, Down.; Mag. Habershon, Trin.; Ds. Knaggs, Caius; Mag. Lyon, Emman.; Ds. Rutherfoord, Caius; Ds. Sherrington, Caius; Mag. Styan, Trin.; Ds. Trott, Caius; Turner; Ds. White-Cooper, Trin.

DEGREE OF B.S.

Ds. Piggott, Emmanuel; Shaw, Sidney; Mag. Street, Trinity; Ds. Ritchie, Trinity.

UNIVERSITY OF DUBLIN.—The following degrees were conferred at the winter commencements:—

BACHELOR IN SURGERY.—Baptist Gamble Frith, William Hallaran, Francis John Harpur, G. Kiddle, Telford Smith.

BACHELOR IN MEDICINE.—Alexander James Boyd, John Blacker Buchanan, Thomas N. Flood, Baptist Gamble Frith, Richard Whately Gilmore, William Hallaran, G. Kiddle, Francis Joseph George King, William Richardson Rice, Rowland Hill Scovell, John James Watson.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At the December examinations the following, having passed their final examinations for the Letters Testimonial, were admitted Licentiates of the College:

Alfred E. T. Barcroft, Patrick J. Barry, Anthony L. Blake, Henry Breen, Edward Browne, Allan Butler, William J. Darby, Vesey Davoren, Ignatius P. Doyle, John Emerson, John Esmond, Henry J. Flanagan, William F. Fullam, Joseph W. Gallagher, John J. Gaynor, George E. Greene, James Halpin, Ernest Howe, Francis Knox Blake, John E. Lanegan, William H. Suggar, Anthony J. Luther, Joseph D. McFeely, John McGuinness, Herbert C. Mooney, John L. Moore, Bernard Murray, James Normile, Marshall P. O'Donovan, Paul A. Peile, James E. Riddle, Alfred J. S. Roe, John C. Sellers, Graves Stoker, Henry Stoker, Davis D. Tate, Robert C. Thacker, Richard H. Vereker.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 23rd ult.:—

Bates, George Tweedie, University College.
Caswell, George William, University College.
Fowler, Walter, Guy's Hospital.
Hildyard, Robert Loxham, King's College.
Jones-Humphreys, Yarry Meyrick, Guy's Hospital and Liverpool Royal Infirmary.
Leggatt, Gerard Stedman, St. Bartholomew's Hospital.
Lavies, Harry Brandreth, King's College.
Monk, Henry George Hawkins, King's College.
Selway, Leonard, Guy's Hospital.
Stedman, Frederick Osmund, Charing-cross Hospital.
Stubbs, Percy Bedford Travers, St. Bartholomew's Hospital.

The following gentlemen also on the same day passed the Primary Professional Examination:—

George Taylor Gifford, King's College; Samuel Edwin Lambert Smith, General Hospital, Birmingham.

DR. PALEY, of Peterborough, fractured one of his thighs on the 26th ult., through a fall in the hunting-field.

THE Queen has presented to the funds of the Booksellers' Provident Institution a donation of £20.

ST. ANDREWS UNIVERSITY.—The Chair of Chemistry, vacant by the retirement of Professor Heddle, has been filled by the appointment of Thomas Purdie, Ph.D., B.Sc. Lond.

VACCINATION GRANT.—Mr. R. L. Shone, M.R.C.S. and L.S.A., has received the Government grant for successful vaccination in the Mortlake district of the Richmond Union.

THE DEATH OF A GOODS GUARD.—An inquest was held at New Barnet on the 30th ult. on the body of Joseph Nichols, a guard, of Bingfield-street, Caledonian-road. The deceased was the only occupant of a third-class compartment in a train proceeding on Saturday from King's-cross to Peterborough, his duty being to work another train back. The train stopped at Hitchin, and Nichols was then missed. His body, fearfully mutilated, was found on Sunday morning in Barnet Tunnel. The supposition is that he fell out of the train and was run over. A verdict of accidental death was returned.

QUEEN CHARLOTTE'S HOSPITAL.—A petition has been addressed to Her Majesty in Council, praying that a charter of incorporation may be granted to Queen Charlotte's Lying-in Hospital. Having been referred to a Committee of the Lords of the Council, the petition will be taken into consideration on the 31st inst.

ASSOCIATION OF PUBLIC SANITARY INSPECTORS.—At the meeting to be held to-day (Saturday), at 6 o'clock, at 1, Adam-street, Adelphi, Mr. Edward C. Robins, F.S.A., will deliver an address on "The Growing Importance and Responsibility of Public Sanitary Inspectors explained, and their Relative Improvement in Education, Position, and Emoluments considered."

ON the 30th ult. an inquest was held at Chester on the body of Maria Burns, aged forty-three years. She attempted to light a paraffin lamp by thrusting the top into burning coals. The top came off, and her dress caught fire. Paralysed and unable to cry for assistance, she was found in a dreadful condition sitting down with her burning clothes about her. She died shortly afterwards. A verdict of accidental death was returned.

THE WORKING MEN'S CONVALESCENT HOME.—The first annual report of the Committee of Management of Morley House Convalescent Home at St. Margaret's Bay, near Dover, states that at the close of the financial year there was a balance after payment of all expenses of £63. A loan of £2000, obtained to effect the purchase of the freehold of the building and seven adjacent acres of land, however, still remains to be paid off. The subscriptions and donations during the past year amounted to £1610, and the payments by patients to £175.

THE RICHMOND WATER-SUPPLY.—After an expenditure of some thousands of pounds, the Richmond Select Vestry, upon the recommendation of the Water-supply Committee, have resolved to discontinue the deep boring of their well. In their report the committee state that it is not now clear to them that as the boring progresses there is a satisfactory increase in the yield of water; that the difficulty of boring and the consequent expense increase with every foot bored; that the opinion of Professor Judd, one of the highest authorities in the kingdom, only indicating a possibility but not a probability of finding water is not encouraging; and while the committee would gladly continue boring in the interests of science, they feel bound in the interests of the ratepayers not to continue unless there is a reasonable and well-supported prospect of ultimate success. At the last ordinary meeting of the Vestry, the chairman (Major Bull) stated that it might be possible that some learned society or the Government might be induced to grant money to continue the boring operations at the well in the interests of science. It had attracted a vast amount of attention in this country and on the Continent and throughout the world, but more particularly among French scientists, who had discussed it at their meetings. The present depth of boring is 1439 feet.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

ACKERY, JOHN, M.R.C.S., L.D.S., has been appointed Assistant Dental Surgeon to St. Bartholomew's Hospital.

ADDENBROOKE, E. H., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer of Health for the District of Kidderminster.

ALLEN, Mr. ALFRED HENRY, has been reappointed Public Analyst for the Borough of Wakefield.

BEATTIE, HENRY, L.R.C.P.L., M.R.C.S., has been appointed Medical Officer for the South District of St. George's in the East, vice Pritchard, deceased.

BUCHANAN, JOHN, M.B. & C.M.Glas., has been appointed Junior House-Surgeon to the Royal Albert Edward Infirmary, Wigan, Lancashire, vice A. B. Liptrot, resigned.

BUCKBY, ROBERT GREVILLE, L.R.C.P.Ed., L.R.S.I., has been appointed Medical Officer for the Bulwell District of the Basford Union.

BUSH, J. PAUL, M.R.C.S., has been appointed Surgeon to the Bristol Police Force, vice F. R. Cross, M.B., F.R.C.S., resigned.

COLLINS, WILLIAM JOB, M.D., B.S., B.Sc.Lond., F.R.C.S.Eng., has been appointed Ophthalmic Surgeon to the North-West London Hospital.

DACRE, JOHN, L.R.C.P.Lond., M.R.C.S., has been appointed House Physician to the Bristol Royal Infirmary, vice J. Fenton Evans M.B., promoted.

ELLIOTT, W. T., L.D.S.Ed. & Dub., F.C.S., has been appointed Assistant Dental Surgeon to the Birmingham Dental Hospital.

EVANS, A. FENTON, M.B., C.M., has been appointed House-Surgeon and Senior Resident Medical Officer to the Bristol Royal Infirmary, vice J. Paul Bush, resigned.

EVANS, T. ANEURIN, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer of Health for the Flint Urban Sanitary District, vice Jones, deceased.

FLETCHER, WILFRED W. E., M.B.Cantab., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer of Health for the Ormskirk Rural Sanitary District, vice the Poor-law District Medical Officers, whose appointments have expired.

HAWKINS, ALEXANDER F., L.R.C.P.Lond., M.R.C.S., has been elected Honorary Obstetric Officer to the Queen's Hospital, Birmingham.

HAWKINS, C. F., M.R.C.S., L.S.A.Lond., has been appointed Public Vaccinator for the District of Clifton, Bristol, vice L. Matthews Griffiths, M.R.C.S., resigned.

HAWKINS, FRANCIS H., M.B., C.M., has been appointed House-Surgeon to the Victoria Hospital for Sick Children, Queen's-road, Chelsea, S.W.

HUTCHINSON, JONATHAN, jun., M.R.C.S., has been appointed Surgical Registrar to the London Hospital.

JAMES, J. LEWIS, M.D., has been appointed Attending Medical Officer to the South London Medical Aid Institute, vice E. O. Day, resigned.

LEFFINGWELL, Mr. EDWARD, has been appointed Demonstrator to the Dental Hospital of London.

LIPSCOMB, A. BAILEY, M.R.C.S., L.R.C.P.Ed., has been appointed House-Surgeon to the Liverpool Eye and Ear Infirmary.

MARSHALL, ALFRED S., M.R.C.S., L.R.C.P.Ed., has been appointed Assistant Dental Surgeon to St. Bartholomew's Hospital.

MAYFIELD, WILLIAM ELLIS, L.R.C.P.Ed., L.R.C.S.Ed., has been re-appointed Medical Officer of Health for the Pudsey Urban Sanitary District.

PEARD, JOHN, F.R.C.S.Eng., has been appointed Surgeon to the Miller Memorial Hospital, Greenwich, S.E.

PETRIE, HARRY, M.R.C.S., has been appointed Medical Officer for the Preston District of the Basford Union.

POWELL, A. WORSLEY, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Assistant Colonial Surgeon and Medical Officer to the Mount Gambier Hospital, South Australia.

SHAW, JOHN A., M.R.C.S., L.S.A.Lond., has been reappointed Registrar to the Victoria Hospital for Children, S.W.

THURSTON, HUGH C., M.R.C.S., L.R.C.P.Lond., has been appointed Assistant Resident Medical Officer and Pathologist to the Bristol Royal Infirmary, vice J. Daere, promoted.

TURNBULL, HAROLD A., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Second District of the Eastbourne Union, vice Billing.

WHITEHOUSE, BENJ. ARTHUR, M.D.L., M.R.C.S., S.S.Cert.Camb., has been appointed Medical Officer of Health for the Nottingham Urban Sanitary District, vice Seaton, resigned.

Births, Marriages, and Deaths.

BIRTHS.

DAY.—On the 4th ult., at Dundas Villa, Redcar, Yorkshire, the wife of William A. Day, M.R.C.S., of a daughter.

HASKELL.—On the 27th ult., at Oldfield House, New Cross, S.E., the wife of Morgan Dockrell, B.A., M.B.Dub., of a daughter.

LAWLEY.—On the 29th ult., at The Limes, Woking, the wife of T. Cawley Lawley, M.D., of a daughter.

MAYES.—On the 22nd ult., at Clarges-street, Mayfair, the wife of Thomas Crawford Hayes, M.D., of a daughter.

PARKER.—On the 18th ult., at British Burmah, the wife of T. Franklin Parker, M.D., Health Officer, Rangoon, of a daughter.

PENNY.—On the 27th ult., at Pinxton, Derbyshire, the wife of Edward Penny, M.D., of a son.

STOCKER.—On the 20th ult., at Weston House, Richmond-gardens, Shepherd's-bush, the wife of Chas. J. Stocker, L.R.C.P.L., of a daughter.

WATKINS.—On Nov. 14th, at Boshof, Orange Free State, South Africa, the wife of Harold Fuller Watkins, M.B. C.M.Ed., of a daughter.

WELLS.—On the 29th ult., at College-crescent, Belsize-park, N.W., the wife of Chas. Wells, M.D., M.R.C.S., &c., of a son.

MARRIAGES.

GILMOUR—GILMOUR.—On the 23rd ult., at the Alexandra Hotel, Glasgow, Hugh Arthur, M.D., Airdrie, to Elizabeth Gilmour, only daughter of James Mennel, Esq., Muirhead, Shotts.

ASHWORTH—SMYTHE.—On the 23rd ult., at the Parish Church, Hunstanton, J. Henry Ashworth, F.F.P.S. Glas. and M.R.C.P. Ed., of Hunstanton, Essex, to Kate, younger daughter of the late Henry Smythe, M.D., of King's Lynn.

BARKER—BARKER.—On the 18th ult., at All Saints', Oldham, Hants, Charles Wilmot Barker, M.D., M.R.C.P., son of the late Harry Wilmot Barker, Esq., Barrister-at-law, to Louisa Frances Agnes Barker.

DEATHS.

DODD.—On the 28th ult., at 10, Carlisle Parade, Hastings, Mary, the wife of Russell Dodd, M.R.C.S., L.R.C.P.Lond., of 24, Montagu-street, Portman-square, W.

LLOYD, the 28th ult., at Llanfabon, John Leigh, J.P., F.R.C.S., aged 58.

VAUGHAN.—On the 17th ult., at his residence, Llanvair House, Builth, John Vaughan, late Surgeon-Major Bombay Army, in his 57th year.

WRIGHT.—On the 28th ult., after a short illness, John Freeman Wright, M.R.C.S., of Meridian-road, Clifton, and late of Seymour-street, London, aged 66.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, January 5.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. each day, and at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. T. Lauder Brunton: Digestive Disorders, their consequences and Treatment (Lettsomian Lecture).

Tuesday, January 6.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 P.M., and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 1 P.M., and on Fridays at 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Tyndall: The Sources of Electricity.

SOCIETY FOR THE STUDY AND CURE OF INEBRIETY.—4 P.M. Quarterly General Meeting.—Mr. Lennox Browne: Inebriety as affecting the Vocal and Respiratory Organs.—Communication from Dr. Joseph Parrish, President of the American Association for the Cure of Inebriety.

PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Lane; Fracture of the First Rib alone, and its Causation.—Mr. Godlee: Extensive Fracture of the Skull in an Infant, with Effusion of Serous Fluid.—Mr. Pepper: A Case of Malignant Disease of the Spermatic Cord.—Dr. Norman Moore: (1) Congenital Disease of Heart; (2) Hæmorrhage into the Substance of the Liver (card).—Mr. Lockwood: Rudimentary Abdominal Ribs (card).—Dr. Silcock: Tubercular Disease of the Epididymis (card).—Dr. Charlewood Turner: (1) Congenital Stenosis of Œsophagus; (2) Aneurysm of the Aorta opening into the Œsophagus (card); (3) Aneurysm of Sinus of Valsalva, with Abnormal Coronary Arteries.—Dr. Herringham: Two Specimens of Calcareous Change in the Spinal Membrane (card).—Mr. Poland: Synostosis of Foot (card).—9.30 P.M. Election of Officers and Council.

Wednesday, January 7.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour. Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

Thursday, January 8.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Tyndall: The Sources of Electricity.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8 P.M. Living and Card Specimens. 8.30 P.M. Mr. F. R. Cross: (1) Case of Congenital Iridæremia; (2) Cystic Tumour of Iris; (3) Cholesterine Crystals in the Vitreous.—Mr. E. Nettleship: Total Detachment of Retina of long Standing, with Retention of some Sight.—Mr. W. A. Brailey: Irido-cyclitis, with Hyphæma and enormously deep anterior chamber (sequel of case shown at the last meeting).—Mr. G. Hartridge: Opaque Nerve Fibres.—Mr. W. H. Jessop: Tubercle Bacilli in Blood Serum (cultivated), and in Iris of Rabbit (after inoculation).—Ophthalmoscopes will be exhibited by Messrs. Couper, Gunn, Morton, G. L. Johnson, and others—Mr. W. H. Jessop: On the Cocainised Eye; Discussion on the Action of Cocaine (adjourned from last meeting).—Mr. W. A. Brailey: On the Condition of the Ciliary Nerves in various Eye Diseases, with microscopical specimens.—Mr. J. Couper: An Improved Ophthalmoscope.—Mr. A. S. Morton: An Improved Students' Ophthalmoscope.—Report of the Committee on the Influence of the Vapours of Bisulphide of Carbon and of Chloride of Sulphur on the Vision and General Health.

Friday, January 9.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

CLINICAL SOCIETY OF LONDON.—8.30 P.M. Annual General Meeting for the Election of Officers and Council.—Dr. Hale White: Case illustrating Lesions of the Frontal Lobe, with very few symptoms.—Dr. Pringle: A Case of Recurrent Hæmatemesis, with Urticaria.—Mr. B. Roth: A Case of Hydrocephalus in a Boy aged Sixteen, who has never walked (living specimen).

Saturday, January 10.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, January 1st, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
Dec. 26	30·12	N.E.	37	35	...	37	35	...	Overcast
,, 27	30·06	N.E.	37	35	...	38	33	...	Overcast
,, 28	30·10	E.	37	36	...	39	34	...	Overcast
,, 29	29·84	E.	37	36	...	39	35	...	Overcast
,, 30	29·90	E.	36	34	...	36	34	...	Overcast
,, 31	30·16	E.	34	33	...	43	32	...	Foggy
Jan. 1	30·29	S.E.	31	...	...	34	30	...	Bright

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

OVARIOTOMY.

AT a recent meeting of the Surgical Section of the Academy of Medicine in Ireland, a paper on Ovariotomy, by Mr. William Thomson, was the subject of considerable discussion. There were two points principally under consideration—namely, the question of drainage, and of specialism as regarded the operation. It was generally conceded that hospital surgeons accustomed to emergencies of all kinds were perfectly competent to perform ovariotomy, as compared with obstetric surgeons, and that there was no valid reason why the latter should have a monopoly of the operation in question. Drainage-tubes, it was believed, might usually be dispensed with, although occasions arose when their use might be of advantage. Dr. Lombe Atthill, ex-Master of the Rotunda Lying-In Hospital, who has had the most extensive experience of ovariotomy of any surgeon in Ireland, was of the opinion that there was a better chance of recovery when the operation was undertaken in the early stages of ovarian disease.

Z. Y. X.—We do not know of any society of the kind mentioned. The instruments are very inexpensive.

"A NEW FORM OF DILATOR FOR STRICTURE OF THE URETHRA."

To the Editor of THE LANCET.

SIR,—The dilator which Mr. Walsham describes in your issue of Dec. 20th is identical in principle and construction with one made for me by Messrs. Meyer and Meltzer, and which was the result of months of careful and costly experiments. It was exhibited at the Obstetrical Society of London on June 4th, 1884; and I stated that although it had been invented for dilating the uterus, it might be used for the urethra. I have not found it necessary to carry the indiarubber sheath over the whole instrument, but I stated at the meeting that this might be done if thought necessary. The credit of inventing this excellent dilator is more due to Mr. Meyer than myself; and, I am sure, Mr. Walsham would not wish to deprive him of any meed or material advantage which has been so laboriously earned.—Yours faithfully,

Upper Wimpole-street, W., Dec. 24th, 1884. JAMES H. AVELING.

Mr. Geo. Padley.—The insertion of the note would probably give rise to a controversy for which at present we have not space.

Novice.—1. Yes, price 2*s.* each.—2. No.—3. No instructions would be necessary.

THE CASSAN FUND.

To the Editor of THE LANCET.

SIR,—Will you allow me to acknowledge through your columns the following additional donations received towards this fund:—The Lincoln Medical Society, £10; Dr. O'Connor, Gainsborough, £1 1*s.*

I am, Sir, yours faithfully,

H. F. LANCASTER, M.D.

275, Lewisham High-road, S.E., Dec. 31st, 1884.

THE EXCELSIOR GYMNASIUM.

Dr. J. Sawyer and others.—The address of the inventors of the above-named ingenious apparatus was inadvertently omitted from the description we gave of it last week. It is as follows:—Messrs. Chadborn and Caldwell, New York, and 223, Upper Thames-street, London.

Opium.—There is as yet no such establishment in England, nor have we heard of any in Germany. The demand for an institution of the kind is not, we trust, sufficient to render it necessary.

THE P. AND O. COMPANY'S MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—I beg to forward for your perusal an exact copy of a circular recently issued by the P. and O. Steam Navigation Company in reference to the conduct of the surgeons of their steamers.

The first paragraph—viz., prohibiting surgeons from claiming fees from sick passengers—I have nothing to find fault with. We are paid a fixed salary by the Company for our services, which are supposed to include professional attendance on all sick people on board, whether crew or passengers.

The second paragraph, however, states: "A passenger is not only entitled to medical attendance and medicines whilst he is on board, but he is entitled to ask for and to obtain a copy of the prescription for any medicine which the surgeon has administered to him." In other words, a passenger is not only entitled to medical attendance while on board ship, but can, by means of a prescription compulsorily exacted, render himself independent of further advice when he goes on shore.

The third paragraph is far more arbitrary. I had hitherto believed that medicines were supplied by the Company to their ships for the exclusive use of the surgeons in the treatment of patients under their charge, but it would appear that we are expected to perform in addition the role of pharmaceutical chemist, and blindly dispense a prescription for any passenger without having previously ascertained that it be suitable to the present state of the patient, except only that we are considerately told in an added clause that "the surgeon would not be justified in administering in these circumstances an unusual dose, or in making up a prescription to a patient who was very ill, without in the first instance satisfying himself that the medicine was suitable to the circumstances of the case." Or, in plain language, we are seriously informed that we are not justified in following out their instructions so literally as to run the risk of poisoning a patient, and that in cases of serious illness we are allowed to satisfy ourselves of the suitability of the medicine to the circumstances of the case.

It would surely be no great hardship for those who desired to continue a certain course of treatment to bring with them a supply of medicine sufficient for their use during the voyage, or, failing this, they might easily procure the same at one of the numerous ports touched at by the Company's mail steamers, in all of which are chemists well qualified to dispense English prescriptions.

The responsibility for this circular, however, does not rest entirely with the managing directors of the Company, as they possess the services of a medical inspector, who is in attendance weekly at the head office of the Company in London, and without whose knowledge and approval no such document would have been issued.

I am, Sir, yours truly,

A P. AND O. SURGEON.

"No. 140." "MEDICAL FEES."

"Peninsular and Oriental Steam Navigation Company's Offices,
124, Leadenhall-street, London, E.C., 1st Nov., 1884.

"*To the Commander of the SS.* '

"Dear Sir,—Complaints have recently been made by passengers that surgeons of the Company's ships have applied to them for fees, and we have found to our great regret that these complaints have been to a large extent justified. As the surgeons against whom the complaints were laid alleged special circumstances in the respective cases, we have now to intimate that under no circumstances whatever is a surgeon allowed to ask for a fee.

"A passenger is not only entitled to medical attendance and medicines whilst he is on board, but he is entitled to ask for and to obtain a copy of the prescription for any medicine which the surgeon has administered to him.

"It does and must happen that passengers in delicate health, or subject to occasional attacks of illness, will desire to obtain medicines which have been prescribed for them by previous medical advisers. It is our wish that every facility should be given by the surgeon to gratify this natural desire, and surgeons are requested to dispense any prescription which a passenger may ask them to make up if they have the medicines required, so long as the prescription does not direct the employment of any powerful medicine in an unusual dose, and the passenger is not seriously ill.

"The surgeon would not be justified in administering in these circumstances an unusual dose, or in making up a prescription to a patient who was very ill, without in the first instance satisfying himself that the medicine was suitable to the circumstances of the case.

"We have pleasure in testifying that complaints of the kind referred to have been made against only a small minority of the surgeons, and we are satisfied that as a rule the surgeons of the fleet are gentlemen whose habits of tact and forbearance are sufficient to ensure in all cases a feeling of cordiality between themselves and their patients; and this is an additional reason why we shall feel it incumbent on us to deal severely with surgeons who, under the influence of short-sighted motives, come unpleasantly into collision with the passengers of whom they have charge. You will be good enough to obtain the signature of the surgeon of your ship to this circular, as evidence that he has read and noted its contents, and you will adopt the same course when a fresh surgeon joins, in order that none may plead ignorance of our wishes.

"We are, Dear Sir, yours faithfully,

"THOS. SUTHERLAND (for the Managing Directors.)"

WEEKLY DINNERS FOR POOR CHILDREN.

THE London Cottage Mission have issued an appeal, announcing that they have commenced their Irish stew dinners to the poor children in the East of London, but that the funds of the Mission being so low, and there being so many pressing liabilities to meet in connexion with the Summer Home and general mission works, the dinners must cease unless special contributions are obtained. Whatever differences of opinion may be held as to the relative merits of penny dinners, half-penny dinners, and free dinners, of their absolute utility there can be none. The movement is a good one, and deserves extensive support. Subscriptions and donations will be thankfully received and acknowledged by Miss F. Napton, the Lady Superintendent, 304, Burdett-road, Limehouse, E.; the London and South-Western Bank, 7, Fenchurch-street, E.C.; and by Walter Austin, Managing Director, 44, Finsbury-pavement, E.C.

Medicus.—1. Our correspondent cannot practise legally on this diploma.—2. He is not likely to be convicted for using the title attaching to his degree, if obtained after a *bona fide* examination.—3. He cannot obtain an English licence without an examination.

M.R.C.S.Eng.—No. The case is a hard one; but such is the law. The examination covered all branches of practice—surgery, medicine, and midwifery; but the diploma is a qualification only in surgery.

ELECTION TO HOSPITAL APPOINTMENTS.

To the Editor of THE LANCET.

SIR,—On behalf of the large number of applicants which there is at the present time for any resident hospital appointment, I would ask you to draw your attention to the fact that the authorities of some hospitals seem quite regardless of the expense to which they put the candidates for such posts. Let me tell how matters are managed when the committee of a large and well known hospital in the Midlands advertises a vacant appointment. Each candidate is supplied with a list of the members of the committee, some forty or fifty in number. To each of these he must send a copy of testimonials. He further learns with dismay that he is expected (of course, it is optional, but a man stands a poor chance of success who neglects it) to interview personally and individually the men whose names appear on this list. The anxious candidate then sets out on his travels, starting perhaps from London, Edinburgh, or Dublin, and spends several days in seeing the members of the committee, on some of whom he calls three, four, or even more times before he obtains an audience. He is in a few cases received with attention, and interest is shown in the election. In most cases he is treated with curtness little short of rudeness. He usually finds that little interest is manifested in the affair by those whom he has come perhaps hundreds of miles to see. They say (and with truth) that "they leave these things in the hands of the visiting staff." His canvass ended, the candidate returns home, only to make another journey a few days later to appear at the election. Here the candidates are told that as their presence, though perhaps deemed necessary, was not actually requested, no travelling expenses can be allowed. The successful candidate may think lightly of the pounds he has expended in obtaining his appointment—no small percentage, perhaps, of his next year's salary—but the rejected men look regretfully at the total of their travelling and hotel expenses for the last few weeks, and think hard things of those who instituted so wasteful a system of election.

I could give other instances of men called from a distance to interview committees, sometimes twice in connexion with the same appointment, when "no expenses were allowed." I have, moreover, noticed that in those cases where travelling expenses of selected candidates are allowed only three or four are usually selected for a personal interview with the electing committee, but that where these expenses are borne by the candidates the committee is by no means niggardly in the number of men selected or the number of times their presence is required. Thus, much more money is spent by the candidates in an appointment of this sort than it would have been necessary for the hospital committee to expend on a properly conducted election.

As there are two sides to a bargain, and the hospital is as much a party to the election as the person elected, and certainly derives greater benefit from it than the unsuccessful candidates who are made to bear the greater part of the expenses connected with it.

I should be glad, Sir, if you would through the columns of your journal urge the payment of travelling expenses to selected candidates for appointments as I have mentioned, and discountenance the system in any form as being either unfair or useless.

I am, Sir, yours obediently,

December 27th, 1884. AN UNSUCCESSFUL CANDIDATE.

ARMY PROMOTION.

We observe that our contemporary the *Army and Navy Gazette* is of opinion that we should inform him "by whose hand" a verbal correction was made in the questions for promotion of surgeons-major which were published in THE LANCET. We cannot gratify his curiosity, as we printed them exactly as we received them, through the courtesy of the Director-General, in reply to an application which we made for them, as we considered they would be interesting to many of our readers.

POISONOUS CONFECTIONERY.

AT a recent meeting of the New York Health Board, Dr. Cyrus Edison presented his report upon the adulteration of candies. The factories and goods of sixty-four firms engaged in the manufacture of sugar confectionery in New York were inspected. Thirteen of these firms were found to be using chrome yellow (chromate of lead) for imparting a yellow colour to their candies. Five of the thirteen were using chrome green (chromate of lead and ferrocyanide of iron), red lead (red oxide of lead), vermilion (bisulpheret of mercury), and Prussian blue (ferrocyanide of iron). Three were using burnt umber, for imparting a chocolate colour; one was using fuschine (an aniline contaminated with arsenic), for imparting a red colour. The sugar confectionery coloured with poisonous pigments in the possession of manufacturers was seized and destroyed.

Enquirer.—Absolute perfection in any human work is not to be expected. The query propounded in the last part of our correspondent's letter must be answered in the affirmative.

Idem.—There is no invariable rule. It is right to ascertain the custom of the place, and to act accordingly.

Mr. F. N. Williams.—The question is too vague, but appears to be one that ought to be put to a solicitor.

A Constant Reader.—40, Margaret-street, Cavendish-square, W.

"UNSOUND MEAT."

To the Editor of THE LANCET.

SIR,—In your issue of the 20th ult., Dr. Henry E. Armstrong says that the medical officer of health, and not the veterinary surgeon, is the proper authority on the fitness of flesh for the food of man. He also asserts that the diagnosis of the veterinary surgeon as an expert on the diseases of quadrupeds should be accepted by a medical officer as a basis on which to arrive at a proper conclusion, but nothing more. In due deference to Dr. Armstrong I beg to assert that a veterinary surgeon and not a medical officer is the proper authority as to the fitness of flesh for human food. Surely, if a veterinary surgeon is to be called in as an expert to inform the medical officer as to the disease the animal has been suffering from, he (the veterinary surgeon) must be the fit and proper person to form a correct opinion as to whether the flesh is fit for food or not. In support of my views, I maintain that medical officers know little or nothing about the diseases and post-mortem appearances of quadrupeds, or why call in a veterinary surgeon to assist them, to arrive at a proper conclusion? Perhaps Dr. Armstrong has not forgotten the very serious outbreak of anthrax in cows, which occurred in this city a few years ago? If he had then been conversant with the post-mortem appearances of that fatal disease, he would never have made the serious mistake he then did of passing the flesh as fit for food; that anyone knowing the disease from which they suffered would never dream of doing; at least no veterinary surgeon would. It will be interesting to the curious to know that it was not until a veterinary surgeon pointed out to him his serious mistake that he fully realised the situation. And I have no doubt the curious will be still more interested to know how hastily he retreated to secure, if possible, those portions of flesh not disposed of as unfit for food. For Dr. Armstrong's benefit, I beg to say that the flesh of cows, if killed in the earlier stages of parturient apoplexy, is fit for food. And, in my humble opinion, it is a great sin that such flesh should be destroyed as unfit for food, as it often is by the medical officer. I have more than once brought joints home for the use of my family that had been condemned. In conclusion, I beg to ask Dr. Armstrong or any member of the medical profession in which part of their curriculum are they taught the diseases and post-mortem appearances of disease in quadrupeds. And how often do they attend slaughter-houses to inspect carcasses in health and disease.

I am, Sir, yours obediently,

Newcastle-on-Tyne, Dec. 27th, 1884. GEORGE ELPHICK.

To the Editor of THE LANCET.

SIR,—If one more argument were required to prove that meat inspection should be in the hands of the veterinary surgeon, Dr. Henry Armstrong has supplied it in his letter on the subject in your issue of Dec. 20th. He says: "The diagnosis of disease made by a veterinary surgeon as an expert on the diseases of quadrupeds should be accepted by the surgeon as the basis on which to arrive at a conclusion, but nothing more." This is exactly the system of meat inspection carried out in this city. Dr. H. Armstrong is the meat inspector, and he calls in the veterinary surgeon to tell him what the animal died from, or what disease it was suffering from when slaughtered. I have often been consulted by Dr. H. Armstrong, and have examined many carcases for him, and I have no doubt that he will admit that he has gained a great deal of his knowledge respecting meat inspection from members of the veterinary profession; and yet, strange to say, although he depends largely upon veterinary surgeons for information, he denies their ability to act as meat inspectors. Surely, the man who has made the diseases of animals a special study, who is familiar with their cause, nature, symptoms, and post-mortem appearances, must be a better safeguard to the public against the use of diseased meat and the destruction of wholesome food than the surgeon who, without the aid of a veterinary surgeon, cannot even say from what disease the animal had suffered from during life.

I am, Sir, yours truly,

Newcastle-upon-Tyne, Dec. 23rd, 1884. CLEMENT STEPHENSON.

RUSSIAN HOSPITALS.

AT a recent meeting of the St. Petersburg Health Committee, Professor Borking, speaking of the large death-rate in the hospitals of that city said that he had come to the conclusion that the patients died mostly from weakness; for with their daily allowance of thirteen or fourteen copecks, they cannot even buy a pound of beef for broth. In addition to this, the nurses, who are very badly paid, are reported to steal the food of the patients whenever they can. Surprise is also sometimes expressed in St. Petersburg society at the rapid growth of wealth among hospital authorities.

F.S.A.—Our correspondent admits that a dual service as existing of old is an impossibility, and the division desired by him into a military and civil branch we hold to be also an impossibility. One reason for keeping the civil appointments for the I.M.O. was to have a reserve available if and when required for military service, such as the Afghan Campaign, &c. But for this, Government would very likely appoint native civilians at much lower rates of pay. The possession of a reserve body of M.O. for military service when required is the justification for keeping up high-paid civil appointments.

Prof. G. Rummo.—We cannot extend our exchange list.

UMBILICAL TUMOUR.

To the Editor of THE LANCET.

SIR,—Mr. Wyatt Pratt's case published in your last issue is worthy of record. But may I be allowed to suggest that a deviation from the old stereotyped rule of ligaturing the cord three or four inches from the umbilicus might in this case have been advantageously practised, and the ligature in the first instance placed round the pedicle of the umbilical tumour, thus saving risk of delay and suffering to the little patient. I am, Sir, yours truly,

Portland, Dec. 29th, 1884. VACY ASH, M.B.

TREATMENT OF CHARBON.

A Neapolitan Surgeon desires to obtain the opinion of English surgeons on the value in the treatment of charbon (either in men or animals) of diluted carbolic acid or iodine used subcutaneously.

Assistant had better consult a medical agent.

Mr. Chas. Kirk.—There is no practical distinction.

WANTED MORE STREET ORDERLIES.

To the Editor of THE LANCET.

SIR,—When so much is done for the public health, it is to be regretted that there are not more boys employed to sweep up the horse droppings. I notice in many districts that there are no boys, or not enough, so that much of the refuse is left to be trodden about, and contaminate the atmosphere. I am, Sir, your obedient servant,

Blackheath, Dec. 22nd, 1884. C. H. BIERSTED.

Non de Plume had better communicate with the Dean of the Faculty, Dr. Béclard, à l'Ecole de Médecine, Paris.

A Medical Student.—The principal rightly claims the fee.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. H. C. Pope, London; Mr. A. E. Barker, London; Dr. Czartoryski, Stockton, California; Mr. Carmalt Jones, London; Dr. Broadbent, London; Dr. Moxon, London; Mr. V. Ash, Portland; Mr. St. George Mivart, London; Mr. H. W. Smith; Mr. Gaussen, Lechlade; Mr. S. Smith, Bristol; Mr. G. Padley, Swansea; Mr. E. Gurney, London; Mr. F. Treves, London; Prof. Rutherford, Edinburgh; Messrs. Carswell and Co., Edinburgh; Mr. Sturrock, London; Dr. Herschell, London; Mr. Elphick, Newcastle-on-Tyne; Mr. W. Rivington, London; Dr. G. Buchanan, Glasgow; Dr. Ward Cousins, Southsea; Mr. R. Jeffreys, Chesterfield; Mr. C. S. Loch, London; Mr. Jalland, York; Mr. H. B. Runnalls, Saltash; Mr. H. E. Armstrong, Newcastle-on-Tyne; Mr. J. Hannay, Hinton; Mr. A. Neve, Kashmir; Dr. Roberts, Monrovia; Dr. J. H. Aveling; Mr. C. Stephenson; Mr. T. B. Vernon, Warrington; Mr. J. C. Voigt, Bury; Mr. Snell, Sheffield; Mr. S. C. Less, London; Dr. Sturges, London; Dr. Braithwaite, Leeds; Dr. Finlayson, Glasgow; Dr. Fenwick, London; Dr. Sydney Ringer, London; Dr. Buxton, London; Mr. Durham, London; Mr. Otto Pohl, Liverpool; Brigade-Surgeon MacDowall, Bombay; Dr. Alder Smith, London; Dr. Lancaster; Mr. Bowlby, London; Mr. H. C. Burdett, London; Mr. Henry, London; Mr. Hains, Totnes; Mr. J. B. Marshall, Doncaster; Dr. Brailey, London; Mr. Stanford, London; Mr. Ling, Saxmundham; Messrs. Christy and Co., London; Mr. Cornish, Manchester; Mr. Kinder, Leicester; Mr. Fox; Mr. Flint, Westgate-on-Sea; Mr. Griffiths, Bristol; Dr. Squire, London; Mr. Townsend, Exeter; Mrs. Norris, Weston-super-Mare; Mr. Pilley, Villapuram; Mr. Webb, Bury; Mr. Cooke; Mr. R. F. Woodcock, Wigan; Dr. Jay, Slough; Mr. Parker, Liverpool; Mrs. Tillett, Cheltenham; Surgeon-Major O'Brien, Cork; Messrs. Maclehose and Son, Glasgow; Dr. W. Smith, London; Mr. G. Lawson; Mr. Douglas, Perth; Mr. Whitford, London; Mr. Heven; Mr. Loman; Dr. Heywood Smith, London; Mr. Johnston, Sheffield; Mr. Hollinsworth, London; Mr. Meyer, Glasgow; Mr. Galt, Glasgow; Mr. Barnes; Mr. Elliott, Carlisle; Messrs. Wood and Co., New York; Miss Middleton, Loughborough; Mr. Young, Westminster; Dr. Dean, Exeter; Mr. Antoine, St. Angelo; Mr. Crosse, Norwich; M. Berthier, Paris; Dr. Waters, East Grinstead; Mrs. Muscroft; Mr. Holloway; Mr. Hutchinson, Newmarket; Mr. Marshall; Dr. Kerr, Regent's-park; Messrs. Lee and Martin, Liverpool; Mr. Dickson; Mr. Hulme, Birmingham; Dr. Davies, Wrexham; Mrs. Pratt, Cardiff; Mr. Askey, London; Messrs. Sampson Low and Co., London; Mr. Kirk, London; Dr. Jos. Rogers, London; Mr. Marks, London; Dr. David Taylor, Paisley; Mr. Stuart, Dundee; Dr. Maunsell, Bath; Dr. Mitchell Banks, Liverpool; Mr. Westgarth; Assistant; Non de Plume; Medicus; Opium; M. M. M.; Idem; F.S.A.; An Unsuccessful Candidate; I. M. S.; M.R.C.S.; Verax; X. Y. Z.; Psychologist; A Subscriber.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Bell; Mr. White, Bayswater; Mr. Austen, Faversham; Mr. Clarke, Whitchurch; Mr. Day, Stalmine; Mr. W. Adams, London; Dr. Lumpkin, Lagos; Mr. Stonham, London; Mr. Rodwell; Mr. Snell, Stamford; Mr. Ricker, St. Petersburg; Dr. Arsdale; Mr. Harding, Westgate-on-Sea; Mrs. Harris, Leeds; Mr. Maclachlan, Oban; Messrs. Potts and Co., London; Mr. Jones, Conway; Mr. Mason, Highbury; Dr. H. Smith, London; Mr. Curzice, Devonport; Mr. Pedley, Camberwell; Mrs. Rawlins, Westgate-on-Sea; Mr. Jarman, Rhayader; Mr. Boyd, Bayswater; Dr. Silvester, Clapham Common; Mr. Jackson, Bradford; Mr. Seymour, Coventry; Mr. O'Brien; Mr. Jennings, Colford; Messrs. Thomson and Son, Finsbury; Mr. Cox, Colchester; Mr. Gill, Douglas; Mr. Richardson, Birkenhead; Mr. Alden, Shirley; Mr. H. Shore, London; Dr. Herbert, Whitby; Messrs. Mackay, Edinburgh; Mrs. James, St. John's-wood; Mr. Holman, Keighley; Mr. Tumner, Harrogate; Mr. Da Silva, Bhowngar; Mr. Knightley; Mr. Donston, Tottenham; Mr. Barber, Kidderminster; Mr. Elliott; Dr. Fulton, Canada; Dr. Hayward, Whitstable; Mr. Ireland, Portsmouth; Mr. Robertson, Edinburgh; Mr. Clarke, Whitchurch; Dr. Arkins, Toronto; Messrs. Dawson Bros., Montreal; Dr. Young, Glasgow; Mr. Watson, Ludlow; Dr. Norman Kerr, London; M.D., Liverpool; Morphia; H. B. C., Bristol; L.R.C.P., Notts.; R., Swansea; R. F. G., Whitby; Medicus, Stonehouse; H. M. B., Southport; X. Y. Z., Wimbledon; Medicus, Birmingham; B. A. Y.; F.S.A., Wye; M.D., Belgravia; M.D., West Brompton; L.R.C.P., Manchester; F. H., Windermere; M.B.; L. R. H.; Hakim; R. S. T. Salford; Omega; Zeta; Superintendent, Cambridge; B.M.; A. B.

New York Daily Tribune, Times of India, The Rock, Oldham Standard, South American Journal, &c., have been received.

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Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

Clinical Lectures
ON
CASES OF DIFFICULT DIAGNOSIS.

By SAMUEL FENWICK, M.D., F.R.C.P.,
PHYSICIAN TO THE LONDON HOSPITAL.

LECTURE II.

STRICTURE OF THE ILEO-CÆCAL VALVE.

(*Concluded from page 3.*)

You will remember that we found that the male sex is much more liable to all forms of acute disease of the cæcum than the female, whether it be typhlitis, ulceration of the appendix vermiformis, or ileo-cæcal intussusception; but you will now see that the contrary is the case as regards contraction of the ileo-cæcal valve; for out of twenty cases in which the sex is recorded, fourteen were females. If we analyse them according to the morbid conditions coexisting with the stricture, the same circumstance is apparent; thus both of the cases supposed to have arisen from invagination were females, six out of eight cases of cancer, and four in which contraction alone is recorded were all of the same sex. The only exception is in the group in which the valve is said to have been indurated, and which I have suggested may have arisen from syphilis, for in these four were males and only one was a female. Of course, these figures are too few to justify us in drawing any general conclusions; but, like the corresponding case of the greater tendency in the female to contraction of the cardiac valves, they seem to point either to a greater liability of the female to contraction after inflammation, or to some difference in the conditions under which she is placed. It will be interesting to examine the time of life at which the complaint is most apt to occur. The age is mentioned in only sixteen of the twenty-six cases I have been able to collect, and of these ten were between twenty and forty years of age. If, however, we exclude those in which cancer is stated to have been present, we find that eight out of ten were between twenty and forty, and as the other two are stated to have exhibited induration, it is not improbable that these may have been connected with malignant disease. We should bear in mind this fact in the diagnosis of any particular case, for most of the diseases with which we are apt to confound simple stricture of the ileo-cæcal valve are especially apt to occur at an early or at a late period of life.

It will be remarked that the disease commenced differently in the three cases I have narrated. In the first the patient was attacked suddenly with diarrhœa and pain in the abdomen, and after an illness of eight days these symptoms subsided, but were gradually followed by those of intestinal obstruction; in the second the first indication of illness consisted in a sensation of movement and of pain in the abdomen, attended with swelling; whilst in the third griping pains first attracted the patient's attention. In twelve out of sixteen of the cases I have collected and whose histories are recorded, the first symptom was pain in the abdomen, usually of a colicky character; in five vomiting was also present, and in three severe constipation obliged the patient first to seek for medical advice.

In the cases in our wards attacks of colicky pain formed the most noticeable symptom through the whole course of the illness; at first coming on only occasionally, but increasing in frequency and severity as the disease progressed. Of sixteen recorded cases this was the prominent symptom in eleven; in most of them its spasmodic character was specially noticed, and in some a rumbling of the intestines at the end of each paroxysm of pain is also stated to have been present. Abdominal distension was noticed in twelve, and vomiting was a well-marked symptom also in twelve cases. In one case vomiting was the chief symptom, and lasted for many years, the patient being looked upon as hysterical, but after death the only morbid condition that could be discovered was stricture of the ileo-cæcal valve. In five instances the bowels continued to act regularly for some time after severe pain had been complained of, but generally constipation came on at an early period, and was removed by purgatives or enemata, but returned, and eventually the symptoms of complete intestinal obstruction were developed. It should, however, be borne in mind that even after the bowels—as in Case 3—cease to act, occasional small stools may be passed; and why I wish to press this especially upon your notice is because this circumstance has often led to the delusive hope that the obstruction was about to be overcome, when, in reality, the ill effects of intestinal distension were increasing day by day. A certain amount of tenderness on pressure has been observed in some instances, but general tenderness was not present, excepting when peritonitis had been excited by perforation of the intestine. Of course, the whole system sympathises with the state of the intestinal canal; the tongue becomes furred or dry, the appetite fails, thirst is a prominent symptom, in some instances there is a rise of temperature, and the pulse becomes quick, out of proportion to the other symptoms, having varied in five cases from 100° to 120°.

In two of the cases I have collected a tumour was discovered in the right side of the abdomen, but in each it was found after death to have been connected with a disease of the cæcum which coexisted with the stricture of the valve, and in none of our own cases was there any appearance of a tumour. In the three cases I have narrated the movements of the small intestines were distinctly visible through the abdominal walls, and in seven out of sixteen cases I have collected particular mention is made of this circumstance, and in only one it is stated not to have been present. As this is a most important physical sign in all cases of obstruction of the intestines, it will be necessary for us to devote some attention to its consideration. You must be careful not to confound it with the slight movements of the intestines which you will occasionally observe in females who have had repeated pregnancies, and in some children with very thin abdominal parietes. In these the colon often projects across the umbilical region, and as you watch you will see its shape and position gradually, but slowly, change. But there is no active contraction, no writhing motion, as though the canal were thrown into spasmodic efforts to force along its contents, as in cases where there is a constriction in the canal. Again, the motions of the stomach are occasionally capable of being seen, as you were able to observe in two cases that have been lately in our wards, but in these the movements are always slow, the elevations are much broader than where the intestines are affected, and you have the symptoms and physical signs of stricture of the pylorus to guide your diagnosis. Then you will naturally ask why the movements of the intestinal canal should be so increased as to be visible. This circumstance had long attracted the attention of practitioners, as occasionally occurring in intestinal obstruction; but Dr. Hilton Fagge first insisted upon it as a sign of hypertrophy of the muscular coat, and there is no doubt that his opinion is correct, as in every case that has fallen under my notice wherever the motions of the stomach or intestines have been visible the muscular coat has been found on post-mortem examination to be thickened. The visible movements of the intestines have, in fact, the same value in the diagnosis of an obstruction in the canal as the increased impulse of the heart has in cardiac disease. You detect, for example, a systolic murmur over the aorta, and you are in doubt whether it is merely functional or is produced by a narrowing at the aortic valves. In order to determine the point, you examine the apex of the heart to ascertain if there is an increase in its impulse and a deviation from its normal position; for if this is the case, you know the ventricle has become hypertrophied from the increased action required to drive the blood through the constricted opening. In like manner, when you see the intestinal contractions so much increased as to be visible through the walls of the abdomen, you feel certain their muscular coat has become hypertrophied from increased efforts to overcome some obstruction to the progress of their contents. In the case of the heart, you know that its impulse may be unusually apparent, because the chest walls are very thin; and so, as I have said before, the motions of the intestines, although no hypertrophy is present, may be seen through very attenuated abdominal parietes; but in either case you diagnose hypertrophy by the increased force with which the contraction takes place. Hypertrophy of the heart occurs whenever there is difficulty in the transmission of the blood through the vascular system, even though the valves may be healthy, as you see daily in cases of chronic Bright's disease; and in like manner any long-continued impediment in any part of the intestinal canal will give rise to visible movements of the intestines of the

same character as those apparent in stricture of the ileo-cæcal valve.

There is another physical sign which was observed in a case recorded by Dr. Wickham Legg, and which was found after death to have been produced by the collection of cherry stones in the ileum. It is described in the words of the reporter thus: "In the left iliac fossa and a little above the left flank a most singular phenomenon, both of sound and feel, was discovered. In regard of sound it is like dryish crackling, not unlike surgical emphysema; is by others likened to peas in a drum shaken about, by others to marbles." As, however, I have found only three cases in which there was any collection of foreign bodies above the stricture, this sign is not likely to be of much use to us in diagnosis. All the symptoms we have considered arise from the efforts of the intestines to overcome the obstruction to the onward progress of their contents, but as the constriction is often a very slow process, no functional disturbances may be produced so long as there is a tolerably free opening into the cæcum. This is the most probable explanation of a few cases that have been placed on record, in which the contraction of the ileo-cæcal valve was accidentally discovered after death, the patients having suffered no inconvenience during life, and having died of other diseases. Thus, in one case death took place from typhoid fever, in another it was caused by pneumonia, and in a third by tuberculosis.

We can only reckon the commencement of any particular case from the time at which the patient first experienced pain or other symptoms resulting from obstruction, and we find the duration of the disease varies both with the condition of the stricture and the cause producing it. When it was connected with cancer, two died within one month, one in five weeks, one in three months, another in five and another in six months. Vomiting was a prominent symptom in all, and death seemed to result solely from intestinal obstruction. When the stricture was independent of cancer, one died within one month, three between one and three months, one suffered for two years, one for seven and another for twenty-one years. The case supposed to have proceeded from intussusception lived only five months, whilst that beginning with perityphlitis lived eleven years. Putting aside those connected with cancer, the duration of any particular case seems to depend chiefly upon the narrowness of the stricture and upon the amount of relief that may have been afforded by a circuitous route established between the small and large intestines.

The diagnosis of this disease is attended with great difficulty, and you must, in any case where you may suspect it to be present, bear in mind its extreme rarity. The chief points to remember are that it occurs most commonly in the female between the ages of twenty and forty, that the prominent symptom is the frequent attacks of severe colicky pain attended with constipation and vomiting, and that active movements of the intestines are visible through the abdominal parietes. If you find such conditions, you know there is an obstruction in some part of the intestinal canal, and you have to determine its seat and the condition that has produced it. The first point is to ascertain whether the stricture is or is not in the course of the large intestine, for in the majority of cases of narrowing of the intestine the sigmoid flexure or the rectum is the part affected. If such is the case you often have a history of the passage of blood or mucus, or the fæces may have been of very small size, and in many cases you can prove the existence of the stricture by the finger or by a bougie passed up the rectum. If, on the other hand, the ascending colon or the cæcum is the seat of stricture, a tumour can be generally distinguished in the right side of the abdomen, for in this situation it is almost always the result of cancer. When a stricture is situated at the cæcum there are usually well-marked dulness and distension on the right side of the hypogastrium, whilst the opposite side is the seat of these signs in case the upper part of the rectum is involved. It is often said that when the left side of the large intestine is constricted the colon projects in the umbilical or epigastric region, whilst the umbilical and lumbar regions are comparatively flat if the stricture is in the small intestine. This, like all other general rules, although often of value, is not always to be relied upon; for we not infrequently see the colon so lengthened and displaced that it seems to fill the whole of the abdomen; whilst, on the other hand, a distended small intestine may be pushed upwards so as to occupy the epigastrium, and may consequently simulate the appearance of a distended colon. You might expect that when the colon was constricted the visible movements of the intestines would be directed to the left side, and that they would tend to the right if the stricture was in the small intestines; but it is in most cases impossible to determine in what direction the intestine is really moving, for a number of coils seem to be everywhere twisting about at the same time. What will perhaps be your best guide is that in stricture of the small intestine the motions are more energetic, the coils seem to be shorter and change their position more constantly, and the gurgling sound produced is moister, and gives you more the impression of the motion of fluid and gas intermixed than when the colon is the seat of the obstruction.

You may confound chronic cases of ileo-cæcal intussusception with the disease we are considering, for in both frequent attacks of colic are a prominent symptom. But the former is most common in children and in males, whilst constriction of the ileo-cæcal valve presents itself generally in females of middle age; in intussusception you have occasional discharges of blood or mucus, and there is almost always a tumour to be felt, which is apt to change its form, consistence, and position from day to day.

Constriction of the small intestine, whether produced by adhesion to some of the neighbouring organs or by contraction of the mesentery, may give rise both to the symptoms and physical signs of stricture at the ileo-cæcal valve; indeed, this was diagnosed in Case 2 as the probable cause of the patient's sufferings, as pelvic tumour was discovered, and there was a history of extra-uterine fœtation. You will only be able to arrive at a correct conclusion by making a careful examination of the pelvic organs in order to ascertain if there is any disease of the bladder, uterus, or ovaries likely to have given rise to local peritonitis. If, for example, carcinoma of any of these organs were discovered, constriction of the small intestines from adhesion would be a more probable diagnosis than simple stricture of the valve. You might imagine from the manner in which the intestines are often found to be matted together in tubercular peritonitis that intestinal obstruction would often occur from this cause. This may sometimes take place, but as ulceration of the mucous membrane is also usually present, diarrhœa, and not constipation, is generally the prominent symptom.

Cancer of the peritoneum frequently gives rise to constriction and obstruction of the intestines. When the disease is, as is usually the case, associated with ascites and with abdominal tumours, the diagnosis is tolerably easy. But there is another and more rare case, in which the cancer is scattered over the peritoneum in a miliary form, and in which attacks of colic are for some time the only prominent symptom; and here it would be a matter of great difficulty to arrive at a correct diagnosis in an early stage of the disease. You should in such instances always examine by the rectum, for often small tumours are to be felt in Douglas's pouch, when they are nowhere else to be discovered; and if in addition to the presence of a tumour you find a gradual loss of flesh and strength, the occurrence of ascites, or an implication of some other organ, you have facts that will enable you to arrive at a correct conclusion.

The first two cases occurring in our wards were treated by morphia, in order to relieve the pain from which the patients suffered, whilst the action of the bowels was assisted by enemata, but only temporary relief was afforded. There was no obstruction in either case, and the patients both died suddenly from collapse. In the third case the patient was admitted on account of obstruction of the bowels, and although some slight evacuations were obtained by enemata, he was not relieved until the small intestine was opened by operation and its contents evacuated. He died not of obstruction, but of pneumonia. It will be remarked that in none of these cases was the communication between the ileum and the cæcum completely closed; in the first there were two or three small openings, in the second a quill could be passed, and in the third the valve admitted the point of the finger. There was, therefore, nothing that was necessarily fatal, and we can only attribute the unfortunate terminations to the great and long-continued distension of the intestines and the effects of this upon the nervous and vascular systems. Now, in any future case of this kind, what treatment should be adopted in case the diagnosis was sufficiently clear to enable us to fix upon the ileo-cæcal valve as the point of stricture? We have no medicines that can prevent the gradual contraction that occurs after chronic inflammation of the ileo-

cæcal valve any more than we can stop a similar change in the mitral or aortic valves of the heart; and although, when we have reason to suspect syphilis as having originated the disease, we might employ medicines appropriate for that disease, it is unlikely that we could restore the part to its original condition by means of mercury or iodine. Clearly, then, the only plan to afford relief is what was done in the third case by Mr. Waren Tay—viz., to make an artificial opening into the small intestine near to the cæcum. The proper method of performing such an operation falls within the province of the surgeon, but I would advise you, in case you should have to undertake it, to read the account of a successful case of opening of the small intestine that was under the care of my colleague, Mr. Macarthy, which was published in the Medico-Chirurgical Transactions for 1872. It is true the patient eventually died, but the operation was successful in affording relief, and the wound had healed some time before death took place. There seems indeed no reason why an artificial opening should not be made into the small intestine with a fair prospect of success, if the same precautions be taken as in other operations on the abdominal cavity. But the chief point is, not to delay it until the portion of the canal above the stricture has become paralysed, or the heart has been so much depressed, through the sympathetic, that collapse is imminent. I have mainly brought these cases before you to impress upon your minds that all strictures of the intestines are not cancerous, and therefore not necessarily fatal, that the hypertrophy of their muscular walls affords a most valuable sign that constriction has been for some time in existence, and not likely, therefore, to yield to medical treatment, and that the interference of the surgeon may not only afford temporary relief, but restore the patient to a state of comparative health.

Lecture
ON
AFFECTIONS OF THE THROAT AND NASAL PASSAGES ASSOCIATED WITH DISEASE OF THE MIDDLE EAR.

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LECTURE III.

GENTLEMEN,—Inasmuch as a very large number of the conditions which affect the middle ear and are included under the general term catarrh are the direct consequence of a morbid state of the throat and nose, or, to speak more accurately, of the pharynx and naso-pharynx, it is important for the clear understanding of diseases of the ear to properly estimate and recognise these conditions. Moreover, diseases in this situation not only precede ear affections, but are very frequently coexistent with them during their entire course, sometimes extending over a period of many years. Before you attempt to acquaint yourselves with the chronic morbid states of the throat and nose, consider for a moment what are the circumstances under which the acute forms most usually come under the notice of medical men. Putting on one side for the moment syphilis, there remains inflammation as it appears associated with all the fevers, including diphtheria and whooping-cough. Thus you will find that the seeds of most diseases of the throat and nose, except polypus, are generally laid in childhood, when the subjects of these troubles have suffered in early life from the exanthematous fevers to which they are so readily exposed. In scarlet fever, measles, chicken-pox, small-pox, diphtheria, and the like, that considerable area of mucous membrane which covers the pharynx and nasal passages is throughout affected, so that, as might be expected, long after these maladies have been recovered from, a greater or lesser part of this area is found to have undergone change. There is little doubt that, if during the acute stages of these fevers more attention were paid to the local state of the nose, so many cases of troublesome chronic affections would not be seen. Very naturally at such times the more serious condition of the patient absorbs and demands all the care which can be given; and even during convalescence the state of the nostrils, although there is often a muco-purulent discharge from them, is not so strictly watched and treated as it might be. Hence, therefore, the great prevalence of chronic catarrh of the pharynx and nares, which, beginning at the time of the acute febrile state, remains for years, or even during the remainder of a life. Hence also the various conditions which lead to what is popularly called throat deafness, a safe and useful term to apply to a disorder if the cause and precise nature of it are imperfectly understood.

In examining a case of chronic catarrh of the middle ear, either with or without obstruction of the Eustachian tubes, you will constantly see, on looking at the throat, thick tenacious mucus adhering to the upper part of the pharynx, and with this, what is termed a granular pharynx—that is, the back of the pharynx is seen to be studded with separate granular bodies, which in severe forms of this state are so numerous that two or three run into one. This appearance is due, according to Politzer and others, to swelling of the follicles in the submucous connective tissue. The morbid state often involves the posterior nares, the upper and back wall of the pharynx, and, by extension to the opening of the Eustachian tubes, causes obtruction to the passage of air to the tympanum. In this region—viz., in the upper and back wall of the pharynx—is found the adenoid tissue which was first described by His, and excessive development of this tissue takes the form of what are spoken of as adenoid vegetations or growths. To Meyer of Copenhagen, in 1868, we are indebted for the first complete notice of this disease, which it is now generally admitted is the very frequent cause of imperfect nasal breathing, as well as obstruction of the Eustachian tubes. But, even previouly to this, isolated cases had been observed by Voltolini and Lowenberg. In regard to this matter I shall have something to say presently. Granular pharynx must not be confused with a condition which is found in persons who have been subjected to unhealthy and debilitating conditions, such as long hours of confinement in an unhealthy atmosphere, engaged in assiduous employment, and living under generally depressing influences; I mean an appearance of yellowish spots on the tonsils and pharynx. From these spots, if they are pressed, a sort of cheesy secretion may be forced out. In this state it is enough to say that a complete change which embraces plenty of exercise in fresh good air, either at sea or in the country, will do more in a short time than any sort of medicine or local treatment that can be prescribed. When the middle ear becomes involved in this condition of throat the catarrh is acute and the tympanic membrane is generally ruptured. Some of the most pronounced cases of true granular pharynx which have been associated with obstruction of the Eustachian tubes have occurred in my practice to those who pursue their calling in all atmospheres out of doors—dusty, cold, and damp; to auctioneers and betting men, the latter shouting for many hours daily, and relieving the intervals by the free use of alcoholic drinks.

It need be no matter of wonder that some alteration in tissue should follow such undue strains and undue exposure of a mucous surface; a very reasonable penalty for exceeding the intentions of nature. In regard to the treatment of this condition, attention to the general principles of health, including the giving up of stimulants, should precede everything. This having been effected, great benefit will follow the daily use of astringent applications. Amongst these may be reckoned the painting with a throat brush the whole of the pharynx with a saturated watery solution of perchloride of iron. This can be readily done by the patient if he stands in front of a mirror, or by an attendant. In very severe cases the granulations will require to be destroyed by caustic. As, however, the posterior nares share the general condition, the patient must use twice daily an alkaline solution through the nostrils with a small nasal syringe. As I have often said before, this is to be preferred to the nasal douche, for there is no danger, as there is with the douche, of the fluid from the syringe rushing into the tympana, and exciting inflammation. As to the kind of solution, I have not as yet found anything better than the mixture of soda, borax, and chlorate of potash and sugar, which I introduced into our hospital pharmacopœia in 1873. By this treatment the mucus is expelled through the nostrils, and the patients are relieved from the unplea-

sant efforts to clear the throat, and the nasal breathing is re-established. Until this is done it is quite hopeless to expect that any local application can be of permanent service to the throat, as the external air, unless it is purified and warmed by passing through the nose, is one of the principal agents in keeping up this disorder. Adenoid growths in the naso-pharynx require a few words.

The paper on this matter by Meyer, already referred to, caused these growths to be very generally sought for whenever there was obstruction of nasal breathing associated with obstruction of the Eustachian tubes. Since that time the literature on the subject has been profuse, and the methods recommended of dealing with the growths have been as various as their somewhat hidden position might lead one to anticipate; but nothing material has been added to our knowledge of the subject beyond what may be found in Dr. Meyer's paper in the fifty-third volume of the Medico-Chirurgical Transactions. This contains a most graphic and exhaustive account of the disease, and it is not too much to say that its accuracy has been completely corroborated by all who have paid attention to this matter. The aspect of a child, or young person, who is deaf from obstruction of the Eustachian tubes, and unable to breathe through the nostrils, is very characteristic; the open mouth, the odd thick voice, the stupid look, and the fact of the patient's snoring when asleep, bespeak the condition; when this aspect is present, and when the tonsils are not found so very much enlarged, adenoid growths may be suspected, and should be sought for. It should, however, be observed that the two causes very often are found to exist together, so that it is quite possible to remove the tonsils and find the nasal obstruction still present. The search for these growths may be conducted in two ways: either by rhinoscopy or by examination with the finger.

Of the value of the first method and of its difficulties you may by attending the out-patients' department satisfy yourselves more completely and more satisfactorily than by anything I might say on the subject. It is sufficient here to observe that in a large number of patients it is not only very difficult, but practically impossible, to obtain a reflection of the posterior nares. This applies especially to young children and to grown up people in whom the pharynx is shallow. With these latter subjects there is not sufficient space between the soft palate and back wall of the pharynx to place the small laryngoscopic mirror without touching the pharynx and exciting retching. Under any circumstances it requires a good deal of practice to obtain a view. With a deep hollowed pharynx, in the manner in which I have demonstrated in previous lectures, these growths may be partially brought into view. I may repeat that the tongue should be depressed with the forefinger of the left hand or a tongue depressor. The small laryngoscopic mirror should be warmed and placed as far back on the pharynx as possible without touching it, the face of the mirror being turned from the uvula, directed a little upwards and outwards; by moving it in various directions from moment to moment a reflection of portions of the posterior nares may be obtained; the light from the forehead mirror being throughout the examination directed on to the small mirror. But a far more easy method of finding the growths, and one that is open to those who have not acquired facility in examining the posterior nares with reflected light, is the examination by touch. If the patient is seated in a chair the forefinger of the right hand, protected by a guard, may easily be introduced behind the soft palate in an upward direction; the left hand should be placed on the occiput, to support the patient's head. Adenoid growths may be readily recognised in this very simple manner by the fact that the pharynx is partially occupied by them, and by the sensation which they convey to the finger. It is as if the finger touched tissue like an enlarged tonsil. They also bleed when touched. There is one other symptom of the presence of adenoid vegetations in the vault of the pharynx, and it is one which is most distinctive of this condition. If fluid be syringed into the nostril in the inferior meatus, it will either pass into the throat or come out by the other nostril. As it is frequently necessary to order solutions to be used in this way, the difficulty experienced in using these solutions effectively will often direct attention to the presence of the adenoid growths. Indeed, where this difficulty is encountered the presence of these vegetations may be considered almost certain. It is still more so if the pinched appearance of the nose, which Dr. Meyer speaks of, is present. Whilst making an examination, if the growths are small, they may be scraped off the upper wall of the pharynx by the finger-nail and spat out, and this is all that is often necessary; indeed, it has been said by some that they never fail to completely remove them in this way. For my own part I cannot understand this, for they are often in such quantity and size as to fill the vault of the pharynx. In such instances it is necessary to make use of forceps, invented by Lowenberg, and now very generally employed for this purpose. Besides, the forefinger is often much interfered with in a shallow pharynx, and in young children, by the soft palate, which feels like a string.

Lowenberg's forceps are very easily introduced behind the soft palate, and most patients will submit to their use without an anæsthetic. Inasmuch, however, as they require to be used many times, it has been thought by some desirable to take all away that may be desirable on one occasion, and ether must then be given. It will then be necessary to use sponges fixed on to forceps or at the end of a stick, to prevent the blood trickling into the larynx; for there is always free bleeding, both in the pharynx and through the nose. When the subject of these growths is not a very small child, and the forefinger can be placed behind the soft palate, I have obtained good results by using a small scoop fixed on the end of the forefinger, and projecting only just beyond the nail—in short, a sort of artificial steel nail. With this instrument the pharynx can be rapidly and completely cleared of the adenoid growths, if they are not very large or in great masses. Any risk that might be incurred if the instrument dropped into the pharynx is obviated by having a long piece of string attached to it. There is, however, no danger of this if the scoop be made for the person who is to use it, as it is fixed tightly on to the finger like a thimble. Since the introduction of cocaine I have several times removed large pieces of adenoid tissue from the vault of the pharynx without any discomfort in introducing the forceps after a 20 per cent. solution of cocaine has been freely applied to the back of the pharynx. I must say I think it much better not to attempt to at once clear the pharynx (as it has been termed) under an anæsthetic, nor from what I have seen does it commend itself as a successful proceeding or devoid of unpleasant consequences. As general attention to adenoid growths is more or less of recent date, probably their treatment, as well as the literature of the subject, may be expected to undergo some modification. Not only very great, but almost immediate, relief to nasal obstruction follows the removal of these growths, as well as improvement in hearing. It is advisable to continue the use of alkaline solutions through the nostrils for a time, and occasionally to apply astringents, or even nitrate of silver, to the surface from which the growths have been taken away. It is satisfactory to notice that when once removed they do not return.

Closely associated with this condition is enlargement of the tonsils. General rules may be laid down in regard to them. First, they often obstruct free breathing through the nostrils. Second, very frequently they not only do this, but also keep up the unhealthy condition of the pharynx, and so become an indirect cause of obstruction of the Eustachian tubes; not a direct cause, for from their position they can never, however large, form a mechanical obstruction of these tubes. In either or both cases they should be removed. The enlargement is a true hypertrophy both of the body and follicles of the tonsil. There is a prevalent and popular idea that the tonsils should not be removed. This is due to the fact that in some instances, if the enlargement is not very great, they become smaller about the age of puberty. This is obviously no valid reason against their excision; for, in the first place, they generally do not follow this course, and if they did they are capable during the interval of being a very serious trouble. Indeed, it is often impossible to treat successfully the catarrh of the middle ear which accompanies them. If they are cut through the body of the gland, taking away about three-quarters of them, it is enough, for the rest contracts after the healing process is completed. As to the best means of removing tonsils, you will not find that those whose practice renders it necessary to constantly remove tonsils use a bistoury and forceps. They employ a tonsillotome (No. I.) or a guillotine (No. II.). After many years of constant practice in this matter I have no hesitation in strongly recommending the guillotine, which has been improved by Mr. Ewens (No. III.), and for the following reasons. Although No. I. is more simple in construction in unpractised hands the tonsil is liable to drop backwards

into the pharynx. It must then be spat out or coughed out. With No. II. the patient is apt to close the teeth on the instrument whilst it is being used, and so obstruct a view of the extent of tonsil being excised. With No. III. the bar prevents the mouth being shut, and thus a complete view is obtained of what is being done, the precise extent of what is to be removed can be judged, and the tonsil being transfixed by the instrument it cannot fall into

Ewens's Tonsil Guillotine.

the pharynx. These considerations are of great value in nervous persons, or especially with children, and outweigh any extra trouble there may be in cleaning and refixing the separate parts of the instrument.

So far as I can learn, whenever the internal carotid has been wounded in removing the tonsil, it has been done with a bistoury. With the guillotine there is generally very little bleeding, and if there is, it is not of a serious nature, and can readily be arrested if necessary by the local application of a saturated solution of perchloride of iron. I have only on two occasions known bleeding to be at all troublesome. Once some blood was swallowed, and the consequent act of vomiting constricted the vessels and stopped the bleeding; another time the iron solution stopped it. If it is necessary to excise both tonsils, two guillotines should be at hand, and the second tonsil ought to be removed instantly after the first, in order that the bleeding from the first wound may not obscure the complete view of the other tonsil.

Although in most cases of catarrh of the middle ear, where they have arisen from a diseased condition of the mucous membrane of the pharynx and nares, there is an increased flow of mucus in the nasal cavities or pharynx, there is also a condition that is termed a dry catarrh of the lining membrane of the nose. In this, notwithstanding a certain stuffiness at the back of the nose and a difficulty of clearing their passages from mucus, the anterior nares are irritable and dry, and covered with little scabs, or dry yellow flakes. Now, this morbid state is almost peculiar to children and young people. If it has existed for some years, it is often impossible to point to a cause, but I have so often seen it at periods of a few months after measles or scarlet fever, and many times after whooping-cough, that I believe it more generally starts from one of these child's complaints than from any other immediate cause. Indeed, you know that catarrh of the middle ear often dates from whooping-cough, and some years ago I so often saw this ear catarrh a few months after whooping-cough in deaf children that I became accustomed to ask whether the child had recently had whooping-cough, or if not this, measles or scarlet fever. What seem at first apparently trifling ailments so frequently succeed these diseases that they are not noticed for a long time afterwards, and their origin is unsuspected. But this is not a trifling ailment, for it is the beginning of ozæna, and when ozæna is once fairly established it is probably never cured. It may be kept in check by daily attention extending over many years, but it is not eradicated. It becomes, therefore, most necessary to recognise this dry catarrh as soon as it shows itself, for in its early stages it can be put an end to. The first consideration is to cleanse thoroughly the nares with warm alkaline washes, used with the nasal syringe. The patient's head must be bent forward, and the fluid which is passed up one nostril must pour out of the other. Until this is done the little patients cannot clear their nostrils by using a handkerchief. The nurse must be carefully instructed how to syringe the nose thoroughly. After this, when the nostrils are completely cleansed with the handkerchief, a very weak ointment, composed of yellow oxide of mercury and vaseline, should be applied inside the nostrils with a small camel-hair pencil. Under this local treatment I have found many cases of dry catarrh, in the early stage, before it had passed into ozæna, get well.

In the treatment of diseases of the middle ear it is necessary to be familiar with the fact that in a very large number of the community the septum of the nose is not placed in the middle of the organ, and that the interior turbinated bone of one side is larger than on the other. If it is ever becomes important to use the Eustachian catheter, a certain proportion of cases will be met with in which it is impossible for these reasons to do so. With others a small catheter may be passed when an ordinary-sized one cannot. It is also of some interest to notice that the narrowed meatus is oftener the left than the right, and when one ear only is affected in such persons it is generally the one which corresponds to the narrowed meatus. You are aware that other means besides the catheter are available for the treatment of disease of the middle ear, so that when these deviations of the septum exist, or when the meatus is lessened by the undue size of the turbinated bones, it will, I believe, be well for the patient to submit to the slight inconvenience, rather than to incur the penalties which may follow any energy and enterprise of a surgical kind that might be thought likely to remove it.

ABSTRACT OF

Lettsomian Lectures

ON

DISORDERS OF DIGESTION,

THEIR CONSEQUENCES AND TREATMENT.

Delivered at the Medical Society of London on Monday, January 5th, 1885,

BY T. LAUDER BRUNTON, M.D., F.R.C.P.,
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LECTURE I.

THE subject is one of great practical interest and of the widest extent. In his work on "Digestion and Secretion," forming Part III. of Sanderson's "Handbook for the Physiological Laboratory," 1873 (London: Churchill), he had treated of the physiological processes of digestion, and should therefore pass over this section with a few general remarks. Man has been defined as a cooking animal. This definition may not be absolutely correct, and there may be some of the lowest races which are unacquainted with the methods of cooking. In contrast with this habit of man is the fact that animals eat their food raw. Man began to cook at a very early stage of his history. Long, long before the historic epoch, when man's only implements consisted of broken flints, he cooked his food by roasting, and the charred remains of bones have been found in caves along with fragments of the skeletons of the cave bear, woolly rhinoceros, and other extinct animals. Roasting was no doubt the first method of cooking; boiling was a more complex process. Water was probably first heated by putting red-hot stones into it. When pottery was made, the simpler plan of boiling the water by putting the earthern pot upon the fire would be adopted. Early man must have noted the same differences in the various pots of earthenware as we do now. Wedgwood earthenware is more resistant than almost any stone. Other pots of thin and fragile china must be handled with the greatest care. There is no difference between their wholeness or "wholth," or, as we now write it, health. Yet the wholeness or health of one vessel is strong, and the wholeness or health of the other is weak. The one will stand anything, the other must be treated with great care. Our early forefathers, when framing language, had evidently been struck by an analogy between the condition of implements they used in cookery, hunting, or warfare, those implements by which they maintained the life of their bodies, and these bodies themselves, for they applied the word health to signify soundness in both. By strong health we mean a soundness of body which, like that of Wedgwood mortar, will enable a person possessing it to go through all sorts of work, be subjected to all sorts of usage, and yet remain sound or healthy. By weak health we mean a condition of body wherein all the functions go on perfectly so long as external conditions are favourable. A strong piece of ware may get cracked by rough usage, but even then it may continue to exist, though it becomes weak. Similar conditions may be found in man. An originally strong health in a person may be weakened by various circumstances. Health

in man, as in animals, depends on the proper performance of all the functions. These functions are chiefly three:—(1) Tissue change; (2) removal of waste; (3) supply of new material. The activity of man, like that of the fire, is maintained by combustion; and just as the fire may not burn brightly owing to improper disposition of the fuel or imperfect supply of air, or as it may be extinguished from want of fresh fuel, or choked by its own ashes, so man's activity may be lessened by imperfect tissue change, and may be put to an end by an insufficient supply of new material and imperfect removal of waste products. The old proverb, "There is many a slip 'twixt the cup and the lip," shows how clearly our forefathers recognised that neither food nor drink was available for the wants of the body until they had actually been taken. Our knowledge carries us a step further than theirs; but we are apt to forget that both food and drink are useless for the wants of the organism so long as they are simply in the intestinal canal. The body may be roughly compared to a cylindrical box, through the centre of which runs a tube open at both ends, but not communicating with the cavity of the box. Anything in this tube is outside the box, just as anything in the intestines is outside the organism. The tube representing the intestinal canal may be of a different material from the outer wall of the box—e.g., more pervious. Food may be evacuated almost entirely unchanged. There is one great difference between the skin and the intestines in that the nerves of the intestinal tract are more sensitive, so that a foreign body may have exercised a greater action on the body reflexly through the nerves than it would have done in passing over the skin. The intestinal surface, again, has greater absorbent power. Solids in a fine state of division, and especially when mixed with fat, may be absorbed by the skin, as in mercurial inunctions; the mucous membranes may have the same powers, but food is usually absorbed in a state of solution. Digestion includes solution and absorption. Digestion, like the health, may be strong or weak. Some persons can take anything and at all hours, or go without all day and go through all sorts of anxiety without any disturbance; others suffer on the slightest provocation.

When digestion is imperfectly performed, we say that the patient suffers from indigestion. Indigestion may occur in those who naturally have either a weak or a strong digestion, and treatment may do much for those of weak digestion. Man, unlike a fire, is a complex machine; the different parts of his body require different materials, and the wear and tear of each must be replaced by its appropriate constituents as well as energy supplied to the whole. A mixture of foods is best adapted to supply the energy and repair the waste. Like the steam engine, we require oils and carbohydrates and also proteids, which go to repair the wear and tear of the tissues. According to Ranke about 100 grammes of proteids and a similar quantity of fats are required daily by a man, while about 250 grammes of carbohydrates are necessary. Black bread contains very nearly the proper proportion of nitrogenous and carbonaceous materials, and when taken along with a little oil or a few olives it may maintain a man in health and activity without the addition of almost anything else except that of a little salt, as is seen amongst the hardworking peasantry in the south of France. In this country we have generally a more varied diet, and as a typical meal we may take a beef-steak with a piece of fat attached, a piece of bread, some salt, and water. The solids must be reduced to a fine state of division. Salt is dissolved in a physical manner, but proteids and carbohydrates must be carried through a different process, for a chemical change of hydration must occur so that the large chemical molecules of the proteids and carbohydrates split asunder into smaller and simpler ones. The particles of beef-steak may be subdivided until the highest microscopic powers fail to discover the particles, though we have certain methods of showing the presence of particles, and even of judging of their size. Graham showed that some bodies will diffuse through an animal membrane and that others will not. Those that diffuse are generally crystalline. It is probable that the connexion between crystallisation and diffusion is to be regarded as accidental rather than necessary, and that the real cause why some substances diffuse and others do not is to be found in the varying size of their particles. Moritz Traube found that a membrane of tannate of gelatine would allow nitrate of barium with a molecular weight of 130 to diffuse through it, and would also allow of the passage of all compounds having a smaller molecular weight, but it stopped the passage of ferrocyanide of potassium having a molecular weight of 211·4. Membranes may thus be regarded as atomic sieves. The causation of certain forms of albuminuria may receive an explanation from such considerations as that membranes allow of the passage of molecules according to their size. It is supported not only by the experiments of Traube on artificial membranes, but by the behaviour of hæmoglobin in regard to diffusion (Moritz Traube, *Centralblatt für der Med. Wissensch.*, 1866, p. 114). Crystalline bodies are as a rule diffusible, and of much lower molecular weight than organic uncrystalline bodies. Hæmoglobin, though crystallisable, will not diffuse, but it has a very high molecular weight, and its chemical molecules are probably very large. Between the large molecules of myosin and starch of the beef-steak and bread, and the small ones of peptone and maltose into which they are transformed by digestion, there are a number of intermediate products. In these products the molecules are probably of varying size and diffuse with varying degrees of rapidity. Anti-albumose and hemi-albumose, anti-peptone and hemi-peptone, are some of these intermediate bodies. Fats may be absorbed without decomposition, especially if they be finely subdivided, a process which is aided by the presence of a fatty acid and glycerine, such bodies as are formed in the process of digestion. Mastication is a very important process, and the comminution of the food is supplemented by the action of the saliva which is secreted under the twofold stimulus of the taste of the food and the movements of mastication, and the diastatic ferment begins to convert the starch first into dextrine and then into malt sugar. The actions in the mouth exert an influence upon the stomach and the brain. Richet noticed that the stomach secreted juice, in a case of gastric fistula where the œsophagus was completely occluded, when mastication was practised. The secretion of saliva and gastric juice is dependent on reflex nervous action, and will not take place properly if the nerve centres be depressed. The mere act of mastication excites reflex secretion, and at the same time increases the supply of blood to the nerve centres. Some observations of Marey proved that the current of blood in the carotid artery of a horse became three times as rapid during mastication as it was before. Even if it be denied that any part of the extra current of blood in the carotid goes to the brain, the fact would still remain that the movements of mastication and sucking increased the circulation to the brain, for this has been actually observed by François Franck in the human subject. In the act of swallowing, a mechanism is set in action which is calculated to increase the blood-supply, not only to the nerve centres, but to all the glandular structures concerned in the digestive act. Kronecker has discovered that the act of swallowing seems to remove entirely the inhibitory action of the vagus upon the heart for the time being, so that the pulse becomes exceedingly rapid. Sipping half a wineglassful of water raises the pulse from 76 to considerably over 100; so that, in fact, a glass of cold water slowly sipped will stimulate the heart as much as or more than a glass of brandy. The amount of free acidity in the stomach is very slight, because the hydrochloric acid combines for the time being with pepsin and proteids, forming a compound which does not give an acid reaction. In the stomach, it is uncertain whether starch passes into sugar, but it does pass into dextrine, a fact of importance.

Albuminoids are first changed into syntonin, and then probably into pro-peptone, hemi-albumose, or para-peptone, prior to the final stage of peptones being reached. Peptones may be formed artificially, and are sometimes of great service as nutrients in disease. The cause of the bitterness of the products of artificial digestion is not yet fully known, but many organic alkaloids are very bitter. The organic alkaloids are related to albumen, inasmuch as they belong to the aromatic series of organic compounds; and several alkaloids have been obtained from decomposing albumen, and the name of "ptomaines" has been given to them. Brieger has obtained an alkaloid from peptones formed by gastric digestion. By extracting a quantity of gastric peptones with amylic alcohol, he obtained an alkali free from peptones which had an action like that of curara.

The relaxation of the pylorus at the end of three or four hours has been ascribed to the increasing acidity of the chyme, but cases of abnormal acidity occur in which the food is retained in the stomach for an excessive length of time. A new field of inquiry is opened up by the discovery of the formation of an alkaloid during the process of digestion,

and the behaviour of the pylorus may be in some way related to the action of the alkaloid.

In the duodenum the chyme is made alkaline, and those substances which have only been converted into syntonin are precipitated. The pancreatic secretion is the most energetic and general in its action of all the digestive juices. Proteids do not swell, but crumble away under its action. The peptones of gastric and pancreatic digestion probably differ in some way. Bile favours the passage of fat through animal membranes, and its action in dissolving fats is a popular means of removing oil stains from furniture. A student at South Kensington once answered that "bile is formed in the stomach, and is used for cleaning carpets." Bile tends to prevent putrefaction. The products of pancreatic digestion form a favourable soil for the growth of bacteria. Indol is formed, and causes the stench in an artificial pancreatic digestion of meat; it is due to the presence of putrefactive bacteria. Were it not for the antiseptic action of bile, the occurrence of putrefactive changes in the pancreatic digestion would probably be the rule rather than the exception. The risk of poisoning from the absorption of organic alkaloids is run if putrefactive changes in the intestines are at all extensive. The alkalinity is maintained from the duodenum to the rectum, and is thus favourable to pancreatic digestion. When working with Professor Kühne at Amsterdam Dr. Brunton was informed that coagulated fibrine which had been previously rendered soluble, but not peptonised by pancreatic juice, could be digested by pure intestinal juice, which has no action on simple coagulated albumen. Absorption of the digested food is effected by the lymphatics and veins, and changes appear to occur in the peptones immediately after entering the bloodvessels. They appear to be taken up by the red blood discs and converted by dehydration into a larger and more complicated albuminous molecule—viz., that of globulin. The blood-corpuscles thus form, as it were, a store of albuminous material, which they convey to all parts of the body and give off where it is wanted. Part of the peptones is arrested and forms glycogen in the liver, as it has been found that the quantity of glycogen in this organ is increased by the injection of peptones into the bowels. The sugar also becomes dehydrated, and glycogen is produced from it. The liver therefore acts as a wise steward, laying by provision for the organism in the times of plenty and giving it out again in times of fasting. But this is not all. The venom of vipers is innocuous when swallowed. One reason for this is that it reaches the general circulation very slowly, so that the kidneys have time to excrete it and prevent accumulation in the blood. It is the liver which is the chief agent in retarding the absorption of poisons into the blood. The liver, or, as our forefathers called it, the "porta" or gate, acts the part of a prudent porter. Poisons may be absorbed from the duodenum and discharged into the duodenum again with the bile, again absorbed, and so go round and round in a circle from liver to intestine without getting into the general circulation or affecting the heart, lungs, &c. The liver actually destroys some organic poisons, such as nicotine. Ludwig and Schmidt Mulheim have shown that peptones, when injected into the general circulation, are poisons, producing loss of coagulability in the blood and great depression of the circulation, so that even the products of healthy digestion might prove fatal if they passed rapidly into the general circulation. The function of watching over the safety of the organism is not confined to the liver. The tongue and palate are the porters which prevent obnoxious substances from being taken into the intestinal canal. As a rule, substances pleasing to the palate are useful, and not injurious, to the organism. The nerves of taste are capable of education. Cookery has a perfect right to be ranked with music, painting, sculpture, and architecture, as one of the fine arts. Only rarely does one meet with a dinner which gives one the sense of high artistic perfection.

Dr Brunton then gave a highly amusing, graphic, and attractive sketch of a dinner partaken by him when enjoying the hospitality of a City company. In the courses of an ordinary dinner an order is adopted which is thoroughly physiological, which shows that whatever men may be in other things they are not "mostly fools" in regard to the plan of their meals. The reason why soup comes first has been admirably shown by Schiff in his experiments on digestion. He showed that the stomach of an animal, which some time before had digested a full meal, had very little power to digest albumen introduced directly into it, and a similar fact was ascertained in regard to an extract made from the stomach itself. The stomach seemed exhausted and incapable of producing pepsine. But if certain substances were introduced first into the stomach, the power to digest albumen was enormously increased. To these substances Schiff gave the name of "peptogens"; dextrine and soup made from meat were the most powerful of them. Assuming that the human resembles the animal stomach, we can understand how hard-boiled eggs or boiled meat can be digested if the meal be begun with a plate of soup and a piece of bread, the bread being partly converted into dextrine in the mouth, the extractive matters of meat contained in the soup on reaching the stomach will be absorbed, and will supply to the gastric follicles the power to secrete an abundance of pepsin. Juicy meat is easy of digestion, but meat from old and tough oxen, which have been employed for years in agricultural service, will not yield peptogenic matters so readily. Fish is very easily broken up, and is thus easy of digestion. Beef is less digestible than mutton, and mutton less than fish. The breast of a chicken is very digestible. The fibres of beef are longer and harder than those of mutton, and those of mutton than those of the breast of a fowl. The muscle fibres of fish are very short and easily separated. The readiness with which the fibres can be broken up mechanically corresponds to their digestibility. The physical conformation of the muscle fibres, and not the peculiarity of the animal from which they are derived, is shown in the fact that the leg of a fowl, with its long and hard muscle fibres, is by no means as digestible as the breast. Vegetables supply inorganic salts, and probably play a part in aiding the recomposition of peptones into albuminous material of the tissues after absorption. Bread supplies additional dextrine, and the cheese albuminoids. So far as the stomach is concerned it is not easy to see why we take bread, cheese, and dessert at the end of dinner. If we remember the effect of mastication and deglutition on the circulation and nervous system, we can at once see a good reason for the common manner of terminating a dinner. If the meal be more than ordinarily heavy, or if the person be exhausted by long fasting or severe exertion, or have a weak digestion, other aid must be invoked. Alcohol is one of the most powerful stimulants, both to secretion and the circulation. Hence the value of the preprandial sherry and bitters, of the sherry with soup, of the champagne with its effervescing carbonic acid, and of the small glass of liqueur or brandy, and the like.

Provided that moderation has been exercised, no harm will result, even from a heavy meal. Moderation is a relative term. The symptoms of gastric indigestion—loaded tongue, loss of appetite, tendency to nausea, and perhaps even vomiting—on the next day result if the food has been excessive in quantity, or injurious in quality, and more especially if alcoholic stimulants have been taken in excess. Dr. Beaumont, in the case of Alexis St. Martin, saw that there were "several red spots and patches abraded of the mucous coat, tender and irritable, when the above symptoms were present." The gastric juice, then, seems to have an alkaline reaction, and very little or no digestive power; hence undigested lumps may pass on and cause diarrhœa, or the inflammation may extend to the intestines, then dulness and languor with irritability supervene, the complexion becomes muddy, and the conjunctiva slightly yellowish, with possibly severe headache; all of these symptoms point to disturbance of the liver.

DEVONSHIRE HOSPITAL AND BUXTON BATH CHARITY. From the report of the Committee of Management of this institution for the year 1884, it appears that the number of in-patients received was 2491, an increase of 261 over the number in the previous year, and of out-patients 271, an increase of 35. The average number of patients daily resident in the hospital was 157·1, and the average number of days of each patient's stay was 23·1. The financial position of the hospital is satisfactory, the income having been fairly proportioned to the large outlay occasioned by the extended usefulness of the institution.

THE Queen has been pleased to give and grant unto James Andrew Sandiland Grant, M.D., her Royal licence and authority that he may accept and wear the insignia of the Third Class of the Order of the Medjidieh, which his Imperial Majesty the Sultan has been pleased to confer upon him as a promotion in that Order.—*London Gazette.*

CHARCOT'S DISEASE.[1]

BY WALTER RIVINGTON, M.S. LOND., F.R.C.S. ENG.,
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IN his speech at the Clinical Society Dr. Moxon said that he "would be very thankful to any member who would explain in what possible way herpes zoster threw any light on this so-called 'Charcot's disease.'" It is not difficult to establish a fair analogy between the two affections. Charcot himself refers to a case at the Hôtel Dieu, related by M. Ball, which was accompanied by pain, febrile reaction, and zona, and observes: "This complication is well calculated to demonstrate at least the neuropathic, if not the spinal, origin of the affection." The neuralgic pains often attending herpes zoster may be compared with the lightning pains which inaugurate tabes dorsalis, and which most commonly constitute the only symptom when the arthropathy is developed. The effusion into vesicles, though more distinctly of an inflammatory character, has its counterpart in the engorgement and œdema of limbs, and the hydrarthroses of joints, which are among the earliest local indications of Charcot's disease. Even the definite course and complete disappearance which are ordinarily exhibited in zona may be imitated in "Charcot's disease." "At the end of some weeks or of some months the swelling disappears, and then all returns to the normal state" in the *benignant form* of the affection. "Sometimes, on the contrary, serious disorders remain in the joints, crackings, dislocations, answering to a wearing down of the osseous surfaces and various luxations (malignant form)." These phenomena, as Dr. Broadbent pointed out, are comparable with the destructive ulcerations of skin which may be caused by herpes zoster, and the disorganisation of an eyeball which may be the result of herpes following the course of the fifth cranial nerve.

The two main factors, both in herpes zoster and Charcot's disease, may be said to be irritation of sensory nerves and trophic lesions. The same factors are present in other affections of bones of which the pathology is obscure, and strongly point to a mediate or immediate influence exercised by the central nervous system. Mollities ossium is preceded and accompanied by general weakness, profuse perspirations, and violent and persistent pains in the bones or all over the body. In all the cases known to Mr. Durham some influence had been at work capable of producing great general depression of the nervous system. Even in rickets a preliminary or attendant disorder of the nervous system is shown by restlessness, perspirations, and great tenderness of surface. Again, in cases related by Mr. Stanley under the title of Fragilitas Ossium, cases which differ from mollities in the presence of simple thinning of the walls of the bones without softening or morbid deposit, fractures arising from very slight causes were preceded by pains in the bones, or by what was termed "rheumatism" of the limbs. Is it possible that any of these cases, although occurring in women between twenty or thirty, may have been instances either of commencing tabes not then recognised or of some kindred lesion of the nervous system not yet elucidated? The fractures related by Mr. Stanley were accompanied by very little pain at the seat of the injury. In one case several fractures occurred in succession, and no union was obtained after treatment for two years.

The likeness existing between these several affections, tabetic arthropathy and tabetic fractures, mollities ossium and fragilitas ossium, and the analogy which can be drawn between Charcot's disease and herpes zoster as regards the primary disturbance of sensibility and the trophic lesions which follow in direct succession, indicate active intervention of nervous agency, and give support to the view that tabetic arthropathy is of neuropathic origin. Opposed to this rational explanation is the rather fanciful supposition that Charcot's disease is merely arthritis deformans accidentally occurring in the course of tabes, and somewhat altered from its pattern by the intervention of the nervous disease. It is urged in support of this hypothesis that whilst in typical specimens of each affection the differences between them are very startling, if a large range of specimens is taken the one affection runs into the other. Moreover, Mr. Hulke pointed out that in one individual, whilst the elbow-joint showed a predominance of tabetic characters, the knee-joint showed a predominance of characters typical of chronic rheumatic arthritis—viz., expansions and stalactitic outgrowths. In reply to this view I would submit:—

1. That puzzling intermediate forms do not prove the identity of the typical forms thus connected, but only a certain relationship, the precise nature of which has yet to be ascertained. Nowhere in nature can either groups of living beings or pathological lesions be found which do not blend with their neighbours. The existence of intermediate forms renders it impossible to frame scientific definitions which shall fulfil logical requirements. There is always an amphioxus. Lupus is an affection which has very distinctive characters, and is usually very little likely to be mistaken for psoriasis, acne, or eczema; yet there are forms of the disease which so trench on the characters of the other affections mentioned that the terms "lupus psoriasis," "lupus acne," and "lupus eczema" have been coined to describe them. Carcinoma and sarcoma, closely as they are allied, have distinctive features, but to confound their definitions there occurs an intermediate form, alveolar sarcoma, for which Mr. Butlin is obliged to assure his readers that he is not responsible.

2. It is not permissible from the occasional resemblance and intermingling of specimens of tabetic arthropathy and arthritis deformans to argue that Charcot's joint disease does not result from some central or local nerve lesion occurring in the course of tabes, until it has been clearly shown that the belief in the neuropathic origin of arthritis deformans entertained by many is unfounded. Until this is done demonstrations of affinity rather tend to support the neuropathic origin of arthritis deformans.

3. In comparing arthritis deformans with Charcot's disease regard must chiefly be paid, as Charcot points out, to the predominant characters of the lesions. Charcot admits that "it is not rare to see nodose rheumatism, common dry arthritis, coincide with ataxia," and no one in the debate described the occasional coincidences between dry arthritis and tabetic arthropathy in terms half so forcible and unreserved as those employed by Charcot himself. "Undoubtedly," he says, in his lectures, "in cases of old standing, when the articular surfaces, worn and deprived of cartilage, have continued to move on each other, the limbs being still made use of more or less imperfectly, the signs observed are those of dry arthritis—viz., eburnation, deformation of the osseous extremities, bony burrs, stalactites, and foreign bodies." Herein, very likely, lies the explanation of Mr. Hulke's observation; the affection of the knee-joint which displayed the arthritic peculiarities being of longer standing than the affection of the elbow-joint in which wearing away of bone was the main feature. On the other hand, Charcot insists that when dry arthritis occurs in the course of tabes it exhibits its accustomed symptoms, that in tabetic arthropathy there is always a predominance of wearing away over the production of bony burrs in recent cases, and that true luxations are frequent in tabes, and exceptional or only apparent and not real in common dry arthritis. The interstitial absorption which occurs in arthritis deformans along the line of pressure is always accompanied by compensatory condensation and marginal hyperplasia, characters entirely absent in the specimens exhibited at the International Medical Congress held in London in 1881. These specimens were so typical that Sir James Paget drew M. Charcot's attention to the fact that tabetic arthropathy was a new disease, and the writer of the Museum Report, following suit, affirmed that it was a "distinct pathological entity." I think it is worth while also to point out that, whilst Dr. Moxon contends that a continuance of friction would convert a specimen of arthritis deformans in an ex-cabman into a tabetic arthropathy, Charcot explains that old specimens of tabetic arthropathy assume from friction the characters of arthritis deformans.

4. If tabes dorsalis is admitted to be capable of so altering a typical example of arthritis deformans, with its attendant eburnation, marginal hyperplasia, additamentary bones, hypertrophied synovial fringes, foreign bodies, increased density of bone, thickened capsules and ligaments, and stiffened, painful joint into a typical example of atrophied worn bones of diminished density, with no inflammatory changes other than rarefaction, with flail-like and

[1] This communication contains the substance of what I had intended to say at the Clinical Society on the last night of the debate on Charcot's disease. Owing to the lateness of the hour at the time when the President's list of speakers became exhausted, I abstained from addressing the Society, for fear of interfering with Mr. Baker's reply.

luxated joints accompanied, it may be, with spontaneous fractures, or to be capable of preventing the exhibition of the typical characters of arthritis deformans, this is tantamount to admitting in a roundabout way a causal relationship between the nervous lesion of tabes and tabetic arthropathy. Such an admission must necessarily end in an unreserved acceptance of the simpler view of the occurrence of Charcot's disease as the direct effect of tabes without the intervention of arthritis deformans.

5. Tabetic arthropathies have special clinical characteristics and accompaniments which mark them off from arthritis deformans. These are the occurrence of the joint lesions at a particular and comparatively early stage of tabes—viz., after the prodromal stage and before the onset of ataxic symptoms,—a special sequence of the joint affections, the lower limbs suffering before the upper, rapid destruction of joints without pain or fever, rapid luxations, and equally sudden and spontaneous fractures. Four examples of fractures from slight causes in association with tabetic symptoms have occurred in my practice at the London Hospital, and these I will take an early opportunity to bring before the Clinical Society. In one a lesion of the knee-joint was associated with a "spontaneous" fracture of the tibia and fibula about three inches below the affected articulation. Fractures of this kind do not occur in connexion with arthritis deformans, and though scarcely referred to in the course of the debate, supply one of the strongest arguments in favour of the tabetic nature of Charcot's disease.

Since the knowledge of tabetic arthropathy became current knowledge, I have not unquestionably, to use Charcot's language, "assisted at the development of an ataxic arthropathy" in addition to the case above referred to; but in the pretabetic times I have met with one or two cases of swollen, crackling, flail-like joints, occurring suddenly in middle-aged individuals, which were diagnosed as chronic rheumatic arthritis, but which in all probability, preceded as they were by so-called "rheumatic" pains in the limbs, were typical examples of Charcot's disease. This unavoidable confusion, occurring doubtless to bygone as well as to existing observers, still casts its shadow across the path that leads to the recognition of Charcot's disease as a genuine tabetic lesion; and it may be necessary to defer a final judgment on the questions raised in the debate until further observations have been made in this country; and until the advance of physiology and pathology has dispersed the mists which still becloud the relations of the nervous system to the bones and joints in health and in disease.

Finsbury-square, E.C.

A CASE OF
MIGRAINE, WITH PARALYSIS OF THE THIRD NERVE.

By R. SAUNDBY, M.D. Ed., M.R.C.P. Lond.,
ASSISTANT PHYSICIAN TO THE GENERAL HOSPITAL, BIRMINGHAM.

WILLIAM P——, aged seven, was admitted into the Birmingham General Hospital on August 31st, 1884, complaining of sickness and pain over the right eye and in the right cheek-bone. The right eye was shut. He had been suffering from sickness for three days, accompanied by vomiting, but without localised pain. A year ago he was in the hospital with a similar illness. On referring to the case-book I find that on November 7th, 1883, he was admitted complaining of pain above the *right* ear; for four days previously he had complained of seeing double. There was some ptosis of the right eyelid. There is no mention of vomiting, and there was a "very slight discharge" from the left ear, which ceased immediately after admission, and there was some "weakness of the action of the left facial nerve, especially in the lower part." Hearing was not affected on either side. He has never had measles or scarlatina; he had whooping-cough slightly. His conduct at school has been good, but he has never been bright; in fact, he frets because they call him a dunce. His mother has never noticed any facial paralysis or any discharge from the ear, except that which occurred on his previous admission, and which she attributes to the use of an instrument to examine the ear (during which he complained of pain), and for the removal of a quantity of wax. She says she has had no miscarriages; she is a stupid woman, and has had constant neuralgia for two or three years past. The father is a sharp man. There is no history of syphilis. One child died of convulsions; three others, excluding the present patient, are alive and healthy.

Present condition (Sept. 2nd, 1884): Patient is a well-nourished, fresh-complexioned, pleasant-looking child. He makes no complaint of pain and has not vomited since admission. There are ptosis of the right eyelid and paresis of the internal rectus. He sees double, and when walking covers his right eye. There is no tenderness of the scalp. There is slight want of symmetry in the naso-oral folds, so that the mouth appears a little drawn to the right side, but the upper part of the face is quite normal. The tongue is protruded straightly. He can walk well; there is no giddiness. The thoracic and abdominal organs appear healthy; his tongue is clean, and his bowels are regular. Hearing on both sides is unaffected. There is no paralysis of the soft palate. Temperature 99°, pulse 96, respiration 26; urine 1018, acid, free from albumen. On Sept. 6th Mr. Eales examined the eyes at my request, and found no evidence of any paralysis of the oculo-motor muscles, nor any changes in the fundus of either eye.

Unfortunately, this case came under my observation quite at the end of the attack, so that my account of it is not very complete, but I think it is sufficient to justify the diagnosis of recurrent migraine with paralysis of the third nerve. Such a diagnosis may appear hazardous, and perhaps would not have been made by me had I not met with a very well-marked case of a similar kind previously. Two years ago I published in THE LANCET[1] a remarkable case of recurrent migraine, in which during the attacks there were all the phenomena of paralysis of the left third nerve: ptosis, complete paralysis of the upper, lower, and internal recti, dilatation of the pupil, and paralysis of accommodation. Owing to the recurrent nature of these attacks I was enabled to study the case fully, having had many opportunities of observing them in all their stages. A very noticeable circumstance with regard to that case was that the recovery after the paralysis was incomplete, the superior rectus remaining permanently paralysed while the other recti were enfeebled. The pupil remained slightly larger than that of the opposite eye, and there was a persistent degree of ptosis of the eyelid. As is well known, a great variety of nervous phenomena have been recorded in connexion with migraine; affections of vision, taste, smell, and hearing, aphasia, partial loss of consciousness, vertigo, cramps, transient hemiplegia, numbness and tingling of the fingers; and Horner has described a form of ptosis which he attributes to paralysis of the unstriped muscular fibres of Müller which are supplied to the orbicularis palpebrarum. Dr. Wilks mentions paralysis of the third nerve among the symptoms of migraine, but cites no case, nor can I find any recorded but my own. The rarity of the condition is shown by the absence of all mention of it in Dr. Liveing's comprehensive monograph on this form of headache, and in Galezowski's more recent paper on the ophthalmic phenomena of migraine.

Birmingham.

THE SURGERY AND PATHOLOGY OF TENESMUS OF THE RECTUM.

By J. HEADLEY NEALE, M.B., C.M., L.R.C.P. Lond.

A SHORT time ago, attention was called in a contemporary journal to the treatment of spasmodic contraction of the sphincter ani by digital dilatation, a *modus operandi* concerning which most of our standard surgical text-books afford but scanty information. Maisonneuve was probably the first to bring it into notice; and Holmes, in the last edition of his "System of Surgery," speaking of an "operation that has lately been recommended in France," condemns it as "unsurgical," at the same time admitting the evidence of its success. So far back as 1877 we find Erichsen, after recommending the trial of belladonna by

[1] Vol. ii., p. 345.

suppository, which at best could only relieve symptoms without removing the cause for this distressing complaint, writing thus: "Should these means fail, the patient must be anæsthetised, and the sphincter forcibly dilated with the surgeon's fingers." As "nothing succeeds like success," the following particulars of a case I was asked to examine with a view to operative interference may be of interest.

Mrs. F——, wife of a well-to-do farmer, aged fifty-nine, nulliparous, stout, florid, and of a sanguine and neurotic temperament; menopause came on in the forty-ninth year. About eighteen years ago a tumour, supposed to be ovarian, appeared in the right iliac region, freely movable, and about the size of a fœtal head. It subsequently disappeared, and no trace of it now remains. The family history is good. Beyond a dyspeptic tendency, the occasional occurrence of piles, and of slight attacks of bronchitis in the winter months, the patient has always enjoyed good health, until about fifteen months before the date on which I saw her; when the bowels began to act irregularly, defecation becoming both difficult and painful. The abdomen was greatly distended with flatus, which, however, was scarcely ever passed per anum. There was a continual desire to go to stool, sometimes recurring a dozen times in a day; the attempt frequently proving abortive. The motions when passed were of a "flattened tape-like character;" small doses of aperient medicine were constantly required, and the pain and difficulty in defecation increased. The patient's distress from distension, and what she termed a "growing up of the bowel," was so great that she consulted her medical adviser, who resorted to daily digital dilatation, and ordered warm water enemata to be frequently administered. This course of treatment in a measure relieved the condition; but, as the patient began to look forward to the daily manipulation with much dread, a more detailed examination under anæsthesia was recommended; and for this purpose I attended in consultation with her regular medical attendant. I first made a digital examination per vaginam, and found the os uteri normal and of the usual nulliparous character. A most unaccountable fold of mucous membrane high up in the vagina apparently divided that cavity into two compartments, and offered distinct resistance to the exploring finger. Passage of the sound showed the uterine cavity to be normal both in size and axis, thus negativing the existence of a uterine origin for the disease. The patient was then anæsthetised, and a most careful examination of the rectum both digitally and by the speculum was made, but not the slightest trace of either ulcer or fissure could be found. Around the anal orifice, however, and for some distance above were visible numerous polypoidal extrusions of old and absorbed piles.

Anæsthesia being complete, two, three, then four fingers, and afterwards the whole hand as far as the knuckles, were introduced into the bowel. There was free, but at no time alarming, hæmorrhage. Soon after returning to consciousness the patient passed a perfectly natural motion, the result of an aperient injudiciously taken the night before. A warm water enema was then administered and a quarter of a grain of morphia suppository passed into the rectum. Twenty-four hours after the operation the temperature rose to 101°, the bowel was then irrigated with a solution of hyposulphite of soda (a drachm to the ounce) and another suppository administered. The temperature speedily fell to, and afterwards remained at, the normal standard, the patient making an uninterrupted recovery.

The points of interest in this particular case were:—(*a*) the presence and subsequent disappearance of an abdominal tumour in a highly neurotic female, suggesting the query, Was it of phantom origin, or was it a myoma undergoing spontaneous involution at the climacteric period? (*b*) the absence of any fissure or ulcer, or (*c*), of any uterine mischief to account for the painful symptoms; and (*d*) the presence of the sites of old and absorbed piles. Among the pleasing results of the treatment may be noted the complete cessation of these symptoms; the patient's intense satisfaction at once more being able to pass natural motions without pain; and, lastly, her uninterrupted recovery from the operation.

As regards the pathology of spasmodic contraction of the rectum and sphincter ani, where an ulcer or fissure exists the cause is not far to seek. The peripheral end-organs of a highly sensitive and complex nervous mechanism are exposed by a raw surface to the stimulus (whether mechanical or chemical) of the intestinal contents passing over them, and an inordinate contraction of both voluntary and involuntary muscular fibres is the result; but where no such evident cause exists, and nothing is to be observed save the "reliquiæ" of old and absorbed piles, we have to resort to a hypothesis for an explanation of the condition. The following appears to me to be a feasible one. On the occurrence of a pile, with its extravasation of blood, there is considerable distension of the submucous tissue; and just as inordinate distension of subcutaneous tissue by deposition of fat is followed on the disappearance of the latter by cicatrisation and the formation of "lineæ albicantes" (a condition I have frequently observed in nulliparæ of an anæmic or chlorotic tendency), in like manner may not the absorption of the clot in a pile be followed by submucous cicatrisation, involving the aforesaid peripheral nerve-endings, and inducing a condition of hyperæsthesia, on the application of a stimulus, such as the presence of fæces in the rectum? We should thus have an explanation of the "flattened tape-like" fæces; for, with the desire to pass a motion, volition is called into play for the inhibition of the sphincter; this is modified by the inordinate reflex contractions, and the balance of power in the combat results in a narrowing of the orifice, and consequent moulding of the fæcal matter. By dilating the parts we resort to a process of nerve-stretching, releasing the peripheral nerve-endings from their constricting environments, thus rendering them less amenable to the action of a stimulus, and leaving the voluntary inhibition of the sphincter to assert its mastery.

Leicester.

OSMIC ACID IN SCIATICA.

BY JAS. MERCES, M.R.C.S., L.R.C.P. LOND.

I HAVE much pleasure in bringing favourably before the profession the fruits of my observations gained in that rich field of untold treasures in the various joint affections, including certain skin diseases and neuralgic affections, which one meets with in the Bath Mineral Water Hospital, the beneficial and curative value of its waters being apparently still unknown to a great number of our profession.

I have given osmic acid a trial in eighteen cases, which have resisted all other known methods of treatment which we occasionally resort to as an adjunct to the unaided efforts of the waters, though it is satisfactory to state that only about 25 per cent. of the cases which are admitted here, having previously tried the faculty of the towns from which they are sent, resist every known curative measure, including our baths. To the latter twenty-five per cent. I have directed the subject of my observations. The patients' ages varied from eighteen to sixty-five. In twelve cases I succeeded in giving them absolute relief for a period of three weeks, when I lost sight of them, the patients having left the hospital. The numbers of injections varied from one to four. In six I gave temporary relief. The injections were as many as twelve in one case. It is perhaps instructive to state that though I did not give them permanent relief, they obtained more comfort by its use than even hypodermic injections of morphia. I used a one per cent. solution, injecting deeply over the sciatic nerve, at a point midway between the tuber ischii and trochanter major, three to five minims of the solution. It produced no constitutional effects, but locally at the seat of the puncture the patient invariably complained of a numb feeling, which, however, was transient. In some cases the effect was marvellous, the patient being able after a short time to stand on the affected side, a feat which he had been unable to do for years.

I am unable to state or propound any theory of the action of osmic acid. Its effects are undoubtedly local, and one can hardly conceive that it could set up any appreciable amount of local inflammation by its undoubted irritant property, inasmuch as its effects are so rapid. That it is, however, a valuable and fairly successful remedy I think the test of experience will soon establish.

Bath.

THE Waterworks Committee of the Manchester Corporation are stated to be about to put the Thirlmere water scheme for the city into immediate operation.

CONCERNING THE ACTION OF CERTAIN REMEDIES IN "FUNCTIONAL" AMENORRHŒA.[1]

BY THOMAS SANCTUARY, M.D.

IT is, perhaps, a fortunate thing for the chemist, and for those medical men who make a large portion of their income by dispensing, that there still exists a widespread popular belief in the virtue of drugs. That this belief is in part a natural consequence of the uncertainty which attaches in any individual case to the cause of recovery cannot be doubted; that it rests on a basis justified by scientific discovery is not so clear, and I cannot but think that a great deal too much physic is prescribed in the present day, and too little attention paid to the general hygienic treatment of the patient. At the same time it is a well-established fact that we possess a few remedies which seem to have a special action and to be of benefit in certain diseases, and I wish in this short paper to allude to two drugs, which in this country at any rate do not seem to have met with the general appreciation they deserve in the treatment of that uncomfortable and mysterious symptom, amenorrhœa.

a short unselected list of cases which, with one exception, were uniformly successful; and to induce the profession to give these remedies a fair trial in those cases of amenorrhœa for which no obvious cause can be assigned. With apiol the name of Dr. Joret of Paris is inseparably connected, as that of Ringer is with the permanganate.

The former drug was employed in Brittany about the year 1849 as a febrifuge, but as its emmenagogue properties were discovered and more powerful antipyretics came into vogue, it gradually became the fashionable remedy for amenorrhœa. It is said to cause a painless menstrual flow, and to remove the lumbar and abdominal pains which in many women accompany the period, and to have no deleterious effect in case of pregnancy. In my limited experience I have noticed occasionally that a good deal of griping and flatulence appear to follow its administration; and this, as well as the fact that it is rather an expensive drug, will cause it probably to be less used than the potash salt. Either drug may be given just before the period is expected, or at or after the usual time for its appearance. Apiol may be prescribed in capsules or emulsion, the former preferably, I think; and I generally use the imported original capsules of Drs. Joret and Homolle, which contain from three to five minims; one of these should be taken night and morning; the permanganate, in one grain doses, in pill form (made with kaolin to prevent oxidation), three times a day. It is possible that apiol acts in a somewhat similar way to savin oil, and is

ABSTRACT OF SIXTEEN CASES OF AMENORRHŒA TREATED BY PERMANGANATE OF POTASH AND APIOL.

No.	Name.	Age.	State.	Periods missed.	Catamenia generally.	Remedy.	Amount given.	Catamenia appeared.	Remarks.
1	C. A.	22	Single	6	Irregular & chlorotic	Perm. of potash	4 grains	On the 2nd day	—
2	A. B.	20	,,	4	Regular	,, ,, ,,	12 grains	,, 4th ,,	—
3	E. H.	24	,,	2	,,	,, ,, ,,	5 grains	,, 3rd ,,	—
4	S. R.	19	,,	3	,,	,, ,, ,,	12 grains	,, 5th ,,	—
5	E. S.	21	,,	5	Said to have been irregular	,, ,, ,,	24 grains	No result	Pregnancy was suspected, but denied. Since these notes were first written, pregnancy has become almost a certainty, though she has passed from my notice, and left the neighbourhood.
6	J. B.	25	Married	3	Regular	Apiol	2 capsules	On the 2nd day	Has had two children. No suspicion of pregnancy.
7	B. D.	28	Single	5	Irregular in England	,,	1 capsule	,, 2nd ,,	—
8	D. A.	21	Married	5	Regular	,,	3 capsules	,, 3rd ,,	One child. No suspicion of pregnancy.
9	L. M.	35	Single	2	,,	,,	1 capsule	,, 2nd ,,	—
10	E. W.	27	,,	1	,,	,,	3 capsules	,, 4th ,,	—
11	E. S.	32	,,	3	Irregular	,,	1 capsule	,, 2nd ,,	—
12	M. D.	23	,,	2	Regular	,,	2 capsules	,, 3rd ,,	—
13	A. J.	19	,,	2	,,	,,	3 capsules	,, 4th ,,	—
14	J. S.	17	,,	3	,,	,,	6 capsules	,, 7th ,,	—
15	E. B.	24	,,	3	,,	,,	8 capsules	,, 5th ,,	—
16	S. E.	28	Married	2	Irregular	,,	5 capsules	,, 6th ,,	Two children and a miscarriage. No suspicion of pregnancy.
17	M. A.	24	Single	2	Regular	Perm. of potash	10 grains	,, 4th ,,	—
18	K. Y.	20	,,	3	,,	,, ,, ,,	4 grains	,, 2nd ,,	—
19	M. C.	19	,,	4	Irregular	,, ,, ,,	24 grains	No result	Nos. 19 and 20 are the same patient. She was not affected by ext. gossypii, which was also tried.
20	M. C.	19	,,	4	,,	Apiol	12 capsules	,,	

Putting aside the question of pregnancy, it is often most strange why the average healthy female who has usually menstruated at regular intervals should, for no apparent cause, miss one, two, or more periods, and then resume the even tenour of her way for the rest of her menstrual life. In many cases cold, shock, hæmorrhage, or other valid reason may be assigned, but there still remains a large number in which it is impossible to find a satisfactory cause; and it is in these unexplained cases, which, for want of a better term, I will call "functional," that the value of the two drugs apiol and permanganate of potash is demonstrated. It is with much diffidence that I venture to bring these notes before the profession, because to most of them it is more than probable that the subject may be no novelty; and, secondly, because in the list of appended cases,[2] sixteen in all, there is only one record of failure; and it might seem as if, carried away by the implicit faith in the unfailing action of these drugs, I pinned my faith to them exclusively, and attempted to prove their efficiency in every case of amenorrhœa. I beg to disclaim any such pretension, nor do I believe them to be specifics; I simply wish to place on record more trustworthy. The precise action of the permanganate is uncertain, but it does not improve the quality of the blood, nor does it cure chlorosis, if that symptom be present along with the amenorrhœa. It produces a profuse, painless flow after from four to twelve grains have been taken. From what I have seen of the two drugs I prefer the permanganate. (See Table.)

Salisbury.

[1] Read before the South Wilts District Branch of the British Medical Association, July 23rd, 1884.

[2] I have since added four other cases (making twenty in all, with two unsuccessful ones).

CANTOR LECTURES.—The second course of Cantor Lectures at the Society of Arts will be on "Climate and its Relation to Health," by Dr. G. V. Poore, and the lectures will be delivered on Monday evenings, Jan. 12th, 19th, and 26th. The first lecture of the course will be delivered on the evening of Monday next, and will deal with the chief constituents of climate, latitude, heat, light, and barometric pressure; the second lecture, on January 19th, will treat of the effects of soil, drainage, and vegetation upon climate; and the subjects of the third lecture, on January 26th, will include the chief sources of atmospheric impurities, both inorganic and organic, climatic diseases and climatic health resorts.

DR. J. F. STEVENSON, J.P., Birkenhead, has been appointed a Visiting Justice for the County Asylum, Chester.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.* lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

A CASE OF RESECTION OF THE LARGE INTESTINE FOR SCIRRHOUS GROWTH.

(Under the care of Mr. SYDNEY JONES.)

W. K——, aged fifty-four, married, was admitted under the care of Mr. Sydney Jones on May 15th, 1884, and died on the 26th.

The family history was good, and there was no record of tumour. She married twenty-nine years ago, and had had seven children, the youngest of whom is aged sixteen. Four died from measles or scarlet fever; the others are living and healthy. She had had no miscarriages. She has suffered from herniæ since the birth of her first child (right inguinal and femoral); for these she had worn a truss, but only for two months. Six months ago she felt pain in the right side of the abdomen; this pain was worse during and after exercise, and she knew of no cause for it. Four months ago she noticed a swelling in the part of the abdomen where she felt pain; it increased in size, but has not changed in position. The pain has been worse after a hearty meal and during exercise, but she did not think that she had lost flesh, and her appetite continued good. She had always suffered from constipation, but since Christmas the bowels had been more than ever confined, and her motions had been of a dark almost black colour recently, but she did not know that she had ever passed blood. The catamenia ceased about seven years ago; until then she was quite regular.

On admission she was a thin pale woman with an anxious expression, complaining of a swelling in the abdomen. On the right side of the abdomen about the level of the anterior superior spine was a solid tumour, about two inches and a half in diameter, of very irregular outline. It appeared to be attached to the abdominal wall, did not move with respiration, but was not fixed; it could be moved from side to side. It was tender to the touch, firm and hard, and somewhat irregular on the surface. The resonance of the abdomen generally was good, but was modified over the tumour; there was not absolute dulness. The abdominal walls were lax, and there was a hernia in both the inguinal and femoral regions on the right side, the former easily descending when the patient stood, and being easily reduced with gurgling; the latter small, descending less easily. The organs generally were healthy. Urine 1027, no albumen, contained a little mucus. The patient suffered a great deal of pain and was anxious for something to be done to relieve her.

May 23rd.—The patient having been prepared for the operation in the usual manner, and the bowel cleared by an enema, she was put under the influence of ether, and Mr. Sydney Jones performed the following operation. An incision four to five inches in length was made from above downwards over the centre of the tumour, and when the abdominal walls had been divided and bleeding points ligatured, the carbolic spray was turned on, and the remainder of the operation completed under it. The tumour was found flattened and adherent to the peritoneum, and there was slight bleeding when it was separated; it was found to be situated in the upper part of the ascending and part of the transverse colon. A warm sponge was placed over the exposed intestines whilst the diseased portion was examined. It was decided to excise the cæcum and all that part of the intestine which was involved. The mesentery and omentum were ligatured by silk ligatures piece by piece, and then divided. A clamp covered with indiarubber was put on the intestine on each side of the line of proposed separation, and the intestine was then divided by scissors, and any bleeding points twisted with forceps. A small piece of sponge was inserted into the open end of the ileum whilst the tumour was being dissected out. The tumour and involved intestine were removed from the transverse colon in a similar manner. It was decided to bring the two ends together without making an artificial anus. About fourteen fine silk sutures were passed through the whole thickness of the intestine, so that the two cut ends were united around their whole circumference; others were passed through the serous coat alone, and one was passed (near the wound) so as to attach the serous coat to the abdominal wall. After the clamps had been removed there was a little ecchymosis and congestion of the gut near the place where they had been applied. The abdominal cavity was then carefully wiped out with dry warm sponges, and three sutures were passed through the upper part of the edges of the wound and one through the lower; the middle part of the wound was left open, and a light plug of iodoform gauze was inserted into it. The wound was dressed antiseptically, a bag of sublimated wood wool being used to soak up any discharge, and this was bandaged on with carbolic gauze bandages. The pulse was good after the operation. A half-grain suppository of morphia was given before the patient was put back to bed.

24th.—She complained of pain occasionally during the night and did not sleep for more than half an hour at a time, although injections of morphia were administered at seven and eleven last evening. The urine was drawn off every eight hours. Temperature last night 98·4°; this morning 100°. She had another injection of morphia in the early morning and suffered no pain during the early part of the day. Pulse 134, bounding and easily compressible; respiration easy (25); tongue dry; has taken ice only; urine 1030, acid, a deposit of lithates, no albumen, some mucus. 2 P.M.: Temperature 101·2°, patient quiet and without pain. 8 P.M.: Temperature 104·4°; restlessness, no pain. The wound was dressed on account of the rise of temperature; the plug was found covered with quite sweet coagulum; the dressing gave no pain; the spray was used. The wound looked well and there was no abdominal distension. An injection of one-third of a grain of morphia was given, after which she slept for two hours.

25th.—The patient seemed better, no pain; pulse 124 at noon, and occasionally intermittent; temperature, 2 A.M., 103·8°, 8 A.M., 103·6°, 2 P.M., 103°, 8 P.M., 102·6°.

26th.—She slept about two hours during the night after the injection of one-third of a grain of morphia. She became weaker towards the morning, and her temperature rose to 104·4° at 2 A.M. She was worse at 8 A.M., when the temperature was 104°, and a teaspoonful of brandy was ordered to be given every hour. 11 A.M.: She was sinking; the pulse could hardly be felt, temperature 104·4°. An injection of ether and a nutrient enema were given, after which she revived a little but sank, dying quietly at 1.45 P.M.

At the post-mortem examination, made on the following day by Dr. Sharkey, the abdominal cavity contained no fluid, and there was no general peritonitis. The site of the operation was the right iliac and lumbar region, where the small intestine had evidently been united to the large after a portion of the bowel had been removed. The line of junction was very vascular, but there was no inflammation except at the point where the mesentery was attached; here dirty-looking pus had infiltrated the tissues. Water injected through the gut passed freely and easily by the seat of the operation; but on putting a little more pressure a larger, but still moderate, stream of water trickled through the wall of the gut at the junction of the mesentery with it. This slight oozing was probably the cause of the local inflammation. There was a moderate degree of atheroma of the valves on the left side of the heart; the lungs were both greatly congested and œdematous in dependent parts; the kidneys were rather small, and their capsules very slightly adherent; otherwise the organs were healthy.

Remarks.—Having little doubt as to the nature and seat of the growth, and taking into consideration the inevitable ending if no operation were performed, either from local extension and involvement of surrounding parts or possibly obstruction of the bowel from diminished calibre of the gut—the patient suffering much pain from the growth, which was increasing somewhat rapidly in size, and being anxious for relief—Mr. Sydney Jones performed the operation described above; and the general and local condition (there being no enlargement of the neighbouring glands nor visceral disease, as proved post mortem) justified the expectation of a successful result.

BOURNEMOUTH COTTAGE HOSPITAL.

A CASE OF BULLET WOUND OF THE SKULL; RECOVERY.

(Under the care of Dr. DOUGLAS.)

FOR the following notes we are indebted to Mr. T. Fred. Gardner, L.R.C.P. Lond., M.R.C.S., late resident medical officer.

Charles C——, aged twenty-eight, a labourer, was admitted at 9.30 P.M. on August 13th, 1884, with a bullet wound passing through the left eyebrow. The wound was inflicted by the accidental discharge of a smooth-bored gun within two yards of the patient's head. This accident took place at a shooting gallery on the beach, and a leaden bullet subsequently obtained from the owner of the gallery as one similar to that with which the gun had been loaded weighed three drachms, and was the size of an ordinary playing marble.

The patient, when admitted a quarter of an hour after the accident, was quite conscious, able to speak, and breathing tranquilly. He had a very feeble pulse, cold extremities, and his face was bathed in perspiration. The pupils were normal and equal. There was no paralysis, no loss of sensation, no impairment of vision. The patient complained of pain at the seat of injury, but nowhere else. The wound was situated in the left eyebrow, about half an inch outside the supra-orbital notch. It was quite circular, with clean-cut edges, which were inverted. The diameter of the wound was a little smaller than that of a sixpence, and at its upper margin two small dark lines, about one-eighth of an inch long, ran out at right angles from the border of the wound, as though some slight laceration had taken place at this part. Dark venous blood escaped from the wound, the flow increasing whenever the patient moved, and especially when he coughed. The margin of the wound was slightly blackened. A small fragment of lead corresponding to a projection on the sample bullet from defect in the mould was found lying in the wound. This and a small fragment of bone about the size of a millet seed were extracted from the wound. On passing a probe into the wound a short distance several loose pieces of bone could be felt. The probe being withdrawn, the wound just admitted the entrance of a small finger. With the finger so inserted a perfectly round perforation could be felt in the frontal bone, with sharp bony edges, and the brain was felt pulsating against the tip of the finger. The bullet could not be felt, nor could any trace of it be found between the scalp and skull. There was no other wound in the head. A piece of lint soaked in carbolic oil was applied to the wound, and the patient carefully put to bed, ice being applied in an ice-cap to the head. Milk diet was ordered, and a nurse appointed to watch the patient. During the night he was restless, and slept only at intervals. A quantity of blood oozed from the wound at every movement.

14th (second day).—No change had taken place in the patient's condition. He was still conscious; hæmorrhage had continued, movement or coughing increased the flow considerably. When the patient was quiet, the blood in the wound was seen to pulsate synchronously with the patient's breathing. The patient now complained of pain at the back of the head near the occipital protuberance. He had not passed any urine and had no desire to do so. Pulse 60; temperature 98·2°. Towards evening some effusion appeared under the left upper eyelid. Ice to the head was continued.

15th. The patient still conscious, the pain at the back of the head not so bad. He was a little restless through the night. Had passed about a pint and a half of clear urine early in the morning. Pulse 60; temperature 98·4°. Except the restlessness there has been no symptoms of cerebral inflammation, irritation, or compression.

16th. The patient feels no pain, the wound is scabbed over. The effusion and swelling of the upper eyelid have not at all subsided. His bowels not having been opened since admission, an enema was administered, and it has acted. Towards evening the patient said he felt quite well. Pulse 60; temperature 98·4°. The ice to the head continued, and beef-tea and some light pudding added to the milk diet.

17th. No change in the patient's condition during the last three days. Bowels have been unrelieved since the 14th. Temperature being still normal, the ice to the head was discontinued.

20th.—The patient more drowsy. He falls asleep over his food, but can easily be roused; he complains of no pain. The pupils are markedly unequal; this is the first time they have deviated from the normal. Pulse 45; temperature 98·4°. An ounce of compound senna draught ordered and given, but the bowels remain unrelieved.

21st.—The patient is still drowsy. Two enemata failed to open the bowels. He was a little sick. One minim of croton oil in mucilage was given and rejected. Pulse only 45.

22nd.—Bowels still unrelieved. Four grains of calomel were given in the morning and repeated in the evening. He was not quite so drowsy. Pulse 54.

23rd.—Five grains of compound powdered elaterium administered in the morning and repeated at night as the bowels did not act. Pulse 54.

24th.—The bowels acted copiously during the night. The patient is much brighter. Pupils are equal (they have been unequal since the 20th). Pulse 60.

26th.—Bowels acted naturally. The patient is cheerful. Towards evening he complained of pain and throbbing in the wound. Pulse 60.

27th.—The pain in the wound has gone. There is no tenderness, no fluctuation, nor any crepitation about the wound, which remains scabbed over. Patient feels quite well and wants to get up. The tongue is quite clean, but the bowels have not acted since the 26th.

28th.—The patient is not so well. The left upper eyelid is red and swollen, but no fluctuation can be detected. The left pupil is more contracted than the right. Morning temperature 98·4°; pulse 84. The bowels being still confined five grains of compound powdered elaterium were given. The patient had a rigor at 11 A.M. Temperature taken after the rigor, which lasted a quarter of an hour, was 100·8°; pulse 96. The patient is irritable, restless, and refuses all food. He was sick in the middle of the day. Ice was applied to the head. At 6 P.M. the temperature had fallen to 98·6°, and the pulse to 84. Bowels still confined, so the elaterium was repeated at night. The patient was sick during the night. Temperature, 11 P.M., 101·8°.

29th.—Bowels still unopened. The wound opened in the night, and a little pus escaped. The eyelid is still swollen. Morning temperature 98·8°; pulse 96. A director was passed into the wound, and a sinus passing inwards between the bone and skin was opened up with a bistoury. A small quantity of pus escaped, but no bone. A poultice was applied. The patient was very restless during the day. Very offensive-smelling pus escaped from the wound, but only in small quantities.

30th.—The patient slept well during the night, and the bowels were freely opened. Charcoal poultices were applied during the day to the wound. Morning and evening temperature normal; pulse 54.

31st.—The wound still discharging an offensive-smelling pus, but no bone comes away. The patient could raise the still swollen eyelid a little; vision is unimpaired; pupils remain markedly unequal.

Sept. 1st.—The patient is better; swelling of eyelid gone down; pupils nearly but not quite equal; temperature 98·4°; pulse 72.

2nd.—The wound is healing. A little pus, quite healthy but odourless, escapes. Pupils are equal. Temperature and pulse normal.

3rd.—The patient is a little drowsy.

4th.—The drowsiness passed off, and the patient felt quite well.

10th.—The patient was allowed to get up.

12th.—Allowed to walk into another ward.

20th.—Allowed a walk in the garden.

30th.—The wound is still open; it presents a mass of large-sized granulations covering an area the size of a sixpence. They are touched daily with nitrate of silver and dressed with cold water dressing. The patient is very excitable at times, scarcely knowing what he does. He sleeps badly.

Oct. 1st.—The patient was discharged from the hospital after seven weeks' residence.

8th.—The patient reported himself at the hospital. The wound is still open and discharging a small quantity of healthy pus. No bone has come away.

13th.—The patient has had occasional attacks of giddiness, similar to attacks he had after a sunstroke some time ago. The wound is still open.

25th.—The patient was present at a tea given to old in-

patients of the hospital. He was still excitable. The wound was still open, all attempts to heal it having failed. It was still being touched with nitrate of silver by his club doctor.

Dec. 11th.—Patient came into Bournemouth by train. He was feeling well in every respect. The wound was still open.

12th.—The following is a report from his doctor: "C——'s health during the past two months has steadily improved. The excitability and moroseness of temper, then sometimes present, have passed off, and although he suffers occasionally from sleeplessness, still this occurs much less often than before. The wound has contracted much, but as there is some tendency to accumulation of pus between the right (*sic*—? left) upper eyelid and orbit, I have not encouraged the entire closing of the wound made by the bullet. The amount of discharge is only a drop or two each day. The boy's intellect is perfectly clear in every point, and there is not the slightest trace of paralysis anywhere, nor of any symptoms of irritation of the brain."

Remarks.—There seems to be no doubt in this case that recovery has taken place while a leaden bullet, weighing three drachms, remains within the skull. The clean-cut wound, the hole in the frontal bone, and the pulsation of the brain seen in the wound leave but this one conclusion, that the bullet, travelling with considerable force, really entered the skull. The situation of the bullet is not so clear. The absence of all sign of convulsive movement seems to favour the theory that the brain escaped injury. It is probable that the bullet remains between the brain and the dura mater, and either rests on the orbital plate of the frontal bone just below the wound, or has rolled into the base of the skull. Mr. Erichsen, in his work on Surgery, quotes the case in which a bullet entered the right temple, passed across the brain, and splintered from within the bone on the left temple, but causing no external wound there. On cutting down to the splintered bone on the left temple the bullet was not found, but post mortem it was discovered lying loose in the base of the skull, where it had rolled. This may have occurred to the bullet in this case. Points of interest in this case are—1. The absence of all meningeal or cerebral inflammation, although the dura mater was shot through and irritated by numerous particles of bone. The rigor and rise of temperature noted were evidently caused by the accumulation of pus under the scab, as immediately its evacuation was accomplished the temperature fell. 2. The obstinate constipation due to complete loss of nervous power over the intestinal tract, and resisting nearly all purgatives. 3. Compression of the brain, probably by the bullet, the temperature remaining normal, so excluding any compression from inflammatory effusion.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Fracture of the First Rib.—Simple Fracture of Skull in Infants, followed by Pulsating Tumour.

THE annual general meeting of this Society was held on Tuesday last, Mr. J. Whitaker Hulke, F.R.S., President, in the chair.

Mr. CHARTERS SYMONDS read the report of the Morbid Growths Committee on Mr. Barker's case of a tumour of the upper jaw. The report drawn up by Mr. Symonds and Mr. Bowlby was lengthy, and illustrated by three good drawings, showing the variety and arrangement of the histological elements of the tumour. The conclusion was arrived at that the tumour was a specimen of spheroidal-celled carcinoma of the variety called adenoid or glandular.

Mr. ARBUTHNOT LANE described two cases of Fracture of the Right First Rib alone, and one of Fracture of the Right First Costal Cartilage alone. The first occurred in a woman, the fracture being situated one inch and a quarter outside the tubercle. There was but slight displacement; union was complete. The second was found in a man. The rib had given way just outside the scalene tubercle. As the subject was affected by rheumatoid arthritis, the ends of the bones were flattened, eburnated, and rendered very thick by marginal bony growth. They were surrounded by a loose fibrous capsule. This fracture had evidently taken place during vigorous adult life, as no articulation of any sort exists in the now completely ossified right first cartilage, while a complete and loose arthrodial joint exists in the one on the left side. The presence of the ununited fracture in the right rib obviated the necessity of the formation of the joint in the right cartilage. This case had an ununited fracture of the right acromion. Mr. Lane put forward three possible hypotheses as to the mode in which the first rib was broken. The first was force applied directly to the seat of fracture. This could only occur when the fracture was situated near the tubercle, and was a very unlikely means, as the rib was at this point covered by the scapula and much muscle. The second was that it might be broken by force applied directly to the manubrium. This was improbable, owing to the great obliquity of the first arch. The force required to break the rib in this way would be much more likely to cause fracture or dislocation of the sternum. The third, and he considered the most probable means, was force applied to the clavicle, and transmitted to the first rib. He referred to a paper in the last number of the Transactions, "One Mode of Fracture of the Sternum," where he had already shown that it is by transmission of force to the first rib by the clavicle, and by this to the first cartilage and manubrium, that fracture of this cartilage or of the sternum is produced. He now wished to prove that the first rib alone is fractured in a similar way, and that the seat of fracture of the rib depends a good deal on the direction of the force applied to the clavicle. In his first case he thought that force had been applied in a backward direction, and in his second case in a vertical direction. He remarked on the supposed extreme rarity of this fracture, and referred to a case briefly described by Mr. Lyell in "Holmes' System of Surgery." He also showed a specimen in which the right first costal cartilage alone had been fractured one eighth of an inch from its outer extremity. It had not united very firmly, though it was surrounded below and in front by much irregular callus. He considered that it had been broken by force transmitted vertically through the clavicle.—Mr. HULKE said the most important feature was the causation.—Mr. CLEMENT LUCAS said we were indebted to Mr. Lane for the paper on account of the rarity of the accident, the causation was no doubt the most interesting part of the case. It would perhaps have been better if the clavicles had been retained in position in the specimens shown by Mr. Lane. Mr. Lucas had seen but one case in which a cart-wheel had gone over the clavicle and had broken it and the first rib.

Mr. R. J. GODLEE read an account of two cases of Simple Fracture of the Skull in Infants, followed by the Development of a Pulsating Tumour, and showed some drawings and specimens in illustration. The first case was a female infant, eight months old, that was brought to the hospital the day after a fall of fourteen feet on the side of the head. There had been no unconsciousness or external bleeding at the time; she had vomited shortly after. When seen there was a large hæmatoma over the right parietal bone, and there was almost complete paralysis on the left side of the body; the reflexes were absent on the left side. There was at first some difficulty in swallowing. On the fourth day right-sided convulsions occurred. Next day the paralysis began to improve and the swelling also gradually to disappear. At the end of about a week pulsation was first noticed in the swelling. Three weeks after the injury the hæmatoma was increasing in size and was aspirated, 7½ oz. of fluid being removed; the fluid was muddy-looking, alkaline, and contained a few corpuscles. In three days another small aspiration was performed, and two days later the swelling was opened, a large quantity of fluid similar to that already obtained came away, likewise some genuine pus. Death occurred next morning. At the autopsy the hæmatoma was found to extend the whole length of the parietal bone. In the middle of it there was a gap in the parietal bone half an inch wide with irregular edges. Brain matter could be seen through the gap, and it was ultimately discovered that there was a direct communication between the hæmatoma and the descending cornu of the lateral ventricle. On removing the bone the dura mater was found lacerated corresponding to the fracture in the skull, the brain was collapsed on the same side, and there had been a rupture of the temporo-sphenoidal lobe at the upper part that communicated with the interior of the brain as just described. There was extensive meningitis at the base, and arachnitis of the vault on the right side. Mr. Godlee drew attention

to the character of the fluid that had been drawn off; there was evidence that it was partly inflammatory and in part derived from the cerebro-spinal fluid. He also referred to the want of correspondence in gravity between the symptoms and the damage done to the brain. The second case was that of a male infant aged five months that came to the hospital after having fallen on to his head from a height of eight feet. He was cold and collapsed, and had not vomited; there was a hæmatoma extending forwards from the back of the head on the right side. Convulsions appeared a few hours later, being mostly right-sided. The twitchings lasted some days. At the end of a week pulsation was observed in the tumour, and impulse on coughing. The temperature continued at or about normal, but the swelling increased in size, and on the thirteenth and fifteenth days it was aspirated. Very little fluid was, however, drawn of, and the child's general condition remained the same. At the end of two months the child was allowed to be taken home, a shield having been provided to protect the still pulsating swelling. Shortly after this the child was taken to another hospital, where he died in the course of a few days with symptoms of meningitis. On examining the right parietal bone, there was found a large irregular opening, running obliquely downwards and forwards, measuring three inches long by three-quarters of an inch across. At each end of the opening the bone was fissured for nearly an inch. The margins of the opening were very thin, and the absorption of bone seemed to have taken place chiefly at the expense of the outer table. The bone was everywhere very thin, but there were no spots of cranio-tabes. On the other parietal bone there was an indentation corresponding in shape and size with the above opening; the bone was very thin, quite membraniform, in this region. The symmetry of the lesion of the bone suggested that the child's head might have been squeezed in some way, but there was no history of this. Mr. Godlee pointed out that in the infant the bones of the skull were very flexible, and that they were united by sutures which were soft and permitted of a considerable amount of movement, and further that the dura mater in young infants was firmly attached to the bones. He thought that these facts would help to explain the different results of direct violence to the skull in the child and in the adult; in the former the force being almost altogether spent upon the part struck.—Mr. THOMAS SMITH said that he had written a paper for the St. Bartholomew's Hospital Reports dealing with this subject. He had found that the fracture was much more common than we suppose, and he was certain that he had overlooked cases in the past, probably, like others, putting them down as common cephalhæmatoma. Recently a professor of Ohio had published in the *American Journal of Medical Sciences* a paper entitled Cephalhydrocele, which treated of these cases. The tumour generally communicated with the lateral ventricle, and occurred in young children mostly under the age of four years. In addition to the eighteen or nineteen cases quoted by the American journal he had contributed in his paper a few others. The history of all of them was very much the same. A fall seemed to cause a simple fracture of the vault of the skull, and a pulsating tumour developed. This tumour when punctured gave out a serous fluid. In a large number of cases operative interference in the way of setons or punctures or injections with iodine were practised, usually with a fatal result. The employment of a fine trocar seemed to be least dangerous. It was plain that there must have been removal of bone in some sort of way, and Mr. Bowlby suggested that some injury to one of the ossifying centres of the skull would best explain the large size of the hole in the vault. The margin of the hole was worm-eaten in appearance, and this could not be due to pressure from within the skull. In most cases the tumour communicates with the interior of the ventricle, as Mr Lucas had said. Mr. Lucas had recorded two cases and Mr W. Haward one, and a fourth was to be found in Erichsen's Surgery. These were the only cases recorded up to the present time in England. The bony margin of cephalhæmatoma was not present in these cases. Again, the pulsation might be feeble, and so the diagnosis was sometimes mistaken for cephalhæmatoma. The presence of sugar in the fluid was probably due to irritation, and not to the presence of mere cerebro-spinal fluid.—Mr. C. LUCAS referred to the cases which he had recorded in the Guy's Hospital Reports. In the first case the fluid in the tumour was examined by Dr. Stevenson, and found to be cerebro-spinal fluid. The child died two years after the tapping, and the signs of acute meningitis existed at the base of the brain. The second case was still living. The third case died of erysipelas. The ventricle was seen running up to the tumour in the scalp. Wherever cerebro-spinal fluid was present the ventricle was always injured.—Mr. VICTOR HORSLEY said that, from an unpublished experiment on a monkey's brain, he concluded that cerebro-spinal fluid may be present in such tumours without injury to the lateral ventricle. He had removed the ascending parietal convolution in a monkey. Later on, in completing a further removal of the cortex, he found it necessary to remove the whole parietal bone. One week after this operation a pulsating tumour developed, which was treated by aspiration; the fluid was found to be cerebro-spinal fluid, and the tumour was aspirated a second time, after which it did not reappear. In this case the fluid was secreted by the arachnoid and accumulated beneath the shrunken dura mater, and was prevented by adhesions of delicate soft connective tissue from passing (on the view of Azel Key and Retzius) away towards the base of the brain. In this way it was possible for a pulsating collection of cerebro-spinal fluid to be formed without the ventricle being injured. Bergmann had collected five cases of this fracture in the child; all occurred in children under three years of age, and there was a decidedly elongated fissure of the skull in each.—Mr. A. A. BOWLBY thought that a possible explanation of the size of the fissure might be found in the fact that the bone itself was growing at the time of the injury, and grew away from the fracture owing to the continuous pressure of fluid.—Mr. WARRINGTON HAWARD referred to the case which he had published. It was one of simple fracture in the frontal region, with the characteristic subsequent changes. But very little blood had been extravasated at the site of fracture.—Mr. W. HULKE referred to a recent case in which the fracture occurred in the parietal region, and was followed by the formation of a pulsating swelling. In his note-books he had two or three other similar cases, and the contents of the tumour were proved by puncture to be cerebro-spinal fluid.—Mr. R. J. GODLEE, in reply, said that on the question as to whether it was necessary to have a wound of the ventricle, Mr. Horsley's explanation was exceedingly interesting. He spoke of the case of a child with fracture in the frontal region, which was compound; the wound behaved healthily, and there was no escape of cerebro-spinal fluid. He did not think that the size of the hole in cases of cephalhydrocele was due to arrested development, for the case only lasted two months, which period was not sufficient for the bones to have grown so much as to favour Mr. Bowlby's explanation.

The following card specimens were shown:—Dr. Norman Moore: Hæmorrhage into the Substance of the Liver with Rupture of the Peritoneal Coat in a case of Anæmia. Mr. Lockwood: Rudimentary Abdominal Ribs. Dr. Silcock; Tubercular Disease of the Epididymis. Dr. Charlewood Turner: Aneurysm of the Aorta opening into the Œsophagus and Aneurysm of Sinus of Valsalva with Abnormal Coronary Arteries. Dr. Herringham: Two specimens of Calcareous Change in the Spinal Membranes. Mr. Poland: Synostosis of Foot. Dr. G. N. Pitt showed a recent specimen of the Kidneys and Liver in an Infant with Syphilitic Lesions.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

AT the meeting on Dec. 5th, Mr. Frederick Lawrance, M.R.C.S., President, in the chair,

Mr. SPENCER WATSON read a paper on a case of Sympathetic Ophthalmia. The patient, a farm labourer, injured the right eye, and went about his work, applying only a wet linen rag to it. Fourteen days later the left eye became sympathetically affected. No active treatment was employed till his admission into the South London Ophthalmic Hospital six weeks after the accident, when local cold applications and mercury internally were employed to reduce the swelling of the eye and orbit. Enucleation was performed two months after the accident. The ciliary processes, iris, and capsule of the lens were found matted together, and the pupillary area occupied by a firm membrane. There were traces of neuro-retinitis. The lens was *in situ* and the vitreous scarcely altered. The sympathising eye had retained the same amount of vision as before the operation, and tension, though at times high, was normal. The patient could read No. 16 Jaeger. The main features of

treatment throughout had been mercury, eserine drops, blisters to the temple, and exclusion of light. The author remarked on the carelessness of the patient in using the eye without a shade. The ultimate result was conjectural, but probably in one or two years an operation for opening the pupil, and perhaps removing the lens, would be required. With the sight in its present state, expectant treatment would be followed.—Mr. J. R. LUNN recommended early enucleation of the injured eye.—Dr. ALDERSON thought the name "sympathetic ophthalmia" confusing, owing to its likeness to the term "sympathetic irritation." Great care should be taken to observe the early symptoms, which were generally in the iris.—Mr. SPENCER WATSON, in reply, said the disease might come on months, or even years, after the injury to the other eye. He agreed with Mr. Alderson as to the value of blisters.

Mr. R. F. BENHAM read a paper on the Uses of Sulphide of Calcium. The author remarked that in his opinion very many of the failures in the use of this drug were due to too sparing administration.—Dr. RINGER drew the attention of the profession to this drug in a paper in THE LANCET, 1874, vol. i., in which he stated that sulphide of calcium possessed the power of arresting and preventing suppuration in such cases as boils, carbuncles, scrofulous and glandular enlargements, and in many skin diseases. After reading many cases treated by various practitioners, the author remarked on the number of unsuccessful cases, and said the quantity given had been too small. A dose of one-sixth of a grain might cure in one case, but not necessarily in another. He regarded the appropriate dose for an adult to be one grain in pill three times a day; but if after, say, a week no improvement occurred, he made an increase of one grain a day or every few days, until eight grains daily were reached. The dose which had hitherto been regarded as poisonous he found did not produce alarming toxic symptoms; secondly, only a small quantity of the drug taken is decomposed in the alimentary canal to form H_2S; and last, but not least, from the ordinary dose he did not find anæmia produced, but, on the contrary, even when six or eight grains daily were given general improvement in health resulted even when the drug failed in curing the symptoms for which it had been administered. The author maintained that the physiological action of the drug is not due to its conversion into H_2S in the organism; it could not be that only a small portion is absorbed and the remainder passed off unchanged, for if so why should a large dose effect a cure when a small one failed? The author preferred giving the drug in pill, as by this means the taste is unobserved. Mr. Benham read notes of a series of a large number of cases treated with success, and also recommended the drug in phthisis, typhoid, and small-pox.—The PRESIDENT had found the drug cause intestinal derangement; he had found it useful in gum-boil.—Dr. JAMES THOMPSON found one-tenth of a grain the safest dose to begin with.—Mr. MAITLAND THOMPSON had not found it useful in strumous glandular affections.—Dr. BENNETT asked if the drug resembled turpentine in causing more irritation in small than in large doses.—Dr. HUGGARD and Mr. EDWARDS referred to non-success with the drug.

Dr. THUDICHUM read a paper on "Inflammation, Abscess, and New Growths of the Ethmoid Cells." Inflammation he described as acute and chronic, as simple or dyscratic. The specific diseases lead to the chronic form with acute outbursts. In the latter the symptoms become very precise, and yield the data by which to diagnose the milder cases. Pain between the eyes, loss of smell, excess of nasal secretion, swelling of the glabella, swelling and discolouration of eyelids can mostly be distinguished on one or both sides. Hypertrophy of the ethmoid cells leads to obstruction of the upper nasal meatus. In such cases the author had removed the hypertrophied parts on both sides successfully with the electro-cautery. In other cases he had removed the middle concha on one side and thereby cured ozæna. The author next described some severe cases of abscess of the ethmoid cavities; these opened either into the nose, or on the upper eyelid or below the inner angle of the eye without involving the lacrymal apparatus. He further described new growths, myxomatous as well as cancerous, proceeding from the ethmoid cells, and the manner in which they had in several cases produced blindness of one or both eyes. He described a new apparatus for flushing the nose in cases where the septum was perforated or destroyed, and in which, therefore, the one-current douche originally described by him was not applicable.—Mr. SPENCER WATSON thought loss of smell a very valuable diagnostic sign. Sulpho-carbolate of soda was a useful drug for lotions and sprays in these cases.—Dr. CAMPBELL POPE and Mr. BENHAM related cases where the disease extended to the lacrymal apparatus.

Mr. KEETLEY showed cases of Hernia Cerebri, Syphilis of Nose, MacEwen's Osteotomy, &c., and Mr. PERCY DUNN showed Morbid specimens of the parts after Gastrostomy, &c.

MEDICAL OFFICERS OF SCHOOLS ASSOCIATION.

A GENERAL meeting of this Association was held on Wednesday last, Surgeon-Major Evatt, M.D., President, in the chair. The number of members of the Association now exceeds sixty-two. The following gentlemen were elected members of the Association:—Dr. Clement Dukes, Mr. E. S. Pattison, Mr. Shirley Murphy, Mr. O. H. Fowler, Mr. H. Lockwood, and Dr. Fergus.

The code of rules for the prevention of infectious and contagious diseases in schools was taken as read. On the motion of Dr. Alder Smith, seconded by Dr. Fuller, it was proposed that the code of rules which had been sent round to all the members of the Association should be put to the meeting and passed *en bloc*. The proposal was unanimously carried. The meeting next proceeded to consider the various sections of the code *seriatim*. It was decided at the close of the meeting, which lasted nearly three hours, that the code of rules should be published by Messrs. Churchill. The full title of the forthcoming book is "A Code of Rules for the Prevention of Infectious and Contagious Diseases in Schools, being a series of resolutions passed by the Medical Officers of Schools Association." The first suggestion for alteration came by letter from Mr. Paget, of Kendal, who proposed that in the title-page of the code of rules the words, "not being public elementary schools" should be added. This addition was not approved by the meeting.

In the section headed General Hygiene, Dr. Fergus of Marlborough proposed that the clause on drainage, relating to the trapping of the main sewer at its junction with the drainage system of the town, would be improved by the addition of the words "and ventilated" after trapped. This addition was agreed to without discussion.

Considerable discussion took place on the seventh clause, in which Mr. Shirley Murphy, Dr. Jones of Epsom, Dr. Alder Smith, the President, and Dr. Briggs took part. It was finally agreed that the clause should read thus: "That if a cesspool must exist, it be placed no nearer to a dwelling-house than fifty yards; that its ventilation be effected by pipes of sufficient height, and opening in a safe position, not less than four inches in diameter," &c. The eighth clause was also slightly modified, and read thus: "That all overflow, rain water, and waste-pipes discharge in the open, near properly trapped gratings."

With regard to section 3, relating to the undivided medical responsibility of the medical officer of a school, much time was spent in discussing the relations of partners in a medical firm. Dr. Briggs, Dr. O'Brien Jones, Dr. Fuller, Dr. Bridgewater, Dr. Statham, Mr. Holderness, Dr. Shelly, and others, spoke on the subject. It was finally declared by a show of hands that the original clause should stand. Therefore one medical man, and one only, shall have the entire school under his daily care and medical supervision.

Dr. Armstrong suggested that the medical inspection of the school premises should be made at least every fortnight instead of every month. This proposal was negatived by the meeting.

The fourth clause in section 3 was altered at the instigation of Dr. Armstrong so as to read as follows:—"An annual return of school sicknesses to the governing body of the school from the medical officer is very desirable." Dr. Fuller said that a daily return was made to the head master at St. Nicholas College, Lancing; and Dr. Alder Smith said that he made a weekly report at Christ's Hospital.

Dr. Clarke, seconded by Dr. Armstrong, succeeded in altering clause 2, section 5, so that the medical officer should occasionally visit the dining-halls and kitchen, so as to satisfy himself that the food was properly served and cooked. Dr. Holderness said that such a course would be utterly impracticable at Eton. Dr. Shelly proposed that the original clause should read, "food supplies, cooked and uncooked."

Dr. Alder Smith said that with regard to the infirmary,

Mr. Paget had written that he objected altogether to a general infirmary. Dr. Briggs thought it was unwise to have a general infirmary, for infectious and ordinary cases might get mixed up. After some discussion, it was agreed that the original clause should stand.

Dr. Soper, Dr. Jones, and others made some remarks on the subject of revaccination, but no alterations were made in the section referring to this question.

Different opinions were expressed on the duration of the quarantine after exposure to infection. Dr. Clement Dukes, of Rugby, thought that eight days were sufficient for scarlet fever, and Dr. Fergus suggested seventeen days.

The following "quarantine times" after exposure to infection, provided thorough disinfection be carried out on the pupil's return to school were ultimately decided upon:—

Diphtheria, 12 days; scarlet fever, 14 days; measles, 16 days; German measles, 16 days; chicken-pox, 18 days; small-pox, 18 days; mumps, 24 days; whooping-cough, 20 days.

Clause 3 in section 14, relating to infectious disease in masters' houses, was, after being discussed by Dr. Dukes, Dr. Bridgwater, Dr. Clarke, Dr. Smith, and Dr. Holderness, agreed to be read as follows:—"The master or officer would be advised to undergo thorough personal disinfection before resuming work in the school, and should live away from his house as long as infection continues, especially if the case be one of scarlet fever, diphtheria, or small-pox."

Several gentlemen discussed the question of disinfecting letters and other possible modes of communication between the infectious wards and the outside world. The sixth clause in section 15 was allowed to be read thus:—"All letters, if allowed at all, coming out of the infectious wards, should be disinfected before they are posted."

Section 2, clause 16, was modified to read thus:—"Notice should at once be *privately* given to the matrons (in the event of an outbreak of infectious disease) or others in charge of the pupils, to carefully watch for any symptoms of fever, and to send any child looking ill to the infirmary, and report the same at once to the medical officer."

The clause in section 17 relating to the disinfection of the medical officers' clothing was expunged as an unnecessary instruction. The last sentence in the following clause was cut out for a similar reason. This clause would then stand thus: "It is a good plan to keep a large mackintosh outside the entrance to the infectious ward, near some volatile disinfectant, and for the medical officer to put it on before he enters; he should also take the ordinary precautions against the disinfection of his person."

As regards section 21, dealing with the question, "When may a pupil who has had an infectious disease go home or rejoin the school?" it was resolved that the clause dealing with scarlet fever should be altered to run thus: "Scarlet fever in not less than six weeks from the date of the rash, if desquamation have completely ceased and there be no appearance of sore-throat." The original clause included "and no albuminuria," but it was argued by Dr. Briggs and others that albuminuria might persist for so long a time as to render detention undesirable and even injurious for the patient.

In the clause referring to purulent ophthalmia Dr. Alder Smith proposed, at the suggestion of Mr. Henry Power, that the words "or inner surface of the lids are found to be quite free from granulations:" this addition was concurred in. The appendices were assented to by the meeting almost without exception; the only alteration made was in question 5, which asked, "Is the child subject to any special form of illness?" It was agreed that the words "including incontinence of urine" should be appended.

The President referred to the great labour and time which Dr Alder Smith had expended in drawing up this code of rules, and felt sure that the Association would accord a special vote of thanks for these services. After some discussion on the method of publication of the code the meeting broke up.

ACADEMY OF MEDICINE IN IRELAND.

THE opening meeting of the Surgical Section was held on Friday evening, November 14th, at the College of Surgeons, Dr. Bennett, President, in the chair.

The PRESIDENT delivered an inaugural address, in which, having referred to the death of Prof. Stannus Hughes and Dr. B. Wills Richardson, he dealt with the Cause and Treatment of Congenital Dislocation of the Hip.

Dr. BALL read a paper on a case of Melanotic Sarcoma of the Rectum removed by operation. The patient, a fairly healthy-looking woman, aged sixty years, stated that eleven months before coming under observation she had noticed a pile which had been removed by operation, after which she remained free from rectal symptoms for four months. She then suffered from increased difficulty in evacuating the bowels. A slight discharge of bloody mucus appeared, and she became conscious of a hard tumour in the rectum, which partly protruded on stool. These symptoms continued to increase, and on admission defecation was difficult and painful, the pain being referred to a point immediately above the symphysis pubes. Upon examination the anus appeared normal, and the sphincter was not unduly relaxed. About an inch from the anal verge, on the anterior aspect of the rectum, two distinct and tolerably hard tumours could be felt, evidently implicating the mucous membrane; and by pressing the finger well up the superior limits of both could be readily made out, and below them a smaller mass was to be felt. The rest of the rectum appeared healthy, and no abnormal adhesion of the bowel to the other pelvic vessel was indicated. The mass was extirpated by the usual method on November 1st, a free posterior incision being made to give room. Corrosive sublimate solution, 1 to 2000, was the antiseptic used, and the wound was left open. The after-progress of the case was afebrile and satisfactory. The bowels moved for the first time on the fourth day, and the patient had complete control over the evacuations. The piece removed measured about three inches in breadth and two and a half inches in length, and consisted of the anterior two-thirds of the circumference of the bowel. There were two principal growths, separated by about half an inch of mucous membrane and equidistant from the anus. The larger had a depression in the centre, and was of a whitish colour; the other was black on the surface and spherical in shape. Below the two principal tumours a smaller nodule, also black in colour, was to be seen. A section carried through the two larger growths showed that the lighter coloured one was of the same hue throughout, except where a small blood-clot existed in the interior; but the second was of a sooty black colour, as seen on section. The shape and arrangement of cells were similar in both tumours, being those of a typical sarcoma. The cells were round, ovoid, or even spindle-shaped, with large nuclei, and in some portions resembled a form of alveolar sarcoma. In the larger one there was a very slight amount of pigment, but in the smaller pigmentation was extreme, some of the cells appearing as large masses of blackish material, while others had dark granular material, more sparsely scattered in their substance. In the portion of mucous membrane between the two growths the glands were much atrophied and surrounded with symphoid tissue.—Mr. CROLY mentioned that he had had under his care a considerable number of cases of cancer of the rectum. In the majority of these cases pain had not been absent. The situation of the disease accounted for the presence or absence of pain; for instance, when the diseased mass went towards the bladder it gave rise to greater disturbance than if it went backwards towards the hollow of the sacrum. With regard to operative treatment, cases for colotomy were one set and those for excision of the rectum another. Where the finger could not be got above the diseased mass excision was hazardous, and the fact ought to be put before the patient that if the disease extended high up excision was attended to with considerable risk, while colotomy was merely a palliative operation.—Dr. PUREFOY, having had under observation during the past three or four years two or three cases of malignant disease, referred to one of them as being interesting in respect to the locality of the pain. About eighteen months ago an unmarried middle-aged lady consulted him for a very distressing pain in the left hip, and said she felt a hard lump close to the anus. After careful examination, and as he was about to give up in despair, on making deep firm pressure close to the anus in the left ischial fossa his finger impinged on a hard nodule. He found the whole tube of the gut occluded by large hard nodules situated in the ball of the gut and projecting considerably into the vagina. She made no complaint of pain in defecation. Her sister had died of malignant disease in the same part of the body. There being no difficulty in the passing of the fæces, he did not suggest colotomy. About a month or six weeks afterwards the recto-vaginal septum became perforated, the fæces escaped, and the patient died in three months. The interesting point was her complaint of pain in the left hip extending down the leg.—Mr. HAMILTON said the insidious nature of cancer of the rectum was such that it might go on for a considerable time

without developing symptoms or attracting attention to the real nature of the disease, and hence so many cases were treated for obstinate constipation of the bowels, &c., even for urinary trouble, because of the close sympathy of the bladder in the early stages of the disease. The cases justifying excision of the rectum were few in number, taking into account the health and age of the patient and the extent of the disease. Linear rectotomy was probably more desirable than colotomy.—Dr. HENRY KENNEDY pointed out that extensive disease might go on in the uterus without any suffering, while slight disease would be attended with great pain.—Mr. THOMSON held that if they could perform an operation which would remove, at least for some years, a disease like cancer, it would be not only of the greatest possible advantage, but an advance in surgery to boast of. There were, however, at least two dangers—one, a very severe stricture occurring at the orifice in the anus, and the other incontinence of fæces, either of which left the patient almost as bad as before. He preferred colotomy to linear incision, or to the method of scooping, neither of which he considered to be of a surgical character. In return for enlarging the opening of the rectum and removing the obstruction to the passing of the fæces, what was given was a wounded surface, the base of a mass of malignant disease. In scooping out, the whole of the disease was not removed either, and a wounded or bruised surface, sarcomatous or whatever it might be, remained for the fæces to pass over it. No doubt colotomy had the disadvantage of being merely palliative. The true lines were laid down by the surgeon who advocated the complete division of the colon, suturing the lower end of the upper part of it to the wound in the abdomen, inserting the upper end of the rectum into this, stitching the walls together, and finally removing the part altogether.—Mr. WHEELER believed he was correct in saying the author of the paper had stated the case which he had operated on was not yet healed; but he did not gather that it was advocated to scoop or break down the cancerous masses in the rectum.—Mr. W. THORNLEY STOKER observed that there were two kinds of pain in connexion with cancer of the rectum—a pain inherent in and peculiar to cancer, and a pain attended with the development of cancer to such an extent as to cause obstruction of the bowel. There was but little, if any, pain until the disease caused obstruction.—Dr. BALL replied, and the Section adjourned.

Reviews and Notices of Books.

Insanity and Allied Neuroses; Practical and Clinical. By G. H. SAVAGE, M.D. London: Cassell and Co. 1884.
Lectures on Mental Diseases. By W. H. O. SANKEY, M.D. Second Edition. London: H. K. Lewis. 1884.

DR. SAVAGE'S book is a compact volume of 540 pages, forming one of Messrs. Cassell and Co.'s series of special monographs. It is written in a somewhat popular style, and the subject is treated in an interesting manner. Dr. Savage has avoided the besetting sin of writers on this subject, and has not invented a new classification. His grouping of insanity is practical and convenient, and the observations on each group are acute, extensive, and well arranged. In writing of the influence of heredity, the author states that cases are frequent in which sane children are begotten in the intervals between attacks of insanity. It is doubtful whether the author intends by this to imply that such children have an immunity from hereditary predisposition, or are simply born without mental defect. Dr. Savage would not appear to dwell with sufficient emphasis on the danger of religious excitement in the development of insanity, and appears to miss the opportunity of impressing his readers with the risk which neurotic persons run in giving way to such excess. The chapter on Hypochondriasis and Melancholia is amongst the most interesting in the book, cases being given illustrative of the relations of this form of disorder to the various organs. Melancholia in its various forms is also treated in a singularly graphic manner, and the same may be said of the division devoted to General Paralysis. It is to be regretted that Dr. Savage, with his extensive experience of the pathology of this disease, has not treated this branch of the subject more fully. In conclusion, the opinion may be expressed that this work will be found to be practically useful to the general practitioner, and that its suggestiveness will make it worthy of a careful perusal by all who are specially interested in the treatment of the insane.

In the second edition of Dr. Sankey's book there is so much that is original as practically to constitute it a new work. The first part of the volume is devoted to the consideration of the physiology of the mental functions, and is a very able *résumé* of the views of the best writers and observers. Mental diseases are ranged by the author in two divisions: (*a*) in which the mental symptoms are primary or idiopathic; (*b*) in which they are secondary or symptomatic. The first division is subdivided into *pathological*, which includes ordinary insanity and general paresis, and *developmental*, embracing idiocy and senile decay. The second, or symptomatic division, includes epileptic insanity, alcoholism, spinal diseases, and organic cases. This classification is eminently simple and practical. Dr. Sankey still strongly insists on the necessity of regarding melancholia as a first stage of ordinary insanity, and mania as the second. A chapter is usefully devoted to deprecating the continued use of a large number of terms, applied to so-called varieties of insanity, which are derived from some prominent symptom, presumed cause, or modification of the course of the disorder. The chapter on the Pathology of General Paresis is especially interesting, particularly in the table which contrasts the pathological alterations found in general paresis with those found in ordinary insanity. From this comparison the conclusion is drawn that the vascular system is much more affected in the former than in the latter. The book bears evidence of great independence and originality of thought, and the author's views are stated concisely and forcibly. It constitutes an important addition to medico-psychological literature, and will be found of especial value as a class-book.

A Treatise on the Theory and Practice of Medicine. By JOHN SYER BRISTOWE, M.D. Lond., LL.D. Edin., F.R.S. Fifth Edition. London: Smith, Elder, and Co. 1884.

OF all the numerous text-books of medicine now at the disposal of English reading students there is hardly one which deals with the whole range of subjects so scientifically and at the same time concisely as this work of Dr. Bristowe, which has now reached the fifth edition. It is clearly the outcome of the author's personal experience and extensive study, and such pains have been bestowed by him to keep his subject abreast of the advancing knowledge of the day that if a student were to confine his systematic reading to one book alone, we might safely refer him to this. So far as we are enabled to judge, there is maintained through all its chapters the desire to present a clear and comprehensive account of disease, so that it is not possible to point to one section as outweighing any other in the style or completeness with which the subject is treated. At the same time the work is far removed from the *vade mecum* style of literature, which exerts so cramping an influence upon the student's mind. For these and other reasons the treatise is one which will have a more permanent value than a text-book usually has; for the practitioner will find it as useful as does the candidate for a medical degree. We have heard it said that, excellent and truthful as Dr. Bristowe's work is in pathology and diagnosis, it is lacking in the very essential subject of therapeutics; but we confess to be unable to concur in this opinion. The author has had a long career as physician to a large London hospital, he has studied all forms of disease, and is most fully acquainted with their natural progress and results. If anyone is entitled to speak with authority upon the effects of

remedial agents in arresting the course of a malady, or in alleviating its risks, surely Dr. Bristowe is, and it is just because he wisely restrains himself from the temptation to parade prescriptions and formulate particular lines of treatment where general principles alone can be submitted that the notion of a deficiency in practical measures has arisen with respect to this work. We all know that the science of therapeutics is very far from being exact, and he is the wisest physician who, recognising this and knowing the course of disease, refrains from suggesting or directing particular measures which can only have a partial and incomplete application. The rapidity with which new editions of this work succeed one another leaves the author but little time for revision, but he has done much to the present edition in this respect and in the addition of new chapters, including one on Acute Rickets, showing how fully alive he is to the progress of medical research.

La Hijiene de la Escuela. Por RICARDO DAVILA BOZA. Pp. 143. Santiago: Cervantes. 1884.

IT is satisfactory to those who take an interest in the welfare of the rising generation to find the study of the sanitary condition of schools extending into foreign lands. The work now before us is a contribution to that subject from the Republic of Chili. It does not profess to bring forward any new views, but is apparently a careful digest of the best received opinions brought together for the instruction of those on whom the construction, arrangement, and management of schools devolve. It treats of the construction and general arrangement of the schools, the fittings and school furniture, the system of teaching, the internal management, and the personal hygiene. In the construction of the schools there is one provision to which we take very strong exception—that of a dungeon or solitary cells, in which refractory pupils may be locked up for several hours. Our author says: "It is a very general custom to impose upon the pupils of the schools, besides other punishments, that of the dungeon or confinement in a solitary cell for several continuous hours. As there is no objection to offer to this species of punishment, always provided it is restricted within certain limits, it is necessary to provide in the school building an appropriate place in order that its application may not degenerate into a cause, however slight, of loss of health." In the requirements of these cells there is no mention of windows, though provision is made for ventilation, so that we infer they are intended to be "black holes." The system of locking up children by themselves for some hours as a punishment is much to be deprecated, but with the additional terror of darkness it is simply disgraceful cruelty, and might be followed by most serious consequences. We would call the attention of Señor Boza to the subject in the hope that he may take it up with a view to the abolition of so objectionable a punishment. The book is one deserving of commendation, and appears well adapted to spread sound views of school hygiene among the Spanish-speaking populations; it is therefore with regret that we feel bound to protest against the author's views on the important subject of school punishments.

ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

ON Jan. 2nd, at 4 P.M., a deputation from the Association of Members of the Royal College of Surgeons was received by the President and Vice-Presidents of the College in the council room of the College.

Dr. COLLUM, Chairman of the Association, opened the proceedings with a few remarks on the object of the deputation and on the nature of the Association. One of the grievances of which the Members of the Association complained was the circumstance that the executive of the College entirely ignored the existence of the Members of the Royal College. Considering what a large proportion of the funds of the College was derived from its Members it seemed unjust that a body, about 15,000 strong, should be overshadowed by the body of the Fellows, numbering only 1200. The action of the London College was such as to drive the children of medical men in its vicinity, as well as colonial students, to Scotland and elsewhere, where degrees could be obtained at much less cost than a diploma which gave the owner no better title than that of "Mr." It should be borne in mind that the Members of the College existed long before the Fellows, and he contended that the former had a right to be directly represented on the Council of the College.

Mr. JOSEPH SMITH, M.R.C.S., Vice-Chairman of the Association, said that the Committee of the Association of Members of the Royal College of Surgeons had deputed him to lay the following resolutions before the President and Vice-Presidents of the Royal College of Surgeons. First: "That the Council shall consist of twenty-four members and the president. That the election of members of Council shall take place every three years; and that the duration of office shall be three years. Each member of Council may be eligible for further re-election for a term of three years; but no member who has served the full term of six years shall be again eligible until after the lapse of three years from the time of his last holding office." Secondly: "That the members of Council be elected by the Fellows and Members of the College equally—that is, half by the Fellows and half by the Members of the College." Thirdly: "That voting take place personally at the College, and also by voting papers, to be sent to each Fellow and Member of the College in the United Kingdom whose names are on the Register." Mr. Smith then remarked that these were the main and important points which the Committee desired to place before the Council of the College with a view to inserting them in the new Charter. The Association felt that their demands were not only equitable but just. It was a marvel that the great body of the Members of the College had remained quiet so long. The Association already numbered 1000 adherents, and would no doubt before long be largely increased. Representation was the principle at which the Association aimed. An important provincial Medical Association had recently passed the following resolution:—"That no alteration in the Charter of the Royal College of Surgeons would be deemed satisfactory unless it made provision for the election of the Council by the Members and Fellows unitedly, and for the election of the President by the Council." Mr. Smith referred to the income of £20,000 enjoyed by the College, and said that nearly £15,000 was contributed by the Members. A diploma was all the return the Members got. The President was but the President of the Council of the Royal College, and not the President of the Royal College of Surgeons. The Association had approached the Council in no spirit of revolution, but it felt that if its demand were refused the Secretary of State for the Home Department would be approached and the case laid before him as a last resource.

Mr. J. BRINDLEY JAMES said that he had received no notice whatever of the general meeting of the Fellows and Members held in March last. He complained that the Members of the College were completely overlooked, and that they were never invited to the soirées given by the College. If the Council refused to listen to their just demands, extreme measures would have to be resorted to.

Mr. OUTHWAITE maintained that proportional representation of the Members of the College on the Council was but just and fair. Many men of ability were prevented from taking the Fellowship solely on the ground of want of time or money.

Mr. COOPER FORSTER, the President, said that the Vice-Presidents and himself simply represented the Council, and so anything he might say must be regarded merely as an individual opinion. If the resolutions were drawn up and sent as soon as possible, no doubt they would receive consideration at the hands of the Council. It should be said that the conversaziones were given by the President or Conservator, and solely at his expense; invitations were given, as a rule, only to their immediate friends, whether Fellows or Members, or laymen.

It was agreed that the Association of Members should be informed as soon as possible of the date fixed by the Council for the application to the Home Secretary for the new Charter.

Mr. JOSEPH SMITH then thanked the President and Vice-Presidents for the kind manner in which they had received the deputation, and the proceedings terminated.

THE LANCET.

LONDON: SATURDAY, JANUARY 10, 1885.

AT the meeting of Convocation of the University of London on the 6th inst., a resolution in reference to the new Teaching University scheme was moved by Mr. ANSTIE, Q.C., seconded by Dr. PYE SMITH (in the absence of Dr. WILKS), and carried unanimously. The terms of the resolution were, "That a special committee of forty members be appointed to consider the proposals lately published by the Association for Promoting the Establishment of a Teaching University in London, and to report thereon to Convocation; and that it be an instruction to the committee to take the necessary steps for summoning a meeting of Convocation at the earliest convenient opportunity." The committee which was elected was a most representative one, including graduates from every faculty—arts, science, law, and medicine—and safeguarding the teaching interests as well as what we may call the more traditional element of the University. As the meeting was subsequently adjourned to February 3rd, we may conclude that the report will be brought up and considered on that date. A considerable discrepancy of opinion existed amongst those who spoke to the resolution as to whether a Teaching University would strengthen or injure the existing institution, but it was evidently felt that the question could no longer be ignored, and that some steps would have to be taken either to embrace and, if possible, incorporate the rival body as soon as its scheme was fully launched, or to obstruct its progress at every turn. The names of the committee form a sufficient guarantee that the new scheme will have due consideration, and that no measure will be taken to hinder its normal development. The real question at issue is, whether the University of London can in any way accede to the views of the promoters of the new University, or must the two bodies necessarily remain apart and each go on with its own work in entire disregard of the existence of the other? The answer to this question depends on that which must be given to another question—namely, what are the founders of the new Association really striving to obtain? Their report is so vague and chaotic that we cannot be sure that they are unanimous in their main ideas and all anxious for the same object. Will the University of London be asked to refuse its degrees to students who have had no collegiate training? and, if it declines to do so, will the promoters of the new University apply to Parliament for a Charter to enable them to examine and confer degrees upon those students only who have been taught in their colleges and affiliated schools on a system of education laid down by themselves, and over which they are to have absolute control? We cannot imagine, much less comprehend, a Teaching and Examining University as proposed, and a mere examining board for the British Empire like the present University, existing under the same roof, or even side by side, each following its own line. If our question be answered in the affirmative, it is evident that King's and University Colleges and the hospital medical schools are the only bodies in the metropolis in which such a course of general and technical education is given as will justify an application to Parliament, and these must become the basis of the new University, and the nucleus around which any other institutions are afterwards arranged. If, on the other hand, the new Association merely seeks to modify the composition of the Senate of the existing University by adding professors and teachers, and representatives of learned bodies, such as the Inns of Court, the Royal Academy, and the authorities of the British Museum, the new scheme is hardly worth the time and trouble which have been devoted to drawing it up. We speak thus plainly, because the recent letters of Professor LANKESTER and Sir GEORGE YOUNG in *The Times* disclose a great divergence of opinion in the committee on this point. Professor LANKESTER, in demanding a University on the lines of the Victoria University, has a very clear conception of what is wanted, whilst Sir GEORGE YOUNG is only following an *ignis fatuus* in endeavouring to bring together, for any useful purpose, bodies with such different objects as the University of London, King's and University Colleges, the Inns of Court, the Law Institution, the hospital schools, the Royal Academy, the British Museum, and the Institute of the City Guilds at South Kensington, and then calling the combination a University.

The position of the London medical schools must be clearly understood. The University of London, by its ill-advised regulations and its infrequent examinations, as well as by the undue severity of its tests, has rendered it practically impossible for more than a small percentage of industrious medical students to obtain a degree whilst staying and studying in the metropolis. This places the London teacher at a disadvantage with his competitors in Scotland, Cambridge, Durham, and Manchester; for a degree is now a commercial article, worth so much money in the country, and the practitioner of the future is aware of its value, and is no longer content with the M.R.C.S. and L.S.A., or even L.R.C.P., of his predecessors. The University of London cannot meet this demand, and students flock to the other degree-conferring universities; it should, therefore, continue as a sort of superior examining board, and should give up all its restrictions on medical candidates and subject them to an examination test only, as is the case in the other faculties. A new body is required to grant degrees to average candidates on the same lines, and at the same standard as those adopted at other universities. If the Teaching University can, by a combination with the Colleges of Physicians and Surgeons, perform this office, the difficulties in metropolitan medical education will be speedily removed; but if, by becoming incorporated with the existing university it is prevented from undertaking this duty, the support of the hospital teachers will be at once withdrawn from it, and other means must be found to enforce their just claims. We feel that considerations such as these, as set forth in the speech of Dr. BARNES in Convocation, must come home to the medical members of the Committee, for, as will be seen by the following list, they are drawn from nearly every school in the metropolis, and are all active teachers. They are: Professor MICHAEL FOSTER (Cambridge); Drs. WILKS and PYE-SMITH, and Mr. HOWSE (Guy's); Sir J. LISTER, Bart., and

Dr. CURNOW (King's College); Messrs. SAVORY and POWER (St. Bartholomew's); Drs. BRISTOWE and ORD (St. Thomas's); Dr. BARNES (St. George's); Dr. RINGER (University College); and Mr. MORRIS (Middlesex).

No one will be surprised that the answer of the Council of the Royal College of Surgeons of England to the recommendations of the Association of Fellows has caused intense dissatisfaction. At a meeting of the Committee of the Association held on Tuesday last two resolutions were unanimously adopted: one expressing extreme disappointment and regret that the Council should have rejected some of the recommendations to which the Association attaches the highest value, or only accepted them with such qualifications as to render them practically "inoperative"; the other requesting that no steps should be taken by the Council towards obtaining a new Charter until the various alterations proposed or accepted by the Council itself, together with the recommendations of the Association of Fellows, shall have been submitted to a general meeting of Fellows and Members. Considering all that has happened, and the opportunities that the Council has had of gauging public opinion, the Committee of the Association would perhaps have been justified in adopting a more combative and offensive policy; but in giving the Council one more chance of abandoning an absurd and untenable position, the managers of the Association have furnished additional proof of their moderation. That the Council will ultimately be defeated is certain. Important and fundamental changes in the constitution of the Council cannot be much longer postponed. In no other institution of national importance would the members of the governing body be permitted to appropriate as fees a large portion of the income. But it would almost seem that at the College of Surgeons some of the members of the governing body only seek office in order to secure an examinership worth nearly £500 a year. To such an extent has this evil grown, that until a month ago eleven members of the Council were, as examiners, receiving about £5000 every year from the coffers of the College. With such temptations towards selfish considerations, no governing body so constituted can be impartial. With these attractions and inducements to preserve the *status quo*, it is perfectly intelligible that these gentlemen should be of opinion "that the government of the College should still be vested in the Council." It is possible that, if time and circumstance were propitious, they would, in accordance with this opinion, be also ready and willing to follow the example of the worthy lawyers of Serjeant's-inn and Staple's-inn, and sell the College to the highest bidder, and then divide the proceeds among themselves. Indeed, many of the members of the Council do solemnly believe they are the *owners* of the College, and are therefore at liberty to do what they please with their own. The time is come when this delusion should be dispelled, and the truth effectually forced upon the consciences of the members of the Council that they are at most only *trustees*, and accountable to those from whom their trust is derived.

THE return to England of one of the Special Commissioners sent out by the Home Government to undertake a scientific inquiry into cholera in India, and the publication of the Preliminary Report of the Commission, which we reproduced last week, may be taken as indications that the inquiry is closed, and that the full text of the conclusions arrived at will soon be submitted to the public. Awaiting that event any detailed criticism of the results obtained would obviously be unwarranted, but we may take it as sufficiently clear that our Commissioners have confined their researches almost exclusively to the doctrine promulgated by Dr. KOCH, that a particular form of micro-organism is specific to the disease; and that in submitting this doctrine to the test of research and experiment they are satisfied that it is unsubstantial. In the succinct paragraphs of the Preliminary Report it is explicitly set forth that the comma-shaped bacillus of KOCH is neither universally present in choleraic excreta, nor to be found in any quantity in the intestinal wall; that it occurs in other intestinal affections; and that in its mode of development in artificial cultures it does not behave differently from the ordinary mode of growth of putrefactive bacteria. It is clear then, that they deny to this special form of bacillus any distinctive or pathogenic property, and that in almost every point their observations stand in direct contradiction to the very positive affirmations of the eminent Berlin authority.

In a matter of this kind, where there is such a conflict of testimony between experts, there is no means of arriving at a judicial decision, and we must be content to stand by whilst these scientists advance their arguments on the one side or the other. It is easy, of course, to assume that Dr. KOCH went out to Egypt and India with a preconceived idea of discovering a germ, and that he has allowed his usual scientific caution to be overridden by other considerations. It is just as easy to affirm that our Commissioners were equally bent upon disproving KOCH'S assertions, and suffered themselves to be blinded by this desire. But we may set aside such conceptions as unworthy to be held by scientific men, who are intent only upon the discovery of truth. Nor can we think that the instructions given to our Commissioners were limited by any such narrow notions, although we observe in the copy of correspondence between the Secretary to the Government of India, Home Department, and the Chief Secretary of the Government of Madras, issued to the House of Commons last July, that Dr. FURNELL, the Sanitary Commissioner of Madras, was taken to task for venturing to advance facts pointing to the apparent spread of an epidemic by contagion. The papers contain Dr. FURNELL'S reply to these strictures; but the fact that they were made seems to afford some clue to the reason why the Government so tardily decided to send out a scientific commission of inquiry. Whatever may have been the motives, or of what nature the instructions, we may well feel some disappointment that so little of a positive character has issued from the Commissioners' labours. At the same time, there is at least this ground for congratulation, that the Government recognise the question of the etiology of cholera to be one which, if capable of solution at all, is to be dealt with by medical science; and if the first fruits of this new departure are somewhat barren, we may cherish the hope that the work thus commenced will be prosecuted again and again, until conclusions as definite as those we possess regarding some

other zymotic diseases are obtained respecting this great scourge, that has its home and source in our Indian empire.

DR. ROBERTS BARTHOLOW of Philadelphia has just published a clinical lecture on the Physiological Action and Therapeutic Uses of the Permanganates, which will undoubtedly enhance his already high reputation as a careful observer and practical physician. It is often objected that permanganate of potash is so quickly decomposed on coming in contact with organic matter that its action must be feeble and transitory. There is reason, however, to believe that this objection cannot be maintained, and that in reality a very definite influence is exerted on the blood. When injected locally for the bite of a venomous serpent the poison is destroyed, notwithstanding the fact that it is in contact with organic material. The effect on the animal poison is purely chemical; it is antidotal but not physiologically antagonistic, so that to be effective it must be brought in actual contact with the virus, which it destroys by a process of oxidation. Given internally in small doses, say two or three grains well diluted, it exerts no irritating effect on the mucous membrane of the stomach, but if administered in large doses or in a concentrated form, it produces local heat, a sense of irritation, and even burning pain. It has been alleged that it cannot act beyond the stomach because its oxygen must there be appropriated by the organic matter contained in that viscus; but there is good evidence, both clinical and physiological, that it does produce a marked systemic effect. The investigations of VULPIAN, DEMARQUAY, HAYEM, WALDENBURGH, and others have thrown much light on the subject, and the researches of BINZ have been instrumental in clearing up much of the mystery surrounding the physiological action of ozone. The last-named observer finds that ozone has a hypnotic action, a calmative effect on the central nervous system, due in all probability to an impression on the grey matter whereby its functional activity is suspended. The powers possessed by permanganate of potash as a general stimulant are well shown in the active emmenagogue properties which it has been found to exhibit by RINGER and MURRELL. In amenorrhœa due to deficient activity it promotes the functions in a very remarkable degree. The class of cases to which the permanganate is adapted are those characterised by torpor, anæmia, or deficient activity of the menstrual apparatus. It is contraindicated whenever an acute congestion or a general condition of sthenic reaction exists. Confirmatory evidence on this point has been received in abundance from all parts of the world, and it is obvious that a power which can so stimulate the sexual apparatus must, when exerted in other directions, prove equally effective. Dr. A. V. VARGUININ essayed its administration in dysmenorrhœa characterised by scanty menstruation and anæmia. Much of course must depend on the mode of administration, and Dr. BARTHOLOW finds as the result of a large practical experience that it is best given in the form of compressed tablets, prepared without any excipient. These tablets are typically adapted to the purpose, and present advantages not possessed by any other mode of administration. A small dose repeated at short intervals, a grain or two every half hour, until from four to six grains have been taken, is preferable to the exhibition of this quantity at one dose, as the diffusion of the salt into the blood is more effectually secured. From its irritating effect it is contraindicated in cases of acute inflammation of the stomach, but it will be found of the greatest possible value in chronic gastric and gastro-intestinal catarrh, accompanied by fermentative changes in the food. Eructations of gas, vomiting of a yeast-like material containing sarcinæ, and an acid fermentation of the starchy and saccharine constituents of the food, are promptly relieved by the administration of the salt. When the catarrhal process extends to the duodenum and involves the bile-ducts, the remedy is equally efficient. In addition to the evidence of stomachal and intestinal indigestion there is present more or less biliousness, manifested by a muddy complexion, yellow conjunctiva, high-coloured urine, and general malaise. This is a common condition, resulting from the combination of several factors, chief and foremost amongst which are improper feeding and imperfect preparation of food for absorption. The permanganate does good in many ways: it checks fermentation of the food elements prone to this process, acts beneficially on the catarrh of the mucous membrane, and, above all, promotes oxidation in the tissues undergoing metamorphosis. The uric acid in the urine is converted into urea, in which form it is excreted. From these conclusions it follows that permanganate of potash must be a remedy of great value in lithæmia, and clinical experience is quite in harmony with these physiological deductions. It is also useful in an affection cognate to lithæmia—the hepatic form of glycosuria. The special field of its usefulness in relation to diabetes is in those cases in which there appear to be both over-production of glycogen and insufficient consumption of this material. It will be found of the greatest possible value in the obese subjects of glycosuria, in whom the presence of much uric acid in the blood signifies at the same time inadequate preparation for absorption of certain food constituents, and a supply of oxygen insufficient to convert uric acid into urea. For the same reason that the permanganates are useful in lithæmia and glycosuria, they constitute a valuable remedy for obesity. According to the experience of Dr. BARTHOLOW, there is no remedy more effective in the treatment of obesity, and for the relief of the disorders of digestion which have a pathogenic relation to this condition.

THE constant occurrence of cases appealing strongly to the sympathies of the profession is a very noticeable fact. Medical life in its ideal is like that of "virtuous HEBERDEN," divided into three periods, one of arduous learning, followed by one of equally arduous practice, at once beneficent and profitable, and this crowned by an age of honour, and authority, and rest—the rest only made sweeter by being used for formulating and transmitting the lessons of experience. There is nothing in such a life as his, extending over ninety years, to excite pain or regret. The very change from practice to rest is made easily: the summer spent chiefly at Windsor, and the favourite art, not to say the friendly patients, being still a chief concern of the winter months. This is the ideal, we say, of medical life—one to be worked up to by every medical student and every medical practitioner, but admittedly only an ideal, unattainable by the majority of the four-and-twenty thousand who compose the Medical Register. The ninety

years that were given to HEBERDEN for working out his life were in themselves a great and fundamental gift that is not given to many, and without which he could not have completed the picture and the model which are suggested by his character and his history. But still we must have the ideal, and demand of all good men and true that they work up to it. We may not reach HEBERDEN'S fame any more than we may reach his age, but we shall certainly get some way towards both by considering how he deported himself. There is one feature in his life that strikes us, and which is neither hopelessly inimitable nor completely irrelevant to our present purpose. He did not make haste. He was deliberate. He did not clutch at the sweets of life. And though he waited—shall we say because he waited?—all things came to him. He took all the great steps of his life deliberately, and he put his foot down firmly. Though he was born in 1710, he was not married till 1760. He practised ten years in Cambridge before he came to London, where he did not begin practice till he was thirty-eight. This was in the year 1748. His success soon became great, and some twelve years after coming to London, GEORGE III. wished him to become physician to Her Majesty the Queen. The proposal was significant, but more significant still was HEBERDEN'S respectful refusal of it. Such was the respect of the King for HEBERDEN that he not only took kindly his refusal of this great offer, but as kindly accepted HEBERDEN'S nomination of a friend for the office, Dr. LEATHERLAND, a man of great worth, learning, and modesty. Surely in this quality of deliberation, not to say slowness, we see some secret of HEBERDEN'S success, of his independence, of the dignity, and we must add the charity, of his life. We live fast now. We live in the time of a race of luxury. We must marry soon, and soon be rich. The motto of an old philosopher, "Quantis non egeo," is accepted with the omission of the little monosyllabic word in the middle, and before we are well diplomatised, we are saying, "How many things there are which I want and must immediately have." A large house, a showy carriage, and everything to match. Every want recognised is the parent of many more. In every branch of the profession, as indeed in every class of society, there is the same tendency to multiply wants and to complicate one's establishment. It is all well that ends well. But our pages tell only too pathetically that it does not always end well; on the contrary, that it ends painfully and pitifully. We are not demanding any unreasonable amount of prudence or self-denial in the forecast of life and success. We are not prescribing a gloomy celibacy for every man till he is fifty, or till he is assured of fortune and of fame. We are only reminding our readers that a little more slowness and deliberation in the great steps of life and a little more determination to keep wants few will bring their reward. They may not bring fame; but with reasonable diligence and forethought they will bring ease and competence, and secure those who look to us and may survive us from painful dependence on others. In London especially there is little excuse for any medical man leaving his family entirely unprovided for. There is a Society—that for the Relief of Widows and Orphans of Medical Men within the postal district of London—to which it is almost culpable for such medical men not to belong. Should they die poor, their widows and children are provided against destitution on easy and yet independent terms. Should they die in easier circumstances, they have the satisfaction of knowing that they have contributed to the help and comfort of less successful brethren. This Society has constantly to press its advantages on the profession, nevertheless, numbers of medical men die without the comfort of knowing that by subscribing to it they have secured these advantages for those whom they love. We are well aware of other circumstances in social and professional life at the present which make deliberation and providence difficult, but they do not make them less binding or the omission of them more excusable.

MR. THORNHILL HARRISON'S proposal as to an improved water-supply for the metropolis deserves serious consideration, the more so as it is the outcome of the experience which he acquired as one of the Commissioners appointed to inquire into the pollution of rivers in 1865, and of much thought since that date. His contention is that a vast body of wholesome water is in motion down the Thames valley, in addition to that which flows in the Thames river; and that, if the locality be properly selected, this water can be tapped and utilised at a comparatively small cost. The gathering-ground, resort to which he advocates, is that part of the chalk formation within the watershed of the Thames which lies to the north and west of Windsor, including the areas within the basins of the rivers Kennet and Colne, and which covers some 1100 square miles. Here the saturated chalk contains one-third of its bulk of water, and forms a huge reservoir of water, from which the supply passes away but slowly, except through fissures. Subject to such modifications as might be shown to be necessary after borings had been sunk, and the position of fissures determined, the constructive part of the scheme would involve a large receiving-well at Black Pots, with an overflow into the Thames below Windsor Lock, and a tunnel passing from this well in a westward direction; the tunnel to be a mile in length, and of gradually diminishing diameter. Incidentally it is mentioned that if London were thus supplied with water, the companies would save the heavy cost of filtering, the lands now occupied by their reservoirs and filtering-beds could be disposed of, and the £10,000 a year which Parliament requires them to pay to the Thames Conservancy Board for the purposes of diminishing the pollution of the water abstracted by them would be saved.

The proposal in question is included in two reports, which Mr. HARRISON has submitted to the President of the Local Government Board, and which have since been issued as a Parliamentary paper. The general scheme having been adverted to, the sources of supply are pointed out in detail; and then follows a description of the geological peculiarities of the gathering-ground and of the district from which the water is to be collected, and also details as to how the supply is to be delivered to the several companies now providing water for the metropolis. The reports are well illustrated, both geologically and otherwise, several of the maps being interesting, quite apart from the special subject under consideration. Thus, those explanatory of the description given as to the chalk ranges go much beyond the question of London water-supply, and point to the con-

clusion that the crushing of the chalk strata forming the great escarpments of which the remains are seen in the North and South Downs were contemporaneous with the elevation of the Alpine and Pyrenean ranges, with which they are respectively all but parallel. Two other maps indicate the course and sections of the proposed tunnel. The scheme in no way professes to be matured as regards its final details, but there seems no doubt that a vast quantity of pure water, ample for the supply of the metropolis, and in excess of what is required to maintain the needed flow in the Thames itself, is running to waste under our feet, and only waits to be collected. If it be true that financial difficulties need not stand in the way, a reasonable solution of an increasingly troublesome problem would appear to be at hand.

Annotations.

"Ne quid nimis."

LUNACY LAW REFORM.

WE are in no way anxious to rush impetuously into the midst of the controversial lists where the question of Lunacy Law Reform is again being vexed with the zeal of enthusiastic disputants. We prefer to stand by awhile, and wait until, haply, it shall become a certainty that the subject will actually engage the attention of the Legislature, and with a reasonable promise of serious business in result. Nothing need be added to, or taken from, the scheme of reconstruction which we have again and again propounded. We speak of reconstruction because this is a matter in respect to which the law needs to be subjected to radical reform, and it would be simpler, and better every way, to make a clean sweep of existing statutes and pass a short specific Act, than to endeavour to mend the statute book by piecing and annotating.

We agree with those who contend that the main requirements are specifically: increased protection for the sane, better and greater facilities for the prompt treatment of mental disease, and such relief of professional responsibility as may be consistent with the enforcement of salutary precautions against the wrongful confinement of those who are only eccentric without being dangerously mad. It has been disputed that any such distinction as that to which public prudence points between the simply crazy and the seriously insane is, or ought to be, contemplated. Some there are who would have everyone who entertains a belief contrary to their own placed under restraint lest "madness" may chance to spread. This desire is not an unkind wish; it is the natural outcome of a conviction which prevails among specialists that any mind which is a little disordered must needs be so because the brain behind it is diseased. If scientists who argue thus could only be induced to recognise the great Darwinian law, or principle of nature, that function is more than, and a development *precedes*, organism, they would understand that disorder—or "derangement" as it used to be called—is quite possible without disease. As a matter of fact, a very large amount, or degree, of disorder in mental function is not only innocuous, but curable. And, for ourselves, we must profess utter inability to divine why a man or woman who professes a belief in some strange doctrine—for example, that of metempsychosis—should be regarded as a lunatic on this ground alone, while the doctrine of "incarnation" *per se* is regarded as perfectly reasonable, and those are counted sane who believe in it. This is a strong example, but it is a simple recital of the ground on which certificates of insanity are sometimes given, and it is absolutely necessary to face the facts.

We hold, and must contend, that only one of two reasons can morally justify the putting away of a mentally disordered person into confinement, and one of these *moral* grounds of justification is not, we regret to say, a legal one. Only when it is necessary for the treatment or cure of the patient should recourse be had to personal sequestration; and only when he or she is so demented as to need protection from harm-doing, is it, in our judgment, right to place an innocent and suffering fellow creature in confinement. What public safety and the welfare of the community demand is perfect freedom to take such measures as are necessary for the treatment of mental disease. The common-sense view of the case is simply this: *If asylums were properly inspected, and were not private prisons, there would be no need for the present system of certifying*, which causes so much trouble, pain, and difficulty, which in itself is a fruitful source of brain irritation, and which inflicts a life-long injury by impressing its victims with an indelible brand. Private prisons—miscalled asylums—ought not to be allowed to exist, and then there could be no question of neglect or malfeasance in the signing of *lettres de cachet*.

This is the one remedy for all the abuses of lunacy law and practice of which some justly, and many unjustly, complain. We are not inclined to discuss projects of law which are more than in the clouds. When the Government Bill—if such a measure be really forthcoming—is printed, we will review its provisions; but only such a measure as would at once put an end to the private asylum system and existing method of certification would, in our judgment, be satisfactory, or meet the ends of the case as it stands.

ADULTERATION OF FOOD AND DRUGS.

THE official account annually issued as to the working of the Sale of Food and Drugs Act, 1875, is always interesting. From the report for 1883 we learn that the actual number of analyses carried out under its provisions is on the increase, but that the public rarely set in motion the necessary machinery for the suppression of adulteration. Of 19,648 articles examined 2955 were found to be adulterated, and the percentage of adulteration in the following articles was considerable. In spirits it was 22·5 per cent., in milk 20·0, in coffee 19·1, in butter 18·0, and in drugs 16·4. Under Dr. Hassall's examinations made for THE LANCET Commission in 1854-56 more than half the articles were reported against; in 1877 the proportion was 19·2, now it is 15. Hence, some progress is being made, and fortunately the character of the adulterations practised is much less harmful than formerly. The question of milk adulteration by the addition of water still remains serious. One-fifth of all the samples subjected to analysis were found thus adulterated, and so long as it is possible for milk vendors to procure from the public between £70,000 and £80,000 a year for water sold under the name of milk, and this without adequate punishment when detected, so long is the practice certain to continue. Thus, it is stated in the Report that the public analyst for Plumstead calculates that in that single district the milkmen receive between £7000 and £8000 for water, while the fines for adulteration imposed on them collectively amount to about £100 annually. The extensive sale of drugs, which prove on analysis to be not in accordance with the Pharmacopœia, is another matter of serious importance. In some cases expensive drugs are so diluted that the quantity prescribed is not present, but in still more numerous instances drugs which were originally badly prepared, or which have deteriorated by keeping, are sold, and hence they are certain to fail in producing the effects intended by the prescriber. An increasing amount of publicity is now being given to

this subject of adulteration, and it is to be hoped that private purchasers will co-operate with the authorities in putting it down by themselves procuring samples when they suspect that drugs have been tampered with.

DEATH FROM SEPTICÆMIA AND HÆMORRHAGE.

DR. DANFORD THOMAS held an inquest at the Crowndale Hall, Crowndale-road, St. Pancras, on Saturday, Jan. 3rd, touching the death of Eliza Simpson, a middle-aged woman. The deceased had been under treatment for necrosis of the upper jaw and gangrenous stomatitis, and Mr. Brown, her medical attendant, on the expectation of letting out some pus, made an incision into the cheek from without, and ordered a poultice to be applied. Unfortunately the bleeding continued until the patient's death from exhaustion, which took place in about half an hour. Seeing the alarming condition of his wife, the husband sent for Mr. Brown, but that gentleman was from home. Accordingly Mr. Whitefoord was called in, but he arrived too late to be of any service. The quantity of blood lost was estimated at from half a pint to a pint. At the post-mortem examination, made by Mr. Pepper, it was observed that the greater part of the left upper jaw was denuded of periosteum, and the cheek on the same side was in a state of gangrene. The incision, two-thirds of an inch long and one-third of an inch deep, had not wounded any large vessel. The following signs of septicæmia were well marked. Petechial extravasations on the skin and on the under surface of the dura mater, enlargement and softening of the abdominal viscera, and marked fatty degeneration of the heart. It may be noted that the gall-bladder was enlarged and distended with clear fluid, partly serous, partly mucous. It contained several calculi, one of considerable size being impacted in the cystic duct. Mr. Pepper gave it as his opinion that the continuous hæmorrhage was due to deficient coagulating power of the blood, and to inability to contract on the part of the severed vessels, owing to molecular disintegration of their walls, and their fixation by inflammatory lymph; and, further, that whereas the loss of blood was not in itself sufficient to cause death, it did so under the circumstances narrated above. The jury returned a verdict in accordance with the medical evidence. There can be no doubt that Mr. Brown did not apprehend such an untoward event, or he would not have left the patient until the bleeding had ceased. The case is a very instructive one, showing the danger attending incision of tissues (naturally very vascular) in a state of extreme congestion.

CURING UNSOUND FISH.

IF the general purchaser is to be protected against the risk of disease from eating fish which is putrid or not quite fresh, and the detection of its unfitness when in the shop depends chiefly on his own intelligence, there is all the more need that inspection in the market should be deep and searching. We speak advisedly, as a recent case of faulty packing at Billingsgate shows. A retail dealer found that out of a quantity of fish purchased by him, and immediately afterwards inspected, those in the top layer were sound, the others more or less putrid. The defence urged against his complaint was as novel as erroneous. It was stated that the fish were sold as being of mixed quality, but saleable on the ground that those which were unsound, and thus rendered uneatable, might be cured and sold in the dry state. Salting and smoking are, no doubt, good means of preserving fish by preventing putrefactive changes. Their action, however, is somewhat uncertain; it cannot be expected to penetrate with equal intensity through every tissue, some being more exposed to it than others. Neither can putrefaction once established be arrested in this way. At the very outset of the change, while it is yet slight or superficial, curing may, it is true, suffice to eradicate it; but at such a stage the taint of decay is barely perceptible. It would be altogether unjustifiable to found any general rule which would ascribe to the curing process a more than merely preventive influence in this respect. Brine itself, on the other hand, is too apt to become impregnated with mucus and other animal matters from the fish immersed in it. If to these bacteria be added, we have in the preservative medium all that is required for promoting active decomposition. Drying fish by smoking them at a moderate temperature, though a practice based on another principle from that of salting, supplies no further guarantee against organic change. This latter is something which we cannot rely upon nipping in the bud, and for which, therefore, as we have shown, "curing" is no cure.

LONGEVITY IN THE SOCIETY OF FRIENDS.

A LETTER published in a recent issue of the *Alliance News* affords an example of the misuse of one-sided facts, which, in connexion with an interesting subject, is itself not devoid of interest. The exceptional longevity in the Society of Friends is stated to be a fact acknowledged by actuaries, and the newly issued figures for the year 1883-84 are said to present the increasing longevity in a "startling aspect." It appears that certain vital statistics have been recorded, tabulated and published by the Society of Friends for a series of forty-one years, and it is pointed out that while the mean age of 342 persons dying in 1843-44 was fifty years and nine months, the mean age of 280 persons dying in 1883-84 was sixty years and eleven months. The mean age of those dying in the six years 1843-44 to 1848-49 was fifty years and four months; in the six years 1872-73 to 1877-78 it was fifty-five years and five months; and in the six years 1878-79 to 1883-84 it was fifty-eight years nine months. It may safely be asserted that there are few methods of calculating longevity more open to fallacious results than the use of the mean age at death for this purpose. In a theoretical life-table population the mean age at death is synonymous with the mean duration of life, but without accurate knowledge of the age constitution of a population, the mean age of its decedents is absolutely valueless as a test of its longevity. Mr. Pearson, in the letter to which we refer, admits that even the number of members of the Society in 1843-44 is not recorded, but adds "the number is no doubt practically about the same for both periods"—that is, for 1843-44 and 1883-84. But the number of members, even if it were known, for each year in the series, would have little value unless the ages of the members were also known. If from any cause the Society of Friends now contains a larger proportion of elderly persons than it did forty years ago, then the comparison of the mean age at death at the two periods would be about as useful as a test of health and longevity as a similar comparison of the mean age at death of captains and colonels in the army which was suggested by the late Dr. Farr, more than forty years ago, as the *reductio ad absurdum* of this false method of mortality statistics. The number of this sect is estimated at "some 18,000 persons of all ranks and conditions of life," but further figures quoted by Mr. Pearson point strongly to the probability that the number of the Society has declined, and that the proportion of young people among the members has also declined. Until light has been thrown upon the age constitution of the Society, all conclusions drawn from the mean age at death must be regarded with suspicion. It would, at any rate, be well to establish the fact of this "startling" increase of longevity among the Society before accepting the final conclusion of Mr. Pearson that "this religious

Society, always 'temperate' in the use of alcholic liquors, have practically become a Society of total abstainers, and the statistics of longevity I have just presented show most conclusively how they are already reaping their reward." This is indeed a case of the zeal of temperance advocates outrunning their discretion.

PUBLIC HEALTH LEGISLATION OF 1884.

AMONGST the Acts of Parliament which received the Royal assent during 1884 the following affect sanitary authorities in their dealings with public health. The Canal Boats Act, 1884, amends the Act of 1877 in several important respects. Every sanitary authority within whose district there is a canal will now be compelled to enforce the regulations of the Act and to make a report during the month of January as to what has been done during the preceding year. For the purposes of administration alterations have been made as regards the imposition and disposal of fines; certificates of registration heretofore granted now become null and void if any structural alterations are made affecting the conditions under which the registration was originally made; power of entry for the purposes of inspection is sanctioned from six in the morning until nine at night; and boats registered under the Merchant Shipping Acts, which thus evade the Canal Boats Act, may, under certain specified conditions, be brought within the control of the latter. The Public Health (Confirmation of Bye-laws) Act, 1884, will remove a doubt which a recent decision created as to the adequacy in certain cases of confirmation of bye-laws by the Local Government Board. The Disused Burial-Grounds Act, 1884, makes it unlawful to erect buildings on any disused burial-ground, except as regards extensions of places for public worship and buildings for which a faculty was obtained before the closing of the principal session of 1884. The definition "disused burial-ground" includes a burial-ground in respect of which an Order in Council has been made for the discontinuance of burials therein. Under the Expiring Laws Continuance Act, the Diseases Prevention (Metropolis) Act, 1883, which removes the stigma of pauperism from persons received into the metropolitan asylums board hospitals, was renewed for another year.

DAIRIES AND SEWAGE FARM PRODUCTS.

SOME difficult questions have arisen in connexion with the proposal of the Croydon Corporation to let some of the land they possess at their sewage farm for the erection of cowsheds to hold between two and three hundred cows; the animals to be to a considerable extent fed on the rye grass grown on the farm. The objections to the scheme were mainly raised by residents at Hackbridge, who maintained that the cowsheds would cause a nuisance; that so large an aggregation of cows was objectionable, amongst other reasons because it would facilitate the spread of foot-and-mouth disease; that the keeping of the cows on rye grass would be likely to injuriously affect the milk; and that the cows, by using the effluent water of the farm as a beverage, would secrete a milk calculated to bring about disease amongst the consumers. So far as we are aware no positive evidence has yet been adduced as to injury either to man or beast from proximity to, or consumption of articles grown on, sewage farms; and as regards this special farm, Dr. Alfred Carpenter read an exhaustive paper before the International Medical Congress in London, showing that no such injurious results as had been anticipated had ever been brought about. The Local Government inquiry which has been held as to the use of the land in question for the purposes of cowsheds, has, however, left one point in a very unsatisfactory state. Although it may be contended that the consumption by cows of the effluent from a sewage farm has never yet been shown to give objectionable qualities to their milk, yet it must be held that it is wrong as regards milch cows supplying milk for human use, to allow any such water to be resorted to. The evidence given at the inquiry, and the correspondence which has ensued, go to show that the cows have on certain occasions been allowed to drink the effluent, and if the transfer of the land be sanctioned it is to be hoped that it will be made conditional on a supply of wholesome water being so conveyed to all parts of the premises that there shall be no possible inducement to resort to the effluent for any purposes connected with these dairy sheds.

PATHOLOGICAL SOCIETY.

THE formal annual meeting of the Pathological Society took place in the course of the meeting held on Tuesday evening last. The scrutineers, Dr. J. A. Ormerod and Mr. Arbuthnot Lane, declared that the list of officers nominated by the Council had been duly and unanimously elected. We published this list in THE LANCET of December 27th, 1884. Mr. Butlin, Hon. Sec., then read the report of the Council, which showed that the Society was in a flourishing state, and numbered now 684 members. Reference was made to the loss the Society had sustained in the decease of Dr. Mahomed, and of Mr. Wheatley, the resident librarian. After many years of valuable work Mr. Marcus Beck and Mr. Godlee have retired from the Morbid Growths Committee, and Dr. Sharkey and Mr. Eve have been elected to fill their places. Mr. Bland Sutton has been elected to take charge of the section of comparative pathology. Mr. Waren Tay proposed, and Dr. Angel Money seconded, that the report of the Council and the balance-sheet of the Treasurer be received, adopted, and printed in the Society's Transactions. This proposition was duly carried. Dr. Hale White and Mr. Bowlby were appointed to audit the Treasurer's balance-sheet. Mr. John Wood proposed, and Dr. Norman Moore seconded, a vote of thanks to Mr. Hulke, the retiring President. This was carried with acclamation, and Mr. Hulke briefly replied by saying that were it not for the able assistance of the Hon. Secretaries the work of the Society would be almost at a standstill. Dr. Longhurst proposed, and Mr. W. Haward seconded, a vote of thanks to the retiring Vice-presidents and Members of the Council.

ARTIFICIAL ANUS CURED BY ENTEROTOMY.

DR. CANNIZZARO, in the *Rivista Internazionale di Medicina e Chirurgia* for last month, reports the case of S. P——, aged sixty-seven, who for some years had had a reducible right inguinal hernia. Symptoms of strangulation supervened, and a surgeon, after ineffectually applying the taxis, advised operation. The patient objecting, the hernial coverings sloughed, and an artificial anus was established in the right groin. When Dr. Cannizzaro operated on the 1st of last October he found the septum or spur (*lo sperone*) very well marked. Having grasped it in its whole depth within the blades of the enterotome, he tightened the screw until the patient complained of pain in the part and at the epigastrium. The instrument was immobilised with a spica bandage and compress. During the first day the patient was much depressed, and inclined to vomit. The dressing, changed each day, contained fæcal matter; each day also the screw was tightened until the patient complained of pain. Chicken broth, eggs, and wine were taken freely. During the fifth night the bowels acted abundantly twice and naturally. On the sixth and seventh days very little fæcal matter was found around the dressing, and on the eighth day the enterotome was observed to be very movable. It could not then be detached, but it came away with the dressing on the ninth day after

operation. The wound was then washed with carbolised water, its surroundings brushed with collodion, and a compressing bandage applied. From this date the patient continued to evacuate per anum; in reapplying the bandage daily, care was taken to approximate the edges of the wound, which gradually healed; the patient leaving the hospital cured, in excellent health, on the 15th of November, just forty-five days after the operation.

SLEEPLESSNESS.

SLEEP is a perfectly natural function. It is not a negative act, but a positive process. Herein lies the difference between real sleep and the poison-induced torpor which mimics the state of physiological rest. We ought to be able to sleep at will. Napoleon and many busy men—the late Mr. Wakley, for example—developed the power of self-induced sleep to such an extent as to be able to rest whenever and wherever they pleased, for longer or shorter periods, as the conditions admitted. We have been led to believe that Mr. Gladstone at one time possessed this faculty. If that be so, his recent insomnia must be assumed to have been the result of such intense brain-worry as inhibited the control of the will; or there may, of course, be physical causes which render the apparatus of the cerebral blood-supply less manageable by the nerve centres. In any case, it is much to be deplored that, in the study and treatment of insomnia, the profession generally does not more clearly and constantly keep in memory that what we call sleeplessness is really wakefulness, and that before it is justifiable to resort to the use of stupefying drugs the precise cause of disturbance should be clearly made out. This, of course, takes time, and involves a scientific testing of the relative excitabilities of the sense-organs, central or radial and peripheral. The discovery of the cause, however, affords ample recompense for the trouble of searching for it. With the sphygmograph and a few test appliances, such as Galton's whistle, an optometer, and other instruments, the recognition of the form and cause of sleeplessness can be made in a brief space, and then, and then *only* we protest, it can be scientifically—i.e., physiologically—treated.

THE LEGACIES OF 1884.

THE legacies and donations of 1884, in the provinces as well as in the metropolis, have been numerous and generous. We rejoice over them as proofs that the old Christian virtue—and Jewish, too, for that matter, the largest being that of the Baroness de Rothschild, who, of £99,000, left £10,000 to the London Hospital—of charity is not dead yet, in spite of all the pains that have been taken of late years to take the life and the grace out of it. Mrs. Johnstone Thomson, of Claremont, Lockerbie, left £25,000 for almshouses. Mr. John Harrison, of Bath, £29,000 for the blind. Mr. Moffatt, of Port Glasgow, £60,000 for an orphanage in Renfrewshire. Sir Erasmus Wilson left £5000 each to the Margate Infirmary, the Society for Widows and Orphans of Medical Men, the Royal Medical Benevolent College, and the Medical Benevolent Fund. Mrs. Charles Turner, of Liverpool, has given £30,000 for a Home for Chronic Sufferers, a class most to be pitied, and a sum the interest of which will meet the annual expenditure. These acts of generosity revive one's spirits and one's faith in human brotherhood. They show that the accumulation of wealth does not obliterate thoughts of the poor, and the maimed, and the halt, and the blind. We would fain see them greatly multiplied, and the hospitals and asylums embarrassed with wealth, as they now are embarrassed by the want of it. Why not? What good is there in keeping money, even during life, in huge masses, when it is so urgently wanted, and could be so immensely useful? This spontaneous return of money to the poor by the rich is the blessed way and the best of solving all angry questions about the unequal distribution of wealth. We again express our belief that there is no better medium for distributing gifts to hospitals, whether in the shape of donations or legacies, than the Hospital Sunday Fund.

RHIGOLENE: A LOCAL ANÆSTHETIC.

THE use of cocaine as a local anæsthetic has directed attention to the value of petroleum naphtha for similar purposes. The name rhigolene was given by Dr. H. J. Bigelow, of Boston, to a light inflammable liquid obtained by the repeated distillation of petroleum. It is probable that it is not a definite chemical compound, but it is said to be one of the most volatile bodies in existence. By using it in the form of a spray with a common atomiser it produces a degree of cold sufficient to freeze any tissue with which it may come in contact. Dr. W. Chapman Jarvis, of New York, finds that its action is more decided than that of cocaine, although of shorter duration. Skin and mucous membranes may be divided deeply and freely without fear of pain or hæmorrhage. Its effects pass off quickly, so that the operator has to act with promptness. It is a good plan to employ it in conjunction with cocaine. When not in use it should be kept on ice or in a cool room, tightly corked. In a warm place it would probably burst the bottle or blow out the cork. It has been accused of possessing explosive properties, but probably it is safe if not brought in contact with an open flame. It should not be used for cases which require artificial light. Very little is known about it as yet, although its properties were cursorily investigated some years ago.

THE SANITARY STATE OF ALNWICK.

THE town of Alnwick, in Northumberland, has recently acquired an unenviable notoriety for dirt and disgraceful house accommodation for the lower classes, and it has, in consequence of the revelations made at a coroner's inquest, been visited by an inspector of the Local Government Board. The recent discussions in the Town Council are not hopeful as regards the future, for the Corporation, having only just determined that the piggery nuisance must be abated, and having procured the sanction of the Local Government Board to a clause specifying a distance from dwellings within which pigs shall not be kept, have now practically decided not to enforce the bye-law universally, but only as the occasion may seem to suit. It is this discretionary power in certain bye-laws which tends to do so much harm, the more so as it always leaves the door open to allegations of favouritism or the reverse. The official report, when issued, may give some further insight into these matters.

CHOLERA IN RAGS.

THE orders relating to the prohibition to import rags into this country from France and Italy having expired at the close of last year, it was anticipated that the trade would have been resumed, but fresh orders have been issued, signed by Lord Kimberley, one of the *ex-officio* members of the Local Government Board, extending the prohibition until the first day of March next. The fact that occasional cases of cholera have been reported both from France and Italy since the outbreaks were regarded as having ceased makes it difficult to say that the danger of a recrudescence has passed away, and it is not improbable that rags from infected areas may be prevented from coming into this country, except subject to the conditions of the prohibitive orders, until it seems tolerably certain that the disease has really finally subsided.

PREVENTIVE MEDICINE IN PRIMARY SCHOOLS.

THE suggestion of supplying a good meal to the poorer children who attend Board Schools is not new. On the other side of the Channel, at least, it has been carried successfully into effect. In the admirably administered capital of Belgium all the children attending the communal schools are examined by the doctors attached to the sanitary service of the town. Those among them who manifest signs of debility are at once put under a preventive treatment, which consists generally of cod-liver oil in winter and a tonic mixture in summer. There is a rule directing that each child should have a separate medicine glass of its own, and that the medicine should be given by the masters at school. If the medicine were taken home it would never be administered with proper punctuality, and the oil might at times be used to grease the father's boots. Of some 10,000 children there were 1094 treated in this manner from 1882 to 1883 at Brussels. Of this number 69, or 6·3 per cent., were completely cured, and 628, or 57·4 per cent., were much benefited. In 203 cases, 18·4 per cent., no improvement was noticed, while the result is unknown in 194, or 17·7, of the cases. The removal of the children to other towns or other schools accounts for the incomplete character of the statistics, but sufficient has been said to show on what a large scale this system of preventive medicine has been applied. It is needless to add that the medicine and medical supervision are entirely gratuitous; but the State is already beginning to recoup its outlay, for every year shows a distinct improvement in the health and physique of the military recruits. The teeth of the children are also examined; and during the same year no less than 1250 pupils required the services of the dentists, which they would probably have never obtained but for this compulsory intervention of the State. It will be seen therefore that, if we are not to be behind the Belgians in our care for the physical welfare of the children attending our primary schools, there is something more to be done than merely providing penny dinners.

IMPROVED DIET AT LONDON HOSPITALS.

AMONGST other improvements which the new year has introduced is a new scale of diets at St. Thomas's Hospital. By the system of cooking which has been adopted under the advice of Mr. Buckmaster, the authorities are enabled to diminish the expense; and the diet table, which has been drawn up by the medical staff of the hospital, is both varied and liberal. The quantity of animal food allowed to the convalescents is increased, and they are given bread *ad libitum*. Special diets are a feature of the new table, and throughout there is a decided improvement. The step is worthy of the attention of the authorities of other hospitals.

FLYING AMBULANCES IN PARIS.

DR. HENRI NACHTEL, though an American, has succeeded in starting an agitation in Paris in favour of organising town ambulances on the American model. An influential temporary committee has been formed for this purpose, on which we find the names of Dr. Pasteur, Dr. Berthelot, Dr. Guérin, Dr. Béclard, Baron Larrey, Senator Kœchlin Schwartz, the former Prime Minister M. Jules Simon, and the well-known journalists MM. Lockroy, John Lemoinne, E. Magnier, &c. A recent meeting of this committee was held under the presidency of M. Jules Simon, when Dr. Nachtel exposed his scheme. He proposed to establish two methods of communicating with the hospitals in case of accidents. First, when there is no extreme urgency, the local police station would supply means of telegraphing to the nearest hospital to send an ambulance. Secondly, when there is not a moment to be lost, or the case is too serious to bear transportation to the police station, telegraphic posts, similar to the fire alarms placed in the streets, might be employed. A number of red boxes or pillars in all the principal streets could be opened by a key kept in the nearest shop and the alarm given. On the receipt of this signal an ambulance should be ready to start in forty-two seconds, horses being kept day and night in harness. The house-surgeon would accompany the ambulance. It was further proposed to raise a fund by voluntary subscriptions to start this service; and a magnificent fête will forthwith be organised, the proceeds to be devoted to this purpose.

THE LATE DR. MARSHALL.

A PARAGRAPH in the last issue of THE LANCET relating to the death of Dr. William Marshall, late Physician to the Queen, requires a little correction. Dr. Marshall was originally in practice at Balmoral, and was occasionally called in to attend some of the persons about the court; and upon one occasion, when the Princess Louise was suffering from synovitis at Balmoral in 1872, the Queen saw him, and was so much pleased with his treatment of the case that he was appointed Her Majesty's own private resident medical attendant, and this position he held till he retired three years ago in bad health, having symptoms of brain mischief. He then received a very liberal pension from the Queen, and was succeeded by Dr. James Reed, who continues to hold the same post at Court at the present time. Dr. William Marshall was one of Nature's noblemen, a clever doctor, the soul of honour; he filled a most difficult post, and acted on all occasions with rare tact and extraordinary discretion. He was much beloved and very highly esteemed by all who came in contact with him. He now and then prescribed for the late Duke of Albany, as he also did for all the other members of the Royal Family when they were visiting Her Majesty. But Mr. Royle was the only constant medical attendant of the late Duke since 1875 till the time of his death.

COCA AND COCAINE IN SKIN DISEASES.

IN a recent lecture delivered at the Philadelphia Hospital for Skin Diseases Dr. John V. Shoemaker stated that for over two years he had employed a liquid extract of coca in the treatment of certain cutaneous affections. It had been employed with good results in eczema, herpes, herpes zoster, urticaria, and a number of allied affections. A case of acute eczema of the ear and neck was exhibited which had improved in the most marvellous manner under the local application of an ounce of fluid extract diluted with three ounces of water. In acne rosacea the solid extract should be made into an ointment with lard and applied freely. It exerts a marked sedative action upon the inflamed or irritated skin, and may be employed with confidence. We understand that Dr. T. C. Fox is using at the Westminster Hospital a solution of hydrochlorate of cocaine in cacao butter, and has obtained good results, especially in urticaria and lichen planus.

THE PRELIMINARY SCIENTIFIC EXAMINATION.

AT the meeting of Convocation of the University of London on Tuesday last, Dr. Curnow moved, and Mr. M. P. Christie seconded, "That Convocation again urges upon the Senate the desirability of holding the Preliminary Scientific (M.B.) Examination twice a year." The resolution was carried by 116 votes to 2. After such an expression of opinion on the part of the graduates, and with a rival in the shape of a teaching university threatening to compete with it in giving degrees in medicine, we anticipate that the Senate will grant the demand of Convocation, and not repeat its foolish policy of 1880 and 1881.

THE HEALTH OF MR. GLADSTONE.

WE are glad to be able to give a satisfactory account of the health of Mr. Gladstone. The disorder of his health, consisting chiefly of slight catarrh and lumbago, with sleeplessness, is only too easily explained by the late prevalence of east winds, following the exhausting work of the summer holidays and the autumn session, and coinciding with an anxious and complicated state of public affairs. It is not the first time that such attacks, occurring in similar circumstances, have shown that even Mr. Gladstone's powers have their limits. Happily, his ailments have already promptly yielded to apt remedies and to comparative rest, and there is a fair prospect that, without public inconvenience, his health may be soon fully restored. According to our latest account his sleep has returned, and this means almost everything that can be wished. At the same time, it would be a mistake to make too light of these attacks, or to refuse to see that if Mr. Gladstone's powers are to be conserved for the fullest advantage of the State, his friends should contrive in every way to keep him from all but essential work.

THE RIGHT OF SEARCHING A DEAD BODY.

A DISPUTE is raging between the authorities of Charing-cross Hospital and the Deputy Coroner for Westminster as to the right of searching a dead body. Obviously this right alone properly belongs to the police. It is often of the utmost importance that the pockets of a person found dead, or supposed to be dead, should be *instantly* investigated. Take the case, for example, of a man who had swallowed a narcotic poison which was acting powerfully; something in his pocket, such as an empty bottle or a written confession, might lead to the adoption of means for his recovery. Or, in the case of a murder, the discovery that pockets had been rifled, or something found in them, might supply a clue to the criminal. We are strongly of opinion that not a moment should in any case be lost before making a thorough search, and, beyond question, the person to do so is neither a hospital porter, who has no further responsibility, nor the coroner's officer, who is pretty sure not to be on the spot but a police constable, and the nearest at hand.

AMYLASE.

AMYLASE has been found by M. Brase to be present in a very large number of leaves of plants: potato, maize, dahlia, beet, tobacco, castor oil, red poppy, and sunflower. The principle is obtained by digesting the bruised leaves in cold water for twenty-four hours; the juice is then expressed and one and a half times its volume of 90° alcohol is added and the liquid filtered. After filtration the same quantity of alcohol is added and the liquid set aside to deposit. The precipitate is filtered off and washed with a small quantity of 65 alcohol. The amylase when present is contained in the precipitate, and its presence is proved by its action in converting starch into sugar.

A LUNATIC IMPRISONED.

THE Lord Mayor did not show his accustomed sagacity on Monday last when he sent Herbert Percy Freund to prison instead of to an asylum. This poor man was, we are informed, a St. Thomas's Hospital student some seven or eight years ago, and while there became insane. He has since been in Bethlem Hospital and in the City Asylum at Stone, of course under certificate. To place such a person in prison would be an act of cruelty, only that, of course, the mistake made has been the result of ignorance, not ill-feeling. The Secretary of State for Home Affairs must now be moved to interpose, and the man, who is not legally a criminal, and who therefore has been sent to prison contrary to law, be removed to an asylum. Setting aside personal considerations, this is absolutely necessary on public grounds, for at the expiration of the term of imprisonment—namely, two calendar months—the lunatic will be again at large, and his fanatical mania may, for aught anyone can tell, take the form of a possession or impulse to, enforce his views of religious awakening in a way which may not be safe for himself or those around him.

SMALL-POX HOSPITALS.

A MEETING of the Society of Medical Officers of Health will be held at 1, Adam-street, Adelphi, on Friday, January 16th, at 8 P.M., when the question "Are Small-pox Hospitals necessarily a source of danger to the neighbourhood in which they are placed?" will be discussed. Papers will be read in the affirmative by Drs. Tripe and Gwynn, and in the negative by Dr. E. T. Wilson.

AT a meeting of the Faculty of Medicine of the Melbourne University, on Oct. 29th, a letter from twenty-two medical students was considered, and ultimately referred to the committee already appointed to revise the medical course. In the letter attention was drawn to the following points, in which the surgical education of those signing it seemed susceptible of improvement:—1. No regular clinical instruction, as lately provided for by the council, is given in the wards. 2. Little or no instruction is given in therapeutics. 3. Consultations as at present conducted are useless as a means of education. Most of the operations are performed at from 2 to 3 P.M., at which hour the students are present at lectures; attendance on an operation may cause the loss of a valuable demonstration. 4. In many cases the operator gives no information as to the nature of the injury or disease demanding operation. 5. Owing to the present method of recording attendances at the hospital, no credit for attendance is given unless students attend their own particular wards; consequently it is impossible to give due attention to the out-patients' department, where many instructive cases are to be seen.

ACCORDING to the *Publishers' Circular*, the analytical table of the book issues of 1884 shows an increase of 228 over those published in 1883, the numbers being 6373, against 6145. Of the total issues of new books theology stands at the head with 724 volumes; juvenile works and tales stand second with 603; educational, classical, and philological books, 543; history, biography, &c., 490; books on the arts and sciences and illustrated works, 432; novels, tales, and other fiction, 408; year-books and volumes of serials, 323; voyages, travels, and geographical works, 236; pamphlets, sermons, and miscellaneous works, 208; and then, with less than 200 volumes, come poetry and the drama, 179; law, jurisprudence, &c., 163; medicine, surgery, &c., 160, this last showing a decline of 3 as compared with 1883. The new editions of medical works published during 1884 amounted, however, to 55.

DR. THEODORE WILLIAMS will deliver three lectures at the Brompton Hospital on Wednesdays, January 14th, 21st, and 28th, at 4 P.M., on the Uses of the Compressed Air Bath in the Treatment of Disease. Members of the profession are admitted on presentation of their cards.

AN alarming outbreak of scarlet fever is reported from Kirby Stephen, Westmoreland, over two hundred children in a small population having been attacked, and many deaths having occurred. The Board and Sunday schools have been closed.

MR. W. H. POWER, Medical Inspector of the Local Government Board, has issued a circular to the medical practitioners in the neighbourhood of Chelsea, Fulham, Kensington, and Hammersmith, requesting them to give him henceforward, until January, 1886, notice on the book-forms with which they have been supplied of each small-pox case, the very mild as well as the more severe, coming under their observation in the districts in question. Mr. Power states that the response accorded by the medical profession to his request in July last for information respecting occurrences of small-pox has been of very great service in his inquiry as to the distribution of the disease in those districts. We trust that practitioners will afford Mr. Power willing aid.

AT the meeting of the Royal Medical and Chirurgical Society on Tuesday, January 13th, it is expected that the evening will be taken up with the adjourned discussion on Dr. Percy Kidd's paper on the "Distribution of the Tubercle Bacilli in the Lesions of Phthisis." The President, Dr. Herman Weber, Dr. Green, Dr. Wilson Fox, Sir Andrew Clark, Dr. Moxon, Mr. Watson Cheyne, Dr. Coupland, Dr. Goodhart, Dr. Heron, and others, will take part in the discussion. Dr. Kidd's specimens will be on view half an hour before the meeting.

DR. DENHAM, ex-President of the Royal College of Surgeons, Ireland, having intimated his intention to retire from the active practice of his profession, a committee has been appointed to arrange for the presentation to him of an address and suitable testimonial (the subscription to the latter being limited to two guineas), as a token of the high esteem and regard in which he is held by his professional brethren and the public at large. The honorary secretaries are Drs. G. H. Kidd and Lombe Atthill.

IT is asserted on good authority that Prof. Recklinghausen of Strasburg is to be invited to fill the chair of Pathological Anatomy rendered vacant by the death of Prof. Cohnheim. Next in order come the names of Prof. Ziegler and Prof. Birch-Hirschfeld; but the name of Dr. C. Weigert, for several years the colleague of Cohnheim, does not appear in the list submitted by the Leipsic Faculty. Some natural dissatisfaction has been aroused in consequence.

THE death is reported of Prof. William Darling, F.R.C.S., who occupied the chair of anatomy in the University of New York. Dr. Darling received his professional education in the University of Edinburgh and became a Member of the Royal College of Surgeons of England in 1856 and a Fellow of the same College ten years later. He was the author of Anatomography and Essentials of Anatomy, and edited Professor Draper's works.

AT a meeting on the Southend-on-Sea Local Board of Health, held on Tuesday last, it was unanimously resolved, "That this board will strenuously oppose any scheme for sewage disposal involving the treatment or discharge of sewage or sewage liquid from London and its neighbourhood in the Thames, whether at Hole Haven or elsewhere, near, or so as to be calculated to injure, Southend."

WE are glad to learn that the Admiralty have ordered an official inquiry into the alleged excessive frequency of floggings on board Her Majesty's ship *Northumberland*.

THE death is announced of Dr. Edward Jarvis, of Dorchester, Massachusetts, President of the American Statistical Society, at the age of eighty-two.

THE vacancy caused by the retirement of Dr. Russell, for many years physician to the Birmingham General Hospital, is, we understand, likely to be filled by the appointment of Dr. Robert Saundby, with whose contributions to the morbid anatomy of mental and nervous disease the profession is familiar. Dr. Saundby's candidature is, it is said, unopposed.

THE committee charged with the provision of a permanent memorial to Dr. Paget, Regius Professor of Physic in the University of Cambridge, has decided that such memorial shall take the form of a marble bust to be placed in Addenbrooke's Hospital. The subscription list has been headed by the Prince of Wales and Prince Edward.

IT is announced that the synthesis of saccharose has been accomplished by MM. Aubert and Giraud, and it is anticipated that the discovery may eventually be of vast importance to the sugar industry. The amylaceous matter of the potato is first converted into glucose and then exposed to the action of a strong electric current.

AT the next meeting of the Obstetrical Society (Jan. 14th) a paper will be read by Dr. William Duncan on "Total Extirpation of the Uterus for Cancer." It is expected that Sir S. Wells, Sir W. Mac Cormac, Mr. Bryant, Mr. Thornton, and others will take part in the discussion.

THE emigrant ship *Hereford*, from Calcutta for the West Indies, has put into Mauritius for medical advice and has been placed in quarantine, fever having broken out amongst the passengers and eighteen deaths having occurred during the passage.

THE Local Government Board have informed the town clerk of Dover that their medical officer will shortly visit the town to ascertain what provision there is for dealing with cholera cases that may arrive from the Continent.

WE regret to have to announce the death of Dr. Herbert Davies, Consulting Physician to the London Hospital, and Physician to the Bank of England. We hope to give an obituary notice of the deceased in our next issue.

DR. HERON proposes to show at the next meeting of the Medical Society of London on Monday, the 12th inst., specimens in pure cultivation of the comma bacillus of Koch.

THE UXBRIDGE TRAGEDY.

BY ANTHONY A. BOWLBY, F.R.C.S.

THE case known as the Uxbridge tragedy is one presenting many points of medico-legal importance, the question to decide being whether certain wounds found on a dead body had been suicidally or homicidally inflicted. The result of the trial was the conviction of the prisoner for the murder of her husband. The account which follows has been written on my own responsibility, and does not in any way implicate Mr. Parrott, the other medical witness. Nevertheless, I may say that on almost all the main points we were entirely agreed. The circumstances of the case are briefly as follows:—

The deceased, James Gibbons, aged sixty-five, a perfectly healthy and prosperous man, lived with his wife at Hayes, Middlesex. He had been married thirty-seven years, but had no children. He had adopted, or at any rate undertaken

the care and education of, a little girl distantly related to him, and had had disagreements with his wife on this account. On Nov. 15th, 1884, he went into the country to see his adopted child, in the evening he returned to Hayes and walked home from the station with the station-master, a personal friend, who testified that he left him close to his own door somewhere about 10 P.M. He was seen to enter his house by his own servant-girl, but was not again seen alive; his wife and he were the only persons who slept at his house. Shortly before midnight the next-door neighbour was aroused by Mrs. Gibbons, who was dressed in her night-gown alone and who said that her husband had committed suicide. The neighbour returned to the house with Mrs. Gibbons and found the deceased lying dead on his face upon the floor of the bedroom in a pool of blood. Close to his side lay a revolver. Mr. Parrott of Hayes was at once sent for, and in a short time arrived at the house with Mr. Hathaway, his assistant. They found the deceased lying on his face on the floor with his left arm stretched out towards the door, his right arm doubled under him, and his feet towards the bed. On the side of the bed next which he lay was a depression, as though caused by someone sitting down; this depression was about half-way down the bed, and close to it the sheet was sprinkled with a few spots of blood; anyone sitting on the place indicated would have his right hand towards the pillow. There were no marks of a struggle having taken place, but close to the door the wall was marked with blood spots. A very large amount of hæmorrhage had taken place, and the clothes of the deceased were saturated with blood; he was partly undressed, and had on a shirt, jersey, and drawers. Mr. Parrott hastily turned the deceased on to his back, and found the three wounds to be presently described; life was extinct, but the body was quite warm. Turning to the wife, Mr. Parrott naturally asked, "How has this happened?" She replied that they had had a few words about the little girl who used to live with them, that the deceased had then taken the revolver from under his pillow, and, exclaiming that he could stand it no longer, had waved the weapon round his head and fired off four or five shots in rapid succession. When asked by Mr. Parrott whether she had not tried to prevent her husband from killing himself, she said that she had thrown her arms round his neck, and then had run downstairs. It may here be remarked that Mrs. Gibbons made at different times six different statements. In one she said that all the shots were fired after she left the room in a fright at seeing her husband seize the pistol, in another that one shot was fired whilst she was in the room, the others after she left it, and in the remaining statements she said that two, three, and, lastly, all four shots were fired whilst she was in the room. At one time she said she saw her husband fall, at others that after getting downstairs she heard him fall. At no time did she say that the pistol had gone off during a struggle, or that she herself ever obtained possession of it. The pistol found beside the deceased was a six-chambered revolver, about six inches in length; five chambers had been recently discharged, and the sixth was occupied by an old empty cartridge case which had become blocked. The six chambers could be fired in succession by a series of pulls at the trigger without recocking, but the weapon had not what is known as a "rebounding lock"—i.e., one which cocks itself as soon as the bullet is discharged. The chambers could only be rotated by either pulling the trigger or raising the hammer with the finger or thumb; they did not rotate automatically, so that, after a shot had been fired, the empty cartridge case alone lay in a line with the barrel, and no bullet could be fired until after the revolution of the chambers brought a loaded cartridge into position. Except when cocked, it required a very strong pull at the trigger to fire the weapon; each shot demanded a distinct effort and the exercise of some strength. In the room was found a box containing sixteen cartridges, each of which fitted the pistol; the bullets were about one-third of an inch in diameter.

An inquest was held on Nov. 18th and adjourned, to enable medical evidence to be called. On Nov. 20th Mr. Parrott and Mr. Hathaway proceeded to make a post-mortem examination, and their attention was at once directed to a wound in the back of the left shoulder, which had passed unnoticed by them when first called to the deceased. After a partial examination of the body, Mr. Parrott applied for leave to obtain further assistance, and, at his request, I completed the post-mortem examination with the assistance of himself and Mr. Hathaway. The deceased was a man of middle height, broad-shouldered, rather stout, and heavily built. The scalp presented two small contused wounds, such as might have been caused by falling against any hard blunt object; one of these was situated on the forehead, the other near the occipital protuberance. The calvaria was normal, as was also the brain. The extremities were in a natural condition; the viscera were generally healthy. The following wounds were found:—

No. 1. In the left cheek, in a line with the canine tooth, was a bullet wound. The aperture in the skin was oblique so as to indicate that the bullet had entered in a direction from right to left as well as from before backwards. The superior maxilla had been shattered, the missile passing beneath the malar bone and lodging against the mastoid process, deep amongst the muscles of the neck. The face for some distance around the aperture of entry was blackened by powder, but the hair was not singed as though the pistol muzzle had been placed in actual contact; it might well have been held at a distance of several inches. No. 2. Immediately beneath the left clavicle, two inches to the outer side of the nipple line, was a perfectly clean-cut circular bullet wound of entry. The wound was in a direction almost directly backwards, but a little downwards, passing above the first rib towards the scapula; the bullet was found lying in the substance of the subscapularis muscle. In connexion with this wound there had been most extensive and abundant hæmorrhage, and the blood had been driven far and wide into the surrounding tissues, extending along the brachial plexus, and under the sterno-mastoid as high as the submaxillary triangle, backwards into the subscapular region, and forwards beneath the pectoral muscle. Evidently there had been a large vessel wounded, and in the subclavian artery, in the track of the bullet, was found a sharply cut hole such as would be caused by a missile of the nature discovered. The fact that there had been some dissection of the parts before I found the injured vessel alone prevented me from coming to a definite conclusion that the hole had certainly been caused by the bullet; nevertheless, I felt but little doubt in the matter. The skin around this wound was not blackened, and bore no traces of powder marks. No. 3. On the left side of the chest, two inches to the outer side of the nipple, and about half an inch below its level, was a bullet wound of entry. This wound was not circular, but oblique, indicating an entry of the bullet from above and behind, as well as in a general direction from left to right. As the arm lay by the side a probe could not be introduced further than through the skin, and it was not until the arm was raised to a right angle or more from the trunk that a probe could be passed into the thorax. It was then found, on reflecting the skin, that the fourth rib had been cleanly punctured by the bullet in an oblique manner. On removal of the sternum the anterior mediastinum was found full of blood—to use the words of Mr. Hathaway, "the thorax was fairly swamped with it." In the anterior surface of the pericardium were two torn holes, and its cavity also contained a quantity of blood. An examination of the heart showed that the bullet had struck the right ventricle on its anterior surface close to the septum and near the apex, that it had entered the cavity of the ventricle, and that being roughened and flattened by its transit of the rib, and by the same means having its velocity lessened, it had not made a clean-cut aperture of entry and exit, but had ploughed up and torn away the muscular substance in its course, thus allowing a very free exit to the contained blood. The bullet had then traversed the diaphragm, and was found a little to the right of the ensiform cartilage in the left lobe of the liver and close beneath the abdominal wall. The general direction of this wound was *from left to right, from above downwards, and from behind forwards.* The aperture in the skin, the axis of the entry and of the exit wounds in the rib were also in a similar direction, and there was every reason to believe that the bullet had not materially deviated from the direction in which it was fired. Further, it was evident that at the moment the wound was inflicted the arm must have been raised from the side to a considerable extent, for not only did the skin wound not correspond with that in the deeper structures unless the arm was so raised, but had the arm been by the side at the time the wound was inflicted it is certain that a bullet entering two inches to the outer side of the nipple and half an inch below its level must have passed just *below the fifth rib* or even lower, whereas in this case the fourth rib had been wounded. The skin around the wound was neither scorched nor blackened by powder.

It is evident from the position and direction of this wound that to be self-inflicted the weapon must have been held in the *left* hand of the deceased. No. 4. In the back of the left shoulder, on a level with the first dorsal vertebra and three inches from the spinal column, was a bullet wound of entry. It was perfectly circular in shape, and a probe could be passed along the wound in a direction *practically directly forwards, but with the very slightest tendency upwards* as far as a point immediately beneath the skin in the front of the neck; here the bullet had lodged. The wound traversed soft tissues alone, being confined to the thick and fleshy part of the base of the neck; no important structures had been injured. It was evident that the weapon that had inflicted this wound had been pointed almost *directly forwards* from behind the back of the deceased, for the entry wound was circular, and the bullet had struck nothing that could cause it to deviate from its course. The skin around the wound was blackened by powder to a considerable extent.

The clothes worn by the deceased at the time of his death were drawers, shirt, and flannel jersey; they had all been washed before I inspected them, but not before they were examined by Mr. Parrott. Only the shirt and jersey presented any signs of injury by bullets. At the back of the left shoulder, in a situation corresponding with wound No. 4, the shirt presented a ragged, singed hole, the size of a five-shilling piece; a corresponding but smaller hole was found in the jersey. The marks of powder were limited to the edges of the hole in the shirt; there was no scattering of powder granules around. Bullet holes corresponding in situation to the wounds No. 2 and 3 occurred in both the shirt and jersey. Each of these holes when seen by Mr. Parrott on the night of the death of the deceased were small and sharply cut, but owing to the scrubbing at the wash had become rather ragged, and enlarged to the size of a threepenny piece. The shirt for several inches around each of these holes was thinly dotted with powder marks, widely scattered in an irregular fashion. There was, however, no burning or blackening.

In order to satisfy myself as to the distance at which these shots had been fired, I procured eleven of the cartridges found in the room where the deceased had died, and with them, and a pistol of exactly the same make as that which had been found beside the deceased, I fired experimental shots at distances varying from actual contact (with a piece of shirting and flannel, which were then thoroughly washed) to a distance of two feet. As a result of these experiments I concluded that: (1) Wound No. 4 had been inflicted with the pistol at a distance of about an inch or so from the shirt, and that the muzzle had not been actually pressed against the back; (2) wounds No. 2 and 3 had been inflicted with the pistol muzzle at a distance of about one foot from the shirt, and certainly not less than six inches.

My next endeavour was to determine if possible the sequence of the wounds. With regard to Nos. 1 and 4, I did not find anything sufficiently definite to warrant me in forming an opinion on this point. Wound No. 2, however (below the clavicle), had almost certainly been inflicted before that of the heart, for the force with which the blood had evidently been pumped into the tissues argued that at the time this shot was fired the heart was acting vigorously and the arteries were distended with blood, neither of which would have been the case after such a wound of the heart as I have described.

Next, as to the immediate cause of death. There was nothing immediately dangerous to life in either of the wounds in the face or shoulder. The amount of hæmorrhage in connexion with the wound below the clavicle, coupled with the certainty that a large vessel—almost without doubt the subclavian—had been injured, pointed to the conclusion that this wound of itself was dangerous to life and one which might well cause death from loss of blood. But the heart wound was without doubt the one of all the four most likely to kill. Considering, therefore, the torn nature of the wound, the ease with which blood could be poured out, and the vast quantity of blood found within the thorax, I concluded that either from the shock to the heart, from direct loss of blood, or from interference with the cardiac action by the pressure of the effused blood, or from a combination of all these, life could not be prolonged beyond a couple of minutes.

Having then considered the facts already detailed, it became necessary to consider whether the wounds were suicidal or homicidal. And first of all, putting aside for the time the wound in the shoulder, was it *possible* for the deceased himself to inflict the other three wounds, Nos. 1, 2, and 3? The first point to consider was whether, after the amount of injury inflicted by two of them, a man would yet have power left to fire the third shot. I have already stated that, in my opinion, the heart wound had been inflicted *after* that below the clavicle, and that there was nothing in the face wound whereby I could say in what relation it stood to any of the other injuries in point of sequence. But, naturally endeavouring to reconcile the injuries to the theory of suicide, I found no difficulty in allowing that the face wound also might have been inflicted before that of the heart, and thus the heart wound would be placed last of the three. This was evidently the most favourable arrangement if the case were to be proved to be one of suicide, for it did away with the necessity of supposing that an old man, after having fired one shot through a large vessel and another through his heart, inflicting such a wound as I have described, should yet be able to fire a third bullet into his face,- a supposition that appeared to me impossible of acceptance, and one which fortunately there was no reason to adopt in order to admit of the suicidal character of the injuries. Assuming, therefore, that the shots had been fired in the order of -1st, the face wound; 2nd, the wound below the clavicle; and 3rdly, the heart wound, I felt that, although highly improbable, it was yet not impossible for all three to have been self-inflicted. But an examination of the clothing placed things in a different light. I have already said that I had arrived at the conclusion that shots Nos. 2 and 3 had been fired at a probable distance of a foot, certainly at a distance of not less than six inches. But if anyone will take a revolver in his left hand, with his finger on the trigger, and place the muzzle in such a position that it shall point at a spot two inches outside the nipple-line and half an inch below that level, in a direction from left to right forwards and downwards, he will find that the muzzle cannot be separated more than an inch or two from the side. And then it must be remembered that any loose clothing, like a shirt, would also be pulled away from the body by the lifting up of the arm to at least a similar distance, so that it becomes impossible to get the muzzle of the weapon appreciably separated from the clothing. Was there, then, any other way of holding and firing the pistol so as to inflict this wound and yet to keep the muzzle at a distance of a foot or a little less from the body? I could find none; for although it is possible to fire a shot into the side by pulling the trigger with the thumb, yet, putting aside the improbability of such a proceeding, I found that if the elbow was raised to a level with the shoulder, as was the case when the wound in question was inflicted, then it was not possible to point the weapon in the necessary direction whilst keeping the muzzle at the requisite distance. The weapon had certainly not been discharged at arm's length, for, at a distance of two feet, the powder did not mark the shirt at all. These points can scarcely be thoroughly appreciated except with a pistol in the hand. Considering, then, the position and direction of the heart wound, together with the entire absence of burning or singeing of the shirt, and feeling certain that the weapon must have been held in close contact with the chest if the wound were suicidal, I arrived at the conclusion that the deceased himself had certainly not fired the shot through his heart. Having, then, considered the possibilities of the self-infliction of the three wounds in the front of the body, I will now turn to the wound in the back (No. 4). I have already shown that this must have been inflicted with the pistol in near contact and with the muzzle pointing directly forwards. Neither Mr. Parrott nor myself was able to place the pistol in anything like the position necessary for the infliction of such a wound on our own persons. Others who tried were similarly and completely unable; and, putting aside the gross improbability of such a wound being intentionally inflicted, I felt justified in saying that a stout and heavily-built man, even in his death-struggle, could not possibly cause the injury in question, and that the wound could not have been inflicted so long as the weapon remained in either hand of the deceased. I think this conclusion will be sufficiently evident to anyone who, like the twelve jurymen, tries to perform on himself the feat of placing and holding a pistol in the necessary position, more particularly if with his finger on the trigger. So far, then, I had arrived at the conclusion that two out of the four wounds were certainly not self-inflicted; and if they were not suicidal

the natural inference was that neither were the other two—the presumption being that the same hand had inflicted all *four*.

The next point to consider was the probabilities in favour of or against the theory of suicide which presented themselves to a medico-legal witness. First, was the deceased a man likely to make a desperate attempt upon his own life? The only evidence in support of such a theory was a *statement* by the prisoner to the effect that her husband had injured his head five years ago, and had complained of headache at various times since. In controversion of this *Mr. Parrott*, whose assistant had attended deceased at the time of the said accident, informed me that the injury had been a trifling one, and that, although he had himself frequently attended the deceased during the past few years for slight ailments, he had never heard him complain of his head, nor had he ever noticed any difference in his manner. The suggestion made by the prisoner was that her husband had been suddenly seized with a fit of mania, and that in this fit he had committed suicide. Now, I am quite prepared to allow that there is frequently no adequate cause to be found for suicide in cases where this crime has undoubtedly been committed, yet it is a most extremely rare thing for a man to reach the age of sixty-five years without at any time showing the least tendency towards mania or delusions, and then to be seized with a most sudden attack of frenzy, for it must be remembered that so late as an hour before his death he was well and strong, cheerful and happy. Then were the wounds, taken together, such as would be likely to be self-inflicted? I thought they were not, and for the following reasons:—1. It is extraordinarily rare to find so many as three or four wounds in cases of suicide, and the extreme diversity of their situation argued against the self-infliction of all of them. The man was certainly quite sane as lately as an hour before his death. If the wounds were self-inflicted, then this was one of the most determined cases of suicide on record. 2. The amount of injury caused by the first two wounds on the front of the body of the deceased rendered it in the highest degree improbable that he should fire yet another shot, not to mention the wound in the back. The pain and shock caused by the infliction of a single wound such as that which shattered the upper jaw would almost certainly satisfy most suicides unless they were absolutely mad, and another injury, with great loss of blood, such as that caused by wound No. 2, would more than double the improbability of the wilful infliction of a third wound. 3. The position and direction of the wounds were greatly opposed to the theory of suicide. Wound No. 1 had entered the face from right to left, and though it might possibly have been fired by the left hand, was presumably, if suicidal, inflicted with the right. Wound No. 3 could only have been inflicted with the left hand, a condition of things which argued a change of hands during the infliction of the injuries. Then, it is a most unusual thing for a man naturally right-handed, as was the deceased, to use a weapon of any kind with the left hand, and it will be remembered that if the pistol was under his pillow, as stated by his wife, it lay ready to his right hand. Again, the heart wound (No. 3) was in such a situation and direction as to make it extremely awkward and difficult for it to be self-inflicted under any circumstances. A man about to kill himself does not hold the weapon in such a position; for, if anyone will try holding a pistol against his side at the spot I have already indicated, pointing forwards and downwards, he will find his hand is rendered so powerless by the constrained attitude that he will have difficulty in pulling the trigger at all. But if, in addition, the previous shot had wounded the subclavian artery of the *left* side, as was almost certainly the case, the improbability of the *left* hand being used to fire the pistol is greatly increased. Every surgeon knows the numb and powerless feeling that follows on a sudden stoppage of blood to a limb. In allowing, therefore, the possibility of the self-infliction of all three of the above wounds, I felt that I had given the prisoner the benefit of whatever doubt existed, but could not conscientiously say that such infliction was at all probable. 4. The condition of the clothing around wounds No. 2 and 3 was adverse to the theory of suicide. Putting aside the possibility of holding the pistol at a distance whilst inflicting the heart wound, it is a well-known fact that suicides almost invariably hold the weapon in close contact with the body. If a man wishes to kill himself he does not hold the weapon at a distance of a foot; yet this was the most probable distance at which the weapon had been fired. 5. A fifth bullet which had been fired had missed the deceased, and was subsequently picked up in the bedroom. It is an extremely unusual thing for a man to completely miss himself when trying to commit suicide with a revolver.

At the trial the question naturally arose, "Could the wound in the back have been inflicted by accident?" First, could it have been caused during a struggle between the deceased and his wife for possession of the weapon? The evident reply to this was that it could not be so inflicted unless the wife herself had possession of the pistol (I have repeatedly insisted on the impossibility of its infliction so long as the weapon was in either hand of the deceased); and granted that she had possession of it, there was nothing in the character of the wound itself to give information as to whether the finger that pulled the trigger had pulled it accidentally or otherwise; it did not appear to me to be a question for a medical witness at all. Nevertheless, it is evident that the improbability of such a wound being accidental is very great, considering what must have been the position of the pistol. And it must be remembered that in none of her statements did the prisoner say that there had been a struggle, or that she had ever obtained possession of the weapon, or that a shot had been fired whilst she tried to stop her husband from killing himself. The next suggestion of the learned counsel for the prisoner was that after the deceased had fired the three wounds on the front of the body and face he dropped the pistol, and then falling backwards on to it, the cartridge exploded and the wound in the shoulder was inflicted. I declined to say that such an accident was absolutely impossible, but it was most improbable, for the deceased was found *lying on his face*, not on his back. And then in order to inflict such a wound it was evident that he must fall on the upright muzzle of the pistol balanced with its butt against the ground, for as the weapon lay flat on the floor the wound in question could not possibly be inflicted. Then there was another and almost insuperable objection to the possibility of such an accident, which, however, I omitted to mention in the witness-box. The revolver was not a "self-cocking" one; it had not a "rebounding lock." If, therefore, it had been dropped after the infliction of the heart wound, without being recocked, it could not explode, for, until recocked, or until the trigger was pulled, the empty cartridge case of the bullet last fired alone lay in contact with the barrel. In order to bring up a fresh cartridge it was necessary to "revolve" the cylinder containing it by cocking or pulling the trigger. Was it likely that the deceased, after inflicting three serious wounds—one at least fatal—would recock the pistol, drop it, and then fall so as to cause it to explode and inflict the wound in question? Most unlikely, even if not impossible, it seemed to me, especially if it be considered that had he wanted to fire another shot he could have done so by pulling the trigger without recocking. Lastly, the condition of the clothing over the back wound negatived this supposition; for I have already stated that it did not seem probable that the weapon had been fired whilst pressed close against the back, as would have been the case if the deceased had fallen on the muzzle of the pistol. Thus no sufficiently plausible explanation could be found in support of the accidental infliction of wound No. 4.

I have now detailed in full the whole of the medico-legal facts bearing upon the case, and have endeavoured to place before the profession the evidence, as far as Mr. Parrott and myself are concerned, upon which the prisoner was convicted of murder. I have no intention of dealing with any of the other evidence adduced at the trial. For my own part, I may say that a very anxious and lengthy consideration of the circumstances of the case in all its bearings fully convinced me that it was one of homicide, and I found myself quite unable to reconcile the facts with the theory of suicide. Whether or no the medical evidence, taken in conjunction with the other circumstances of the case, was sufficient to justify a verdict of "Guilty" is not for me to settle, but that verdict was one in which the presiding judge entirely concurred.

The case has excited much public interest, and many persons have expressed their doubts as to the correctness of the conviction. I think these doubts are readily explained. The position and direction of the wounds demonstrated by Mr. Parrott and myself on a plaster bust to the judge and jury, the explanation of medical points whose importance it

was not easy to grasp, was not the kind of evidence likely to be faithfully and correctly reproduced by the newspaper reporters. The consequence was that the most absurd statements were put into the mouths of the medical witnesses, and in no paper that I read did my own evidence occupy more than a dozen lines; indeed, one journal which devoted two entire leaders to the case, and especially to the medical evidence, did not report a single word uttered by myself in the witness-box. Now, personally, this is a matter of entire indifference, except that it has exposed me to the attacks of innumerable correspondents, and before I leave the matter I would merely say that had I been one of the general public, I should certainly have felt some of the dissatisfaction which found vent in the press, though I think also I should have had sufficient confidence in "trial by jury" to rest assured that there was more evidence than appeared on the surface.

But while I am not surprised at the feeling expressed by the reading public, I confess I had felt pretty confident that members of my own profession would withhold their condemnation, if not their opinion, until they were in possession of the real facts of the case, and I am only sorry to find I have been mistaken. There has apparently been a prevailing impression, gathered whence I know not, that in order to prove the case one of suicide it is necessary to presuppose the ability of the deceased to fire other shots after the wound in the heart. If anyone will refer to what I have written, he will find that there is no necessity for anything of the kind. Well, with this idea apparently fixed in their minds, numerous correspondents have detailed at length, as singular and extraordinary, cases in which a man has lived for a variable time, and possessed the power to perform various actions after a heart wound. They also kindly conclude that the medical witnesses did not realise the possibility of such an occurrence. Now, the very fact that these numerous writers each considered his own case a singular one showed very plainly that the ignorance was on their side, for every surgeon is, or should be, aware that the cases of heart wounds that have not proved immediately fatal may be counted by dozens, not by units, and, further, that complete recovery may ensue after such injuries. Lastly, the same class of correspondents, most, I am glad to say, not in the medical profession, speak of all heart wounds in general, and assume that because one may not be immediately fatal therefore all the others may run a similar course,--a deduction which is simply absurd. But it is not a material point in the present case whether the heart wound was immediately fatal or no, and there appears to me to be no reason for raising a discussion on what is simply a side question.

In conclusion, I may say that I should be very glad if this report induces those who have had greater experience than myself in medico-legal work to express their opinions on the result of the trial and on the many points for consideration presented by the medico-legal aspect of the case. For my own part, I may say that I shall be happy to furnish any other information in my power.

*** Although Mr. Bowlby declines to implicate Mr. Parrott by any of the statements contained in his elaborate account of the medical bearings of the Uxbridge tragedy, one cannot fail to recognise in the report a general and inclusive defence of the position taken by these gentlemen at the recent trial of Elizabeth Gibbons. It is neither our wish nor intention to go behind the facts given by Mr. Bowlby with such minuteness of detail, we had almost said with reiteration, but to some of his deductions and "presumptions" we now, as heretofore, respectfully but decidedly take exception. On the question of motive there seems a complete absence of anything that could reasonably be considered adequate to the act, unless it be the impulse of a disordered brain, no longer under the governance of the will; in which case, be the result suicide or homicide, the person who committed the crime could not be held responsible for it. Previous to the fatal night there does not appear to have been noticed in either Mr. or Mrs. Gibbons such moral or mental obliquity as to furnish reasonable suspicion that either of them contemplated the arbitrament of the revolver. It then becomes necessary to look further afield for some indication of the direction in which the probabilities lie, and on this head it transpires that the deceased belonged to a family in whom at least one individual is said to have evinced suicidal tendencies. We are willing, if Mr. Bowlby desires, to admit that "the injury to the head which Mr. Gibbons had suffered some five years previously could not be proved to stand in causal relationship to a sudden outbreak of insanity," although the history of medicine contains not a few instances in support of the assumption that it might. On a review of the antecedents of the deceased and the convict we fail to see that the latter was the more likely of the two to be the victim of an impulse or desire to destroy life. Thus much for motive. Now as to the alleged sixfold variation in the statements of Mrs. Gibbons, with regard to the nature and sequence of events that happened between the firing of the first shot and her impassioned appeal to her neighbours for help. Can it be contended for one moment that discrepancies ought not to arise? It would be an interesting psychological study to contemplate the varying moods of a mind distraught with grief for an irrevocable deed of blood, harassed by fears for the future of life, and tossed in the eddy of perpetual unrest. Is it to be wondered at, then, that the knowledge of what took place in those eventful moments should be confused in the disturbance of mental equilibrium, consequent on the experience of such a disaster? And yet Mr. Bowlby sees reason for drawing conclusions unfavourable to Mrs. Gibbons on account of her verbal inconsistencies; at the same time that he seeks in her silence as to the occurrence of a struggle further signs of her guilt. It is possible to weaken an argument by proving too much. We do not say that the story and demeanour of an accused person on different occasions are valueless when estimating the likelihood of innocence or crime; but we unhesitatingly assert that the system under which such a person is interrogated and otherwise examined in this country is a burlesque on common sense and a travesty of justice. Concerning the bullet wounds, Mr. Bowlby says that Nos. 1, 2, and 3 were possibly suicidal, and No. 4 was possibly accidental, though it could not have been self-inflicted. We may at once say that we accept this interpretation as correct. The fact of the fifth shot missing the body of the deceased goes for little, since that can easily be accounted for by its being diverted from an intended course during a struggle, or fired aimlessly by the victim already in the throes of death. The grounds for Mr. Bowlby's belief that the subclavian artery was wounded before the heart consist mainly of the fact that a quantity of blood was pumped into the tissue surrounding the track of the third bullet. There is some cogency in this reasoning. At the same time it must be borne in mind that the heart acted with vigour for several strokes after the perforation of the left ventricle, for we learn the anterior mediastinum was filled, and the chest "swamped with blood." We doubt if the hæmorrhage from the subclavian artery would be sufficiently sudden and profuse to prevent, through numbness of the hand, a further shot being fired. The all but certainty that the barrels were discharged in rapid succession must not be lost sight of when estimating the probabilities as to the order of events, and the question of homicide or suicide. It is beyond cavil that a series of fatal wounds may be self-inflicted, even though weapons have to be changed from one hand to the other, for the immediate shock of the injury is inversely proportionate to the mental excitement or determination, as witness the records of military surgery. The experiments devised by Mr. Bowlby for the purpose of forming an opinion of the distance at which the shots were fired were well directed, but, to our minds, the disturbing elements were too great to warrant more than an approximate estimate. To arrive at anything definite, a much more extended and varied series of operations would be necessary. Mr. Bowlby substantially repeats that we have fallen into

the error "that in order to prove the case one of suicide, it is necessary to presuppose the ability of the deceased to fire other shots after the heart was wounded." Our answer to the indictment is to be found in THE LANCET of Jan. 3rd, p. 40. In conclusion, we may say generally that we still think there is a reasonable doubt whether the act whereby Mr. Gibbons lost his life was one of deliberate murder, impulsive homicide, justifiable homicide, or suicide. The great difficulties encountered in the investigation amply justified the public and the profession in opposing the doctrine of infallibility of the medical witnesses.—ED. L.

THE OUTBREAK OF CHOLERA AT YPORT.

THE precise details of the outbreak of cholera at Yport in October and November last are of especial interest, because the cases which took place there were the nearest ones to this country of those which occurred during the widely spread epidemic of 1884. Several different versions have been given as to the cause of the outbreak, and hence Dr. Gibert of Havre, who was officially appointed to investigate the outbreak and to take measures to prevent its spread, has now placed a complete history of the circumstances on record. On the 7th of September the *Louise-Marie* entered the port of Cette, having had no cases of sickness on board during the voyage from Newfoundland. The crew, on landing, committed excesses and contracted cholera, two of the cases terminating fatally in Cette. Although seven others had suffered from specific cholera, the captain allowed the crew to leave and to traverse France by rail without taking any precautionary measures whatever. One, being attacked with cholera during the journey, was taken out of the train at Tarascon, where he died, but his baggage went on. The remainder reached Fécamp, where their clothing and effects would have been submitted to an efficient disinfection by sulphur fumes had it not been that the Sister of Mercy in charge of the stove prepared some useless compound instead of using the unmixed sulphur. Two of the crew arrived at Fécamp on Sept. 28th. One, named Bazile, had suffered from an attack of cholera at Cette, and next day he, with the assistance of a sister-in-law and brother, wrung out his clothes &c. in water, the dirty liquid being allowed to run away down the street for a distance of fifty metres. On the 4th of October the sister-in-law, named Candelier, though suffering from diarrhœa, washed the same articles, and on returning from this task was seized with marked symptoms of cholera and died in a few hours. On the 8th of October another woman, Lemonnier, was also seized, and died rapidly. Seven persons were attacked and died between Oct. 5th and 22nd, and it was only at this date that the circumstances were made public, and that Dr. Gibert received instructions to visit Yport. Dr. Gibert's description of Yport confirms all that has been said of this dirty little place, with its narrow streets and lanes, its dwellings with mud floors, rather resembling caves than houses, and its general state of sanitary neglect. Every effort was at once made to prevent extension of the disease, by shutting up and disinfecting infected premises, burning bedding and clothes, isolating the sick, and adopting measures of cleansing. One woman who had nursed a fatal case at Yport conveyed the disease to Mont Perthus, near Fécamp, and some five kilometres from Yport, but complete isolation of the case prevented any further spread. In all there were forty-two cases, of whom eighteen died and twenty-four recovered.

Dr. Gibert is anxious throughout his description to show that the disease was neither aerially communicated to Yport nor due to spontaneous origin, and he arrives at the conclusion that the infected articles brought by the sailor Bazile were the immediate cause of the outbreak, the effluent water resulting from the process of washing them having in the main communicated the disease down the street. Yport appears to contain every element for the propagation of an infection such as cholera when once brought in; and it says much for the organisation established that the spread was a comparatively limited one. Water appears to have had nothing to do with the propagation of the disease, but this was so only because no one in Yport ever drinks water.

One other point of interest is adverted to. It is evident that the outbreaks, both in Toulon and Paris, have by certain persons in those cities been regarded as of a local character or as due to aerial contamination. Dr. Gibert, however, points out that in such populous places it is impossible to exclude with certainty all sources of importation, and that it is rather in small villages, like Yport, that undeniable evidence as to the method of the propagation of such a disease as cholera is likely to be met with. Pointing, then, to the connexion of the Yport outbreak with infected clothing, he calls attention to the circumstance that the baggage of the man whose journey was arrested by his fatal attack at Tarascon was allowed to remain amongst the other luggage in the train, &c., and ultimately found its way to the Lyons terminus in Paris. Was the baggage of this cholera infected man the means of conveying the disease to the capital? he asks. All such sources of infection must certainly be excluded before it can be admitted that air, after traversing nearly the whole of France without producing any mischievous results, could have communicated infection to Paris.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

A SPECIAL general meeting of the Fellows will take place on the 10th instant, in order to consider the proposed alterations in the Supplemental Charter and Bye-laws of the College. The proposed amendments refer to the casting vote of the chairman of a meeting in case of an equality of votes, to the granting of diplomas to women, and the mode of electing examiners. In connexion with the latter, the Council has considered the propriety of cancelling the words of Clause 11 of the Charter, which prohibit professors and lecturers from being examiners. Upon the recommendation of the Education Committee it has been resolved to remove the prohibitory words, and, in order to provide for a more frequent change in the *personnel* of the Court of Examiners, and to obviate any danger of a preponderating influence of any school being established in the Court, has adopted the following Bye-law in substitution for those now in force, as to election and tenure of office of examiners:—

"Examiners shall be elected for one year, either as Surgical, Anatomical, or Materia Medica and Chemistry Examiners. On the first Tuesday in May the Council shall elect examiners to examine candidates for Fellowship and Letters Testimonial; also examiners to examine candidates for the diploma in Midwifery; and examiners to examine candidates in general education. No person who is engaged in private teaching shall be eligible as examiner, and if any examiner shall engage in such teaching it shall render his election null and void. No examiner shall hold office for more than three consecutive years, nor be eligible for re-election until after the lapse of one year."

The Council has also adopted the following resolution:—"Not more than two teachers connected with any one school or hospital shall be eligible to obtain seats on the Board of Examiners."

MAHOMED MEMORIAL FUND.

THE following additional subscriptions have been either received or promised:—

	£	s.	d.
Anonymous	5	0	0
Dr. Arminson	1	1	0
Dr. Birt	1	1	0
Dr. Bowles	5	5	0
Dr. Thurston Bassett	1	1	0
Dr. Brabazon	1	1	0
Dr. T. Bridgwater	10	10	0
Edward Cock, Esq.	5	5	0
A. E. Cumberbatch, Esq.	5	5	0
E. S. Dashwood, Esq.	1	1	0
Mrs. De Vaynes	2	0	0
Miss De Vaynes	2	0	0
A. D. E.	1	1	0
Charles Fagge, Esq.	1	1	0
J. A. Fraser, Esq.	2	2	0
Sir Thomas Gabriel, Bart.	5	0	0
R. J. Godlee, Esq.	5	0	0
W. D. Husband, Esq.	10	10	0
Dr. Alfred Kershaw	1	1	0
W. A. Lane, Esq.	2	2	0
L. S. A.	1	1	0
Dr. Marcet	3	3	0
Dr. G. Oliver	3	3	0
E. H. P.	1	1	0
John Poland, Esq.	2	2	0
"A Painter"	2	0	0
James Purdey, Esq.	1	1	0
— Probyn, Esq.	5	5	0
Mrs. Powell	1	1	0
Dr. F. T. Roberts	3	3	0
Charles J. Stewart, Esq.	1	1	0
Mrs. Sedgwick	3	0	0
Lumley Smith, Esq.	5	0	0
James Startin, Esq.	1	1	0
G. W. Sibley, Esq.	5	5	0
H. T. Sells, Esq.	1	1	0
Dr. Frederick Taylor	15	15	0
J. Knowsley Thornton, Esq.	10	10	0
W. Travers, Esq.	2	2	0
James Wilson, M.D.	1	1	0
Percy Warner, Esq.	2	2	0

ARTHUR E. DURHAM, Treasurer.
JAMES F. GOODHART, W. H. A. JACOBSON, } Secretaries.

[1] Accidentally omitted from previous list.

Public Health and Poor Law.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Taunton.—The special report on the Taunton sanitary hospital goes to show that this institution continues year by year to gain the appreciation of the public, and that there is not merely a great increase in the number of patients admitted, but that there has been a considerable increase in the number of paying patients. During the previous three years the average number of admissions was 53; in the past year it was 127; the diseases including 46 cases of scarlet fever, 71 of diphtheria, and 9 of enteric fever. Under Dr. Alford's supervision this hospital, which has been provided by the urban and rural authorities jointly, has done a vast amount of good in preventing the spread of infection, and the cost of its maintenance has unquestionably prevented other, if not greater, expenditure.

West Sussex.—The report for the combination of sanitary districts for which Dr. Kelly acts as medical officer of health is necessarily a bulky one. The area covers about 524 square miles, and contains a population not far short of 100,000. The general death-rate in 1883 was 14·8 per 1000, Horsham standing at one extreme with a rate of 12·7, and Petworth at the other with 18·0. The infantile death-rate is small, the rate for children under one year amounting to only 88 per 1000 births, as opposed to a corresponding rate of 137 for England and Wales generally. The zymotic rate is also low, standing as it does at 1·4 per 1000 living. An interesting account is given of an outbreak of small-pox in the Midhurst Union and of the measures of prevention which were adopted. There were originally two centres of infection, the disease having been contracted in connexion with rag-picking. Failing adequate hospital provision, Dr. Kelly in each case took one of the infected cottages and used it as an isolation hospital, vaccination and temporary isolation being enjoined on those who were hitherto not infected. Of those who were revaccinated none contracted the disease although some assisted in the care of the sick. But all were not vaccinated, and since some extension of the disease occurred, a tent hospital encampment was rapidly organised on Stedham Common, the result being that by the aid of these measures the outbreak was stamped out. The details given under the headings of the various districts show that a large amount of useful sanitary work is in progress, and for the information of skilled observers very complete meteorological and other observations are set out in detail.

Fulham.—The Fulham district has an estimated population of 138,000 inhabitants; the birth and death-rates during 1883 were respectively 36·3 and 18·9 per 1000 living. No small-pox occurred in the district during the year. Scarlet fever caused 43 deaths, and 56 cases were removed to the Western District Hospital. It is estimated that 860 cases occurred, but only 172 were known to the sanitary authority, and in those cases only were they able to carry out measures of disinfection. During 1882 there was no typhus in the district, but in 1883 36 cases came under notice, most of them being connected with the outbreak which occurred at Nazareth House, and which we commented on at the time. Amongst the points needing further sanitary action are—the removal of piggeries, some 500 of which are in places unfit for such purposes; the completion of new regulations as to houses let in lodgings; and the provision of a suitable mortuary.

Malton Rural District.—Dr. Young reports the occurrence of a diarrhœal outbreak amongst the consumers of a certain water-supply which was derived from a well to which soakage from manure was found to have access. In connexion with certain occurrences of diphtheria, typhoid fever, &c., improvements have been effected as to privies, the disconnexion of sink-pipes, &c., and impure water-supplies have been stopped. The annual death-rate for 1883 was 14·8 per 1000.

Willesden Urban District.—This increasing suburban district had in 1883 the lowest death-rate since its formation—namely, 15·4 per 1000 living. Diarrhœa caused some special mortality in the autumn, and Mr. Branthwaite looks to regulations as to houses sub-let in lodgings for the removal of some of the more obvious conditions which led to the prevalence. Cases of small-pox, scarlet fever, and enteric fever were isolated in hospital, but the sanitary authority are again pressed to secure a site on which a suitable hospital, adapted to the circumstances of the district, may be erected. The cow-sheds, slaughter-houses, bake-houses, and premises used for the manufacture of food have all received special attention during the systematic inquiries which have been made. A mortuary for Kilburn is a pressing want; and a scheme of drainage, for which a loan has been secured, remains to be carried out.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 6387 births and 4195 deaths were registered during the week ending the 3rd inst. Both these numbers considerably exceeded the average numbers during the year, the excess being in great measure due to arrears of registration from the previous week. The annual death-rate in these towns last week was equal to 25·0 per 1000, against rates decreasing from 24·4 to 20·2 in the preceding four weeks. During the thirteen weeks ending the 27th ult. the death-rate in these towns averaged 21·4 per 1000, against 23·0 and 21·2 in the corresponding periods of 1882 and 1883. The lowest rates in these towns last week were 20·0 in Plymouth and Huddersfield, 21·2 in Portsmouth, and 21·4 in Derby. The rates in the other towns ranged upwards to 29·3 in Newcastle-upon-Tyne, 32·5 in Preston, 32·9 in Norwich, and 34·6 in Cardiff. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 308 and 311 in the preceding two weeks, rose again to 375 last week; these included 95 from whooping-cough, 78 from measles, 65 from scarlet fever, 36 from diphtheria, 35 from "fever" (principally enteric), 33 from small-pox, and 33 from diarrhœa. These diseases caused the lowest death-rates last week in Portsmouth and Brighton, and the highest in Leicester, Newcastle-upon-Tyne, and Cardiff. Whooping-cough caused the greatest mortality in Birmingham and Preston; measles in Leicester and Cardiff; scarlet fever in Sunderland, Halifax, and Newcastle-upon-Tyne; and "fever" in Sheffield and Norwich. The 36 deaths from diphtheria in the twenty-eight towns included 20 in London and 2 in Liverpool. Small-pox caused 58 deaths in London and its outer ring of suburban districts, and not one in any of the twenty-seven large provincial towns. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had been 1026 and 1079 on the preceding two Saturdays, declined to 1013 at the end of last week; the admissions in the week were 171, against 244 and 161 in the previous two weeks. The Highgate Small-pox Hospital contained 92 patients on Saturday last, 15 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had declined steadily in the preceding five weeks from 511 to 370, rose again last week to 537, but were 39 below the corrected weekly average. The causes of 120, or 2·9 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Portsmouth, Norwich, Plymouth, Derby, and Huddersfield. The largest proportions of uncertified deaths were registered in Halifax, Hull, Sunderland, and Salford.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 26·9 and 29·6 per 1000 in the preceding two weeks, further rose to 30·7 in the week ending the 3rd instant, and exceeded by 5·7 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 18·8 and 22·7 in Edinburgh and Leith, to 36·6 in Paisley and 39·0 in Glasgow. The 741 deaths in the eight towns showed a further increase of 50 upon the numbers in the previous two weeks, and included 38 from measles, 27 from whooping-cough, 14 from scarlet fever, 14 from diphtheria, 10 from "fever" (typhus, enteric, or simple), 7 from diarrhœa, and not one from small-pox; in all, 110 deaths resulted from these principal zymotic diseases, corresponding with the number in the previous week. These 110 deaths were equal to an annual rate of 4·6 per 1000, which exceeded by 2·4 the mean rate from the same diseases in the twenty-eight English towns. The 38 fatal cases of measles showed a further

increase upon recent weekly numbers, and included 30 in Glasgow, 5 in Dundee, and 3 in Aberdeen. The deaths from whooping-cough, which had been 30, 25, and 26 in the previous three weeks, were 27 last week, of which 13 occurred in Glasgow and 4 in Leith. The 14 deaths referred both to scarlet fever and to diphtheria included 9 and 6 respectively in Glasgow. Of the 10 deaths from "fever," showing a decline from the numbers in the previous two weeks, 5 were returned in Glasgow, 3 in Edinburgh, and 2 in Aberdeen. The 7 deaths attributed to diarrhœal diseases were considerably below the average. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had steadily declined in the preceding four weeks from 231 to 174, rose again last week to 203, and exceeded by 95 the number returned from these diseases in the corresponding week of last year. The causes of 125, or 16·9 per cent., of the deaths registered in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 34·1 and 26·6 per 1000 in the preceding two weeks, rose to 38·5 in the week ending the 3rd inst. During the thirteen weeks ending the 27th ult. the death-rate in the city averaged 29·4 per 1000, the mean rate during the same period not exceeding 19·8 in London and 19·7 in Edinburgh. The 259 deaths in Dublin last week showed an increase of 81 upon the number in the previous week, owing in great measure to arrears of registration from the previous week; they included 11 which were referred to scarlet fever, 7 to "fever" (typhus, enteric, or simple), 3 to measles, 3 to diarrhœa, and not one either to small-pox, diphtheria, or whooping-cough. Thus 24 deaths resulted from these principal zymotic diseases, against 18 and 13 in the previous two weeks, and were equal to an annual rate of 3·6 per 1000; the rates from these diseases last week were 2·2 in London and 1·5 in Edinburgh. The fatal cases of scarlet fever and of "fever" in Dublin last week exceeded the numbers returned in any recent week; and those of measles and of diarrhœa also showed an increase. Seventeen inquest cases and 12 deaths from violence were registered within the city, and 81, or nearly a third of the deaths, were recorded in public institutions. The deaths both of infants and of elderly persons exceeded any recent weekly numbers. The causes of 38, or nearly 15 per cent., of the deaths registered during the week were not certified.

Correspondence.

"Audi alteram partem."

CHARCOT'S DISEASE.

To the Editor of THE LANCET.

SIR,—In your report of the few remarks which I made at the Clinical Society on the subject of Charcot's disease, you credit me with having said in answer to the President that "I agreed almost completely with Dr. Pye Smith that a new disease was impossible." I did not say so. On the contrary, I said that I did not regard a new disease as an impossibility, but that there was not sufficient evidence to warrant us in regarding this as one. A new disease is a thing whose existence I should be very chary of admitting; and little short of absolute demonstration would convince me of its existence. In the present instance there is not such demonstration; and I see no valid reason for making an exception in its favour. But to say that it is impossible for a new disease to occur is a forecast into the future which I equally see no valid reason for making. Twenty years ago none of us knew anything about tabes dorsalis. When Duchenne first described locomotor ataxy, physicians did not say "Oh! here is a new disease; such a malady never existed before." No, they only said, "Duchenne is quite right; these symptoms have entirely escaped our observation; the disease is quite different from ordinary paralysis; and it is clear that none of us observed this before." In so doing, physicians have set to surgeons an example which they might well follow.

The evidence in support of the view that Charcot's arthropathic limb is peculiar, and is essentially and causally connected with tabes dorsalis, seems to me overwhelming; but it would have been unreasonable to have expected surgeons (for naturally this condition of limb would come under the notice of the surgeon rather than the physician) to have recognised and described this peculiarity, and its essentially distinct nature, before physicians had recognised that special change in the posterior columnæ of the cord, and the resulting loss of coördinate movement, which, if Charcot's views are correct, is a necessary precursor of the local change in the limb. In other words, it was almost impossible that surgeons should have recognised the condition of limb which Charcot has described before physicians had recognised the form of paralysis which Duchenne described, and which is a necessary precursor to Charcot's disease. The fact that our museums contain no specimens of Charcot's arthropathic limb does not prove it to be a new disease, any more than the absence from the same shelves of specimens of tabes dorsalis proves that that disease did not exist before the days of Duchenne.

I am, Sir, your obedient servant,

Jan. 3rd, 1885. T. J. MACLAGAN, M.D.

TREATMENT OF INTESTINAL OBSTRUCTION.

To the Editor of THE LANCET.

SIR,—Mr. Banks has taken much unnecessary trouble in endeavouring to refute the charge implied in my letter, for, after all, his reply shows that he still looks upon Mr. Thomas as merely one of many authors who have laid down the so-called "rest, opium, and starvation" treatment in intestinal obstruction. His letter, however, has entirely acquitted him of having intentionally overlooked Mr. Thomas's claim to the exposition of these principles properly so-called, for it is quite clear that he has not read that gentleman's work, and further, that he is quite ignorant of what the Sydenham method of treatment, as laid down by him, really involves. Mr. Banks writes of the rest, opium, and starvation treatment as taught by Laycock, Christison, Miller, Brinton, Cameron, Waters, Treves, and Banks, as if they were the same as that taught by Sydenham, utterly ignoring the fact that it is the wide difference between them upon which Mr. Thomas has been the first and the only one to lay such stress.

The grand distinction between the form of treatment by modern practitioners and that of Sydenham, as revived by Thomas, is that while in the former the principles of rest, opium, and starvation are applied in name only, in the latter they are a reality; in the former they are only introductory to, or supplementary to, other antagonistic agencies, while in the latter they are insisted upon from beginning to end without qualification or modification. The authors quoted by Mr. Banks advocate plans of treatment entirely antagonistic to the Sydenham teaching. They do not believe in absolute rest. Mr. Banks himself, in support of Mr. Treves, advocates nutrient enemata. Sydenham, as quoted by Thomas, says: "A mere sugar-and-milk clyster may undo all that the paregoric has done." Mr. Banks, as a physiologist, surely knows that an enema, nutrient or otherwise, increases peristalsis not merely below, but above, the seat of obstruction, and unless he believes that increased peristalsis is consistent with rest, he is knowingly violating the very principle of rest—and why? Simply to avoid the fancied danger of starvation, for the fact that the Sydenham and Thomas method of feeding fairly maintains vitality is wonderfully borne out by Mr. Greves, who told us at the meeting of the Medical Society that the child actually gained in weight. If Mr. Banks had ever appreciated Sydenham's views of starvation, he would not have written what he has about the necessity of giving sustenance to prevent death from exhaustion. Sydenham clearly laid down that it was the pain and lesion itself which killed the patient, and not the want of food.

Enemata are not the only remedies which, though antagonistic to rest, are added to the Sydenham method in such a way as to defeat its objects. Belladonna is given with opium—its antidote. Calomel is given, and castor oil, and although I am much indebted to Mr. Banks for reminding me that the former is used as a remedy for irritability of the stomach, I fail to see what either that or the simple constipation to which he alludes has to do with the subject in hand. Even Mr. Treves, I repeat, nowhere alludes to the

Sydenham method of treatment, nor to the quality of the diet as an all-important element, permitting the safe use of opium which he advocates. If, as Mr. Banks says, Mr. Thomas did not claim originality, all I can say is that he has not claimed his due. I find on comparing their works that Sydenham taught that laudanum was essential, with control of diet; while Mr. Thomas teaches that the quality of the diet is all-important, and the sedative only supplementary.

Mr. Banks has stated his own views on the subject, and his faith in rest and opium is not too great to prevent him from saying that they "are mightily unsuccessful in really serious cases, however much they may do for those which would have got well under any treatment," which is tantamount to reducing the value of such treatment to a nonentity.

To sum the subject up, I contend that, until some authority has shown that before 1874 he has treated cases of obstruction according to the true Sydenham method *ab initio ad finem* without modification or addition, the credit of rejuvenating the true and original rest, opium, and starvation treatment is due to Mr. Thomas alone, and until the treatment he advocates has been faithfully tried by the profession it cannot be said to be the recognised treatment; and I challenge Mr. Banks, or anyone, to show the publication of any one case so treated from the time of the death of Sydenham to the first appearance of Mr. Thomas's work.

Let me say, in conclusion, that I am sorry Mr. Banks has taken such a personal view of the matter; I certainly never intended to hurt his feelings, although I fail to see with him that the fact of my being an old pupil of his should restrain me from entering a friendly protest on behalf of one whom, though not a fellow professor of Mr. Banks, I am proud to acknowledge as an old teacher.

Yours faithfully,

Liverpool, Jan. 5th, 1885. CHARLES E. STEELE.

To the Editor of THE LANCET.

SIR,—Mr. Banks correctly informed you that at the discussion on Intestinal Obstruction I laid no claim to the discovery of the physiological method of treating such ailments. True as this may be, I had come to my present opinion, and carried it out in practice, many years before I was aware that Sydenham had in a very great measure anticipated me. It was only when the present Professor of Surgery induced me to publish my views that I found that Sydenham had anticipated me, and he alone. Between Sydenham and myself a void exists, and there are no records to fill the gap. I am, Sir, yours faithfully,

Nelson-street, Liverpool, Jan. 3rd, 1885. H. O. THOMAS.

COCAINE AS A LOCAL ANÆSTHETIC.

To the Editor of THE LANCET.

SIR,—The following case may be interesting to some of your readers, as it illustrates the value of this new remedy. Having a fortnight since had occasion to divide the cervix uteri with Küchenmeister's scissors, in a woman with extremely sensitive vulva, and who refused to take an anæsthetic, I painted the entrance with a 10 per cent. solution of the hydrochlorate of cocaine five minutes before operating. It answered admirably, entirely removing the pain, and also completely relieved the spasm as much as if she were under chloroform, thus adding much to the ease of the operation.

I am, Sir, yours truly,

J. BRAXTON HICKS.

George-street, Hanover-square, W., January 2nd, 1885.

To the Editor of THE LANCET.

SIR,—A man aged eighty, with an epithelioma of the lower lip, which had been increasing rapidly for a year, consulted me as to what it was and what must be done. I immediately told him that it must be removed; but on stethoscopic examination I found he had extensive cardiac disease. Not thinking him a fit subject for chloroform, I wanted to operate without its administration, but he objected. I then thought of giving cocaine a trial; and having explained to him what I should do, he readily consented. Yesterday, December 29th, he came to my house. Having injected hypodermically three minims of a 4 per cent. solution of hydrochlorate of cocaine on each side of the epithelioma, I allowed six or seven minutes to elapse, when local anæsthesia was complete. With the assistance of my father I then operated, and during the time the man never flinched once. Afterwards on asking if he felt any pain, his answer was, "I hardly felt anything at all." He remained some little time, but we could not perceive any constitutional effects. On seeing him to-day he says he never felt better in his life, but about two hours after leaving my house yesterday he had pain for some time, which, however, passed away during the night. Had it not been for the solution of cocaine, this man would never have been operated on, and in a very short time he would have died. In cases of minor surgery when I have an opportunity of using the solution of cocaine I shall certainly do so; its simplicity and absence of risk over chloroform seem to me very great.—I am, Sir, yours faithfully,

LALANDE HAINS, L.R.C.P. & S. Ed.

Totnes, Dec. 30th, 1884.

To the Editor of THE LANCET.

SIR, Of the value of cocaine in operations on the eye, larynx, &c., there has been abundant evidence, but I have read little of its action upon the vaginal mucous tract, and of the help it gives in dealing with painful affections of that region, and therefore I think the case I am about to relate will prove of interest. A married lady has been under my care for some time suffering from chronic endometritis, with ulceration and erosion of the os uteri and a granular condition of the vaginal mucous membrane. Digital examination is simply agonising to her, and of late, in order to use the speculum for the purpose of cauterisation, &c., it has been necessary to put her under chloroform, as it was absolutely impossible to pass the speculum, the pain and vaginismus being so great. I determined to try the effect of cocaine in the form of suppository and in solution, prepared for me by Mr. Martindale. I passed a suppository containing one grain of the muriate of cocaine well up to the os; after five minutes I painted the vaginal orifice with a 4 per cent. solution of the same drug, and after another five minutes I proceeded to pass the speculum. The freedom with which I could do this was nothing short of marvellous, and what would previously have been unbearable was borne with comparative comfort. There was certainly a little pain felt, but even this I think at a future examination I shall obviate, (1) by waiting rather longer than ten minutes for the suppository to melt, as I found on introducing the speculum some of the suppository still unmelted, and (2) by using two suppositories instead of one, the tract of mucous membrane being so large. I think it very necessary to paint the vaginal orifice with the solution, in addition to using the suppository, as the vaginismus and the consequent opposition to the entrance of the speculum into the vagina are thereby done away with.—I remain, yours very truly,

Penryn, Cornwall, Jan. 8th, 1885. JAMES BLAMEY.

THE PROPOSED NEW TEACHING UNIVERSITY FOR LONDON.

To the Editor of THE LANCET.

SIR,—I have read with much interest and no little anxiety all that has been written in THE LANCET with reference to the establishment of a teaching university in London. Sympathy with the object proposed, and desire for the success of the undertaking, are, I doubt not, common to all the members of the medical profession; and with regard to the faculties of arts and science, I have had the assurance from many quarters that there is a deep and widespread feeling that the regulations of the existing university are by no means adequate to the growing educational activity of the country. If I rightly understand the matter, the object, as far as medical degrees are concerned, is to compete with the vigorous and flourishing universities of Scotland. Now, in order to understand clearly the difficulties in the way of accomplishing this, and the dangers to be avoided, it would be well to inquire into the causes which have led to the large afflux of medical students to the northern universities, and more especially to that of Edinburgh. As I am somewhat intimately acquainted with the regulations of the universities both of London and of Edinburgh, and as the directions published in the

calendars give a very imperfect idea of the working of these regulations, I propose to point out one or two differences which have, I think, conduced to the result referred to above.

First and foremost, there is the matriculation examination at the London University, which embraces a wide variety of subjects, and which is conducted on the all or none principle with the most charming impartiality. I have known candidates present themselves three or four times for this examination, and ultimately, while passing in those subjects in which they had failed before, fail in one or two of those in which they had previously satisfied the examiners; and the same has happened, even to a greater extent, in the science and arts departments. Now, at Edinburgh the medical preliminary examination can be taken one subject at a time, if the candidate so prefers; and provided he has passed in the subjects required for registration he can proceed to attend medical classes and pass at any time during his medical curriculum in those subjects required by the university over and above what are necessary for registration, it being always understood, of course, that he is not to be admitted to any professional examination until these additional subjects have been mastered. There is no doubt that many do pass in all the subjects at once, but a very large number do not, and the latter not unfrequently surpass the former in the ease with which they grasp and assimilate the purely professional parts of their course. The two kinds of study require mental endowments of two different kinds, and it not unfrequently happens that these are not combined in the same individual. A young friend of mine, who found the greatest difficulty in mastering the elements of mechanics, and who was nearly giving up the attempt in despair, shortly afterwards proved himself a sound anatomist and a brilliant dissector, and passed his professional examinations not only with credit, but also with distinction. While he had to do with abstractions relating to nothing in particular, his mind was shrouded in a mist which nothing could dispel; but when hand and eye and mind came to act together in the acquisition of knowledge, then he found that he was not quite the "duffer" which, in his dejection, he had often called himself.

At the preliminary scientific examination at the London University the papers in physics are the great stumbling-blocks to medical students, and most people who know anything of the requirements of medical study will admit that they are unnecessarily severe; and here also there is the same rigid adherence to the plan of plucking a candidate in all his subjects because he has proved himself weak in one. At Edinburgh the first professional examination embraces only botany, zoology, and chemistry; and at this examination, if a candidate, in the opinion of the examiners, has done well in two of these subjects, but has failed in the third, he is allowed to pass in the two and to take the third at another time. The same wise liberality prevails in dealing with the results of the second and final examinations. This liberality, so far from being favoured at the London University, is utterly discountenanced; and if the same want of adaptability to the requirements of different individuals is inaugurated in the proposed new university, it will, I fear, either prove a failure or simply lead to the growth of another Juggernaut like that in Burlington-gardens. This is why I have been watching the movement with anxiety as well as interest. In England we do not worship many things, but there is one thing to which we bow down with the blindest and most unreasoning adoration, and that one thing is the power of examinations to test the ability of candidates to do anything under the sun. I have passed eight examinations, and the only feeling I have now about them is one of deadly hatred, not to the examiners, but to the examinations themselves, feeling as I do that a good deal of the time spent in preparing for them might have been better employed. It is, perhaps, just that the University of London, accepting as it does candidates from all parts of the world, and relying on examination alone to test their fitness for degrees, should make its examinations stringent and inelastic. In a teaching university such stringency would be unnecessary, and the establishment of such a university in London on the liberal principles to which I have referred, although it might be long before it could successfully compete with the well-appointed laboratories and established reputation of the Edinburgh school, would in the end, I have no doubt, achieve a brilliant success. There would still be left to the existing University of London the high function of conferring its degrees on all who might be able to pass its examinations, without any restrictions as to the place where candidates acquired the knowledge that enabled them to do so.

I am, Sir, yours obediently,

WILLIAM J. NOTLEY, M.D., B.A. Lond.

Birmingham, Jan. 1885.

UNSOUND MEAT.

To the Editor of THE LANCET.

SIR,—As a contribution to the discussion in your journal between medical officers of health and veterinary surgeons, I beg to send you a newspaper with report of the case of prosecution for unsound meat, in which I was recently engaged. I may here mention a fact brought out in evidence which the report does not notice. The animal was carried to the shambles in a low cart. The presumption was that it was unable to walk, which was not denied. Notwithstanding the statements of the local veterinary surgeons that the lungs were not diseased, I cut out portions of lung with extensive deposit, which, along with portions of diseased liver, I forwarded to Dr. Littlejohn, medical officer of health, Edinburgh, and to Dr. Russell, medical officer of health, Glasgow. Dr. Littlejohn has since written me that both lungs and liver were extensively diseased, and that both he and his market inspectors had no hesitation in condemning the carcase as unfit for human food. Dr. Russell writes me that he likewise holds the same opinion. He had, however, submitted portions of diseased lung and liver to Mr. McCall, Principal, and Mr. Limont, Lecturer on Anatomy at the Veterinary College, Glasgow, for examination. After microscopic examination they pronounced the disease not tubercular, but lymphadenoma, and considered the flesh fit for human food, Mr. McCall remarking that if it had been tubercular he would have joined Dr. Russell in condemning it. The market inspectors and food inspector coinciding with the opinions of Messrs. McCall and Limont, the carcase, which had been forwarded to Glasgow, was allowed to be sold as wholesome food. In the newspaper report you will see that the local veterinary surgeons all considered the disease tubercular, but affirmed notwithstanding that the flesh was wholesome and fit for human food. I am glad to find such a high veterinary authority as Principal McCall holds a different opinion. Provost Doig, one of the judges, gave a most remarkable reason why he would not condemn the meat, which is not reported in the newspapers. He asserted that the local authority of the county were in the habit of killing animals suffering from pleuro-pneumonia, burying the lungs and other diseased parts, and forwarding the carcases to be sold for human food. If such is the case (and he ought to know as he acted as assessor for the county), the sooner such practices are put a stop to the better.

This case, you will allow, has ended very unsatisfactorily, and might well deter medical officers of health from prosecuting similar cases. For this reason I am anxious that some definite opinion should be formed on the points raised—namely: 1st. Can the flesh of tubercular animals be considered as wholesome food, and allowed to be sold as such in the public markets? 2nd. Can the flesh of an animal suffering from general lymphadenoma be considered fit for human food? With all due deference to the opinions of Principal McCall and Mr. Limont, I cannot convince myself that the flesh of an animal suffering from a constitutional disease, such as lymphadenosis or tuberculosis, can be considered fit for human food, and consumed without danger to the health of persons consuming it. Trusting this communication may be the means of eliciting the opinions of medical men and veterinary surgeons on the questions raised,

I remain, Sir, yours sincerely,

WILLIAM F. MURRAY, M.D., &c.,
Medical Officer of Health to the Town of Forfar.

Forfar, Jan. 4th, 1885.

*** We have no hesitation in saying that the carcase of an animal which had suffered from tuberculosis was unfit for human food, because (1) there is little doubt that the malady comes under the class of specific diseases having for their essential pathology the development of micro-organisms—organisms which during their life processes generate poisons, not improbably of the nature of cadaveric

alkaloids; and (2) animal food-stuffs undergo great deterioration during the progress of the inflammatory state. We cannot speak so confidently with regard to lymphadenosis, as the effect of the growth on the metabolism of the tissues generally is not well understood. At the same time it is better to err on the right side, and in this instance we hold that it would be wise to condemn the meat, considering it is taken from an animal the subject of a general constitutional malady. It seems to us not unlikely that a greater amount of harm is done to public health by the ingestion of diseased meat than either the public or the profession have any idea of.—ED. L.

THE CORONERS' WITNESSES ACT.

To the Editor of THE LANCET.

SIR,—The fact that the profession owes to the late Thomas Wakley, Esq., M.P., the initiation and successful enactment of the Coroners' Witnesses Act induces me to forward you a decision which I have obtained as to the interpretation of the fifth section of the said Act. It has doubtless not escaped your notice that some coroners have laid down the rule that the infirmaries established under the Metropolitan Poor Act, 1867, come under the category of public institutions where, in virtue of the aforesaid fifth section, the medical officers are compelled to make post-mortems and attend to give evidence, under the warrant of the coroner, without fee or reward. I have always protested against this interpretation of the section, and I was confirmed in that view by a conversation I had some thirty years ago with the late Mr. Wakley, who not only gave me his opinion on the subject, but told me all the difficulties he had to encounter from country gentlemen, who thought that a huge expense would be incurred if the surgeons and physicians of our voluntary hospitals were paid fees for post-mortems and for giving evidence in coroners' courts. He further said that it was only because he dreaded that the Bill would be rejected that he assented to the amendment in the fifth section. I on several occasions gave evidence at inquests held by him at the Strand Union Workhouse, and was always paid the customary fees. The infirmary of the workhouse is a building established in connexion with the workhouse, and in no sense can it be regarded as a separate and distinct institution, and therefore prohibiting the payment of the fee in question. By reference to Lumley, the late legal adviser to the Local Government Board, and to a footnote in Glen's "Consolidated Orders," page 179, it will be seen that the central department holds the same opinion on the subject which I have always contended for.

I am, Sir, yours obediently,
JOSEPH ROGERS, Chairman of the Council,
Poor Law Medical Officers' Association.
Montague-place, W.C., Dec. 31st, 1884.

[COPY.]

14, South-square, Gray's-inn, 18th Dec. 1884.

I do not think the fifth section of the Medical Act (Witnesses) applies to workhouse infirmaries. A workhouse infirmary may be described as a building or place belonging to the workhouse, and used for the reception of sick paupers, therefore part and parcel of the workhouse. It would therefore not come under the term of a place attached to a hospital. It is decidedly not a public infirmary or a medical institution, and is not supported by endowments, and undoubtedly not by *voluntary* subscriptions. The question that remains, so if possible to bring it within the section, is, Is a workhouse a charitable institution? There is a case mentioned in Prideaux, vol. ii., 398, and reported in 28 L. J. ex., 326, which is a case where a conveyance was made to trustees to build a workhouse, the contention being that it was a charitable institution, and came within the statute of mortmain; but it was held not to be within that statute, as there were no charitable uses. From that you will gather that an infirmary to a workhouse cannot be, if the workhouse itself is not, a charitable institution; neither can it be a public one for the above reason. Whether it was or not contemplated to include institutions of this sort at the time of the passing of the Act is not of so much importance as whether the infirmary in question comes within the definition of one of those institutions in which the officers are precluded from receiving fees. I am of opinion that such do not come within the fifth section. I should have wished to refer to Lumley's work, but we have not it in the library. The medical officers should sue in the county court.

(Signed) ARTHUR BEETHAM, Barrister-at-Law.

BRITISH GYNÆCOLOGICAL SOCIETY.

To the Editor of THE LANCET.

SIR,—I see that in to-day's LANCET my name is included in the list of elected office-bearers of the British Gynæcological Society. As a matter of fact, I never heard of the existence, or of the proposed existence, of the Society till December 30th, three days after the election, so there is evidently some mistake. On the 30th I received a request from Dr. Heywood Smith to allow myself to be placed on the Council, and on January 2nd I wrote to him declining the offer, for reasons assigned. These reasons implied neither approval nor disapproval of the new Society, a question on which I have no adequate means of forming an opinion.

I am, Sir, yours truly,
King-street, Manchester, Jan. 3rd, 1885. J. THORBURN, M.D.

*** We have received a note from one of the secretaries of the Society correcting the mistake referred to above.—ED. L.

THE EXCISION OF A CEREBRAL TUMOUR.

To the Editor of THE LANCET.

SIR,—It is still, perhaps, open to argument whether the step taken by "F.R.S." in sending to *The Times* an account of the case of excision of a cerebral tumour was, as you have described it, an act displaying more zeal than discretion, or a masterly stroke of policy which might have gone far to settle the vivisection question, had not the patient unfortunately died. "F.R.S." was evidently misinformed by those who instigated his letter (for he has said that he had no personal knowledge of the case), and led to believe that the man's complete recovery was secured when there were still dangers ahead.

The position which you take up with regard to vivisection when you declare that it is morally justifiable and has rendered valuable assistance to medical and surgical science and practice, but requires to be carefully regulated, seems to me sound and unassailable; but it is to be borne in mind that the question is now not between unrestricted and safeguarded vivisection, but between safeguarded vivisection and the total suppression of experiments upon animals. A Society, powerfully patronised and with ample funds at its command, having for its avowed object the final prohibition of all such experiments, keeps up what Miss Cobbe proudly calls a "yearly growing agitation." A Bill with the same aim has been introduced during each of the last two sessions of Parliament, and has obtained considerable support; and those who know something of the temper and tendencies of the enormous additions that are about to be made to the constituencies tell us that they will be readily caught by the clap-trap of the zoophilists, and misled by a pseudo-humanitarian cry which deceives even large numbers of the cultivated classes, if we may judge by the vote at Oxford last year on the grant for Professor Burdon Sanderson's laboratory. An attitude of dignified abstention from controversy on the part of scientific men is all very well, but it is not thus that popular fights are won, and there is no disguising the fact that the question of vivisection will have to be fought out in the popular arena. Under such circumstances silence and contempt are apt to be mistaken for a confession of weakness or conscious guilt, and it would be pusillanimity in those who believe that regulated experiments on animals are essential to the further progress of the healing art to stand aloof from a discussion which, however disagreeable to them, involves such important issues. If men of science are not up and doing, there is a possibility that experiments on animals will be put a stop to within the next ten years by an Act which it might take a quarter of a century of labour and agitation to get repealed.

Are we to leave our future masters to the fallacious guidance of anti-vivisection demagogue and shrieking sisters? or are we to tell them the plain truth in a language "understanded of the people," and teach them how much their own interests are bound up with the progress of

medical and surgical science? That is a question which medical men and scientists ought seriously to consider.

I am, Sir, your obedient servant,

Jan. 6th, 1885. M.D.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

THE NEWCASTLE EYE INFIRMARY.

As noticed in a previous letter, the foundation stone of this new building was laid only on October 3rd last, but from the fact of the building having been considerably advanced in its basement when this ceremony took place, the hospital is now a long way towards completion, and may be opened in a few weeks. Though devoid of unnecessary luxury and ornamentation, the structure will meet all the necessities of the most advanced views of hospital construction as applied to the special purpose for which it is designed. The buildings will be in the Renaissance style, the materials being red bricks and Dennick stone, with green slates for the roofs. The principal front will be towards St. Mary's-place, an open quiet street, yet convenient to the great north thoroughfare of Northumberland-street. The main entrance will be placed in the centre, and will be distinguished by an open porch with moulded columns supporting arches, above which is designed a projecting oriel window, with balustrade parapet over it. On either side the windows with mullions and transoms will be enriched by stone pilasters with moulded caps and cornices, the whole surmounted by an ashlar parapet and pedimented dormers. The grouping of the whole will be effective and pleasing. The main entrance will divide the ground floor into two parts. That to the east will be utilised as the administrative department, comprising board-room, retiring-room, kitchen, scullery, boiler-house, and the usual offices. The out-patients' entrance and exit are separate and apart from the main entrance, and the apartments to which access is given are so arranged that the patients will take up their positions in the order in which they arrive, proceed to the consulting-room (with dark room attached), and then to the dispensary waiting-room, passing through in the same order and out of the exit door without retracing any part of the route on the upper floors. The wards for in-patients will be provided with nurses' rooms, having windows overlooking the wards. An operating-room and day-room will be also on the upper floor. From the day-room (overlooking the gardens of Laing-place) access is given to the ambulatory for exercise, the roofs over some single-storeyed buildings being used flat for the use of the patients. Nurses' sitting- and bed-rooms will occupy the remainder of the structure. The whole of the buildings will be warmed by the circulation of hot water on the low-pressure system. Ample means of ventilation will be provided on the most approved principles. Messrs. Newcombe and Knowles of this city are the architects, and they would appear to have provided for every necessity of a modern ophthalmic hospital in their arrangement of this building.

THE POLICE SURGEONCY OF NEWCASTLE.

Mr. S. Rayne, who has held for a great many years the office of police surgeon in this city, has resigned through ill health. The post is considered a good one, for, besides having to a certain amount of private practice, there is a salary of £300 per annum attached to it. The vacancy, as may be supposed, has given rise to a considerable amount of activity amongst our junior surgeons here. It has been hinted by some that the office would be divided into districts, and so open out three or more appointments. I believe, however, that the committee will keep the duties very much as they are, and that Mr. J. R. Baumgartner, who has been for a long time associated with Mr. Rayne in police work, will get the appointment.

Newcastle-on-Tyne, Jan. 7th.

SMALL-POX IN NEWINGTON.—At a meeting of the Newington vestry on Wednesday, Dr. Iliff, medical officer of health, reported the existence of a serious outbreak of small-pox in the parish.

EDINBURGH.

(From our own Correspondent.)

THE ROYAL INFIRMARY.

AT a general meeting of the supporters of this institution on the 5th inst. an annual report of a gratifying character was submitted by the managers. During the twelve months with which it dealt, 7624 in-patients (an increase of 795 on the number for the year before) and 2500 out-patients were treated. The ordinary income for the year was £26,796—an increase of £4160 on that for the previous year. The ordinary expenditure showed an increase of £1195. The managers stated that, notwithstanding the depression of trade, which had affected almost every branch of industry in the country, ordinary contributions from all sources showed an increase of £494. From the building fund account, which was also submitted, it appears that the whole cost of the new Royal Infirmary, including the site and furnishing, was £351,826 6*s.* 8*d.* A debt of £50,885 is still due to the bank. The managers are most anxious to have this cleared off, and appeal to the friends of the institution to aid them in accomplishing this end. In moving that the report be remitted to a committee of contributors for examination, the Lord Provost said the document furnished pleasing evidence that the infirmary possessed the confidence of the people of Edinburgh and of Scotland.

THE PRINCIPALSHIP OF EDINBURGH UNIVERSITY.

A meeting of the Curators of the University was held on the 6th inst. in reference to the filling up of the vacancy in the Principalship caused by the death of Sir Alexander Grant, Bart. There were present Lord Balfour of Burleigh, Lord Kinnear, Mr. T. G. Murray, Lord Provost Sir George Harrison, Sir Thomas Jamieson Boyd, Treasurer Boyd, and Mr. Duncan M'Laren. After nearly an hour's deliberation, the meeting was adjourned for a fortnight, without any decision being come to. It is stated that there were before the Curators the names of a number of gentlemen any one of whom would accept the office in the event of its being conferred on him; but that there is really no candidate in the field.

ROYAL COLLEGE OF SURGEONS.

A QUARTERLY MEETING of the Council of the Royal College of Surgeons was held on Thursday, Jan. 8th.

The report of the Committee of Management was agreed to, on Mr. Marshall's motion, as follows:—That members of English Universities who shall have passed in the subjects of the first and second examinations of the scheme, and have completed not less than four years' medical study, be admitted to the final examination of the Board on the payment of five guineas, and be entitled to receive the double licence on payment of twenty-five guineas.

Mr. Hutchinson was elected an Examiner on the Board for Dental Surgery. A petition was received from the Northern Provincial Schools of Medicine urging that arrangements be made for the conduct of written examinations under the scheme at the schools themselves, to avoid the necessity of students coming to town so frequently as would otherwise be needful. This was referred to the Committee of Management for decision.

A communication was received from the Association of Members of the College in reference to the mode of election of members of Council, and was referred to the Committee on Charters and Bye-laws.

A letter was received from the Association of Fellows, containing copies of two resolutions passed at their late meeting. The President was requested to invite the Association to send delegates to the Committee on Charters and Bye-laws to confer with them. The proposal that there should be a general meeting of Fellows and Members was agreed to.

Sir James Paget proposed that the Council take measures for placing in the College some appropriate memorial of the late Sir Erasmus Wilson. This was seconded by Mr. Marshall, and carried unanimously. A motion was passed that it be referred to the President and Vice-Presidents to

consider and report to the Council as to the best way to carry the resolution into effect. It was also agreed that from that date candidates who may have failed in one subject at the primary examination shall be allowed to present themselves in that subject, when eligible to do so, without having to pass again in the subject on which they have satisfied the examiners.

THE SERVICES.

Surgeon-Major W. A. Catherwood and twenty non-commissioned officers and rank and file of the Medical Staff Corps left Aldershot for Egypt on Saturday.

MILITIA MEDICAL STAFF. Surgeon-Major E. Thompson David Harrison, 4th Battalion, the South Wales Borderers, resigns his commission; also is permitted to retain his rank and to wear the prescribed uniform on his retirement.

YEOMANRY CAVALRY.—Royal 1st Devon: Surgeon Albert de Winter Baker resigns his commission.—Leicestershire: John Thomas Jacques, Gent., to be Surgeon.

ADMIRALTY.—The following appointments have been made:—Surgeon Charles William Sharples, to the *Falcon:* Fleet Surgeon George Maclean, M.A., M.B., to Haslar Hospital; Fleet Surgeon James Flanagan, to the *Northumberland;* Staff Surgeon Robert W. Williams, to the *Briton.*

RIFLE VOLUNTEER CORPS.—2nd Volunteer Battalion, the Queen's Own (Royal West Kent Regiment): Honorary Assistant-Surgeon Flaxman Spurrell resigns his commission.—2nd (South) Middlesex: Acting Surgeon Francis Alexander Stokes resigns his appointment.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 1st inst.:—

Ensor, Henry Collen, Guy's Hospital.
Hart-Smith, Franke Chamberlain, University College.
Michell, John Charles, London Hospital.
Thurston, Daniel, London Hospital.
Watt, Alex, Kinnear, Edinburgh University.
Wethered, Frank Joseph, London Hospital.

The following gentleman also on the same day passed the Primary Professional Examination:—

Richard Henry Botham, King's College.

MR. H. BAYS has contributed £1000 as a New-Year's gift to the Walsall Cottage Hospital.

THE HUNTERIAN ORATION.—The Biennial Oration in memory of John Hunter will be delivered in the theatre of the Royal College of Surgeons on Saturday, the 14th prox., by Mr. John Marshall, F.R.S.

CHARING-CROSS HOSPITAL MEDICAL SOCIETY.—There will be a meeting of the Society on Friday, the 16th inst., at 8 o'clock, when a paper will be read by Mr. Rorrie Fletcher on "Fracture of the Patella."

PRESENTATION.—On the 24th ult., Dr. Daniel Richmond, of Paisley, was presented with a portrait of himself and a cheque for £463, in commemoration of his having attained his jubilee as a medical practitioner.

LOCAL HEALTH OFFICERS in the State of New York are hereafter to be appointed only after a competitive examination, in accordance with the new Civil Service rules. The examination papers are to be prepared by an examining board of five physicians, to be designated by the Civil Service Commission, and the examinations are to be held in the presence of a county judge, who will transmit the papers to the Commission.—*New York Medical Journal.*

ROYAL INSTITUTION.—Professor H. N. Moseley will on Tuesday next, Jan. 13th, begin a course of five lectures on "Colonial Animals, their Structure and Life Histories." Professor Dewar will on Thursday, January 15th, begin a course of eleven lectures on "The New Chemistry"; and Dr. Waldstein will on Saturday, January 17th, begin a course of three lectures on "Greek Sculpture, from Pheidias to the Roman Era." The Friday evening meetings will begin on January 16th, when Professor Tyndall will give a discourse on "Living Contagia."

DR. W. H. O. SANKEY has been elected Membre Associé Étranger of the Medico-Psychological Society of Paris.

COLLEGIATE PRIZES.—The members of the Royal College of Surgeons, and indeed the profession generally, will be surprised to hear that no essays have been sent in for the Jacksonian Prize for such an interesting subject as the "Surgical Treatment of Uterine Tumours, both Innocent and Malignant." The subject for this prize for the present year is the "Diagnosis and Treatment of such Affections of the Kidney as are amenable to Direct Surgical Interference." The essays must be delivered on or before Thursday, the 31st December next.

THE EPIDEMIC AT KIDDERMINSTER.—The 4th inst., the first Sunday in the New Year, was observed as a day of special thanksgiving in the churches and chapels of Kidderminster for the abatement of the typhoid fever epidemic, which broke out in August and has not yet entirely disappeared. The mayor and corporation officially recognised the occasion as an exceptional one, and attended in state the services at the parish church. Collections were made for the relief of the convalescents, of whom several hundreds have been sent to convalescent homes.

A MEETING of the Watford Local Board was held recently to take into consideration the serious outbreak of diphtheria in the town. The medical officer pointed to the sewer gratings as the primary cause, and the surveyor stated that, though he was constantly flushing and using disinfectants to the open sewers, he could not abate the offensive smells arising from them. A majority of the board were in favour of closing the ventilators and erecting chimney shafts, but at the suggestion of the chairman the surveyor was instructed to bring up a report without delay.

METROPOLITAN DAIRYMEN'S BENEVOLENT INSTITUTION.—The tenth anniversary dinner in aid of the funds of this large and important charity was held on Thursday, Dec. 11th, at the Freemasons' Tavern, Great Queen-street. E. C. Tisdall, Esq., of Holland Park and Esher, one of the founders, was in the chair. He was supported by about 350 representative members and visitors. In his speech he mentioned the fact, most interesting to us, that "the men who have been fined in this institution of above 1000 members can be counted on the fingers of one hand." The stewards' returns showed a sum of £756 10*s.* 6*d.*

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

ARMSTRONG, JAMES, M.B.Ed., L.R.C.S.Ed., has been appointed a Hon. Medical Officer to the Liverpool Ladies' Charity and Lying-in Hospital.

BARNARD, ARTHUR J., M.R.C.S., L.R.C.P.Ed., has been appointed Junior House-Surgeon to the Darlington Hospital, vice Louis Robinson.

BOWHAY, ALBERT, L.R.C.P.Lond., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer and Public Vaccinator to the Beerferris District of the Tavistock Union, vice H. J. S. Liddell.

BRIGGS, HENRY, M.B., F.R.C.S.Eng., has been appointed Honorary Medical Officer to the Ladies' Charity and Lying-in Hospital, Liverpool.

BROATCH, GEORGE T., M.B., C.M., has been appointed Assistant Medical Officer to the East Riding Asylum, vice A. C. Suffern, M.D., resigned.

BROWNE, ARTHUR E. NEWBURY, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Third District of the Pewsey Union, vice Fulcher, resigned.

CLARKE, ERNEST, B.S.Lond., has been appointed Surgeon to the Miller Memorial Hospital.

CLEMOW, ARTHUR H. W., M.B., C.M.Ed., has been appointed Senior Resident Medical Officer to the Royal Free Hospital, Gray's-inn-road, vice Dr. Rabbeth, deceased.

CREED, THOMAS, M.D., has been appointed Medical Officer to the Miller Memorial Hospital.

CROCKER, J. HEDLEY, L.R.C.P.Lond., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Eccles and District Medical Association, Hampden-grove, Patricroft, near Manchester.

DUNN, H. PERCY, F.R.C.S., has been appointed Assistant Ophthalmic Surgeon to the West London Hospital.

FENNER, ROBERT, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the North Repps District of the Erpingham Union, vice Fluder, deceased.

HARTT, CHARLES H., L.R.C.S.I., L.K.Q.C.P.I., L.M., Medical Officer of Health for Greenwich, has been appointed Medical Officer to the Miller Memorial Hospital, Greenwich.

JOHNSON, THOS. RUSSELL, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the North-East District of the Patrington Union, vice Raines, deceased.

KING, FRANCIS J. F., M.B., B.Ch. Univ. Dub., has been appointed Resident Medical Officer to the Monkstown Hospital, co. Dublin.

MOORE, THOMAS, F.R.C.S., has been appointed Surgeon to the Miller Memorial Hospital.

MOTON, HENRY JAMES, L.D.S. R.C.S.E., has been appointed Dental Surgeon to the North Surrey District Schools, Anerley.

NASH, H. CHESTER, L.R.C.P.Lond., M.R.C.S., L.S.A.Lond. (late Resident Medical Officer to the Children's Hospital, Pendlebury, Manchester), has been appointed House-Surgeon to the Norfolk and Norwich Hospital, Norwich, vice D. D. Day, M.B., F.R.C.S., resigned.

POLAND, JOHN, F.R.C.S., has been appointed Surgeon to the Miller Memorial Hospital.

SHILLOW, FRANCIS McDONALD, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Silkstone District of the Penistone Union, vice McCoubrey.

THOMAS, WILLIAM, M.B., B.S., B.Sc.Lond., has been appointed House-Surgeon to the Clinical Hospital, Manchester.

WILLIS, WILLIAM, L.R.C.P.Ed., has been appointed Medical Officer to the Miller Memorial Hospital.

WORTHINGTON, THOMAS B., B.A., M.D. Trin. Coll. Dub., Senior Assistant Medical Officer at the Sussex County Asylum, Hayward's-heath, has been appointed Medical Superintendent to the Hants County Asylum, Knowle Fareham, vice Dr. Manley, resigned.

Births, Marriages, and Deaths.

BIRTHS.

BENHAM.—On the 6th inst., at Museum-street, Ipswich, the wife of Henry James Benham, M.D.Lond., of a daughter.

BURNHAM.—On the 27th November, at 157, Simcoe-street, Toronto, the wife of Dr. Herbert Burnham, of a daughter.

CHANT.—On the 1st inst., Mrs. Ormiston Chant, wife of Thos. Chant, M.R.C.S., of a daughter.

GRANGER.—On the 27th ult., at Nicholas-street, Chester, the wife of Farington Marsden Granger, M.R.C.S., of a son.

HUTCHESON.—On the 4th November, at Allahabad, the wife of Surgeon-Major G. Hutcheson, M.D., of a son.

PATERSON.—On the 1st inst., at Amatola, Great Western-road, Aberdeen, the wife of A. Gordon Paterson, M.B., C.M., of a daughter.

SAUL.—On the 5th inst., at Fenton-Cawthorne House, Lancaster, the wife of Dr. Wingate Saul, of a daughter.

STEPHEN.—On the 2nd inst., at Queen's-gate-terrace, S.W., the wife of Andrew Stephen, M.D., of a daughter.

MARRIAGES.

FERGUSON—BUTTERWORTH.—On the 19th November, at St. Paul's Church, Dunedin, H. Lindo Ferguson, M.A. Trin. Coll. Dub., F.R.C.S.I., third son of the late William Ferguson, of Dublin, to Mary Emmeline, eldest daughter of J. Leech Butterworth, Esq., of Dunedin, Otago, New Zealand.

HENDERSON—BULL.—On the 6th inst., at St. Michael's Church, Highgate, by the Rev. Edgar Smith, Vicar of All Saints, Highgate, assisted by the Rev. D. Trinder, Vicar of St. Michael's, Alexander Mair Henderson, M.D., son of George Henderson, of Whitebrook, Keith, N.B., to Florence, eldest daughter of Henry Bull, of Ravensmount, Hornsey-lane, N.

TREVOR—WILLIAMS.—On the 31st ult., at St. Augustine's, Kilburn, Edward Tull Trevor, M.R.C.S., L.R.C.P.Lond., of Great Yarmouth, to Martha Margaret, only daughter of John Williams, late of Upper Westbourne-terrace.

WALLER—PALMER.—On the 6th inst., at the Friends' Meeting House, Reading, Augustus D. Waller, M.D., son of the late Augustus Waller, M.D., F.R.S., to Alice Mary, second daughter of George Palmer, Esq., M.P.

WELDON—CREED.—On the 31st ult., at Holy Trinity Church, Kensington, George Weldon, M.D. Caius Coll. Camb., to Beatrice Mary, daughter of the late Colonel Henry Creed, Royal Horse Artillery, late of Bucknalls, Hertfordshire.

DEATHS.

BOURCHIER.—On the 22nd ult., after a long illness, John Dunbar Bourchier, L.R.C.P., L.R.C.S.I., L.S.A.Lond., of Hopton-road, Tooting-park, Streatham, aged 36.

CLOUGH.—On the 12th November, at Gympie, Queensland, Australia, Major Edmund Clough, M.R.C.S., L.R.C.P.Ed., L.M., late of Bingham, Notts, and Hambledon, Hants, aged 28.

DAVIES.—On the 4th inst., at his residence, Vale Mount, Hampstead, Robert Davies, M.D., F.R.C.P., of Finsbury-square, aged 66.

GODFRAY.—On the 5th inst., at his residence, 81, New-street, Jersey, Charles Amiraux Godfray, M.R.C.S., in his 34th year. Friends will kindly accept this intimation.

HAO.—On the 4th inst., suddenly, William Banks Hao, M.R.C.S.&L., M.D. Aberdeen, L.R.C.P.Ed., of 1, Albion-street, Hull, aged 68.

MAYNARD.—On the 1st inst., at Hastings, Forster F. M. Maynard, L.R.C.P.Lond., M.R.C.S.Eng., eldest son of the late Rev. Forster-Maynard, Rector of Kirk Bramwith, Yorkshire.

MORTON.—On the 28th ult., at his residence, The Coëd, Stroud, Gloucestershire, George Edward Morton, M.D., Inspector-General, H.M. Indian Medical Service (retired).

SANDILAND.—On the 4th inst., suddenly, of spasmodic croup, Denys, youngest son of A. H. Sandiland, L.R.C.P.Lond., of Oakley House, Camden-road, N.

STOKES.—On the 1st inst., at his residence, Howell-road, Exeter, Henry Stokes, M.D.

STUART.—On the 14th ult., at 4, Kyd-street, Calcutta, Dr. Kenneth Bruce Stuart, aged 49.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, January 8th, 1885.

Date.		Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Jan.	2	30·22	S.E.	32	32	...	37	30	...	Overcast
,,	3	30·01	S.E.	35	33	...	46	31	...	Overcast
,,	4	30·17	N.W.	37	35	...	45	33	...	Cloudy
,,	5	30·08	S.W.	45	43	...	49	35	...	Cloudy
,,	6	30·21	N.W.	34	33	...	43	32	...	Foggy
,,	7	30·39	W.	33	33	...	42	31	·01	Foggy
,,	8	30·01	S.W.	39	37	...	...	31	...	Cloudy

Medical Diary for the ensuing Week.

Monday, January 12.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. each day, and at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

MEDICAL SOCIETY OF LONDON.—Dr. Heron will show Specimens in Pure Cultivation of the Comma Bacillus.—Dr. Samuel West: A Case of Aphasia; Lesion in the Supra-marginal and Angular Gyrus.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Election of Officers and Council.—Communication from Mr. E. A. Bogue of New York.—Mr. Storer Bennett: "Herbst's Method of Filling Teeth with Gold."—Valedictory Address by the President.

Tuesday, January 13.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 P.M., and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M., and on Fridays at 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Adjourned discussion on Dr. Kidd's paper on the Distribution of the Tubercle Bacilli in the Lesions of Phthisis. Dr. Kidd's Specimens will be on view half an hour before the meeting.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. Mr. Oldfield Thomas: Account of a Collection of Human Skulls from Jervis Island; Torres Strait.—Mr. A. L. P. Cameron: Notes on some Tribes of New South Wales.

ROYAL INSTITUTION.—3 P.M. Prof. Moseley: Colonial Animals.

Wednesday, January 14.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour. Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

HUNTERIAN SOCIETY.—7.15 P.M. Council.—8 P.M. Dr. Radcliffe Crocker: The Internal Administration of Turpentine in Cutaneous Diseases.

EPIDEMIOLOGICAL SOCIETY OF LONDON.—7.30 P.M. Meeting of Council.—8 P.M. Surgeon-General W. J. Moore: The Constitutional Requirements for Tropical Life, with especial reference to Temperaments.

ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Mr. A. D. Michael: Notes on the Life History of some of the little known Tyroglyphidæ.—Mr. C. Thomas: On a New Species of Acineta.

OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. Edis, Mr. W. S. A. Griffith, Dr. Amand Routh, Dr. Heywood Smith, and others.—Dr. William A. Duncan: On the Extirpation of the Entire Uterus.

Thursday, January 15.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—8 P.M. Prof. Dewar: The New Chemistry.

Friday, January 16.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—9 P.M. Prof. Tyndall: Living Contagia.

Saturday, January 17.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Dr. Waldstein: Greek Sculpture.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

INFLUENCE OF THE WEATHER UPON NERVOUS SUFFERERS.

DR. EYSELEIN of Blankenburg has called attention to the fact that nervous sufferers are unfavourably affected by the presence of a large proportion of ozone in the air. At the same time he remarks that a moderate proportion is undoubtedly beneficial. Referring to barometrical variations, he attributes to heavy air a tranquillising influence upon persons who are suffering from nervous disorders.

Mr. F. D. Askey.—Our correspondent's argument is based on the assumption that *vaccinia* and *variola* are one and the same disease. This—the original opinion of Jenner—has no substantial support in experience. It is generally accepted that vaccinia does not obey the same laws in its propagation as those which obtain with regard to variola. Vaccinia can only be communicated by direct transference or inoculation; it is not infectious like variola.

Mr. Woodson.—We regret we cannot assist our correspondent in his object.

FOUR TWIN BIRTHS IN SUCCESSION.

To the Editor of THE LANCET.

SIR,—On the evening of Dec. 17th I delivered Mrs. O——, aged twenty-nine years, the wife of a small farmer living about two miles from my house, of twins. In conversation I found that this was the fourth time in succession that she had been delivered of twins. She was born on Sept. 15th, 1855, was married on June 1st, 1871 (at the age of sixteen years), and had been delivered in order of the following:—1872, July 27th, girl; 1874, March 11th, boy; 1876, Jan. 18th, boy; 1877, Oct. 7th, girl; 1880, Aug. 24th, twins, boys; 1881, March 12th, twins (fourth month) boys; 1883, April 6th, twins, boy and girl; 1884, Dec. 17th, twins, girls. All the children, with the exception of the one born in 1874 (who died in convulsions in 1876) and the children delivered in 1881, are living and healthy. There was in each case of twins but one placenta. I may add that the left hand of the first child born in December last is absent, the ends of the radius and ulna apparently having no covering but connective tissue and skin. The mother of Mrs. O—— had twins upon two occasions, with two single pregnancies between. I can find no recorded case of four consecutive twin pregnancies. This case may therefore interest your readers.

I am, Sir, yours faithfully,

Hinton, Salop, Dec. 27th, 1884. JOHN HANNAY.

"A NEW DISEASE."

THE Russian doctor who has invented "Psychopathy" is to be congratulated on his ingenuity and fertility of resource rather than on his scientific acumen. The mental craze and moral hebetude included under this new term is a perfectly well-recognised form of what Dr. Prichard classed as "moral insanity." No creation of a special term was necessary.

Leeds.—The card is in bad form, and especially the distribution of it. It is advertising, and should be discontinued by consultants. The profession of the neighbourhood should collectively express its disapproval.

Mr. Roger T. Smith.—Inquiry shall be made into the matter.

THE BOATS BETWEEN CALAIS AND DOVER.

To the Editor of THE LANCET.

SIR,—I beg to call attention to the lack of protection afforded from weather in the boats which run between this country and the Continent. Surely, in the present inclement season it behoves the companies to see to this important matter, which should easily and promptly be remedied. Trusting your lay contemporaries will echo this idea, and bring pressure to bear in the right quarter, I am, Sir, yours truly,

London, Dec. 20th, 1884. JOHN LUCAS, M.D., F.R.C.S., &c.

WHITTLE AND HUTCHINSON FUND.

THE following additional contributions have either been received or promised:—

Dr. J. Cameron	...	£10	10	0	Mr. F. W. Lowndes	...	£1 1 0
Dr. G. Walker	...	5	5	0	Mr. R. Williams	...	1 1 0
Mr. E. Lund	...	5	5	0	Mr. C. Puzey	...	1 1 0
Dr. E. H. Dickinson	...	5	5	0	Mr. G. E. Walker	...	1 1 0
Dr. Fitzpatrick	...	5	5	0	Dr. McAfee	...	1 1 0
Mr. R. Hamilton	...	3	3	0	Dr. Finnigan	...	1 1 0
Dr. Glynn	...	2	2	0	Mr. B. Blower	...	1 1 0
Dr. Adam	...	2	2	0	Dr. Herbert Taylor	...	1 1 0
Dr. Burton	...	2	2	0	Dr. Caton	...	1 1 0
Dr. Bowen	...	2	2	0	Dr. Imlach	...	1 1 0
Mr. J. Hakes	...	2	2	0	Dr. Prytherch	...	1 1 0
Mr. R. Harrison	...	2	2	0	Mr. D. Harrisson	...	1 1 0
Dr. Beaman	...	2	2	0	Dr. Rawdon	...	1 1 0
Dr. Wallace	...	2	2	0	Mr. N. Marsh	...	1 1 0
Dr. A. Davidson	...	2	2	0	Dr. A. W. Pierce	...	1 1 0
Dr. Pierce (Hoylake)	...	1	1	0	Mr. J. Newton	...	1 1 0
Dr. Barron	...	1	1	0	Dr. J. P. Harris	...	1 1 0
Mr. E. Parker	...	1	1	0	Mr. C. Johnson	...	1 0 0
Dr. Weaver	...	1	1	0	Dr. A. Cameron	...	1 0 0
Dr. D. Heudry	...	1	1	0	Dr. Renshaw	...	0 10 6
Dr. Roger Parker	...	1	1	0	Mr. W. Turner	...	0 10 6
Dr. Hopper	...	1	1	0	Dr. Mules	...	0 10 6
Dr. Gorst	...	1	1	0	Dr. Pitcairn	...	0 10 6
Dr. C. B. Wilson	...	1	1	0	Mr. T. Dawson	...	0 10 6
Dr. R. Brannigan	...	1	1	0	Dr. Bailey	...	0 10 6
Dr. Sinclair	...	1	1	0	Dr. Bernard	...	0 10 6
Dr. Oxley	...	1	1	0	Mr. E. Jackson	...	0 5 0
Mr. E. A. Browne	...	1	1	0	Dr. Bradley	...	0 5 0

Subscriptions should be sent to Dr. Nevins, 3, Abercromby-square, Liverpool, or to the "Whittle and Hutchinson Fund," North and South Wales Bank, Hardman-street, Liverpool.

Mr. H. W. Smith.—Certainly not. There is no monopoly of knowledge in medicines nowadays.

WE agree with a correspondent, that advertising the names of physicians and surgeons of hospitals in newspapers is objectionable.

SMALL-POX BREAKING OUT AFTER FULL DEVELOPMENT OF VACCINATION.

To the Editor of THE LANCET.

SIR,—Out of a large number of small-pox cases I have attended in this neighbourhood the following is one of some interest, as showing how vaccination ran its regular course in a patient whose system must have already been infected with small-pox poison, and where also the small-pox was uninfluenced in any way by the vaccination.

Emily W——, aged twenty-one, on Dec. 23rd had primary vaccination performed. In a day or so she began to complain of her arm. On the 27th she was obliged to take to her bed with a bad headache and severe lumbar pain and tenderness. On the 30th the vaccination had taken well in four places; there was no swelling or inflammation of the arm; the lumbar pain and tenderness had increased. On the 31st the pain was slightly better, but the back was still very tender; the patient vomited twice during the morning, was very feverish, and would take no food; two small vesicular spots appeared near the mouth. On Jan. 1st the pain and tenderness of back were much better, and the patient was covered with a typical small-pox rash; towards evening she became delirious, and had a very bad night; she has since been removed to a hospital. The patient's sister (who had been sleeping with her up to the day before the rash made its appearance) was revaccinated on the same day (Dec. 23rd), and took well, as did others who were vaccinated with matter from the same source. I am, Sir, yours truly,

Lower Norwood, Jan. 6th, 1885. CHAS. E. ADAMS, M.R.C.S., L.S.A.

M. M. M.—If the contents of the cesspool are still liquid, a strong solution of common sulphate of iron, made by adding the salt to ten times its weight of hot water, should be abundantly applied before removal. Failing this, use a solution of chloride of lime. If it is desired to keep the contents as dry as possible, recently burnt lime may be thrown in. The liquid contents, on removal, should be at once applied to land and dug in; any heap of filth being covered with freshly burnt lime or clean dry earth.

G. H. S.—The best course is to bring pressure to bear upon the Beckenham Local Board of Health to provide a small hospital for the isolation of first attacks of infectious diseases occurring in their district. They have full power to do this under Section 131 of the Public Health Act 1875. Communication of the details to the Local Government Board might be helpful.

THE CHOLERA EPIDEMIC IN EDINBURGH IN 1848–49.

To the Editor of THE LANCET.

SIR,—Could you or any of your readers inform me where I shall find a record of the epidemic of Asiatic cholera as it visited Edinburgh during 1848–49. I am, Sir, yours truly,

Devonport, Dec. 10th, 1884. EVERARD HOME SAUNDERS, Surgeon, Royal Navy.

*** We are unable to find any connected account of cholera in Edinburgh in 1848–49; even the Scotch medical papers of that date fail to supply any adequate information. Under the heading of "Cholera," however notices will be found in the *Monthly Journal of Medical Science* vol. 1848–49; the mortality statistics could also be procured; and so general idea of the epidemic could be made out.—ED. L.

THE DOCTOR'S WIFE.

A SOMEWHAT interesting legal action is reported in a recent number of the *Glasgow Herald*, in which a widow lady tried in the sheriff's court to recover £50 in respect of injuries to her health from a medical man, which injuries were alleged to have been produced by medicines prescribed and supplied in the absence of the medical man by his wife. It was sought to show that in this case the wife was the agent of her husband, and that he was responsible. The injuries alleged were salivation and its consequences, due to a quantity of mercury prescribed by the defender's wife. The defender denied that the powder given contained anything unusual either in quantity or quality, and, while admitting that his wife occasionally assisted "in the shop" in his absence or that of the assistant, denied that his wife had any authority to prescribe. He argued that the pursuer (plaintiff) took the risk of the suitability of the powder. Sheriff Guthrie, in giving judgment in accordance with this view of the case, dismissed the action, and found the pursuer liable in expenses. Most people will agree with this judgment. It would be absurd to think that any sane person could conclude that a doctor could delegate prescribing powers to his wife. At the same time the case may serve as a useful warning to good wives, who abound in the medical profession, in the absence or agency of their husbands to be, if not "wise as serpents," at least "as harmless as doves."

"AGORAPHOBIA."

To the Editor of THE LANCET.

SIR,—I was interested in reading Dr. White's account of his case of "agoraphobia" in your columns. I have for years been subject to the complaint. My first symptoms came on about nine years ago, with a loss of confidence in myself in dispensing; this lasted for some time, then was followed by a period of religious mania for a few weeks. I sold my practice, and the latter symptom gradually went off; then came on the "agoraphobia"; and I have been for years more or less, according to symptoms, frightened to go any greater or lesser distance from home, lest I should be taken ill away from aid; sometimes even the presence of a companion not being sufficient to calm my fear. Other symptoms have been a throbbing of the carotids, I suppose on lying down in bed, and I have awoke sometimes with numbness in the right arm or hand if I lay on that side. My worst symptom now is the "agoraphobia," and that perhaps when I have done a thing I may go back again and again before I can rest assured I have done it or done it right. I attribute my illness to excitement, worry, and over-work; but, as there is nothing now in my surroundings to retard my recovery, I should be glad if any kind correspondent would give an account of a case he has treated satisfactorily.

I am, Sir, yours truly,

Jan. 6th, 1885. SURGEON.

"STREET ILLNESS AND BAD POLICE AND WORKHOUSE REGULATIONS."

To the Editor of THE LANCET.

SIR,—The extract from *The Times* which you quote in your last issue reflects unfavourably upon the authorities at this institution. The facts are these:—A constable, at half-past six on the morning of the 22nd ult., drove up in a cab, and applied to the porter at the workhouse, saying that a man was all in the vehicle, but failed to state that he deemed it an urgent case. The porter on duty did not therefore refer to either of the medical officers of the infirmary, but acted, in the apparent absence of urgency, as he is instructed to do by the guardians, in sending the case to the divisional surgeon of police, who is within two minutes' drive of the workhouse.

I need hardly add that all cases of severe and sudden illness are at once admitted, irrespective of the social position and parish to which the person belongs, if harm might accrue from the delay in obtaining the usual order; and in this case, had the attention of the resident medical officer been called to the condition of the patient, he would undoubtedly have been admitted.—Yours obediently,

H. P. POTTER,

Kensington Infirmary, Jan. 5th, 1885. Medical Superintendent.

THE MEDICAL DIRECTORY FOR 1885 AND THE NORTH-WEST LONDON HOSPITAL.

To the Editor of THE LANCET.

SIR,—In the Medical Directory for 1885 the names of Sir Andrew Clark and Mr. Christopher Heath are given as members of the consulting staff of the North-West London Hospital. As these gentlemen have ceased to continue their connexion with this institution, as shown by a copy of a letter herewith enclosed, I feel it my duty to call public attention to the error committed by those who are responsible for such erroneous information being communicated to the Directory.

I am, Sir, your obedient servant,

A GOVERNOR OF THE NORTH-WEST LONDON HOSPITAL.

Dec. 30th, 1884.

"16, Cavendish-square, Nov. 18th, 1884.

"DEAR DR. CULLIMORE,—I deem it my duty to inform you, as chairman of last night's meeting, that Mr. Heath and I, after fully considering the matter, have resolved to terminate our connexion with the North-West London Hospital. Perhaps you will kindly communicate the substance of this note to the other members of the meeting.

"Faithfully yours,

"ANDREW CLARK."

THE PRACTICE OF MEDICINE IN RUSSIA.

THE number of medical men in Russia, according to the official statistics for 1883, is 15,231, the majority being residents of cities, and the country very badly supplied. There are medical faculties in Kief, Kazan, Charkov, Moscow, Warsaw, Helsingfors, and Dorpat, the first five of which give instruction in the Russian language, while at Helsingfors Swedish is spoken, and at Dorpat German. There is, besides, an army medical school. In the Russian schools there is a five years' graded course, with yearly examinations. At the end of this course an examination must be passed for the title of physician, after which, if it is so desired, the candidate may pass on to the doctorate examination, in order to obtain which degree a more exact knowledge of theoretical subjects is necessary than that required at the examination for the title of physician. A doctor ranks as eighth in the classes defined by the State, while a physician is one step farther down the scale. Russia has a paternal Government, and her medical sons are not neglected, but are placed under the care of the Minister of the Interior. The business of the Minister of the Interior is defined to be to watch "the industry and scientific ability of the physicians, and to report thereon yearly." The Government also takes them under its protection when they are subject to unjust attacks. Regarding fees, too, a law for their regulation passed in 1789 still remains on the Statute Book; but owing to the extreme smallness of the fees allowed, it is practically a dead letter, although, of course, it can be enforced at any time. Russian medical societies are not very flourishing, owing to an every-man-for-himself spirit that exists among the physicians there. The oldest is the Society of Russian Physicians, founded in 1833. The members of this society are intensely national in their feelings, as was evidenced in one of the addresses at their semi-centennial celebration, when the speaker congratulated his hearers that at last Russian medicine had thrown off the German yoke. This feeling was also exhibited in an order recently promulgated by the Minister of War, to the effect that not more than 4 per cent. of the army surgeons should be Jews. There are five other societies, one of them composed chiefly of German physicians, in St. Petersburg, and seventy-three in the provinces. In addition there are several mutual aid and benefit societies among medical men. Considerable progress has been made in the last decade in medical journalism. The leading journal is the *Vratch*, founded by Manassein in 1880. Next to the *Vratch* comes the *Russkaya Medicina* and the *Meditsinski Vestnik*. Another journal, composed principally of abstracts, but containing also some original articles, is the *Meditsinskoye Obosrenoye*. The organ of the German physicians is the *St. Petersberger Medicinische Wochenschrift*.

Beta.—The undertaking is an unreasonable one. But a contract is a contract, and must be regarded.

"THE P. AND O. COMPANY'S MEDICAL SERVICE."

To the Editor of THE LANCET.

SIR,—I write to you as a private practitioner who is in the habit of advising a sea voyage to many of his patients as a means of cure, to ask you by your powerful aid to encourage the medical officers of the P. and O. Company to one and all refuse to submit to the extraordinary circular published by your correspondent, "A P. and O. Surgeon," in to-day's issue of THE LANCET. Should the circular be persisted in, I cannot think that any self-respecting medical man will remain a day longer than he is compelled in the service of a company that would simply force him to act as a dispenser of nostrums which, although perhaps not immediately dangerous to life, would very often inflict great injury upon the persons for whose health he ought to be held responsible. It has been my habit when sending a patient a voyage, if he required a continuance of treatment, to always communicate privately with the ship's surgeon, and indicate the course of treatment my patient was undergoing, and to ask him kindly to give the passenger named the benefit of his advice, should it be necessary. Now, if this ill-judged circular is persisted in, I shall feel that the P. and O. line is shut to my patients, if I do not want them to become confirmed opium eaters, or the victims of chloral, or mercurial, or arsenical poisoning, from their being able to extort from their doctor at sea prescriptions that I should never have permitted them to handle on shore.—Yours truly,

Jan. 3rd, 1885. M.R.C.S.Eng.

DISCUSSION OF MEDICAL QUESTIONS IN THE LAY PRESS.

A CORRESPONDENT complains of this practice by what he calls the "Birmingham celebrities." We wish they were the only sinners in this respect. But the subject is too serious to be discussed here.

H.—The case is not quite a simple one. The friends naturally felt anxious, and wanted an independent, separate opinion. They erred in not being more frank with Dr. H——. Mr. E—— should have told them—perhaps he did tell them—to inform Dr. H——.

Subscriber.—There is nothing in the qualification to legalise the use of such a title.

Dr. F. J. Mouat.—Next week.

WILD ANIMALS AND SNAKES IN INDIA.

THE loss of life from wild animals and snakes in India was greater both in human beings and cattle during 1883 than in the previous year. The increase is not very large, but it has for several years past been continuous, and the deaths during 1883 amounted to 22,905. Of this number 20,067 are put down to snake-bite.

Mr. Stephens.—Our correspondent has clearly a claim against the guardians, not having received any instructions from them not to accept the relieving officer's orders for midwifery cases. The guardians are answerable for the errors of their servant, and it is their place to get from him the fees which are due to the medical officer.

J. R.—The statement is not clear enough for us to express a judicial opinion on the case.

A REMEDY FOR STREET NOISES.

To the Editor of THE LANCET.

SIR,—Some years ago, owing to illness and long residence in the tropics, I became morbidly sensitive to noises of every kind, and procured complete relief in the following way. I placed some spermaceti ointment in the centre of a little square of thin, limp cotton, brought the corners together, tied them with thread, and inserted one of the little plugs well into each ear, and after a little kneading and gentle pressure found that I was absolutely deaf to all ordinary noises, such as the loud barking of dogs and the rumbling of heavy carriages in the streets. A couple of points must be carefully attended to. The ointment must not be too soft, the quantity about the size of a small pea, and the little bag must be somewhat larger than its contents, to allow the plug to take the shape of the auditory canal. If the bag be too small, or its contents larger in size than a pea, it cannot be inserted into the ear, and if applied only to the orifice it entirely fails in its object. This little experiment is easily tried, and a daily experience of over twelve months warrants me in saying that it will be found invaluable in the sick room. I am, Sir, your obedient servant,

London, Jan. 4th, 1885. M.D.

Ultra.—The Registrar-General's Annual Reports are published by Messrs. Eyre and Spottiswoode, Queen's Printers, East Harding-street, Fetter-lane, and may be ordered through any bookseller. The price of the last published Annual Report, relating to the year 1882, is 2*s*.

THE TITLES OF AN APOTHECARY.

L. S. A. is scarcely likely to be molested for calling himself surgeon-accoucheur. But we must admit that such titles are not covered by the qualification which confers upon its owner the title of apothecary.

Vaux.—The degree in question is not equal to a British one, but is fairly respectable. It carries the title of M.D. It is not registrable in England, and the collapse of legislation suggests no prospect of its becoming so.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Squire; Dr. Testi Alberico, Fermo; Dr. J. Lucas, London; Mr. Geo. Mason, London; Mr. Hickisson; Dr. Theodore Williams, London; Dr. Thorburn, Manchester; Mr. Butcher, Birkenhead; Dr. W. F. Murray, Forfar; Mr. C. E. Steele, Liverpool; Messrs. Woodhouse and Rawson, London; Prof. Buchanan, Glasgow; Mr. Merces, Bath; Mr. Herbert Allingham, London; Mr. Barnardo, London; Mr. Headley Neale, Leicester; Mr. Bowlby, London; Mr. Rivington, London; Mr. T. Edis, Gloucester; Dr. Sanctuary, Salisbury; Dr. Braxton Hicks, London; Mr. Prendergast, Paignton; Dr. Maclagan, London; Mr. Cuthbert Johnson, Daventry; Mr. R. Jeffreys, Chesterfield; Mr. J. Beatty, Dublin; Dr. W. J. Notley, Birmingham; Mr. H. B. Potter, London; Brigade Surgeon McCarthy; Mr. H. O. Thomas, Liverpool; Mr. W. Alexander, Liverpool; Dr. Fenwick, Glasgow; Mr. J. Thompson, Liverpool; Messrs. Lebon and Co., London; Dr. J. S. Stokoe, London; Dr. Whitson, Glasgow; Mr. Kelly, Sutton Colefield; Mrs. Macdonald, Bournemouth; Miss Johnstone; Mr. Fluder, Cromer; Mr. Ricker, St. Petersburg; Dr. Symes, Halifax; Mr. Watson; Messrs. Wright and Co.; Mr. Pentley, Camberwell; Dr. Cocks, Forte; Dr. Shardham, Evershot; Messrs. Austin and Son, Clifton; Messrs. Beal and Co., Brighton; Mr. Norman, Southsea; Dr. Worthington, Hayward's Heath; Mr. Warrener, Liverpool; Messrs. Debenham and Co., London; Mr. Duncan, Aberdeen; Mr. Johnston, Bedford; Dr. McNaughton Jones, London; Mr. Stilliard, Birmingham; Mr. Palmer, Weston-super-Mare; Mr. Marsh, Wigan; Mr. Birchall, Liverpool; Mr. Davies, Newport; Messrs. Wood and Co., New York; Mr. Ellison, New York; Mr. Warton, Halifax; Messrs. Loeflund and Co., London; Dr. Armstrong, South Shields; Mr. Williams; Mr. Townsend, Exeter; Messrs. Cook and Townsend; Mrs. Hartley, Worcester; Dr. Savage, London; Mr. S. O. Bishop, Koomtai; Dr. Ernst Groth, London; Mr. C. B. Maitland, Bombay; Mr. Noight, Bury; Mr. Blamey, Penryn; Mr. Shirley Deakin, Allahabad; Mr. T. P. Stevens, London; Mr. C. E. Adams, London; Mr. Waddy, Gloucester; Mr. Raupert, London; Mr. Philip; Mr. L. Humphrey, Cambridge; Mr. J. W. Pratt; Mr. Buhicrosan, London; Mr. Dalby, London; Mr. McKinney; Dr. Douglas Powell, London; Mr. T. Cooke, London; Mr. Clarke, Whitchurch; Mr. Lee, Burton-on-Trent; Mr. Clark, Doncaster; Messrs. Norman and Co., Cheltenham; Mr. Rawlins, Herne Bay; Beta; M.D.; A Provincial Fellow; T. R., Exeter; Magna est Veritas; M.B.; M.R.C.S.; Surgeon, Yorkshire; G. H. S.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Smith; Mr. Baraham, Toronto; Mr. Hartley, Cheltenham; Dr. Adams, West Malling; Mr. Flint, Westgate-on-Sea; Mr. Haine; Miss Sidney, Brighton; Dr. Marsh, Hindley; Dr. Lloyd, Yarmouth; Mr. Denman, Beaconsfield; Mr. Stilliard, Birmingham; Dr. Simpson, Aberdeen; Mr. Hellard, Portsmouth; Mr. Johnstone, Bedford; Dr. O'Keefe, Rangeskiddy; Dr. Norton, Leominster; Mr. Macdonald, Dunedin, New Zealand; Dr. Drayn, Tunbridge Wells; Messrs. Redfern and Co., Leicester; Dr. Beale, Tottenham; Mr. Oakley; Mrs. Rawlins, Westgate; Dr. Redwood, Rhymney; Mr. Jones, Middleton; Mr. Fuge, Taunton; Mr. Gairdner, Naples; Mr, Appleton, Beverley; Dr. Warren, New England; Mrs. Simpson, Oldham; Mr. Shellswill, Holloway; Mr. Lee, Notts; Mr. Lightfoot, Newcastle-on-Tyne; Mr. Ellingworth, Clayton-le-Moor; Dr. Heelas, Hampstead; Messrs. Mackay and Co., Edinburgh; Dr. Woodman, Exeter; Mr. Phelps, Bristol; Mr. Evans, Cardiff; Dr. Herbert; Dr. Hicks, Hendon; Dr. Mair; Mr. White, Bayswater; Mr. Thorpe, Boreham; Mr. Harkin, Dublin; Mr. Dorman, Natal; Messrs. Butt and Son, Little Hampton; Miss De Luttichau, Holloway; Mr. Campbell, Crediton; Miss Fluder, Cromer; Dr. Saul, Lancaster; Miss Warton, Halifax; Mr. Arnold; Mr. Holloway, Kidderminster; Mr. Pritchard, Hinckley; Dr. Dowker; Dr. Gramshaw, Kew; Mrs. James, St. John's-wood; Mr. Howarth, Twickenham; Mr. Boyveau, Paris; Mr. Lee, Saxmundham; Cantab., Darlington; P. P.; Q. Q.; Max; L.R.C.P.; Y., Manchester; M.D., Chesterton; T. M.; H., Fulham; M.B., Edinburgh; T. J., Risca; A. B. C.; Alpha, Exeter; Medicus, Dorking; Surgeon, South Shields; Medicus, Minchinhampton; M. C., Newcastle-on-Tyne; Medicus, Andover; H. S.; Medicus, Denmark-hill; T. H.; Xenophon; X. X. X.; Medicus, Hackney; X. Y., Dalston; Spes, Deptford; M.D., Liverpool; A. B., Regent's-park; Medicus, Guildford; M.D., Swanage; H. R. P., Loughborough.

Philanthropist, Oldham Daily Standard, Bucks Herald, Westminster and Chelsea News, Dundee Advertiser, Calcutta Englishman, Liverpool Courier, &c., have been received.

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Clinical Lectures
ON
CASES ILLUSTRATING RENAL SURGERY.

Delivered at University College Hospital,

BY ARTHUR E. BARKER, F.R.C.S.,
ASSISTANT PROFESSOR OF CLINICAL SURGERY AT UNIVERSITY COLLEGE, AND ASSISTANT SURGEON TO UNIVERSITY COLLEGE HOSPITAL.

LECTURE I.

CASE 1.—*Excision of the Kidney for Ruptured Ureter and Urinary Abscess, in a Child aged three years and eight months; Recovery.*

GENTLEMEN,—Several cases illustrating points of interest in renal surgery have lately come under my care, which I have thought might be profitably brought to your notice in the form of a clinical lecture. I have been reminded of these quite recently by a case in which, as you will remember, I removed the right kidney from a child three weeks ago—a case almost unique in itself, and not only very instructive from the facts observed in connexion with its clinical features, but also suggestive of many points to be observed in the future, both clinical and physiological. It is proposed now to bring this case under your notice somewhat in detail, and then, if time permit, to give a sketch of three other cases in which I also operated on the kidney, drawing whatever lessons may be learned from each. The notes of these latter have been written and lying by me for some months past, and I shall have little more to do than read them in abstract and make a few brief comments.

The first case is that of a child, A. W——, aged three years and eight months, who was run over by a hansom cab on Aug. 13th, 1884, at 2.45 P.M., and was immediately brought to the hospital. When admitted the notes state that there was extreme bruising of the left side, and the mark of a wheel having passed across as far as the anterior iliac spine. The right side is no doubt meant, for when I saw the case next day the wheel-mark was plainly on the right, as were all other evidences of mischief. There was also tenderness over the kidney. There was no loss of power or pain in the lower limbs. The abdomen, however, was very tender all over and somewhat swollen. Beyond these there were no points to note about the patient, who suffered but little from shock. The next day he was as before; and it is noted that he had passed water naturally, but that it contained two or three small blood-clots; he had also been very sick during the night. At this time I saw him, and, finding no distinct evidence of any internal injury, directed him to be kept perfectly quiet, with hot fomentations over the abdomen, and that there should be no manual examination of the latter lest some disturbance of possible healing processes might take place, and as nothing could be gained by further examination. On the 19th it is noted that the abdomen continued painful, that there was distinct resistance in the abdominal wall over the right flank and iliac fossa, with dulness over the same area, and pain on pressure. Two days later these symptoms were less marked, and it appeared as though they were due to some effusion of blood in the abdominal wall rather than anything deeper down. The bowels were moved naturally, and the temperature, which had risen at first on two or three occasions above 102°, was now about normal all day. For the next few days there was nothing to note about the child's general state, and he left the hospital to go home on Aug. 28th. It may be mentioned here, however, that the boy appeared rather a delicate child. He had had bronchitis several times, and enlarged glands on the right side of the neck since a year old. He had a congenital scrotal hernia on the right side. His parents, however, are healthy, and there is no family history of phthisis.

So far you will observe, gentlemen, that the question of any serious abdominal lesion appears to have been negatived. Had the liver, intestines, bladder, or spleen been injured, there would probably have been severe shock; rupture to the liver would also probably have led to effusion of blood into the peritoneum, and the same may be said of the spleen, but there was no effusion during the fifteen days the patient was in hospital on the first occasion. Again, the bowels acted normally all this time, showing that the intestines were intact. The urine, too, was passed naturally, indicating that the bladder had escaped injury. The only symptom pointing to any lesion of note was the passage of two or three small worm-like blood-clots in the urine first voided. No other urinary symptom was present; but this, nevertheless, was a most valuable piece of evidence, as was proved subsequently. You will please note also that after the first few days the temperature fell to normal, and there was no evidence of any inflammatory trouble anywhere. But on returning home on May 28th the patient's condition appeared to grow worse. He seemed restless and in pain, and he was brought back to us two days later. On his readmission, on Sept. 1st, I examined him carefully, and found a fluctuating swelling filling the right side of the abdomen. This tumour had all the characteristics of a hydronephrosis or of an accumulation of urine in the flank, to which I will beg you now to give attention. The tumour reached from the right twelfth rib to the iliac fossa, where it was rounded off with a well-defined margin, and filled up the whole flank as far as the middle line to the level of the umbilicus. There was distinct fluctuation over all this region, and dulness on percussion from the loin forwards until the anterior and inner aspect of the swelling was revealed, where it was bounded by the colon. The patient could lie in any position and could extend both thighs equally; there was no heat, redness, or swelling of the skin, and the temperature was normal. From all these facts, coupled with the history of the injury, and the passage of two small worm-like clots in the first urine voided after the accident, I came to the conclusion that the case before us was one of injury to the right ureter from crush by the cab-wheel, and all the urine was accumulating in the right side instead of passing into the bladder. A localised peritonitis with encysted effusion appeared to be negatived by the absence of fever, tenderness, or pain on movement of the abdominal muscles or thighs. I pointed out that one of three things must have happened: (1) Either the ureter was simply bruised, and consequently so swollen or blocked by clot as to be impervious; or (2) it was completely torn across, and the urine was being poured out into the peritoneum, being limited by a layer of plastic matter; or (3) it was completely torn across without injury to the peritoneum, and the urine had formed a sac for itself in the post-peritoneal tissues. I had no doubt that one or other of these conditions was present, and, on the chance of the ureter being simply bruised and capable of recovering itself and allowing the hydronephrosis to discharge down the ureter in the usual way, I waited until September 3rd, simply keeping the child quiet and applying hot fomentations to the side. By this time, however, it seemed plain that no such issue was likely to take place, and that something must be done, as the swelling was becoming much larger and more tense each day, while the child lost his spirits and seemed to suffer considerably from the distension, sleeping badly, and being very fretful. The urine all the time was normal, and on September 3rd it is noted as acid in reaction, normal in appearance, of a specific gravity of 1021, and free from pus, blood, or albumen. Temperature 99°.

I now thought it necessary to aspirate the tumour and draw off the fluid. This I did with a fine needle, introduced midway between the last rib and the iliac crest and eight centimetres from the mid-line of the back. At this spot it is perfectly safe to puncture any form of renal tumour, and in a considerable number of cases in which I have operated in this way and seen others operate I have never observed any ill effect. The needle enters well behind the peritoneal reflection, and there are no other structures of any importance to be wounded if the point is not thrust too far. In this case, at the depth of about half an inch, the needle entered the collection of fluid, and of this I drew off forty-five ounces and a half. To the naked eye this fluid had all the characters of healthy urine. It was amber coloured, slightly cloudy; its specific gravity was 1010; it showed no deposit microscopically; it contained a quarter of albumen and a half per cent. of urea, also chlorides. Our diagnosis, therefore, was confirmed almost to certainty. But I was anxious to gain further evidence, especially as to the percentage of urea in the fluid, before pronouncing positively and determining on the more radical treatment of the case, as radical treatment could only be extirpation of the kidney ultimately. You will notice, gentlemen, that the secretion aspirated contained only a half per cent. of urea,

while the urine passed per urethram at this time contained 2½ per cent.; it also contained 25 per cent. of albumen. But you must also know that this is only what we might expect even with a perfectly sound kidney on the right side. For it has been shown by experiment on dogs that if there be an obstruction to the flow of urine through the ureter, the kidney is unable to excrete its full amount of urea, while it still preserves its power of secreting urine of low specific gravity, and hydronephrotic fluid contains albumen in many cases, if not all. Now, in this case, with a bruised or torn ureter, the right kidney would have to overcome considerable resistance as it forced its secretion into a slowly yielding sac, and therefore we should expect a low percentage of urea, just as in those cases where in the dog the ureter has been ligatured, and the urine collecting above the ligature has been tested. Of course the possibility of this being a localised peritonitic effusion had occurred to me, and the small trace of urea did not quite negative this. I therefore resolved to aspirate the collection a considerable number of times, at such intervals as should best relieve the child from the distension, watch the effect, and carefully test the fluid drawn off each time for urea and albumen, &c., and then drain the collection and see if the right kidney did not regain its power of eliminating urea, all obstacles being removed. I wished further to see if we could not gain some additional evidence as to the secretion being renal or not by observing what effect varieties of diet would have on the percentage of urea found in it. Besides these points of special clinical importance, there were several other matters of more purely physiological interest which it was desirable to note carefully. And here I may say, gentlemen, that, thanks to the care, patience, and thoughtfulness of Mr. Brown, House-Surgeon, and Mr. Young, the clerk to the case, who carried out my wishes in the most satisfactory manner, we have before us a most important series of observations, whether we regard them as a purely clinical record or as a physiological study. All praise is due to those gentlemen for the way in which they have done their duty, and it is particularly gratifying to think that the series of observations conducted for me by Mr. Young go far to fill up several gaps in our knowledge of renal affections which it was impossible before this to fill up for want of suitable cases for study in the human subject.

For you must know, gentlemen, that this case, though not quite the first of its kind recorded, is unique as regards the opportunities it offered for observation on the points to which I allude, also in having been made use of to elucidate many matters quite impossible of demonstration in the human subject, except in a case of the kind. And I may further tell you here that, so far as I can make out from a careful search through our home and foreign literature, only one case[1] at all like this has been put on record as a definitely diagnosed condition, while only two[2] more were shown to have been probably of the same nature after death, some months subsequent to the injury. These cases were published over forty years ago, and we need hardly be surprised if the records on many important points are scanty and defective, especially if we remember the advances made in the study of the chemistry of the urine since then.

Now, it so happened that in this case an early diagnosis was made, and that this received confirmation from the first tapping of the fluid accumulation. The evidence, however, was not absolutely beyond question. First, there was very little urea in the liquid aspirated; next, it contained a large quantity of albumen; again, it was desirable to see how soon it would refill to its former dimensions, and how far the opposite kidney was adequate. Now, it turned out that the tumour did refill, and just took about a week to reach its former size, so that I aspirated it once about every seven days for six weeks. Let us turn now to this table, in which I give you an abstract of the clinical charts prepared daily at the time, and see what we learn from what was observed. The charts themselves are very complete and elaborate, but it would occupy too much time to give them *in extenso*. They will always remain in the hospital register as one of the most complete records of the kind ever made, thanks to the clinical clerk to the case.

In the first place you will note that the amount of urine secreted by each kidney from the time of the accident up to the date on which I put in a drain-tube into the urinary collection on the right side differed very much. Out of forty-eight days, from Sept. 3rd to Oct. 22nd, the urine passed from the uninjured side during each twenty-four hours was carefully collected and measured on forty days. The average amount from this record was found to be exactly 10·5 ounces per diem (twenty-four hours). The eight days omitted were either Sundays or those on which the child had passed water into the bed, which could not be estimated. On the injured side, on the other hand, the amount secreted into the sac for the corresponding forty-nine days was almost exactly half—viz., 5·3 ounces per diem, taking the average of the amounts drawn off by aspiration once a week for the same period. Each aspiration emptied the sac completely. This contrast seems to show us that the right kidney having to overcome the resistance of an elastic sac, as it poured out its secretion, was unable to eliminate as much fluid as usual, and that the opposite kidney did extra work in compensation so as to yield 10·5 ounces daily, against its fellow's 5·3 ounces. But after free drainage of the urinary abscess was established on Oct. 23rd, and all obstacles to the secretion of the right kidney were removed, a perfect balance was established both as to quantity and quality, and for the twenty-two days, between Oct. 23rd and Nov. 19th, on which a careful record was made, the average on the left (uninjured) side was 7·8 ounces, as against 7·4 ounces on the right (injured) side. This, you will observe, corresponds almost exactly with the daily amount yielded by the two organs together before the drainage.

Next you will note that after the removal of the right kidney on Nov. 19th the remaining organ was at once able to take over the functions of the two kidneys, and not only this, but actually excreted daily more urine than both had secreted together before the operation, the days succeeding operation, 21st, 22nd, 23rd, and 24th, showing respectively 7, 26·5, 26, and 36 ounces. This was no doubt greatly due to the fact that the child lived on fluid food exclusively for some days after operation.

Then as to specific gravity, you will note that on the sound side all this time it remained fairly constant, its average being generally between 1021 and 1025, except during the week in which the patient was given an almost purely non-nitrogenous diet, when it fell to 1007. (After Oct. 22nd the readings for the individual days are given in the Table.) During the corresponding seven weeks the disabled kidney registered 1010, 1008, 1006, 1010, 1007, 1004, and 1010 respectively, the lowest figure tallying with the non-nitrogenous diet.

Next, the average amount of urea excreted was pretty constant on the sound side for each week, except when it reached 2·85 during the highly nitrogenous diet, and fell to 0·71 for the last days of the purely non-nitrogenous diet, and it rose at once again the next week on ordinary diet to 2·75. In strong contrast to this we have a very small average percentage of urea eliminated by the opposite kidney while working against obstacles of pressure. The largest record is seen in the fluid first drawn off, and yet this was only one half per cent. For the next five weekly aspirations it was constant at 0·1 per cent., in spite of change of diet, with the exception of one occasion, when it was 0·15. During the week of non-nitrogenous diet it fell to 0·05, and the next week rose to its former figure of 0·15 on resumption of ordinary dietary. But after Oct. 22nd, when the drain-tube was inserted into the urinary collection, the percentage of urea on the injured side steadily rose from 0·15 to 2·6, all resistance to excretion being removed from the right kidney (*vide* Table.) Both kidneys secreted acid urine throughout. On one or two occasions it is put down as alkaline, but I have reason to believe that it was not taken quite fresh at these times.

The urine from the sound side was always free from albumen, that from the urinary abscess contained from 20 to 50 per cent. of albumen always. This was no doubt derived from the serum and lymph secreted from the walls of the sac, which usually rendered the fluid drawn off cloudy to a small extent.

The urea excreted by the remaining kidney after the other had been removed gradually rose from 1·8 to 2·05; or if we take the amount in grains per diem, we find on the 21st, 75·6 grains; 22nd, 127·2 grains; 23rd, 124·8 grains; 24th, 164·1 grains; 25th, 121·4 grains; 26th, 177·8 grains. A glance at the average temperature of these days, taken generally about every hour, will show that the amount of urea was probably influenced by the combustion of tissue

[1] Vide Stanley, Med. Chir. Trans., vol. xxvii., 1843-4.
[2] Ibid., vol. xviii., 1832-3, p. 175, and vol. xxvii., p. 8.

RECORD DURING PERIOD OF ASPIRATION AND BEFORE FREE DRAINAGE.

Uninjured Side.						Injured Side.				
Date.	Average ounces of urine in 24 hours.	Average specific gravity and temperature.	Average percentage of urea.	Reaction. Albumen.	Diet.	Quantity of urine.	Specific gravity.	Per-cent. of urea.	Re-action.	Albu-men.
Sept. 3rd	12		2·5	Acid	Ordinary.	Aspirated 45 oz.	1010	0·5		
,, 5th	12		2·6		,,					
,, 6th	12	1025	2·2		,,					
,, 8th	—	99·6°	=2·57		,,					
,, 9th	12		2·7		,,					
,, 10th	14		2·8	Nil	,,	42 oz.		0·15		
to	♀ = 9·6	1022 99·5°	2·15	,,	,,					
,, 19th to ,, 24th	♀ = 9·9	98·9°	2·12	,, ,,	,,	47 oz. 38 oz.	1008 1006	0·1 0·1	Neut. F. alk.	50% 25%
,, 26th										
,, 26th		1020		,,	Ordinary mixed, consisting of bread and milk, potato, cabbage, butter, cheese					
,, 27th	♀ = 11·8	101·3°	2·25							
,, 28th										
,, 29th		96·9°								
,, 30th				,,		34 oz.	1010	0·1	Acid	33%
Oct. 1st			3·0							
			3·2	,,	Highly nitrogenous, consisting of meat, bread, cheese, milk, cabbage					
to	♀ = 10·5	1021 98·1°	4·2 3·0 =2·85							
			1·8							
,, 7th			1·9	,,		37 oz.	1007	0·1		
,, 10th			2·4							
,, 11th			1·8	,,	Non-nitrogenous, consisting of sugar, arrowroot, tapioca, butter, water					
,, 13th			0·7							
,, 14th	♀ = 9·5	1007	0·7							
,, 15th		97·2°	0·7 =0·71	,,						
,, 16th			0·7			32 oz.	1004	0·05	F. alk.	20%
			3·4							
,, 17th			3·2	,,		Put in drain-tube on 22nd. Collected 32 oz.				
,, 18th					Ordinary, mixed as above					
,, 20th	♀ = 10·0	1020 99·4°	2·7							
,, 22nd			1·8	,,			1010	0·15		33%
		1024								

RECORD DURING DRAINAGE.*

Date.						Collected				
Oct. 23rd	9·0	1020 98·4°	2·2	Nil	Ordinary, mixed as above	4·5 oz.	1014	0·75		25%
,, 25th	10·0	1020 99·4°	2·1		,,	10·0 oz.	1016	0·9		20%
,, 29th	7·0	1022 103·2°	2·2	Trace Sl. al.	,,	9·0 oz.	1015	1·3		25%
Nov. 5th	5·0	1022 100·2°	2·5	Nil Acid	,,	7·7 oz.	1016	1·4		17%
,, 7th	4·5	1027 99·7°	2·7	Nil ,,	,,	7·0 oz.	1018	1·7		30%
,, 18th	8·7	1027 99·6°	3·4	,, ,,	,,	2·5 oz.	1019	2·0		33%
,, 19th	3·5	100·2°	3·0	,,	,,	5·0 oz.	1020	2·6		30%

* The drain-tube fitted the puncture in the loin exactly, and was attached to a Maw's feeding-bottle by a long piece of tubing, so that, as a matter of fact, there was no loss of urine from this side at any time, night or day.

RECORD AFTER NEPHRECTOMY.

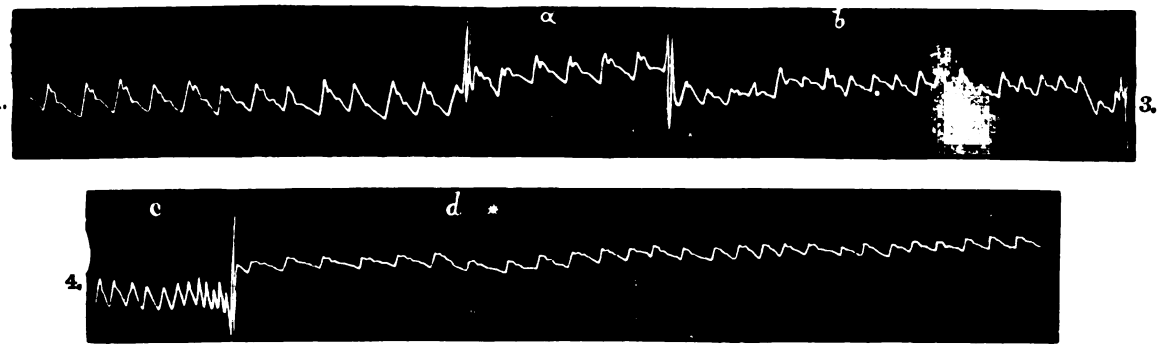
Uninjured Side.					
Date.	Average ounces of urine in 24 hours.	Average specific gravity and temperature.	Average percentage of urea.	Reaction. Albumen.	Diet.
November 20th	—	—	—	Nil	Ordinary mixed, consisting of bread and milk, potato, cabbage, butter, cheese.
,, 21st	7·0	1018 100·7°	2·25	,,	
,, 22nd	26·5	1014 99·2°	1·8	,,	
,, 23rd	26·0	1011 100·4°	1·0	,,	
,, 24th	36·0	1013 100·5°	0·95	,,	
,, 25th	22·0	1017 100·3°	1·15	,,	
,, 26th	28·5	1016 101·7°	1·3	,,	
,, 27th	12·5	1020 100·8°	1·9	,,	
,, 28th	10·2	1018 100·4°	2·05	,,	

going on, the highest percentage being observed on the day when the average temperature was highest viz., 101·7°.

Now, gentlemen, I had accumulated almost all these facts, except the last data, before deciding the question of removal of the right kidney, although it appeared urgently necessary. They proved beyond a doubt that the fluid in the right flank was urine, and that the kidney secreting it was quite healthy, doing its work as to quantity and quality normally the moment the obstacles to its excreting forces were removed. They proved, further, that the left kidney was perfectly healthy, and able to take on double work if required. On several days it secreted quite as much as the average quantity of the two organs for the week, and during the highly nitrogenous dietary its elimination of urea rose as high as over 3 and even 4 per cent., while that of the other kidney remained unaffected. From this aspect of the case, therefore, there could be no objection to the removal of the offending kidney.

But other points demanded consideration. First, Is the operation of nephrectomy a dangerous one? To this I may reply at once that if we have a healthy kidney and a sound individual to deal with it is not so. Without going into details, I may tell you that I have collected a considerable amount of evidence to show that the organ may be dealt with very freely without danger when it alone is in question. Cases are on record where it has been slit open and prolapsed through a lumbar wound, and has been removed without the slightest constitutional disturbanee. It has even been prolapsed through a wound and replaced, and recovered completely. We are not speaking now of its removal for diseased conditions, which is quite a different matter.

The next question to be decided was, What necessity was there for any operation at all? The answer to this is to be found in the child's condition after the injury and the history of the only analogous cases recorded.[3] You will remember that this child had an accumulation of urine in the retro-peritoneal tissues, which was increasing at the rate of about two pints a week. From our maturer observations it seemed clear that the fluid was not contained in the distended pelvis of the kidney, and was also not encysted in the abdominal cavity. Now, in addition to the discomfort and distress due to this collection, which were both very marked, there was the danger of rupture of the sac into the peritoneum at any time, and death as a probable consequence. In addition to this there was the danger of free suppuration in the sac; this seemed by no means remote, for with each aspiration of the fluid there was noticed more turbidity from lymph, although the strictest antiseptic precautions were observed. There seemed to be no hope in this case of an atrophy of the organ, which was healthy and vigorous; in the meantime, even if this were remotely possible, some immediate relief was necessary for the child, and simple aspiration was resorted to. And while this showed us the hopelessness almost of looking for gradual atrophy of the organ, it was plain it could not be resorted to for a continuance, and of course it increased the risks of suppuration of the sac. Then I tried a more perfect drainage of the sac as a palliative. But it was plain after a few weeks' observation of this measure that the child's condition was not improved, and that he ran increased risks. The slightest block of the drain-tube was followed by the severest constitutional disturbance, and on several occasions this was alarming in the highest degree, the temperature on one occasion reaching 105·6°, and several times exceeding 104°. Such blockages appeared to be unavoidable on account of the deposit of phosphates in large amounts in the cavity around the tube. On several occasions these deposits had to be removed in masses as large as beans, and could only be expected to re-form in consequence of the free flow of urine from the healthy kidney. Should the child leave the hospital and be transferred to the care of his parents, the dangers from this side would be much increased of course. Finally, if he should be freed in any way from the danger of blocking of the drainage opening, his condition would be very miserable with a constant flow of half the daily amount of urine from his side for the rest of his life, which no urinal could save him from. There appeared upon all these grounds no choice left to me but to remove the organ which was furnishing this abundant secretion. This I accordingly did as described, and the result so far has been satisfactory. The operation itself, which was strictly antiseptic, and which you have seen, requires but brief notice. It consisted in an incision, about three inches long, immediately below and in the direction of the last rib and commencing just behind the external border of the erector spinæ muscle; then division of the layers of muscle and aponeurosis; then clearing the whole surface of the kidney from its surrounding fat with the finger; next transfixion of the pedicle with an aneurysm needle armed with carbolised twisted silk, and tying the pedicle in two portions; then in drawing the kidney out of the wound, and a further ligation of the vessels *en masse* on the proximal side of the first; after this the pedicle was divided with a snip or two of the scissors and slipped back into its place; then suture with silver stitches and dressing with salicylic wool, a drain-tube being left in the original



drainage opening. The whole operation lasted twenty-three minutes, and presented no difficulty except in the ligature of the pedicle, where I lost some time in tying *in situ* instead of drawing the organ out of the wound and then placing a ligature round it. I was anxious, however, to avoid dragging on the pedicle and its nerves, as this appears, in some cases at all events, to add much to shock. In this case there was no marked shock at any time as indicated by the pulse, which was carefully observed all through. Another interesting observation which I have often wished to make I was able to record in this case. This consisted in taking a sphygmographic tracing of the radial pulse immediately before, during, and after the act of ligaturing the pedicle. This was kindly undertaken for me by Mr. Horsley while I was proceeding with the operation, and you have seen the tracing (*vide* Chart). As he told you, it does not indicate any particular shock, but shows what is usually noticed when a large artery is ligatured. A very short time after the operation the child came to himself and seemed remarkably well, and soon began to talk with the other children in the ward. His temperature has risen on several occasions, but without any other alarming symptom, and probably as the result of blocking of the drain opening with some of the phosphatic deposits which have not yet been thrown off from the walls of the sac, but are daily coming away. He is now, three weeks after operation, enjoying his ordinary diet, and cheerful and well.[4] The glands in his neck noted as much enlarged for the last two

[3] Loc. cit. Two of these died within ten weeks after the accident, the other was lost sight of after the tapping.

[4] The child left the hospital and went home on Jan. 8th, seven weeks after the removal of the kidney. He had still a very small sinus in the side, yielding about a drachm of pus daily, but was otherwise well.

years and a half, and fluctuating long before the operation, have increased in size and have been since opened, giving exit to a considerable amount of pus. The rise of temperature may be accounted for, to some extent, by the maturing of these abscesses, for he has been much relieved by their evacuation. At all events his present state is satisfactory, and I hope soon to be able to bring him down here and show him perfectly convalescent.

The kidney removed proved to be perfectly healthy macroscopically and microscopically, and the pelvis was not dilated. The ureter appeared to be divided just below the seat of rupture. The lower end of the kidney formed part of the wall of the urinary abscess, and was covered with lymph and phosphates, showing the correctness of our diagnosis that we had to deal here with a retro-peritoneal collection of urine, not a true hydronephrosis. Perhaps the best name for this condition is that used above—viz., "urinary abscess"; or if this is objected to on account of the small amount of inflammation, we might call the condition pseudo-hydronephrosis.

The accompanying tracing was taken on one continuous slip, which was run through the sphygmograph as the operation proceeded, and was stopped from time to time when a fair sample of pulse was procured, but the instrument and limb were not otherwise touched. The slip is only cut in two for convenience of printing, the division being made at one of the stops (3), which corresponds directly with 4. Pulse 118. A long tracing (normal) was first taken as the child lay on the table under chloroform, and this terminates at 1, where the operation commenced at 3 P.M. After a time there appeared a slight rise with normal wave still (*a*); then, corresponding to the manipulation of the kidney, some irregularity is shown (*b*); then a fall with a different kind of irregularity (*c*); then a gradual rise, slightly increased, perhaps, by the ligature of the renal artery at **d*, with a lower stroke. Pulse 140.

REMARKS ON THE

CIRCULATION OF THE BLOOD.

HISTORICAL NOTICE OF THE DISCOVERY THAT THE VEINS OF THE BAT'S WING, WHICH ARE FURNISHED WITH VALVES, ARE ENDOWED WITH HEART-LIKE RHYTHMICAL CONTRACTILITY, WHEREBY THE BLOOD IS ASSISTED ONWARD IN ITS COURSE TO THE HEART: A PROTEST AGAINST EFFORTS MADE TO IGNORE A CRUCIAL FACT IN NATURE.

BY T. WHARTON JONES, F.R.C.S., F.R.S., &c.

HAVING by experimental research elucidated the *artificium admirabile* of the circulation of the blood in the extreme vessels of the frog's web (as recorded in Guy's Hospital Reports for October, 1850), I applied myself to the study of the same subject in the wing of the bat, and had not observed long before peculiar contractions of the veins engaged my attention. The bat I first examined was of the large brown species, but it proved so restless that its wing could not be retained sufficiently steady under the microscope to admit of any accurate discrimination of the nature of the peculiarity referred to.

Having procured specimens of the grey house-bat and of the long-eared bat, I found them quiet animals, and in their wings, spread out under the microscope, I was able to make prolonged and detailed observation of the flow of blood in the extreme vessels. The result was that I discovered rhythmical constrictions of the calibre of the veins going on, whereby the course of the blood in them towards the heart was promoted, while the valves with which they are furnished prevented regurgitation. The systole or constriction of the calibre of the veins was found to be caused by rhythmical contraction of the muscular walls of these vessels, whilst the succeeding diastole took place by sudden elastic recoil. Besides making this discovery, I traced the extreme ramifications of the arteries into the capillary network, and thence the origin of the radicles of the veins, thereby correcting the mistake which had been shortly before made by Mr. (now Sir) James Paget, that in the bat's wing extreme arteries open directly into veins, and that this might be a provision of nature connected with the hibernation of the animal.

Impressed with the importance of the discovery I had made of this *artificium admirabile* for promoting the onward course of the blood in the bat's wing, which by its length is so remote from the full influence of the heart, I forthwith prepared an account of it, illustrated by exquisite drawings taken from life, for presentation to the Royal Society. My discovery I kept secret until I had given in the paper, but in the meantime confidentially communicated it to my friend the late Professor Graham, and entrusted to his care a transcript in order to guard myself against any anticipation *per fas aut nefas*. After the paper was given into the Royal Society, but before it was read, I showed Mr. Huxley the wing of a bat under the microscope, and pointed out to him the phenomena I had discovered.

By this time the discovery had come to be talked of among persons who seem to have been rather chagrined than pleased with this important addition to our knowledge of the mechanism of the circulation of the blood. Happening to fall in with a circle of such friends, Mr. Huxley heard Dr. W. B. Carpenter remark slightingly that he did not "believe Mr. Wharton Jones's observations to be correct." "But I have seen the phenomena," interposed Mr. Huxley; whereupon the gentlemen turned to Mr. Paget, who was present, and regretfully expressed their surprise that he should have missed detecting the fact when making observations on the bat's wing for his lectures on Inflammation at the Royal College of Surgeons in 1850. Mr. Paget had indeed noticed contractions of the veins, but overlooked their heart-like rhythmical character, comparing them merely to the tonic muscular contractions of arteries.

The late Mr. Thomas Bell, Professor of Zoology in King's College, was at this time Physiological Secretary of the Royal Society, and as soon as the paper had been delivered to the assistant secretary, I wrote to Mr. Bell telling him of the fact. In reply this gentleman went somewhat out of his way in dwelling on the excellence of an article on Veins which his nephew, Dr. Salter, had just prepared for the Cyclopædia of Physiology, and betrayed, as it appeared to me, chagrin that it had not fallen to the lot of his nephew to make the discovery I had made. Though the fact is of such scientific importance, the prestige of its discovery has been ignored as much as possible, something after the manner of the ostrich which buries its head and eyes in the sand to escape observation when pursued.

On the occasion of my discovery being brought before the Royal Society, the late Sir John Herschel, vice-president, occupied the chair at the meeting, and Mr. Bell read the paper. When a reference to the illustrative drawings came to be made, I saw him fumble among some loose papers on the table as if to pick up the drawings to exhibit, but no drawings were forthcoming. This, I remember well, caused me some misgiving as to their safety. An abstract of the paper, of which a copy is here given, was duly printed in the Proceedings:—

"'Discovery that the veins of the bat's wing, which are furnished with valves, are endowed with rhythmical contractility, and that the onward flow of blood is accelerated at each contraction.' By T. Wharton Jones, F.R.S., Fullerian Professor of Physiology in the Royal Institution of Great Britain, &c. Received November 20th, 1851.

"The author finds that the veins of the bat's wing contract and dilate rhythmically, and that they are provided with valves, some of which completely oppose regurgitation of blood, others only partially. The act of contraction of the vein is manifested by progressive constriction of its calibre and increasing thickness of its wall; the relaxation of the vessel, by a return to the former width of calibre and thickness of wall. The rhythmical contractions and dilatations of the veins are continually going on, and that, on an average, at the rate of ten contractions in the minute. The contractions *centrad* and *distad* of a valve appear to be simultaneous, as also the dilatations. During contraction the flow of blood in the vein is accelerated, and on the cessation of the contraction the flow is checked, with a tendency to regurgitation, which brings the valves into play. But this check to the onward flow of the blood is usually only momentary; already, even while the vein is in the act of again becoming dilated, the onward flow recommences and goes on, though with comparative slowness, until the vein contracts again. It is the heart's action which maintains the onward flow of blood during the dilatation of the vein, whilst it is the contraction of the vein, coming in aid of the heart's action, which causes the acceleration. The valves are composed sometimes of but a single flap, some-

times of two. In the situation of a valve and *centrad* of the insertion of its flaps the veins present the usual dilatations or sinuses. The valves are a reduplication of the clear innermost coat of the vein, with sometimes an intervening layer of cellular tissue. The veins closely accompany the arteries, the nerve only intervening. The author further finds that nowhere do the arteries and veins of the web of the bat's wing directly communicate, as has also been alleged, the only communication being the usual one through the medium of capillaries.

"In an appendix to this paper, the author describes the result of his microscopical examination of the structure of the veins and arteries. Both artery and vein have a middle coat of circularly disposed muscular fibres; but the appearance of the fibres is different in the two vessels. The fibres of the vein are $\frac{1}{3700}$ in. broad, pale, greyish, semi-transparent, and granular looking. In general aspect they very much resemble the muscular fibres of the lymphatic hearts of the frog; but in none did the author detect an unequivocal appearance of transverse marking. The fibres of the middle coat of the artery are not so pale looking, are clearer, and exhibit a more strongly marked contour.

"In another appendix the author states that the veins of the ear of the long-eared bat were found not to be endowed with rhythmical contractility, and that the muscular fibres of their wall present microscopical characters similar to those of ordinary veins."

By-and-bye the paper itself was ordered by the Council to be published in the Philosophical Transactions. So far well. But here comes the mystery as to the drawings. Mr. Bell wrote to me saying that they were not to be found, and asking if I could supply another set. Fortunately, I had preserved the original sketches, and they admitted of being touched up, so that engravings could be made from them sufficiently illustrative of the essential points of the subject. They were, however, poor substitutes for the exquisite drawings which had, it was alleged, disappeared.[1] There is always a chink between the plates of one's armour, and thus it was that notwithstanding all the precautions I had taken to ensure my paper against any encroachment *per fas aut nefas*, I had to lament the loss of the drawings. No explanation was offered to me by Mr. Bell as to how they had disappeared, and of course I could not well ask for one. A calm review now, after the lapse of thirty-two years, however, of the circumstances at the time, and of what came to my cognisance subsequently, fails to disabuse my mind of a suspicion that the drawings were not fairly dealt with.

This discovery of the heart-like, rhythmical contractions of the veins of the bat's wing was a crucial one in the history of the circulation of the blood, inasmuch as it shows how, by the new force thereby brought into play, the onward movement of the blood is and may be promoted when by the distance of an organ from the heart the force thereof would be inadequate. As an example of design, the mechanism in question is simply marvellous. The veins of other parts of the bat's body are not similarly endowed with rhythmical contractility, as may be seen in the ears of the long-eared bat, which admit of examination under the microscope; these organs being so near the heart that the circulation in them requires no additional power for its maintenance.

I have no hesitation in boldly claiming for the discovery of the heart-like, rhythmical contractions of the veins of the bat's wing and the promotion of the onward course of the blood thereby, the third place in the history of the circulation of the blood; the first being Harvey's exposition of the true mechanism of the action of the heart and great arteries, whereby the blood is driven to all parts of the body through the arteries and back to the heart through the veins; whilst the second was Malpighi's discovery of the capillary vessels and the passage of the blood through them from the extreme arterial ramifications to the radicles of the veins—a discovery which Harvey anxiously sought to make, but failed for want of the means of investigation. In a clinical lecture on the circulation of the blood, which I delivered at University College Hospital a few years ago, and which was printed in THE LANCET, I remarked that if Harvey had been one of the party comprising among other eminent philosophers, Christian Huyghens, to whom Leuwenhoek tells us he demonstrated the capillary circulation in the tail of a minnow under one of his simple microscopes (the lens ground by himself), he (Harvey) would have danced for joy. To this I may here add that if Harvey had been present that evening at 35, George-street, Hanover-square, London, when I showed Mr. Huxley in a bat's wing under the microscope the rhythmical action of the veins, and the acceleration of the onward course of the blood to the heart thereby produced, while valves[2] prevented regurgitation, he (Harvey) would, I am sure, not only have danced but sung paeans also.

In 1656 Harvey gave the College of Physicians an estate, part of the income from which was to endow a solemn oration to be delivered annually in commemoration, among other things, of "any addition made to the sum of medical science." The elucidation of the mechanism of the circulation in the extreme vessels was, we have seen, an object of anxious solicitude with Harvey, and doubtless the discovery of the heart-like action of the veins in the bat's wing would have been considered by him above all things as coming under the category of "an addition to the sum of medical science," and therefore ought to have been at once recognised as such at the College of Physicians. The discovery of the heart-like rhythmical actions of the veins of the bat's wing, with valves in operation to prevent regurgitation, though made thirty-two years ago, has, however, never been mentioned in any one Harveian Oration that I am aware of. Such shutting of the eyes to facts in nature is only equalled in disingenuousness by the pretence of seeing things that do not exist in nature. Some years ago, when Dr. Burdon Sanderson, my then colleague at University College, and now Professor of Physiology in the University of Oxford (the same gentleman who undertook to show me the emigration of white corpuscles of the blood from the interior of small vessels, but did not keep his appointment), was about to deliver the Harveian Oration at the Royal College of Physicians, I wrote to him suggesting that he should go into the subject, but he declined to do so. Whether he had ever made himself acquainted with the facts by observation, I did not at the time know. It being his duty as a professor to teach his pupils crucial facts in physiology, I presumed that he had done so. I now find, however, that such could scarcely have been the case, judging by the meaningless passage in his syllabus of lectures—viz., "in certain animals veins contract rhythmically," and this without any reference to the effect on the flow of blood. Whatever may have been taught in lectures on the subject to students, I have found that in the books on physiology which have come under my notice the rhythmical contractions of the veins of the bat's wing are either not at all mentioned, or, if referred to, mentioned in such a manner as to indicate that the author had never seen fit to look on the original, or to read my paper, or even the abstract of it, as intercalated above. In my "Inquiry" concerning the alleged primary active dilatation of small arteries under the influence of imaginary vaso-dilator nerves, the shortcoming of McKendrick's Physiology in this respect was commented on. The reference to this book reminds me that the author of it, the Professor of Physiology in the University of Glasgow, also holds, or recently held, the Fullerian Professorship of Physiology in the Royal Institution of Great Britain. As the founder of this professorship, Mr. John Fuller of Rosehill, was a distant kinsman of mine, and as I had the honour of holding the office thirty-two years ago, I regard it with some interest. It was during my incumbency that I discovered the heart-like action of the veins in the bat's wing. I therefore took the opportunity in the course of my lectures to give the audience an account of the admirable mechanism. Judging from Professor McKendrick's lectures at Albemarle-street as reported, I fear his account of the subject therein has been as far from the facts in nature as are the statements in the Text-book of Physiology for the use of his class in the University of Glasgow here criticised.

(To be concluded.)

[1] In supplying the new set of drawings, I requested that they might be returned to me after the engravings were made, and they were accordingly returned.

[2] My discovery thus included the observation for the first time of valves in action in the veins of a mammiferous animal, such as no doubt takes place in the human body.

NAVAL MEDICAL SUPPLEMENTAL FUND.—At the quarterly meeting of the directors of this fund, held on the 13th inst., Sir W. R. E. Smart, K.C.B., M.D., Inspector General, in the chair, the sum of £82 was distributed among the several applicants.

RHIGOLENE: AMYL HYDRIDE.

BY BENJAMIN WARD RICHARDSON, M.D., F.R.S.

THE annotation on Rhigolene in THE LANCET of the 10th inst. requires, if I may venture to say so, some slight correction and supplement. Rhigolene is the crude or impure hydride of amyl, $C_5H_{11}H$, and is the lightest fluid of the petroleum series. It has a vapour density of 36, taking hydrogen as 1; a specific gravity of 625, taking water as 1000; and a boiling-point of 30° C. (86° F.) It is insoluble in the blood at the natural blood temperature. The fluid in the crude state has a faint but pleasant odour and a slight taste; it causes no irritation, and when raised into vapour can be inhaled without difficulty. It mixes with anhydrous ether in all proportions.

Rhigolene is not in any sense a local anæsthetic by virtue of causing insensibility from its absorption. It cannot, in fact, be absorbed locally. It can, however, be dispersed, like ether, in the form of spray for producing cold; in that way it can be used for causing anæsthesia by extreme cold, and so used is valuable for quick and superficial freezing. Within a few weeks after the appearance of my original essay on Ether Spray in 1866 a merchant in the City sent me a specimen of rhigolene, as "a fluid lighter and less soluble than ether, and with a lower boiling-point," he having read that I wished for such a fluid. I at once brought the fluid into service for spray, and found it most effective for rapid freezing. In dentists' practice it soon became very popular. The cold produced by the rhigolene spray is so intense that I have seen a portion of the skin rendered hard, white, and insensible by it within two seconds. At first sight this promises well, but as a general fact the action is too rapid. The superficial layer of surface that has been so rapidly frozen is rendered a non-conductor, and deep freezing and deep insensibility are prevented. Finding this out, I constructed the *compound anæsthetic ether for local anæsthesia*, consisting of rhigolene and anhydrous ether in equal parts. That fluid has been very largely used from the time when it was brought out, and is still in use as largely, I believe, as ever.

Rhigolene may be used alone, as spray, in some cases. For inserting a suture it answers well, the point where the needle is to enter being made insensible by it instantly, and quite long enough to save the pain of the puncture. It can be used for painless extraction of loosened stumps of teeth and for puncture of a superficial abscess. Directed as spray over the closed eyelid, held tense over the ball of the eye, it causes a brief insensibility of the conjunctival surface, the conjunctiva, an almost insulated surface being more easily rendered either sensitive or insensitive by local influences than other mucous surfaces, which rest on a deep cellular basis, or than the cutaneous surface.

Rhigolene, though not in itself a local anæsthetic, is capable of producing general anæsthesia on administration of its vapour by the lungs. Purified by distillation, it is a colourless and odourless fluid, and is even agreeable to breathe. It causes general anæsthesia with great rapidity, often within the minute, with recovery in two minutes. In my report to the British Association for the Advancement of Science at Exeter in 1869 (Trans., p. 412), I spoke favourably of it for general anæsthetic purposes; but later experiments with it showed me that owing to its insolubility it was dangerous—as dangerous as amylene. I therefore ceased to advocate its introduction for general anæsthesia.

Readers who may be interested in this fluid may turn to my Exeter Report upon it for some other curious and useful applications of it, of which I will briefly notice three.

For Burns.—I found that camphor and spermaceti dissolve in rhigolene freely. I therefore made a saturated solution of spermaceti and rhigolene, and then added camphor until that ceased to be dissolved. The solution so formed was applied with cotton-wool to burns. The evaporation of the fluid gave instant relief to pain, and left over the surface a thin layer of spermaceti and camphor, which excluded air and gave an excellent dressing. One drachm of spermaceti and one drachm of camphor will dissolve in two fluid ounces of rhigolene.

For Iodine Disinfection.—I found that the fluid would take up iodine. I used it, consequently, for making an iodine solution, and employed the solution for various purposes. Applied to the surface of a fetid wound, it leaves the iodine on the surface in finest subdivision. Sprayed into the throat, it is very useful in malignant or fetid ulceration, one or two injections of the spray being quite sufficient to leave a free portion of iodine on the surface. Inhaled as a weak solution, it affords a means of allowing iodine to enter the respiratory tract, a little iodine being always carried over with the vapour. The strength of the iodine solution which I use is five grains of iodine in one fluid ounce of rhigolene. One of Gamgee's excellent absorbent pads treated with half a fluid ounce of this solution becomes in a few moments a most perfect iodine sponge, applicable for a variety of useful purposes.

For Antiseptic Use.—By shaking a strong solution of ammonia with the rhigolene and then decanting off the water, I obtained an ammoniated solution which acts as an excellent antiseptic, the vapour of which can be inhaled. The same solution charged with camphor is very useful for the preservation, temporarily, of natural history specimens. Dead objects are perfectly preserved by putting them for a short time into a bath of the solution, letting the fluid escape as vapour, and leaving the camphor in the tissues.

Manchester-square, W.

ON FUNCTIONAL AND FALSE MURMURS.[1]

BY J. KINGSTON FOWLER, M.A., M.D.,
ASSISTANT PHYSICIAN AND PATHOLOGIST TO THE MIDDLESEX HOSPITAL; ASSISTANT PHYSICIAN TO THE BROMPTON HOSPITAL FOR CONSUMPTION.

WHEN we find one of the normal sounds of the heart replaced or accompanied by a murmur we have, as a preliminary step to a complete diagnosis, to give an answer to two questions, Is this sound produced within the heart? If so, does it indicate organic disease of a valve? That a murmur may exist independently of structural lesion is a fact so well recognised that it is only necessary to mention it, but I doubt whether the great frequency with which such a condition is met with is fully appreciated by those who have not paid especial attention to the subject. At a clinical demonstration which I gave last year at the Brompton Hospital, I was able to show fourteen patients at that time under my care in the out-patient department, in each of whom a murmur was present which, although simulating the altered sound indicative of organic valve disease, was really due to some extrinsic or functional condition.

There are, I imagine, few physicians who have not at some time met with a patient who has told them that he is quite aware that his heart is diseased, as his life was refused for insurance on that ground years ago, whilst on examination, although something abnormal has been detected in the heart's sounds simulating the effect of organic change, it has proved to be nothing more than a false or functional murmur. This subject derives an additional importance from the fact, now becoming generally recognised, that acute rheumatism, certainly the most common cause of endocarditis, is frequently accompanied by changes in the heart's sounds almost identical with, and easily mistaken for, the results of organic disease. An important contribution to our knowledge of the conditions under which such murmurs may be found has been lately made by Dr. Angel Money in a paper recorded in vol. xlv. of the Medico-Chirurgical Transactions, "On the Great Frequency of Cardiac Murmurs in the Puerperal State." As the result of a systematic examination of 111 cases, a murmur was present in no less than 84, or rather more than 75 per cent. Of these only 2 were of undoubted organic origin; in 51 cases the sound resembled an ordinary endocardial murmur, and first appeared most commonly a day or two after delivery.

The various conditions which may give rise to these functional and false murmurs may be conveniently classified thus:—1. Displacement of, or pressure upon, the heart, the result of previous disease of the (*a*) lung, (*b*) pleura, or (*c*) thorax. 2. Effusion into the pleural cavity. 3. Changes in the pleura of the præcordial area. 4. Changes in the lung overlying the heart. 5. Changes in the pericardium. 6. Altered conditions of the muscular walls of the heart. 7. Altered conditions of the blood.

1 (*a*) *Displacement of the Heart, the Result of old Disease of the Lung.*—As a result of the contraction of a cavity, say

[1] Read before the Medical Society of London, October 27th, 1884.

in the left apex, the heart is frequently found displaced upwards. Under these circumstances a systolic murmur is often heard in the second or third left interspace, having its maximum intensity about two inches from the edge of the sternum. The presence of the cavity and the indurated lung surrounding it intensifies the murmur, which I have in some cases found to be so distinct as to be audible over the greater part of the left chest. This sound, though more commonly suggesting aortic disease or a hæmic murmur in the pulmonary artery, I have known to be mistaken for the murmur of mitral regurgitation. When the cavity is detected and the displacement of the heart recognised the differential diagnosis should not be difficult, especially when the rare association of phthisis and valvular disease is remembered.

(*b*) *Pressure upon the Heart, the Result of old Disease of the Left Pleura.*—Perhaps of all the false murmurs which we are now considering none are more common, or present greater difficulties in diagnosis, than those caused by pressure upon the heart resulting from the contraction of the left side of the chest after an attack of pleurisy. The pleura is probably thickened, and the lower lobe of the left lung partially collapsed, and at each systole a sound is produced by the sudden impact of the heart displacing the air in the larger bronchi. This may be audible not only at the apex and in the axilla, but also at the angle of the left scapula, in the trachea, and in the mouth.

In one patient under my care, who was shown at the demonstration above referred to, a systolic murmur produced in this manner was distinctly audible to those present at a distance of more than a yard from the patient. When he held his mouth open a puffing sound was heard, which may be imitated by saying Hah! hah! during expiration. In this case an aneurysm of the aorta with pressure on the trachea had been suspected. I may here remark that the presence of a systolic murmur in the trachea, which has been said to be diagnostic of aneurysm of the aorta, is far from having such an important significance. I have several times detected it even during attacks of functional palpitation.

(*c*) *Displacement of the Heart from Deformity of the Chest.*—I have met with several instances of murmurs originating from this cause. One particularly I can recall in a woman, in whom the lower part of the sternum was depressed to such an extreme degree that by careful measurement it was clear that its posterior surface was only separated from the spine by a distance of about two inches. The chest was shaped like a crescent with blunted horns, the left one holding the heart, which could be literally grasped by the hand and all its movements distinctly felt. Here a loud systolic murmur was present. Latham, in his Lectures,[2] thus graphically describes such cases:—"Strange things happen to the heart when the chest is deformed. There is an end of our pretending to calculate what its condition may be by listening, and feeling, and percussing. Its sounds, and impulses, and resonances, be they what they may, are now worth nothing at all as guides to diagnosis. The heart is dragged from its proper seat and imprisoned in some strange place, and perhaps turned almost topsy-turvy by the encroachment of the vertebral column and approximation of the ribs. And thus cramped and hooped about with bone, at every movement it gives a jar that may be felt and a sound that may be heard in every part of the chest; and this sound which is thus conveyed to a distance is seldom the natural sound, but a loud whiz, the same in kind and the loudest in degree which belongs to mechanical impediment from valvular disease. And mechanical impediment there is, but valvular disease there is none. The weight and pressure which the heart or its large vessels sustain from the hard framework of the chest raise the impediment, and throw it in the way of the circulating blood."

2. *Effusion into the Pleural Cavity.*—In some cases of pleural effusion, more frequently, I believe, when the left side of the chest is affected, a loud and prolonged systolic murmur may be heard either near the apex or at the base of the displaced heart. This murmur so exactly simulates that of mitral regurgitation that when heard for the first time it is difficult to believe that the patient is not suffering from valvular disease in addition to his pleurisy, or the case may even be regarded as one of hydrothorax resulting from the condition of the heart. I have met with only two examples of this murmur, which I believe to be of very rare occurrence; both were cases in which there was a very large serous effusion on the left side; in one of them, as tested by the manometer, there was an absolute pressure within the pleural cavity. Such a condition is, it appears to me, unfavourable to regurgitation through the mitral orifice, but likely to produce a murmur either in the aorta by pressure upon the vessel, or, what is more probable when the murmur is localised at the apex, within the ventricle itself. The murmur completely disappears on the removal of the fluid from the chest.

3. *Changes in the Pleura of the Præcordial Area.*—Friction murmurs having their origin in some change in the præcordial pleura are very common. They are probably produced by the impact of the heart against the chest wall forcing back the thin margin of the lung, the pleural covering of which is roughened. This sound may be systolic in time, but is more commonly of a to-and-fro character, when it may suggest that aortic regurgitation is present. It is superficial and rough, localised, and generally becomes more distinct on firm pressure with the stethoscope. When the breath is held, after a deep inspiration, the murmur usually disappears, as then the lung is fixed and is uninfluenced by the contractions of the heart. It is important to note that a true pleural friction sound can usually be detected in the neighbourhood of these murmurs, which are commonly not exactly systolic or diastolic in time.

4. *Changes in the Lung overlying the Heart.*—In the subjects of pulmonary phthisis it is very common to hear a systolic murmur about the apex of the heart which closely resembles the murmur of mitral regurgitation, whereas, as is well known, these two conditions are rarely associated. The sound is caused by the impact of the heart upon lung tissue partially consolidated, producing an audible sound by displacement of the air in the bronchi in a similar way to that already described. It is almost always most distinct during expiration, is superficial, high pitched, and disappears when the breath is held after a deep inspiration, and often becomes inaudible when the patient lies down. This murmur may sometimes be heard in the axilla and at the angle of the left scapula, and in such a case may be readily mistaken for one of mitral regurgitation. The most common site of a murmur thus produced is not, however, at the apex, but in the second left intercostal space, about two inches from the sternum. In doubtful cases of early phthisis at the left apex the presence of this morbid sound is strongly suggestive of lung consolidation. In many of these cases, however, it is probably due to some displacement of the pulmonary artery, the result of the disease of the neighbouring lung. It was not until some time after I had, as I thought, discovered this sign and marked its association with phthisis—as probably many others had done before me, for there is little new in the field of physical diagnosis—that I found it had been fully described by Latham, who thus refers to it:—

"Of such a murmur, often audible in this situation exclusively, I am certain as a matter of fact, and certain, too, of its very remarkable accompaniments. I have witnessed it in those who were undeniably consumptive, or in those who were too justly suspected of being so. I cannot say in what proportion of the phthisical it occurs, but I am continually meeting with it."[3]

(To be concluded.)

[2] Lectures on Subjects connected with Clinical Medicine, second edition, vol. i., Lecture iii., p. 61.

[3] Lectures on Subjects connected with Medicine, vol. i., Lecture iii., p. 66, second edition.

SUGGESTIONS ON THE

GENESIS OF DISEASE FROM AN EVOLUTIONARY POINT OF VIEW.

BY W. HENRY KESTEVEN, M.R.C.S.

IT has occurred to the writer that the adoption of the germ theory of disease necessarily involves the application of the theory of evolution, and that here may be found a means of accounting for the genesis of the various forms of disease. Germs are living matter; they must therefore be under the influence of those laws and forces which condition all living matter. The most important of these, or the one that most interests us in the present connexion, is the law of natural

selection; and it must be that germs, in common with other forms of life, are under the influence of this law in some shape. Natural selection is a general term which embraces all other modes of selection, or provision for the "survival of the fittest." Among these is sexual selection, and taking a broad view, we may also include selection by man. In order, then, to the attainment of greater exactness may we not give a name to that form of natural selection which has been potent in bringing about the variations in the characteristics of those germs, to which the differences in the forms of disease are due? Such a term may be found, I would suggest, in "tissue selection," as indicating the special means whereby the constitution of the germs has been modified. The actual origin of the bodies which have received the names of germs is not at present determinable, and to say that they do not originate *de novo*, in decaying matter or elsewhere, is only to reaffirm the axiom now pretty generally admitted, *Omne vivum e vivo*. The fact that meets us here is that these germs, call them bacilli, vibriones, bacteria, or what we will, are met with almost universally in the atmosphere that we breathe. It is with the "why and the wherefore" of their existence that we are concerned. In looking for this, it will be necessary to consider the facts of the life history of these germs, and to try to discover how they have been and are influenced by their surrounding conditions. We find that the conditions favourable to the full vital activity of these germs are a moderate temperature, moisture, and a resting-place or nidus in some organic matter whose chemical constitution enables it to afford the pabulum necessary for the maintenance of their existence. On the other hand, the influences antagonistic to their well-being are excessive heat or cold, the action of certain chemical bodies, and a condition of dryness. The last is certainly prejudicial, as it seems to hinder their full vital activity. At the same time it cannot be considered absolutely obnoxious, as it is the means which favours their locomotion in the atmosphere. Putting aside, for the meanwhile, the thermometric and atmospheric conditions, we shall see that the condition which most concerns us is that of a favourable nidus. A favourable nidus is one in which the germ is enabled to carry on its full vital functions, and to propagate its kind. It is therefore manifest that the constitution of the nidus must be free from elements antagonistic to such vital functions. It must not be too hot, or too cold, or too dry, and its chemical constitution must be favorable. Experiment has proved that oxygen in excess is deleterious to these organisms; its absence, entire or partial, will then be one of the requisites in this chemical constitution of the nidus. Is not such nidus best found in decaying or degenerating animal tissue? Where there is full vital activity in any animal tissue, the blood which nourishes it keeps it duly supplied with oxygen. In healthy tissue, then, we have a condition unfavourable; but when from some cause the nutrition of the tissue is interfered with and a condition of degeneration is induced, this antagonistic element is removed or at least diminished, and the tissue affords the nidus favourable to the vital phenomena of the germs. These vital phenomena are perhaps best studied in the analogous case of the spores of yeast (torula cerevisiæ). When this, which is to all intents and purposes a germ, is placed in favourable circumstances, its activity commences, it rapidly multiplies and gives rise to changes in the surrounding material. In this case we call the process "fermentation." A germ, bacillus, bacterion, or vibrio, when placed in relation to tissue which affords a favourable nidus, assumes its full vital activity; it multiplies and gives rise to changes in the tissue with which it is in contact. These changes we call "inflammation." In fact, it would appear that these germs in one sense fulfil the part of nature's scavengers, and by setting up inflammatory changes in degenerate tissues lead to their removal. Be this as it may, the diseases to which the germs give rise are all more or less of an inflammatory nature.

Thus, then, it would seem that one of the chief vital functions of these germs is to excite an inflammatory process in degenerate tissue. Is it not conceivable that germs may have existed, or even do still exist now, whose function is strictly limited to action on degenerate tissue? That this may perhaps have been the limit strictly assigned to them? Let us suppose this to be the case, and see how from this limited condition, germs have acquired power to overstep these limits, and thus to give rise to the protean aspects of disease that we now meet with. What has caused variation in the animal world but the influences of surrounding circumstances? In the relationship of the germs and the degenerate tissue, it is plain that in one sense the germs are the active, and the tissue the passive, elements. But looked at from the tissue point of view, it will also appear that this passive condition possesses considerable indirect influence on the germs, that, indeed, "passive" is hardly the word to express the action which must largely modify their constitution. It would be impossible for the germs to live, to grow, to multiply on a certain tissue without becoming imbued with certain characteristics of that tissue. Hence a difference, a variation, between the parent germs and their offspring.

Now, the one characteristic of the tissue which most strikes our attention is its degeneracy, and this degeneracy must exert its influence on the organisms which depend upon it for existence, so that in the thus derived organisms we have the germ vitality and function, *plus* a certain amount of degenerate tissue characteristic. Germs thus modified and brought into contact with tissue of the same kind, though less degenerate, will, in virtue of this constitutional modification, stand a better chance of establishment thereon, at the same time adding to the degenerate condition with which they meet in the new tissue the characteristics of the degeneracy of tissue they have left. The effects thus produced will be more acute, the constitution of the germs further modified, and their power increased. Hence it is possible to conceive that if by any chance a condition of tissue which could be called perfectly healthy was to be anywhere met with, even this tissue might in time become subject to the influence of these organisms. Of course tissues may be more or less susceptible to their influence, more or less healthy, but it is more than doubtful whether it can be positively said of any one tissue that it is absolutely healthy, any more than it can be said of the individual man or woman. It is therefore possible to conceive that at some time or other there has existed only one kind of germ, that variations from this one type have arisen in consequence of the modification wrought upon different individuals by their chance falling upon this or that degenerate tissue. Variation must lead to specialisation, and finally we find diseases, all dependent upon the action of germs, as different from one another as one species of animal differs from another.

But there is another direction in which these germs must have been modified fully to account for the differences we now see. Germs may still exist which have only the power of exciting a simple inflammation in any degenerate tissue. Others, a step more advanced, are found, whose action is more potent, which have attractions for the one special tissue in which they have been bred; whilst others are capable of exciting the special form of inflammation in which they have had their origin, in tissues various in structure and composition. This power or, rather, increase of power—in other words, further variation in constitution—thus displayed is only to be accounted for by the supposition that its acquisition is secondary to the act of establishment, and that it is brought about by means of the blood itself receiving some of the germs and conveying them to some other tissue, on which, in virtue of its degeneracy, and possibly of a further modification, they have themselves received from the blood, they are enabled to effect a settlement. It must also be remembered that their modification, which enables them to select a tissue for their primary and more virulent action, does not deprive them of their original power of attacking degenerate tissue. It is simply an additional power, rendering them more potent when brought into contact with tissue possessing certain characteristics. These characteristics of the tissue originally attacked may determine the character of the action of the germs on other tissues, and thus enable us to recognise a relationship in the morbid influences at work in different tissue—as, for example, in syphilitic disease. If it is a fact that the tissue originally attacked modifies the constitution of the germs, it is surely more reasonable to suppose that the special characteristics thus impressed upon the germs are those which give the family likeness to the descendants of these germs, rather than to suppose that this morbid family likeness exists in the germs before ever they have been brought into contact with any form of degenerate tissue. In other words, may not a bacterion, pure and simple, by being brought into contact with some form of degenerate tissue, acquire or give rise to other bacteria which possess certain character-

istics which we recognise as being those of special disease, and that those characteristics enable them to excite a similar form of disease in the new nidus? It is also conceivable that as different diseases are more or less widespread or of older standing, so the germs given off from tissues affected by these diseases will have more and more power of affecting tissues less and less degenerate, even to the point of a possible condition of actual health. So, for example, the germs of scarlet fever or measles have actually acquired great power over the tissue which they primarily affect; whereas in the case of tuberculosis it is more than doubtful whether the actual presence of a tubercular condition of degeneration in the tissue, to a definite extent, is not necessary before the germs can find a suitable nidus in that tissue. Of course, germs derived from a tubercular origin will have more influence over tissue which is not so much affected than germs which have not such tubercular origin. It is, in fact, simply a matter of degree of degeneracy. May it not be this which enables persons free from tubercular taint to brave the assaults of germs be they ever so virulent?

The above are only one or two examples showing the different powers possessed by germs derived from the different forms of disease. The list of examples might be almost indefinitely prolonged. But the result would only be to show that different diseases have different powers of affecting the animal body, a fact already well known. It is the design of this paper to show that possibly these powers have been acquired by the action of some form of natural selection, here propositionally called "*tissue selection*," on the germs which inhabit the air we breathe and the water we drink; such action in the course of long ages having given rise to germs possessing special powers, and being now apparently unrelated to each other in any way. The intermediate steps between a simple germ and such a highly modified one, as, for instance, the variolous or tubercular germ, may be difficult to trace, for as we at present see these germs it is as though we were looking at a picture or photograph of a family tree in which the greater part of the trunk and larger branches had become obliterated, having only the terminal twigs visible, with no apparent connexion between them.

Holloway-road, N.

TWENTY-FIVE CASES OF

ABDOMINAL SECTION IN THE BRISTOL ROYAL INFIRMARY.

BY J. GREIG SMITH, M.A., F.R.S.E.,

FOLLOWING the good example of Dr. Malins, of the Birmingham General Hospital, and hoping to add something to the encouragement he has given to the performance of abdominal section in large public hospitals, I herewith put briefly on record my first series of cases operated on in the Bristol Royal Infirmary. I purposely exclude cases done in private. They are as follows: Ovarian cystoma, 17; solid growths of ovaries, 2; pyosalpinx, 2; hæmosalpinx, 1; exploratory, 3. A prolapsed, adherent, and diseased ovary successfully removed through the vagina is not included.

Among cases of cystic disease is included one where the tumour was mixed dermoid and cystic. In three cases the second ovaries were large enough to be reckoned as separate tumours; in five more the second ovary was removed because of incipient disease.

Of the cases of solid growth one was a pure fibroma of the ovary, measuring seven by eight inches in its diameters; in the other not only were both ovaries changed into solid growths, each about a pound in weight, but both Fallopian tubes were distended with a fluid fatty material, crowded with crystals of cholesterine.

One of the cases of pyosalpinx was the worst of the series. The patient had been very ill for two months; and when I saw her she was in a low typhoid condition, with high evening temperature (103°) and rapid pulse (120). She had also chronic bronchitis, with constant cough, and some fluid in the right pleura. The tumour was very thick-walled, rotten, almost gangrenous in parts, and, it need scarcely be added, adherent all over, more particularly to the bladder, uterus, and rectum. It contained about eight pints of highly offensive pus. There was free bleeding from innumerable points, which was checked by pressure of sponges. Part of the cyst wall, firmly adherent over the iliac vessels, was surrounded with a ligature and left behind. The operation had to be hurriedly concluded (within the hour), as the patient was near dying on the table. The treatment adopted was the following:—Nutrient peptonised enemata, drainage, and daily syringing of the abdomen so long as the discharges continued putrid. The ligatured portion came away through the wound as a slough, large enough to fill a three-ounce bottle. The patient recovered and went home, but now, eight months since the operation, there exists a sinus in the abdominal parietes, which is gradually closing.

Of the exploratory operations in one case the tumour was found to be malignant and to have invaded the peritoneum; the patient went home after a month and lived for nearly a year. A second was found to be encysted peritonitis from miliary tuberculosis. She recovered well from the operation, and died in nine months of her disease. The third was found, as was suspected, to be one of movable kidney, which was fixed.

Of these cases all recovered save one, and here the cause of death was volvulus. The patient was a broken-down woman of fifty-three, a cripple, with her joints all distorted from chronic rheumatic arthritis. The operation was not peculiarly difficult, and she appeared to be out of danger, when, on the fifth day, violent vomiting set in, which became stercoraceous in the end, and killed her in twenty-four hours. At the post-mortem examination a kink in the bowel, which was very dark and congested for a foot of its length above it, explained what, perhaps, ought to have been diagnosed during life. The rapidity with which she succumbed was easily explained by her general feebleness.

In all these cases Listerism was observed in its fullest details, even to catgut (with two or three exceptions) for the pedicle.

The operations are done in the general operating theatre, and no restriction whatever is put on students or visitors who may care to be present. For a week or ten days after operation the patient is kept isolated in a small ward; thereafter she is returned to the general ward. I may add that the infirmary building is a century old, that it stands in a low-lying, poor neighbourhood, and that its wards, affording less than eight hundred cubic feet to each patient, are always full, often overcrowded.

Clifton.

TREATMENT OF SEPTICÆMIA BY AMMONIA AND CHLORATE OF POTASH.

BY MAITLAND COFFIN, F.R.C.P. EDIN.,
PHYSICIAN ACCOUCHEUR AND TEACHER OF OBSTETRICS IN ST. JOHN'S HOUSE MATERNITY HOME AND TRAINING SCHOOL FOR MIDWIVES.

ON October 9th I was sent for to see Mr. T——. I found him very ill with erysipelas, and waited on by his wife, who was expecting her confinement every day. On the 14th I delivered her of a still-born female child, which had evidently been dead for a considerable time. Two hours after, I took her temperature; it was 100·4°, and fearing septicæmia, I gave her (having found it of use in other cases of blood-poisoning) large doses of ammonia and chlorate of potash; ordered carbolic acid (1 in 40) to be kept boiling in the room day and night, and the uterus to be syringed with Condy's fluid and water three times a day. The temperature went steadily up until the fourth day, when it reached 105·4°. The patient complained of pain in the throat and great difficulty in swallowing. The temperature kept from 105° to 105·2° until the morning of the tenth day, when it steadily declined until the evening of the twelfth day; then it went up a degree. The patient passed a large quantity of fetid discharge. I ordered the uterus to be syringed every three hours; she continued to improve, and at the end of one month I allowed her to come downstairs. On the sixth day she had some septicæmic spots, which disappeared on the thirteenth day, and throat symptoms on the ninth day. With regard to temperature, for six days and a half it was over 105°, for nine days over 103°, and for eleven days over 102°.

The treatment of puerperal fever by constitutional remedies, as distinguished from those which act locally and antiseptically, is one of great interest and importance.

Those principles which can be applied in the latter case with undoubtedly good effect are not easily carried out in the former. We can conceive that even after local septic activity is arrested, the blood and tissues of remote organs may be extensively infected; and we may naturally inquire whether there are any agents which, administered internally, will arrest the general septic processes, such as the cutaneous changes, which were well-marked in this case, or the analogous processes which we know by pathology are at work in the lungs, kidneys, and other organs. The agents which I employed in this instance have been used by me in similar cases with success, and I venture to think that the facts are worthy of being recorded, though the explanation of the *modus operandi* may not be very distinct. It may be possible that the agents used produced a change in the condition of the blood, which, though very slight, was sufficient to arrest the vitality of the bacteria or micrococci which characterise puerperal infection. To offer any suggestion, however, of this kind without some proof of its probability would be reprehensible, therefore I will conclude without further remarks.

Baron's Court, West Kensington, S.W.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.* lib. iv. Procemium.

ST. MARYLEBONE INFIRMARY, NOTTING-HILL.

A CASE OF ULCERATIVE ENDOCARDITIS.

(Under the care of Mr. HERBERT LARDER.)

THE following case of ulcerative endocarditis, for which we are indebted to Mr. Larder, is one of a class of cases interesting to all—from the difficulty with which they are diagnosed, from the multiple changes which occur during their course, from the etiology, and also from the resistance to treatment which they exhibit. It is possible that cases have recovered; these must have been of slight severity, and the diagnosis of necessity very doubtful. We would refer to the remarks of Mr. Larder, which are appended to the case.

Albert M——, aged forty, a labourer, was admitted on May 7th, 1884. There was no family or personal history of any importance, and no definite account of rheumatic fever. He was accustomed to work in drains, and attributed his illness to having caught cold a month ago whilst at work in the rain. A few days afterwards he had a severe attack of shivering, which recurred on several occasions up to the time of admission. He stated that he had felt much worse since May 4th, when he took to bed; he suffered from headache, thirst, loss of appetite, and general malaise. He had noticed swelling of the eyelids and face on rising in the morning, and that his urine was scanty and very dark in colour.

On admission his state was as follows:—He was a well-nourished, muscular man; skin dry; no œdema of face or extremities; tongue moist and furred. Temperature 103°. He was lying on his back, and appeared to be very ill; he complained of cough, headache, and thirst. There was some slight loss of resonance on percussion posteriorly at the base of the left lung. There were well-marked signs of cardiac hypertrophy and a loud systolic murmur over the entire cardiac area, but heard loudest over the aortic cartilage. There was no distension or tenderness of the abdomen and no rash.

May 8th.—The patient was very sick last evening, and his temperature ran up to 105·6°. Slept well during the night; bowels opened three times, motions light in colour, and closely resembling those seen in enteric fever; urine acid, sp. gr. 1030, it contained blood, and about one-half albumen. There are numerous spots of extravasation over the trunk and lower extremities; no distension or tenderness of abdomen; tongue red and dry; skin moist.

10th.—Patient very restless; he complains of pain in both shoulders, and cries out on being moved. No swelling or redness of joints. He is lying on his back, sweating profusely, and appears very prostrate. The facial muscles are in a state of constant twitching, and there is marked subsultus tendinum at the wrist. The breath is offensive, the tongue dry and brown, and sordes on the teeth and lips. The face and conjunctivæ are suffused. He lies in a torpid, dreamy condition, with muttering delirium, but is easily roused when spoken to. The diarrhœa continues, and the motions are of the same character.

11th.—The patient remained in much the same state until 3 P.M., when the prostration increased. About 9 P.M. he had an epileptiform attack lasting a few minutes, with general twitching of muscles and frothing at the mouth. When seen immediately afterwards he was lying on his back, breathing stertorously and sweating profusely; the extremities were cold and pupils dilated, but acted to light and accommodation. He roused up when spoken to, and could answer questions, but immediately relapsed into his former condition. There was much difficulty in swallowing, but no pain; pulse extremely small and feeble. He rallied considerably under the influence of brandy, hot bottles, and blankets, but gradually sank and died at 4 A.M. on May 12th. The treatment adopted was mainly stimulants, with beef-tea, eggs, &c.

The case was considered to be one of ulcerative endocarditis on the following grounds—viz., on account of the increasing cardiac murmur, petechial eruption, renal symptoms and irregular pyrexia, with the absence of abdominal symptoms, in proportion to the duration and progress of the attack.

	Temperature.	Pulse.	Respiration.
May 8th, 10 A.M.	100·2°	96	24
„ „ 7 P.M.	105·6°	104	36
„ „ 12 P.M.	103·0°	—	—
„ 9th, 10 A.M.	102·6°	108	28
„ „ 6 P.M.	104·0°	—	—
„ 10th, 9 A.M.	102·0°	120	36
„ „ 7 P.M.	103·6°	—	—
„ 11th, 10 A.M.	102·8°	130	—
„ „ 7 P.M.	100·8°	—	—
„ 12th, 2 A.M.	100·6°	150	60

Necropsy, fifty-nine hours after death.—The body was well nourished; cadaveric rigidity very well marked in the lower extremities, but passing off in the upper. Post-mortem congestion on dependent surfaces and the lymphatics of arms mapped out. There were numerous ecchymotic patches over the trunk and lower extremities, which had been present during life. There was no swelling of the joints, but some sign of commencing ulceration over the left olecranon. Brain weighed forty-six ounces; dura mater normal, subarachnoid fluid increased in quantity, superficial vessels distended, punctæ well marked, brain substance soft. There was about half an ounce of semi-purulent fluid in each lateral ventricle. The pia mater appeared somewhat thickened and adherent to brain substance. The parietal peritoneum was apparently normal, but the small intestines were marked by numerous patches varying in colour from pink to a dark-claret colour. There was no sign of ulceration in the bowel. The spleen weighed ten ounces; it was dark in colour and extremely soft. The liver weighed fifty-six ounces; it was very pale and easily broken down on pressure by the finger. The left kidney weighed nine ounces, surface smooth, capsule easily stripped off, substance generally pale except at the lower part, which was of a dark-claret colour. The right kidney weighed three ounces and a half; it was marked by numerous dark-coloured spots of infarction, but otherwise pale in colour. The posterior wall of the stomach was of a dark-purple colour in its upper two-thirds. Bladder and rectum appeared normal. Chest: There were some slight pleural adhesions on the left side, and the right pleural cavity contained three or four ounces of blood-stained fluid. On opening the pericardium the heart appeared unusually pale in colour; the pericardium was apparently normal, and contained a very small quantity of clear serum. The right auricle contained a firm, yellow, non-adherent clot, moulded to the cavity and fibrinous in character. The right ventricle was dilated, and contained some similar clots adherent to the valves. The semilunar valves were slightly swollen, but there was no trace of vegetation. The left auricle contained a small firm yellow non-adherent clot. The left ventricle was hypertrophied, its muscular wall firm and pale in colour, and the

endocardium thickened and somewhat opaque. The curtains of the mitral valve were thickened, opaque, and marked by small vegetations. The aortic valve also appeared thickened and opaque. There was well-marked ulcerative disease of the ventricular surface of the aortic valves. On the ventricular aspect of each aortic cusp there was a firm nodule of fibrin, the size of a small Spanish nut, and firmly adherent to the surface of the ulcers. There was also a firm yellow clot adherent to the anterior cusp, and extending about three inches along the aorta. Ante mortem there was a thin firm string of fibrin extending into each coronary artery. The lining of the aorta was deeply blood-stained, but there was no sign of atheroma of the vessel. The endocardium and substance of the heart for about two inches below the valve were of a dark-purple colour. The heart weighed fifteen ounces. The right lung weighed twenty-eight ounces and a half and the left thirty ounces. The bases were congested, and the substance generally œdematous.

Remarks.—The case just related seems worthy of publication—first, on account of the disease being somewhat rare, and yet probably frequently overlooked. Secondly, on account of the difficulty of diagnosis which instances of the malady often present; and yet due recognition is of importance not only for our private satisfaction and as a basis for correct prognosis, but because timely and energetic treatment might mitigate the severity of the complaint, and perhaps save life. Thirdly, on account of its pathological obscurity; for though it is almost certainly a member of the class of septic fevers, yet on some grounds it seems to have quite a separate mode of causation. And if it be specific, it would be of interest to learn how closely it is allied to other members of the same group. In the first place, it must be noted that while a full description has been omitted in nearly all our text-books of medicine, even up to the latest editions, there is a good account to be found by Rosenstein in Ziemssen's Cyclopædia (vol. vi.), which contains almost as much as is known in the matter. In that article, after analysis of a number of cases, they are classified, according as one or another set of features predominate, into two varieties—pyæmic and typhoid. The case here related, like many others, was a mixture of the two types, in the earlier part of its course, at any rate, having close resemblance to pyæmia, while its nature towards the end strongly suggested typhoid fever. After the man was admitted into the infirmary the history contained a fact of great importance in forming a diagnosis—viz., that as the disease invaded him he had repeated severe rigors. Now, this would almost for certain exclude typhoid fever, and, putting ague out of the question, as well as bladder and suppurative renal disease, give assurance of some sort of pyæmia. Then also the presence of an increasing cardiac murmur, of a petechial rash, albuminuria in a high degree, and later hæmaturia (suggesting a renal embolus) were almost convincing evidence of ulcerative endocarditis; and the absence of an abdominal rash, &c., carried one's thoughts further from typhoid fever. In all cases of this disease the heart should be carefully examined, both during life and after death, to determine how much of the disease is recent and how much is old and chronic; for it is recent disease that constitutes the specific character of the malady and gives it its name, and is the source of certain complications almost invariably present. Here there was probably old disease, for the enlarged cardiac area showed the heart to be dilated and hypertrophied; and it is a fact that all or almost all cases occur in subjects of valvular disease from former endocarditis, generally of course due to previous acute rheumatism. Now, is this condition necessary to the development of ulcerative endocarditis, so that the latter may be excited on exposure to infection; or may exposure to specific infection induce it though the valves be healthy, so that it may be regarded as the proper lesion of an acute specific fever? Or, again, is it possible that an existing valvular disease may be a sufficient cause of an ulcerative process and its malignant consequences—i.e., may an acute attack of endocarditis, occurring, for instance, in a fresh attack of rheumatic fever, supervening on a chronic inflammation, go on to ulceration of the endocardium, and so engender a literal pyæmia, the blood in the heart becoming mixed with unhealthy pus, and thus produce embolism of the organs? This view seems unlikely, but is not impossible. The idea most generally adopted, and perhaps most probable, whether or not living organisms, so-called micrococci, are answerable for this and other septic diseases, is that it is an acute specific fever belonging to the miasmatic group—viz., diphtheria, scarlet fever, &c., perhaps attacking the heart as a "locus minoris resistentia" in consequence of prior disease. But if so, why is not endocardial ulceration more common in these complaints? Is a distinct poison requisite in addition, or only the presence of exceptional bodily conditions? Or if the endocardial ulceration is a sort of metastatic inflammation, why is it not more commonly met with in surgical pyæmia? The man's statement that he had caught his illness while exposed at work in drains gives favour to the miasmatic theory of causation. But it has been asserted to occur in some cases as a complication of rheumatic fever, and in this case there were articular symptoms; but the point was not settled at the post-mortem examination whether the affection of the joints was rheumatic or, as seems more likely, pyæmic. As to the nature of the blood-poisoning, nothing definite is yet known of the micro-parasitic origin of the disease.

Treatment.—Some good might be done, following Armstrong's plan of treating puerperal fever, by a large dose of calomel in the early stage, followed by salines. Quinine and alcohol, freely given, should be reserved for the later stages.

YORK COUNTY HOSPITAL.

A CASE OF CHARCOT'S JOINT DISEASE.

(Under the care of Mr. JALLAND.)

MR. JALLAND'S case of Charcot's joint disease will be found specially interesting when taken in connexion with the discussion which followed Mr. Morrant Baker's paper read before the Clinical Society. In the prolonged discussion which followed the reading of the paper, most of the principal authorities expressed their opinions on the nature of the disease. These are too numerous to permit of mention here, and we would refer our readers to THE LANCET (Nov. 22nd, Dec. 6th and 20th, 1884; and Jan. 3rd, 1885) for an account of the proceedings of the Society.

For the following notes we are indebted to Mr. A. Jefferson, house-surgeon:—

Eliz. C——, aged forty-eight, a widow, was admitted in May, 1884.

Family history.—No history of any nervous complaints in any member of her family.

Previous history.—Has had no children. Since her husband's death she has followed the occupation of a charwoman; she has got on fairly well, and has not suffered much privation. Until her present illness began she was always healthy.

Present illness.—This commenced eleven weeks ago. One afternoon she was scrubbing a floor, when suddenly she felt pain in her left hip; on trying to walk she found she was quite unable to get on her legs. She was conveyed home in a cab and put to bed, her neighbours looking after her. She did not send for a doctor, thinking it was simply rheumatism, and would go off again. Previous to this she had had no lancinating pains, did not stumble in the dark, nor had her sight at all deteriorated. She remained in bed about a fortnight, and then came downstairs. This she effected in a sitting position. She found she could get about her room by holding on to the furniture, but could not take a step without. By this time the pain had left the hip. Fresh symptoms were next developed—namely, pain and swelling in the left knee, both apparently rather extreme. After a few days these somewhat subsided. She was now medically attended, and an exacerbation of the knee symptoms occurring, she was recommended to apply for admission to the hospital.

Condition on admission.—The patient complains of pain and sleeplessness caused by a "tumour" of her left knee. She looks fairly well nourished but is evidently suffering a good deal. On examining the knee it is found to be much enlarged, there being an extreme amount of synovial fluid, while through the fluid firm enlargements of the head of the tibia can be felt. The foot and leg below the knee are œdematous and there is distinct enlargement of the superficial veins over the joint. The condition of things was in fact compatible with new growth in the head of the tibia with secondary synovial irritation and effusion. The limb was placed on a McIntyre's splint and a Martin's bandage applied from the toes to above the knee. There was some pyrexia at night, the temperature rising to 101° and 102°. At first the pain continued severe and kept her

awake. There was nothing, however, in the form of lightning pains, all unpleasant sensations being localised to the joint. A week after her admission the effusion had disappeared almost entirely and the limb was taken off the splint; in doing this sudden partial dislocation of the tibia and fibula backwards into the popliteal space took place; this was accompanied by much grating and was easily reduced. Subsequently this partial dislocation was frequently induced purposely, but it never caused the patient the slightest pain or inconvenience. The enlargement of the head of the tibia was now found to be due to osteophytic outgrowths; these were not very irregular, but formed a kind of collar round the head of the bone. The history of the illness, as already noticed, was now elicited, the patient previously having said nothing about her rheumatic hip. This hip on examination was found to be dislocated on to the dorsum of the ilium by simple rotation. This dislocation was easily reduced, the bone slipping into its socket with much grating; dislocation and reduction could be easily effected, and gave rise to no pain whatever. On making further examination, a hard, bony, smooth mass, osteophytic, could be felt growing from the pelvis in the right iliac region; this was about the size of an orange, and its surface was rounded; another mass of osteophytes could be felt running down the shaft of the femur, covering about the extent and situation of the upper third of the linea aspera. This chain was a very prominent one. No other joint or bone affection could be discovered. On testing for reflexes, plantar and patellar reflex were in both limbs absent. Muscular power seemed quite undiminished in the right leg. The condition of the knee and hip on the left side made it difficult to test the muscularity of that limb; but the patient was quite able to move it about. Sensation in the left limb was somewhat diminished as compared with the right. The pupils were dilated but did not act to light. Nothing was noticeable in the optic discs. After staying in the hospital about a month the patient was discharged. By this time the fluid in the knee had entirely disappeared, as had also the œdema of the foot and leg on that side; the pain had also gone, and there was no longer pyrexia. No other symptoms, save those already mentioned, appeared during her stay in the hospital. Unfortunately, after leaving she changed her address; endeavour was made to find her, but without success.

Remarks.—This case illustrates a point laid stress on by M. Charcot—namely, that the arthropathy appears, as a rule, very early in the disease, before incoördination. The suddenness of the onset and the insidious nature of the hip arthropathy were very remarkable, as the patient declared that until the afternoon on which, when scrubbing, she felt the pain in her hip she had felt perfectly well; for we can only conclude that the sudden pain and inability to stand or walk which came on thus rapidly were due to dislocation of the hip. Another remarkable point was absence of any atrophic change in the optic disc. This of course is very different from what one would expect to find, disc changes being generally the first objective signs of locomotor ataxy. It is also curious that we have an entire absence of lightning pains, the presence of which generally, according to Charcot, is the only exciting symptom of the complaint. Charcot also says that this arthropathy is not commonly accompanied by fever, but in this case the temperature at night for some time went up to 101° and 102°.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Discussion on the Tubercle Bacillus and on the Pathology of Phthisis.

An ordinary meeting of this Society was held on Tuesday last, Dr. George Johnson, F.R.S., President, in the chair. At the commencement of the evening a special ballot was taken to decide whether Dr. Herbert Tibbits should be re-elected as a Fellow of the Society. At the close of the ballot the President declared Dr. Tibbits to be not elected. The discussion on Dr. Kidd's paper was adjourned, and a special meeting for the adjournment was fixed for Wednesday, Jan. 21st, at 8.30 P.M. An excellent demonstration of the bacilli of tubercle and of their methods of cultivation was given by Mr. Watson Cheyne, and Dr. Kidd's valuable specimens were also on view.

Dr. HERMANN WEBER had noticed that but few of the bacilli were within the cells; for the majority of the bacilli were outside the cells and in the detritus of the tubercle. Were the specimens shown by Dr. Kidd taken from a late period of the disease in which the cells had perished and left the bacilli scattered about? An observer had recorded in the *Deutsch. Archiv* cases in which sections showed four or five bacilli in a great many ordinary cells of tubercle. Allusion was next made to the struggle which Metschinkoff had described between bacilli and white blood-corpuscles in the daphnia, as quoted by Mr. Bland Sutton. Had anyone observed the same process in warm-blooded animals? The greater or less vigour of the cells of different individuals might account for the varying susceptibility to tubercular infection. The pathology of apical consolidation was discussed; some cases which were simple at the outset probably became "bacillary," and led to the usual changes of tubercular phthisis.

Dr. GREEN said that Dr. Kidd's paper is an addition to the continuously increasing accumulation of facts which tend to show that the bacillus of tubercle is present in all those pulmonary lesions which we regard as phthisical, whilst it is absent in those which do not come within the category of phthisis; and in such a question as this we want facts rather than opinions. He would ask, with Sir Andrew, what Dr. Kidd meant by phthisis. Definitions of disease are admittedly difficult, but he might venture to define clinical pulmonary phthisis as including all cases of pulmonary disease which possess the three following characteristics:—(1) Lung consolidation which is usually more or less apical in its distribution; (2) lung consolidation some of which tends to undergo softening and disintegration; and (3) lung consolidation which possesses infective properties, and thus tends to spread. Such a definition excludes some forms of chronic lung disease which have occasionally been included in the phthisical category: chronic basic pneumonia with bronchiectasis; the indurative diseases of the lung due to irritating particles; the inflammatory disorganisation of the lung which results from pressure on a bronchus, and the pulmonary lesions which are distinctly syphilitic. This clinical and pathological distinction between phthisical and non-phthisical forms of lung disease is, he thought, justifiable, apart from any question of bacilli. How far is it in accord with Koch's discovery? He believed that it was in complete harmony with it. The unity of phthisis seemed to be established by the observations of those who had worked on the subject. He next inquired into the question, Are we familiar with apex consolidations which are non-tubercular? In some cases of disease at one apex, where there was no evidence of softening or disintegration, it is difficult to say whether they are tubercular or not. If they are simple are they specially liable to become tuberculous? Can we accurately speak of a pretubercular stage of phthisis? He confessed that almost insuperable difficulties seemed to surround an answer to these questions. The subject may be viewed from the standpoint of clinical history or from that of bacilli. If frequent and careful examination failed to discover bacilli, may we conclude positively on their absence? In his experience it is rare to meet with apical consolidation in which tubercle bacilli are absent. Are we justified in saying that the case is non-tuberculous if bacilli are not detected? He was afraid yet to express an opinion on this point. With regard to the clinical history, we might have termination in resolution or breaking down and progression, which he would regard as tubercular in all cases. If the symptoms disappear and the signs clear up, is it to be regarded as evidence that the case was non-tuberculous? Naturally the ultimate history would be wanting. He, for one, believed in the curability of the tubercular process, and he should doubt the existence of non-tuberculous apex consolidations. He questioned the existence of a recognisable pretubercular consolidation. Referring to scientific criticism of Koch's discovery, he considered that the question was one for experimental pathologists to investigate, and so far experimental pathology confirmed Koch's and Watson Cheyne's observations. The acceptance of the bacillary origin of tubercle in no way involves any mutilation of previous existing notions, and he ventured to say that pathology had long been tending towards the position to which these latest doctrines pointed.

Dr. WILSON FOX said that but comparatively few members of the Society could be in a position to discuss the essential

question which Dr. Kidd's paper raised. The study of the mode of generation and of propagation of the different varieties of bacteridia was one requiring special skill and training. In nearly every form of tubercle, and in pus proceeding from tubercle, the characteristic bacteridia had been found, and so far the evidence in favour of Koch's views was strongly confirmatory. We were much indebted to Dr. Kidd for having subjected this question to the most careful and painstaking research. The point was no doubt too important to pass over merely on the *ipse dixit* of one man, however great. About fifteen or sixteen years ago Dr. Hermann Weber, in speaking of the effects of cold climates on phthisis, had suggested the notion of the dependence of the disease on germs, and this paper of Dr. Weber antedated Villemin's experiments. The failure to find bacteridia in some cases would not destroy the phthisical nature of the disease, for one would not expect to find the active agent in all cases. Leyden had pointed out that the fallacies of the histology of the sputa in relation to the bacilli were more numerous than surrounded the older methods of investigation. Tubercle was an inoculable disease, and almost nothing else is so inoculable as it. The experiments of Cheyne and Dawson Williams proved that tuberculosis could only be obtained by the inoculation of specific material. Diseases which were due to bacteridia were for the most part contagious, but it would be a grave step to assert that tubercle also was contagious. Inhalations of pulverised tubercle in a densely crowded atmosphere gave experimental proof of the contagiousness of tubercle, but the evidence of the proof that tubercle was contagious in man was of the most difficult kind. Dr. Reginald Thompson had concluded from experience at the Consumption Hospital that about one case in a thousand had possibly received its disease from contagion. The collective investigation under the direction of the late Dr. Burney Yeo gave out of 1078 returns 262 as possible cases of contagion. Dr. Fox was surprised that so many gentlemen had returned it in the negative; of the whole number of cases there were but twenty in which there was no personal relationship between the cases concerned, or in which they had not lived under the same conditions. Bowditch, Buchanan, and Simon had shown that many unhealthy conditions in life are followed by the development of phthisis. We ought to feel indebted to Dr. Creighton for his criticism of Koch's method. Although the evidence in favour of Koch's views was so strong, yet, looking to the constant change in our views of phthisis, and seeing how the pathology of tuberculosis has biennially, triennially, or quinquennially been swayed by histological dogmata, it would be well if we waited before definitely accepting all that the new views implied. Who could tell but that in a few years we should hear expressions in terms which at present we cannot foreshadow? It should be remembered that the bacteridia of tubercle depended for their detection on one of the most uncertain of chemical agents, an aniline dye.

Dr. MOXON said he hesitated very much in venturing before the Society. The question before us was the most important question which had been placed before this Society during the present century. He had long held the view that all phthisis was the same disease, and had done so from anatomical considerations; he had long observed that tubercle was always spherical, and thought there must be some reason for this; he had compared them to fairy rings; in masses of tuberculous growth the periphery was living and the centre dead. He did not mean much by the term fairy ring; it was almost poetical. He believed that we had now revealed the cause of the factor which makes phthisis one and the same thing. Twelve years ago this very question was raised at another Society, and Dr. Wilson Fox had shown that of all the kinds of phthisis the histology was identical; though, as he understood him, Dr. Fox hesitated to allow that, pathologically also, the different kinds were due to one and the same process. From a constant and close system of observation, in which the purulent expectoration was carefully examined, he had come to believe that Koch's view was right. In cases of capillary bronchitis the sputa contained no baccili; and in three cases of gangrenous lung which ran a chronic course the sputa revealed no bacillus. Not always in every case of phthisis will bacillus be found. The life of a tubercle is not the history of a phthisic. Three months was about the duration of the life of a tubercle; whereas that of a phthisic may be twenty years. Probably fibroid phthisis must be four or five years old at least. He had come to the conclusion that phthisis was a compendium of every disease in pulmonary pathology excluding cancer and including embolism. He next spoke of the fact that pregnancy disfavours phthisis, as did also heart disease, and, in fact, all venous conditions. Hence it was that tubercle did not exist, as a rule, in the region of the Pacchionian bodies, and that they never occurred in the liver. When we considered the delicate favourable conditions required for the growth of the bacilli, we could explain much. The life of a parasite is not so easy as it seems at first sight to be; even the aphis of a rose does not live in a westerly wind; and so, though we might catch tubercle bacilli at every moment, yet a favourable soil might be wanting. A good sister in the ward of a hospital, characterised for great practical ability (Miss Pollock), had conducted a series of observations, and had proved herself extremely skilful in the preparation of specimens. It would be well if we had some central authority to act as a referee, to whom specimens might be sent by busy practitioners, and where they might be hall-marked if the specimen contained bacilli. It had been said that small-pox devours in the blood a substance necessary for its growth, and after this material had been used up the individual was unable to again go through that process. He suggested that after vaccination of a sheep with the modified virus of charbon, in order to prove the point, it would be possible to kill that sheep and make an extract of it to see if the extract would afford any food for the growth of the charbon bacillus. With regard to the use of antiseptic agents in phthisis, he said that he had soaked a patient with iodoform, and though the right lung only was affected, yet the left lung burst into the most violent signs of consumption under this treatment. The vitality of bacilli probably depended on the fact that they were individual particles of protoplasm, whereas in a complex organism the parts were sustained one by another, and there existed a coördination of action.

Mr. WATSON CHEYNE said that with regard to the bacilli he had not much to add to what he had already recorded in his published work. The exact relation of the bacillus to the tubercle itself was important. The epithelioid cells were perhaps the most important histological elements; their nuclei were larger and more granular and less deeply stained than other parts. It was in these epithelioid cells that tubercle bacilli had been found, and generally nowhere else. He had traced the development of these cells into giant cells, which were known to contain large quantities of carbon. In cases of fibroid phthisis one never finds them in fibrous tissue, but he used a low power first to detect epithelioid or caseating cells, and then the bacilli could be discovered. With regard to caseation, he was sceptical of the view that it was due to deprivation of blood. The epithelioid cell caseates, and may it not be the bacilli which cause caseation? How do they act in producing the changes? He thought it was a chemical action. (Photographs were shown in illustration; in one a dark mass of micrococci was seen in the centre, and around this a clear ring with no staining—dead tissues do not stain,—and round this a third ring of inflammatory cells.) It was easy to interpret these changes; the micrococci in the centre evolved a chemical poison, and, in a concentrated form, it had killed the tissue in the immediate vicinity, whereas further outside it merely acted injuriously on cells and excited inflammation. The course of events in phthisis was probably as follows: Some bacilli are inhaled by a predisposed person, or one in a fit state for the development of the bacilli. Then hypertrophy and multiplication of the epithelioid cells take place, a production of poisonous chemical substances occurs, and the cells succumb to the increasing amount of irritation; the giant-cells may ultimately overcome the bacilli; the inflammation that occurs around this centre aids in the spread of the process. The formation of this chemical poison probably accounts for some of the other symptoms, such as the fever and wasting of phthisis. With regard to the criticism of Koch's method by Dr. Creighton, he would attend to four points in the cultivation of the tubercle bacillus. He would not follow Dr. Creighton in the personal mode of questioning Koch's accuracy which had been adopted, for Koch did not require any defence from him. He should prove that Koch had not departed from the original principle of cultivation in dry media; that he had separated bacilli from tubercular matter; that in fluid media we have not a good method for cultivating bacilli. Koch had not departed from the original method of cultivation in solid media, for by this method it was possible to conduct pure cultivations through any number of generations. The accidental falling in of

micrococci from the air was more likely to happen and to vitiate cultivation in fluid media; whereas in the solid media the two organisms would grow together, and their distinction would be perfectly easy. If a micrococcus fell in from the air, it would only grow where it fell, and so the cultivations were pure. (Specimens of pure cultivations on solid media were handed round.) In the tubercle itself the bacilli were readily distinguished, and the problem was how to get and carry on the pure cultivation of bacilli, and in the method now used by Koch there was no departure whatever from the original principle. We could prove that the bacillus alone was present by its peculiar chemical reaction with the aniline dyes. It was necessary to use solid media, and coagulated blood serum answered the purpose best, as it had to be solid at ordinary temperatures. The method was as follows. A rabbit was inoculated with tubercle on the back, and six weeks later it was killed in a state of tuberculosis. Some prepared sterilised blood-serum should be at hand. The animal being killed, then wash the abdomen with 1 in 1000 solution of corrosive sublimate, and heat all knives, scissors, and forceps used in dissecting and excising portions of tubercle. Having inoculated a solid medium with the excised tubercle, the tubes are put in an incubator, and after eight or ten days a whitish dryish-looking substance, which breaks into bits, crust-like growths, form on the surface of the serum; if a particle of this crust-like material be inoculated on another test-tube containing the same solid medium the growth is much more luxuriant, for the reason that the bacilli are more perfectly distributed. (Specimens of the bacilli growing in coagulated blood serum were shown.) Speaking of these crusts, Mr. Cheyne said that it was easy to prove that they consisted of tubercle bacilli and nothing else, for by employing Ehrlich's method of first staining with fuchsin and afterwards with methylene blue, it was found that the crusts consisted of nothing else than bacilli, for not a patch or particle of blue was to be seen with an oil immersion lens; there was no other organism and no other material. As to growths in fluid media being better, he had worked for years with fluid media, and believed at last that he had found a medium more certain than any other, when he confessed that Koch's dry method had rendered all his work futile, and he had to become an adherent of the solid method. Long before Schiller's experiments he had worked with fluid media; he had inoculated various infusions with tubercle, and in no single instance did he obtain any development of the bacilli; the fluid remained perfectly clear. If a cheesy gland were used a slight development might take place. If the bacilli do not develop in fluid media, then Dr. Creighton's argument fell to the ground. Bacilli grow away from the tubercle, and so there was no tubercle after the very first generation, for the crusts of the first generation were nothing but bacilli. Moreover, if one rabbit be inoculated with tubercle and another with bacilli from the "crusts" alone, the latter would be far advanced in tuberculosis before the other showed much change. He did not object to criticism, but Dr. Creighton had totally misrepresented Koch.

Dr. WILSON FOX said that Dr. Moxon had misunderstood him, for he had all along believed in the pathological unity of phthisis. With regard to his remarks on Dr. Creighton's criticism of Koch's work, he confessed that he had not noticed that there was any imputation of want of faith.

CLINICAL SOCIETY OF LONDON.

Lesions of the Frontal Lobes.—Recurrent Hæmatemesis, with Urticaria.

THE annual general meeting of this Society was held on January 9th, Sir Andrew Clark, President, in the chair. The President announced that the following gentlemen had been elected to serve on the committee to inquire into the nature of the various specimens of Charcot's disease recently brought before the Society:—Sir James Paget, chairman; Mr. Morrant Baker, Dr. Dyce Duckworth, Mr. T. Smith, Mr. Warrington Haward, Dr. Barlow, Dr. Andrew, Dr. Buzzard.

Dr. HALE WHITE read a paper on Lesions of the Frontal Lobes. The first case brought forward was that of a woman, aged twenty-six, who was admitted into Guy's for severe headache. There was a history of injury to the head eight years previously. She had been ill a month with occasional loss of sight, and during this time she was twice sick, but her whole illness had been so slight, and she had been so well able to walk about and perform all the duties of life that neither her friends nor her doctor thought that anything serious was the matter with her. On admission the only symptom to be detected was optic neuritis, and she complained of nothing but intense headache. One day after she had been in the hospital about a month, being very tired with walking about all day, and having a severe headache, she went to bed early, and was soon after found dead in her bed. At the post-mortem examination a large glioma of the frontal lobe was discovered. It did not extend far enough back to implicate either the motor area or the island of Reil. The rest of the brain was absolutely healthy. The second case was that of a woman, aged thirty-one, who suffered from aortic disease; she also had paralysis of the left arm and leg, but there were many signs showing that this was not due to organic lesion, but was probably functional; this paralysis soon recovered, and the patient was well able to walk about the ward and use her hand. After she had been in about two months, whilst in the watercloset she had an epileptiform convulsion, was cyanosed, frothed at the mouth, and was insensible. On coming round she vomited excessively; in a few days she quite regained her former condition, but about two months afterwards her cardiac symptoms became worse, and she gradually sank and died. At the autopsy severe aortic and mitral disease were discovered with infarcts in the kidney and spleen; a black-coloured clot was found situated in the white matter of the right frontal lobe. It implicated slightly the gyrus fornicatus, but did not extend into the ventricles or affect the motor region of the brain. It was pointed out that the great interest of these cases lay in the paucity of the symptoms produced by the lesions of the frontal lobe, for in neither case were there any motor, sensory, or intellectual symptoms referable to the disease of the brain; in fact, in the second case the hæmorrhage was not even suspected, nor would the tumour with any certainty have been diagnosed in the first case but for the optic neuritis. Although the frontal lobes are generally looked upon as presiding over the intellectual faculties of the individual, from these and many other cases it is proved to be possible for one of them to be seriously influenced without any impairment of such faculties. The author enunciated it as a law that the later in the animal series or the life of the individual any faculties were developed, the more readily, in cases of injury of the brain, was some other part capable of taking on the work. Thus, motion of the leg and arm of one side, when destroyed by lesion of the opposite side of the brain, was slowly recoverable, because the faculty of motion had been so long formed as to become quite fixed in the motor areas on either side of the fissure of Rolando; whilst motions of the face as used in gestures, being later formed, were not so definitely fixed, and therefore either some bilaterally associated part near, or the sound side, was capable of taking on the duty of the injured part, and thus the face in ordinary hemiplegia recovered comparatively quickly. Coming to faculty for connecting words with signs, which was still more lately formed; here the uninjured side was quickly capable of taking up the function of the injured one; whilst in cases of lesion of the frontal lobe destroying functions so lately formed as the intellectual, the opposite side so quickly took up the work of the damaged side that no impairment was detected. The author was inclined to think that the recently acquired capabilities, such as the intellectual, were stored up on both sides of the brain; in the course of many generations these became more fixed to one side, so that then it would take some time for the functions of one side to be taken up by the other, whilst later functions were taken up at once by the sound side. The extent of injury in his first case seemed to negative the possibility of the bilaterally acting centre theory being true for intellectual faculties.—Dr. MOXON thought that it was not sufficiently recognised that people with brain tumours sometimes die suddenly. A consideration to which he had drawn attention in his Croonian Lectures, though it had been very much buried was nevertheless still believed in by him and was of great interest. The pneumogastric nerve, of all the cranial and spinal nerves, runs the shortest and straightest course from its origin to its escape from the dura mater. It forms, as it were, the central nerve of the whole system. Above it all nerves incline upwards or forwards to their exit; below it all incline more or less downwards. An anatomical feature of the fourth ventricle, which seems to be lost sight of, is the sort of lateral pouch which is stuffed very full of tufts of bloodvessels in the form of choroid plexus. This stuffed pouch reaches down and presses upon the pneumogastric nerve-roots, and an extra pressure from overfulness of this tuft may be an explanation of some

cases of sudden death from brain tumour.—Mr. VICTOR HORSLEY said that the absence of symptoms in Dr. White's interesting cases afforded a proof that in all psychical acts in which the attention is fully occupied both hemispheres are engaged, consequently that such ideas are bilaterally represented in the cerebral cortex. He believed that he has been able to prove this experimentally by the following method. If one attempts to draw simultaneously a triangle with one hand and a circle with the other, the result will invariably be that neither figure will be drawn correctly, both hands describing a fusion of the circle and triangle. Hence, he argued, the hemispheres are incapable of acting simultaneously when each is actuated by a separate idea upon which the attention is fully set. Supposing this view to be correct, it follows that since both hemispheres are occupied in any given idea, it would be stereotyped in both, and hence the destruction of one would not cause a loss of function obvious to untrained observers. Besides, tumours exert their destructive influence so very gradually as to readily admit of the opposite hemisphere rapidly assuming the lost function. A further point of interest lies in the possible function of the frontal lobes. In all cases of severe destructive lesions of this region Mr. Horsley had found that there was a consequent change in the emotional character of the patient. He protested against cases of injury to the frontal lobes in children being brought forward in support of the opposite view, holding, as he did, that the emotions of a child were very immature until the various functions, especially the sexual feelings, had been developed. The same argument applied to experiments on the lower animals.—Sir ANDREW CLARK said that there were two works of ancient order which might well be consulted on the question of injury and disease of the brain. Dr. Abercrombie of Edinburgh and Baron Larry had left behind them valuable records.—Dr. HUGHES BENNETT considered that when tumours grew in a very slow manner there might be no symptoms. But when the history of the case showed that there were no symptoms, was that sufficient evidence that no symptons really existed? When the motor regions were involved the symptoms were objective and apparent; now, symptoms might exist when other regions were affected, and yet special care would be required to elicit mental alterations. The "American crow-bar" was referred to as showing that some mental changes do occur after injury to the frontal lobe.—Mr. VICTOR HORSLEY remarked that in this celebrated case the man lost his affection for his fellow creatures, a fact which also supported the theory he had advanced.—Dr. FREDERICK TAYLOR referred to some cases which would bear out Mr. Horsley's suggestions. In one instance the patient had a tumour the size of a hen's egg, situate in the frontal region. The tumour was operated on by Mr. Birkett, but as it seemed to grow deeply the operation was not completed. This patient was troublesome, talkative, and made improper and indecent remarks to the students towards the end of her life. Post-mortem examination showed an abscess in each frontal lobe. Another case was referred to of a similar kind, and there was a surgical affection of the frontal lobes. A case was now under observation in which the frontal lobe of the brain was probably involved in a girl aged ten years; there was a curious mental condition, the child was more childish than usual, but it was difficult to say whether this was really abnormal.—Dr. SEYMOUR TAYLOR spoke of the possibility of two mental acts being performed at the same time. It was a matter of education, as could not be doubted when watching the movements of skilled artisans and telegraph clerks who performed two intellectual actions at once. It was common for some musicians to read and play music of which the bass clef was written in one time and the treble clef in another. Chopin was remarkable for these modes of thought. Again, weavers make many complicated movements at one time, and may even perform triangular and circular movements at the same moment. Infants at birth were pictures of a lively emotional display, and so he could not agree that the emotions were a late acquirement.—Dr. HALE WHITE, in reply, thanked Dr. Moxon for his suggestion as to the cause of the sudden death, but even then it was difficult to say what was the determining cause of the death at a particular moment. In his first case it was clear that the higher affections were not lost in any degree. He still held that the expression of the emotions were lately acquired, for it required actors and orators to give character to special emotional features by means of the expression put on the face. Tumours growing slowly in other parts of the brain do produce symptoms, and so he did not concur with Dr. Hughes Bennett's remarks.

Dr. J. J. PRINGLE described a case of Recurrent Hæmatemesis with Urticaria in a gentleman, aged fifty-one, with no family history of gout, hæmophilia, or other disorder. In 1872 he had two attacks of ordinary nettlerash, attributed to indiscretions of diet. In 1878 he had several attacks of severe nettlerash with great prostration. In 1879 these recurred with increasing frequency and severity, the tongue, mouth, and fauces being involved, and clear, watery fluid being vomited. In the latter part of the year small quantities of altered blood were also ejected. During 1880 the patient was never free from urticaria or its subjective symptoms, and at intervals of about two months attacks of great severity occurred, during which vomiting often lasted twenty-four hours at a time, large quantities of pure red blood being ejected. These attacks diminished in frequency, but continued to increase in intensity in 1881 and 1882, culminating in November of the latter year in an attack in which the blood vomited filled two hand-basins besides saturating the bed. The next attack occurred in April, 1883, and its latter part was witnessed by the writer, kindly accompanied by Dr. Wilks and by Dr. Hurd-Wood, of Leatherhead, who had watched the case from its commencement. Bright-pink urticarial wheals, nowhere purpuric, were thickly studded over the trunk and extremities; the blood vomited filled a large hand-basin; the patient's general condition was such as may be inferred from the loss of blood and the free use of morphia subcutaneously, which had been found the only means of use in allaying sickness. Recovery ensued as usual, the patient always recuperating with amazing rapidity. Shortly afterwards he had two unequivocal attacks of gout affecting the right foot and left hand respectively; the subsequent attacks have been less frequent and less severe, and apparently controlled by subcutaneous injections of morphia and ergotin, used as soon as the nettlerash appeared and nausea was felt. Three days after one of these arrested attacks a copious tarry motion was passed, and in another attack, in which a little altered blood had been vomited before the injections were used, all gastric symptoms were immediately allayed, although copious crops of nettlerash made their appearance for three days. Previous to some of the attacks there have been evidences of hepatic derangement. The immediate exciting cause in almost every instance had been exposure to cold, to which the patient was formerly very susceptible. In the intervals he is free from pain and all other symptoms of gastric disorder or ulcer. The liver and spleen are of normal size both during and between the attacks. The urine passed during the attacks had never contained blood; in the intervals its specific gravity ranges from 1020-1025; it is often loaded with urates, and invariably contains a large excess of uric acid; it is free from albumen, sugar, and casts. The radial pulse is hard, tracings from it being flat-topped. There is no decided cardiac hypertrophy; the second sound over the aortic area is accentuated; the fundus in both eyes is normal. Minute doubtful tophi have appeared in the right ear within the last six months. From the absence of all symptoms of gastric ulcer, except the vomiting of blood or other causes of hæmatemesis, and from a general consideration of all the features of the case, the writer expressed himself as forced to the conclusion that the hæmatemesis was due to capillary rupture, occurring when the gastric mucous membrane was in an urticarial condition. Presuming the possibility of such a condition, he considered that the great vascularity of the organ and the position of its rich capillary network, separated from its cavity only by a delicate membrane and a single layer of cells, account for the occurrence of hæmorrhage and for its amount. No exactly similar cases have been described; but Murchison mentions the case of a boy of nine years of age with urticaria tuberosa and purpura urticans, and with hæmorrhage from the bowels, kidneys, and urinary passages, and with the discharge of much lithic acid in the urine. Cases described by Graves as "exanthema hæmorrhagicum" present also certain points of similarity. The relationship between hepatic disorder, the gouty condition, and skin eruptions in general was merely referred to.—Sir ANDREW CLARK was much interested in the paper. Some years ago he publicly refused to accept the spasmodic theory of asthma, believing the affection to be a sort of urticaria of the bronchial mucous membrane. Many asthmatical patients were subject to urticaria, and other mem-

bers of the family suffered from urticaria. In the nasal mucous membrane, in cases of hay asthma, appearances very much like those that Dr. Pringle described could be seen. Dermatological treatises were singularly deficient in their account of eruptions affecting mucous membranes. The occurrence of eczema on mucous membranes of the stomach and elsewhere is frequent, and is overlooked in works on dermatology.—Dr. STEPHEN MACKENZIE believed that the views advanced by Dr. Pringle were sound. The association of urticaria with hæmatemesis had some resemblance to the association of urticaria with paroxysmal hæmoglobinuria. Urticaria, and the passage of blood-colouring matter in the urine, followed on exposure to cold, and might occur in one and the same patient, as he had shown. Dr. Pavy believed that a vaso-motor condition was at the foundation of paroxysmal hæmoglobinuria, just as urticaria had a similar basis. The pathology of urticaria really explained the whole case. There was first spasmodic contraction of the vessels, followed by paralytic dilatation with exudation of fluid, and even occasionally of blood-corpuscles, as was seen in cases of purpuric urticaria. Imagine the same set of changes occurring in the glomeruli of the kidney, where the blood was injuriously compressed and the hæmoglobin expressed from the corpuscles, and the pathology of paroxysmal hæmoglobinuria is laid bare. A case was quoted to show that herpes may occur on the mucous membranes of the mouth and œsophagus in conjunction with herpes of the skin about the mouth. The influence of the nervous system in determining such lesions appeared to him to be by no means far-fetched.—Dr. WILBERFORCE SMITH inquired into the duration of the illness from which the patient suffered whilst in India.—Dr. PRINGLE, in reply, said that the man suffered only fourteen days out of seven years, and the dysentery and ague with which he was affected were both included in that period. Geneau de Mussy had spoken of "endanthemes" as opposed to exanthems; and Leube, writing in Kaposi's "Hautkrankheiten," held views similar to those of Dr. Stephen Mackenzie on herpes.

The following living specimens were shown:—Mr. Bernard Roth: a case of Hydrocephalus in a boy aged sixteen, who could not stand alone. Mr. Rickman J. Godlee: a case of Severe Wound of the Wrist, ending in recovery with movable joint.

MEDICAL SOCIETY OF LONDON.

Comma Bacilli of Koch, Finkler, and Prior.—Aphasia without Lesion of Broca's Convolution.

AN ordinary meeting of this Society was held on Monday last, Mr. Arthur E. Durham, F.R.C.S., President, in the chair. The proceedings were more than ordinarily interesting.

Dr. G. HERON showed specimens of the Comma Bacillus, described by Koch as occurring in cholera, and of the comma bacillus found by Finkler and Prior in the stools of cholera nostras, thirteen or fourteen days old. He said that he had no intention of discussing the causal connexion between the comma bacillus of Koch and cholera, but proposed to deal only with certain peculiarities of the two varieties of bacilli referred to. The comma bacillus of Finkler and Prior was associated with decomposition, and its cultivations evolved a slight putrefactive odour; it closely resembled Koch's comma bacillus when seen under the microscope, but much importance could not be attached to such a resemblance. When planted on nutritive beef jelly both organisms grew and multiplied, but in a very different way. At ordinary temperatures, 60° F., the bacillus of Finkler and Prior grew with great rapidity, producing an appearance, on or about the second or third day, which was characteristic; the gelatine in the neighbourhood of the puncture made by the inoculating wire was liquefied and permeated by a homogeneous opaque growth, having the appearance somewhat resembling the finger of a glove, or, as has been said, the toe of a stocking pushed into the gelatine. The bacillus of Koch grew very much less rapidly under the same conditions. On the third and fourth days the track of the inoculating wire was marked only by a thin line of scattered points at which the comma bacillus was slowly growing. The differences in the mode of growth were constant, and afforded a means of distinguishing between the two organisms. When sown on potatoes the bacillus of Finkler and Prior grew with great rapidity, but the bacillus of Koch developed only very slightly. The specimens shown illustrated these points of difference in a very striking manner. These peculiarities of growth were not in accord with the statement made by the English Cholera Commission.—Dr. COUPLAND thought we could now thoroughly understand Koch's position. Dr. Heron had not mentioned that Finkler and Prior believed that their bacillus was the cause of simple cholera or cholera nostras, and hence we might infer that Asiatic cholera and cholera nostras were probably of the same nature. He considered it certain that these organisms were of very different nature. He paid a tribute to Koch's scientific accuracy and caution.—Dr. HERON briefly replied, concurring in the remarks of Dr. Coupland that Koch was a man who used the utmost care in carrying out his experiments.

Dr. SAMUEL WEST read a paper on a case of Aphasia in which the chief lesion was situate in the supramarginal and angular gyri, Broca's convolution being healthy. A man aged sixty-six came under treatment for bronchitis, with weak heart and granular kidneys. While in the hospital he became suddenly aphasic, but did not lose consciousness, nor was his general condition otherwise affected. In addition to the aphasia the patient had some loss of power in the right side of the face, in the right arm and leg, and also incomplete hæmianæsthesia. The patient retained certain words in common use, such as "good morning," "yes," "order," "corner," "one or two with it," which he was in the habit of using in his occupation of carrier. When he attempted to say more than this he broke into an unintelligible gibberish; occasionally he would say "I can't," "I couldn't," as if to express his sense of inability to express himself. He could not name visible objects, though he understood their use, and would take them in his hand and perform certain movements upon paper as if wishing to write, though nothing intelligible was produced. He could not read printing nor manuscript, though he held the paper the right way up. He misunderstood most that was said to him, and would perform certain acts when told to do so; it was evident that he understood simple questions; occasionally he could speak words spoken to him (parrot speech). His powers in all the above respects varied greatly at different times. Death ensued from exhaustion six weeks after the onset of the aphasia. At the autopsy granular kidneys were found; the heart was dilated and fatty, and there were signs of bronchitis. In the brain a large area of softening was found in the region of the supramarginal and angular gyri; Broca's convolution was intact. The softening extended through the whole depth of the convolution into the centre of the supramarginal gyrus, but elsewhere was not so deep. On section the alteration was found to have extended into the root of the ascending parietal convolution, and to have involved also the deeper portions of the ascending parietal convolution in direct continuity with the supramarginal convolution, as well as the superior temporo-sphenoidal convolution in immediate proximity to the fissure of Sylvius. The island of Reil was affected throughout its whole extent, but the external and internal capsule had completely escaped. The cause of the softening was clearly plugging of the branch of the Sylvian artery, which is distributed to the parts affected. The clinical symptoms were those of the amnesic and not of the ataxic form of aphasia, and are in perfect accord with the pathological lesion. The visual centre was most affected, and this is placed in the supramarginal and angular gyri where the lesion was most extensive. The auditory centre was affected but to a much less degree, and the arm, leg, and face centres were also damaged. The hemianæsthesia seemed not to be accounted for. The lesion of the island of Reil could not be associated with any definite symptoms. The entire case was in complete accord with the present doctrine of cerebral localisation.—Dr. BROADBENT said that the case had been most carefully and completely described. The only criticism he should offer on the case was as to its name. Aphasia should be restricted to the motor affections of speech, and amnesia to the disturbances on the sensory side of language. He had seen several cases, and some in which the loss of apprehension was more complete than in Dr. West's case. The motor conjunctions were completely spared; there was transient hemiplegia, but persistent right hemianæsthesia. The patient spoke the most complete gibberish, but with such appropriate gesture that it was evident he understood. Sometimes, under great excitement, a whole phrase would slip out. Besides such complete loss of apprehension he had seen a great many cases of minor affection. A case was

narrated in which a man talked intelligently, and held a conversation without the slightest slip, but he could not name a single object at sight; he was unable to read; he could recognise his own signature at sight; he could write letters perfectly well. In this case there was a hæmorrhage lying immediately beneath the angular gyrus. The term "word blindness" is inadequate, for in every such case there was loss of power of naming at sight. In these instances there was a breach of communication between the visual perceptive centres and those centres where the auditory perception corresponding to it was located - viz., its name. Intelligent reading was impossible without the faculty of naming objects at sight. Another case was mentioned in which it was supposed that a lesion existed about the angular gyrus of the right side; disturbances occasionally took place around this focus, at one time causing aphasia with right hemiplegia and lateral deviation of the eyes to the left. He had seen cases of word deafness in which the patients did not understand what was said to them; these patients sometimes answered in gibberish, at others, reply to a question would be utterly inappropriate. Other cases of aphasia and amnesia were also detailed.—Dr. S. WEST briefly replied.

OPHTHALMOLOGICAL SOCIETY.

New Ophthalmoscopes.—Influence of Vapours of Bisulphide of Carbon and of Chloride of Sulphur on the Vision and General Health.—Cocainised Eye.

AN ordinary meeting of this Society was held on Jan. 8th, Mr. Shadford Walker of Liverpool, Vice-President, in the chair.

The Hon. Sec., Dr. BRAILEY, read a communication from the Local Government Board relating to the Code of Suggestions drawn up by the Special Committee of the Ophthalmological Society, with a view to the prevention of blindness from ophthalmia neonatorum, and which code has been sent to the Local Government Board for its approval and adoption. The letter said that the code of rules had been forwarded to the Registrar-General, who replied by saying that it was not to be expected that the registrars of births would perform any extra duty without adequate compensation. If this compensation were fixed at *2d.* for each card read and presented, the cost would amount to £7300 per annum. In many cases it was not the mother who registered the birth, and if instructions were given for purulent ophthalmia, why not for all the other diseases to which infants are liable? The whole scheme was impracticable. As to the relieving officers, the Local Government Board said that their labours were already sufficiently arduous.—On the motion of Dr. STEPHEN MACKENZIE, seconded by Mr. SYMPSON, it was resolved that the deputation which waited on the Local Government Board should be appointed as a Special Committee to consider what should be done in respect of the above communication.

Mr. F. R. CROSS of Bristol showed a specimen of Cystic Tumour of Iris in a woman aged thirty. It was the size of a pea, and protruded into the anterior chamber, pushing up the iris, to which it was attached. She had first noticed something wrong with her eye two years and nine months earlier, when she believed a foreign body had been blown into her eye; this was followed by some irritation of the eye, and a small spot was noticed; this spot enlarged and attained the size of a pea, but after a year subsided to the size of a pin's head, and again enlarged to its present size.

Mr. R. MARCUS GUNN showed a new Ophthalmoscope with a thumb movement of the discs and a strong flat handle. The flat handle was utilised as a pupilometer and a measuring scale. At the end was an aperture useful in testing for central colour scotoma. The thumb movement gives increased steadiness and uniformity.

Mr. STANFORD MORTON exhibited an Improved Student's Ophthalmoscope, which had been constructed for him by Messrs. Pickard and Curry. It combines the various improvements of several ophthalmoscopes. For all ordinary purposes it has only a single series of lenses, but four extra lenses, easily adjustable, are provided for special occasions. The numbers of the lenses are fully exposed on a dial plate, so that the position of any required lens is at once manifest and the lens at the sight hole is always indicated at the same aperture. There are two mirrors (one fixed at an angle), either of which can be instantly turned into position. The instrument is an inch and a quarter wide, and there is only one driving wheel, which, being three inches below the sight hole, is not impeded in its action by the face of either patient or observer. The ophthalmoscope balances well in the hand, is light, and packs into a small compass.

Mr. J. COUPER showed a new Refraction Ophthalmoscope. Last year a refraction ophthalmoscope on a new principle was submitted to the Society. Discs, combinations of lenses, and multiple refraction were dispensed with in it. Single lenses, of which there were seventy-two, were alone used. One mirror with diametral hinge was made to serve for both direct and indirect examination, as well as for retinoscopy. The object was to simplify the mechanism and increase the optical efficiency of the ophthalmoscope. The chief faults of the instrument in its original form were:—(1) Its bulk; (2) the slow propulsion of the lenses; (3) the effort required to turn the driving wheel; (4) uncertainty in reading the index wheel, from the circumstance that the shutter as well as the mirror must be shifted from side to side by hand, in order to make the figure and the lens at the sight hole correspond. If the mirror were shifted without the shutter the index read false. New instruments were placed in comparison with the old to show how far these defects have been lessened. In the most recent the index wheel becomes the driving wheel (coarse adjustment). One revolution of it brings each of the seventy-two lenses in turn to the sight hole, and a half turn suffices to go from the lowest to the highest lens of either series. Even with this wheel the lenses are readily centred at the sight hole. A fine adjustment wheel has been added, however, to give a slower, lighter movement, which is found convenient towards the close of an examination. Only one figure at a time appears at the aperture of the shutter, and the latter follows the movements of the mirror automatically; a false reading thus becomes impossible. For those who are satisfied with fewer than seventy-two lenses, a thirty-six lens instrument has been provided.

Mr. WM. LANG showed a Modification of Purvis's Original Instrument, made by Messrs. Ferrier and Watson. Two discs carrying the lenses were moved by milled wheels which were conveniently placed; by a simple combination it can produce from −1 to −29 and from +1 to +29. He also showed a Pupilometer consisting of a plate fixed at the back of an ordinary retinoscopy mirror.—Mr. COUPER doubted the desirability of having two mirrors attached to an ophthalmoscope, and preferred a very small sight hole and a mirror of long focal distance.—Mr. STANFORD MORTON thought the best illumination was obtained with a mirror of nine or ten inches focal length.—Mr. JOHNSON preferred a mirror of focal length of four or five inches for direct examination, and a special mirror with a focal length of about nine inches for keratoscopy.

Dr. W. A. BRAILEY showed Microscopic Specimens of the Condition of the Ciliary Nerve in a case of Sympathetic Disease. The left (sympathising) eye was excised on account of loss of sight, severe inflammation, and pain. The right (exciting) eye was operated on for cataract eleven months ago. Four months later opaque membrane was needled; five months later the left eye was found to be quite blind from iritis, presumably sympathetic. The long ciliary nerve and artery are perfectly normal. A section was shown of a perfectly normal long ciliary nerve and artery of an eye which had been excised on account of exciting sympathetic uveitis; the eye was injured thirteen weeks ago; the adjacent choroid was in a state of severe inflammation.

Dr. W. A. BRAILEY also exhibited Microscopic Specimens of an Exceptional Condition of the Ciliary Nerves in three cases of Uveitis. One section showed inflammation round the internal long ciliary artery extending into the contiguous portion of the corresponding long ciliary nerves. The eye was excised on account of iritis, with recurring tension, one month after the extraction of the cataract from a glaucomatous eye. The second section was very similar; it was taken from a case of iritis following an iridectomy; the other eye was sympathetically irritated. The third section showed severe neuritis of the long internal ciliary in an eye due to severe irido-choroiditis of spontaneous origin.

Mr. NETTLESHIP exhibited a patient with Universal Detachment of the Retina from the edge of the Optic Disc forwards in all directions as far as could be seen; the greater part of the retina remained transparent; at the fovea centralis the retina was hypermetropic seven or eight dioptrics, the physiological cup of the optic disc was slightly

myopic. The patient had good perception of light, and with + 8 D. or + 18 D. he could count fingers and see letters in 20 Jaeger. The vision and refraction of the right eye were normal. The patient was a teacher, aged seventeen; divergent squint of the left eye had been noticed for about eight years, and about that time he had a blow on the head; there was no evidence beyond this to show when the detachment occurred.

Mr. HARTRIDGE showed a case and a water-colour drawing by Mr. Morton of Opaque Nerve Fibres completely encircling the disc and extending for a long way over the fundus of the right eye. There was considerable myopia.

Mr. JESSOP showed specimens of Tubercle Bacilli growing in blood-serum and in the iris of the rabbit.

Mr. F. R. CROSS of Bristol exhibited a case of Symmetrical Dislocation of Lenses upwards of congenital origin. The patient was eight years of age. Each eye was practically similar. The iris was tremulous, and the lower edge of the lens appeared just below the upper edge of the pupil. The ophthalmoscope showed a double image of the optic disc. Under the use of atropine the edge of the lens was distinctly seen to cross the pupil.

Dr. W. A. BRAILEY showed a living specimen of Hyphæma. A month ago she had in the left eye hyphæma with varying tension and slight iritis, all these symptoms being of about three months' standing only. Before that there were large floating opacities, probably blood, in the vitreous, with great pain round the eye and in the forehead. The right eye had its pupil occluded and excluded, with shallow anterior chamber. Both supra-trochlear nerves had been recently stretched, with some relief to the pain. On Dec. 15th the iritis in the left eye became worse and the anterior chamber deeper, till now it is of enormous depth, but symmetrically so. The aqueous humour is clear. There is a greyish hazy reflex from behind the pupil. On Dec. 18th the right eye had a slight attack of a similar nature—i.e., its anterior chamber became deeper with ciliary injection. Thus was revealed the existence of six marginal anterior synechiæ. In a week the right eye regained its former condition, but the left eye still has enormously deep anterior chamber, with the other symptoms mentioned. The disease began in the right eye two years and a half ago, and in the left eye eighteen months ago. In this eye there were then films in the vitreous with failing sight and severe pains round the eye, but no other direct evidence of inflammation. The right eye was as at present. The author asked—1. What is the nature of the uveitis? 2. What is the cause of the increased depth of the anterior chamber and the varying tension?

Another patient was shown, who had had a blow on the left eye with a nail five months ago; since then there had developed diminished tension with defective vision. Now there was a small superficial corneal opacity with shallow anterior chamber, and a patch of slight opacity on the posterior surface of the lens.

Mr. ADAMS FROST read the report of the Committee on Poisoning by Bisulphide of Carbon and Chloride of Sulphur, signed by himself, Mr. Gunn, and Mr. Nettleship. The affection, they said, had long been recognised in France, and had been well described by Dr. A. Delpech, who grouped the symptoms into two stages—namely, a stage of excitement and a stage of depression. The affection had also been described in this country by Dr. Alexander Bruce. It appeared that there were only a very few firms engaged in the manufacture of indiarubber by Parkes' process, which was admittedly the one most liable to be followed by symptoms of ill-health. The reporters referred in some detail to the various steps of the process, which appeared to involve the greatest amount of risk, and pointed out the methods by which they believed that in some degree these dangers might be obviated. Out of the thirty-three recorded cases, in twenty-four there was some affection of vision. The prognosis appeared to be tolerably favourable, if the patient were able to give up his work at an early period after the first appearance of the symptoms. They were unable to draw any definite conclusions as to the length of time of exposure to the noxious influence necessary for the production of the symptoms; slight symptoms, however, were often noticed a few days after commencing the work. The amblyopia was never an isolated symptom, and never occurred without well-marked general toxic symptoms. In most of the cases which were seen by oculists, decided changes were seen at the optic discs; in the earlier stages, haziness and other signs of caronic neuritis, in the later stages some degree of atrophy or pallor. In some, central defect of the field was found, but this had not been carefully examined, except in a very few instances. Several patients were noted as smokers, and a good many were stated to have been particularly temperate.

Mr. WALTER H. JESSOP read a paper on the Cocainised Eye. An eye under the influence of a local application of cocaine presents the following symptoms:—Anæsthesia of the parts in intimate contact with the drug; enlargement of the palpebral fissure, mydriasis, loss of accommodation, constriction of the small peripheral vessels, flaccidity of the cornea, and slightly altered intraocular tension. The enlargement of the palpebral fissure is due to the retraction of both upper and lower lids by irritation of the unstriped muscular fibres contained in them, probably through their nerve supply from the sympathetic. The dilatation of the pupil always acts to light and to the movements of accommodation, and this, coupled with the actions of atropine, pilocarpine, and eserine on the mydriasis proves its sympathetic origin. The paralysis of accommodation occurs chiefly at the period of greatest dilatation of the pupil, and disappears some time before the pupil regains its normal size. The small peripheral vessels are constricted, producing pallor of the conjunctiva, but this rarely occurs except in normal vessels, and does not last long, showing irritation of the vaso-constrictor filaments of the sympathetic. The flaccidity of the cornea apparently is accompanied by diminished tension in the anterior chamber, but at the same time a brief increase of tension may be noticed posteriorly. The circulation and sensibility of the retina are not affected by conjunctival instillation. From the above facts, and from the action of cocaine on other organs, it is probable that it acts locally, paralysing the peripheral endings of the sensory nerves and irritating the sympathetic. The uses to which the drug may be put in ophthalmic practice are:—(1) As a local anæsthetic in operation cases, ulcers of the cornea, &c.; (2) as a mydriatic for ophthalmoscopic purposes, and combined with atropine in iritis with synechiæ; (3) as a means of paralysing the accommodation in cases in which atropine or homatropine cannot be used. The salt used in all the experiments was the hydrochlorate in 2·4 or 20 per cent. solution, and it had been applied by conjunctival instillation and injection beneath the skin, fascia, or into the anterior chamber. It may be mentioned that in one case of iritis which had been treated by the frequent instillation of atropine into the eye for a fortnight the cocaine still exercised its mydriatic action.

ACADEMY OF MEDICINE IN IRELAND.

A MEETING of the Pathological Section was held on Dec. 5th, the President, Dr. Foot, in the chair.

Surgeon-Major HAMILTON made the following communication. A soldier of fine physique, aged thirty, was admitted to the Portobello Hospital complaining of palpitation. He had been for some time employed on police work, and he knew that his heart was affected. There were extreme præcordial dulness, a well-marked systolic bruit at apex and over base, and a loud systolic and regurgitant bruit. His condition remained the same for about a month, when anasarca set in, rapidly increasing. He sat up one night against orders and died almost immediately. Post-mortem examination:—The viscera, with the exception of the heart, were all healthy, but the serous cavities and cellular tissue contained much fluid. The heart, enormously enlarged, weighed one pound twelve ounces. Mr. Abraham examined it, and found all the cavities dilated and the walls hypertrophied. The inner surface of the pulmonary artery was of a remarkably deep-purple colour. The principal lesion was seen in the aorta and its valve. Large bulging particles of atheroma, not calcified, existed in the ascending arch, and between the openings of the coronary arteries a large, rough calcareous nodule projected opposite the junction of the anterior and left posterior segments of the valve, which were here confluent; and at this point of the valve was a wide irregular opening, admitting a large finger. The rest of the valve was more or less thickened and frayed, and an ulcerated spot was to be seen on the ventricular surface. Just below the nodule a cavity two centimetres wide and one centimetre deep extended below the bottom of the sinus behind the endocardium and into the muscular substance of the heart. Mr. Abraham called attention to the microscopic preparations of the specimens which were exhibited.

Mr. ARTHUR BAKER read the notes of a case in which he

had removed from the left side of the upper jaw of a lady a small osteoma. The fact that such growths rarely occur in situations where diagnosis is attended with difficulty made the case interesting, since it was impossible before removal to tell that the growth in question was not a buried tooth or an odontome, springing as it did from the site of the first left upper molar tooth. The case was further complicated by the existence of a cyst near the front of the jaw, combined with absence of the permanent canine tooth. The tumour on section showed lacunæ disposed irregularly round the vascular canals, which penetrated its substance for some distance. Near the periphery, however, some lacunæ were seen arranged in parallel rows. The communication was illustrated by a cast of the mouth and some etchings of the microscopic and macroscopic appearances of this growth.

Dr. QUINLAN submitted a case of Cancerous Stricture in the Sigmoid Flexure of the Rectum. A woman, aged forty-seven, in a state of great prostation and partial collapse, was admitted into St. Vincent's Hospital. Her abdomen was enormously distended, her bowels not having been relieved for eleven days. A turpentine enema was administered, but came away without effect. On examining the rectum, he thought he perceived a tumour, but it was beyond the reach of his fingers. Great distension of the abdomen prevented an exact diagnosis, and treatment was altogether directed to getting the bowels to act and to keep down pain. Some vomiting was quickly relieved. On the third day she sat up, vomited, and fell back dead. At the post-mortem the body was found emaciated and bloodless. The small intestines were enormously distended with gas. The descending colon was full of fæces. At the sigmoid flexure the cause of the obstruction was found to be a cancerous mass of a malignant character. Beneath the rectum was a peculiar structure affected by malignant disease. Mr. Abraham had pronounced the tumour to be an infiltrating adenoma, caseating in parts.

Mr. O'GRADY exhibited a case of Strangulation within a Hernial Sac, the specimen being from the body of a man aged thirty-three. The hernia came down in the ring. He was admitted into the hospital at 1 o'clock. The symptoms being urgent, he was operated on at 5 o'clock. When the sac was exposed a tense stricture appeared at the external rim. The intestine, a little highly coloured, could be seen through the sac. The hernia was reduced without opening the sac. For two days after the operation, with the exception of two attacks of vomiting, which were relieved, he was free from the usual symptoms. On the third day the stomach sickness with pain returned, and he died the next day, eighty-seven hours after the operation. The question as to when internal strangulation occurred was of interest. It was not tight, and the gaseous contents of the intestine could be passed backwards and forwards. Another question was the expediency of the operation without opening the sac. This case did not exhibit such symptoms as to indicate that course, yet events showed that had the sac been opened he might have recovered.

Mr. NIXON exhibited a Hard Calculus removed from one of the tonsils of a gentleman who complained of a slight obstruction of his throat. Being in the habit of singing, he complained of the obstruction. Both tonsils were considerably enlarged. Detecting a small white speck, the probe elicited a metallic ring. Having failed to grasp the mass with instruments, he enucleated it with his finger. The greater portion was up behind the soft palate. There was considerable hæmorrhage.—Professor BENNETT said the specimen was of great rarity, and moved that it be submitted to the Committee of Reference to ascertain its constitution. It indicated articulation either with another calculus or adjoining bone.—Mr. CORBETT thought the formation was identical with the tartar that often formed about neglected teeth, resulting from constitutional disposition. He had seen several teeth blocked together by it even in young mouths.—Mr. NIXON, in reply, said the gentleman's tonsils were very large, and were not atrophied. The calculus was similar to the tartar formation on teeth. The facet was observable. The teeth were black and hard, and had a good deal of tartar. The gentleman was a great smoker.

The Secretary, Mr. ABRAHAM, for Mr. J. K. BARTON, exhibited a large Mammary Tumour removed at the Adelaide Hospital from a girl aged twelve. Her grandmother had died of recurring cancer of the breast. One brother was now suffering from Pott's caries. The other near relatives were well. The girl's general health had been good and there was no history of injury to the breast. Three months ago a small lump was observed in the left breast, which increased steadily, being at first painful. Mr. Abraham reported the consistence of the tumour to be soft, homogeneous, and elastic; the cut surface bulging and the whole easily peeling out from the surrounding encapsulating tissue. The microscopic sections exhibited enlarged glandular alveoli lined with proliferating epithelium, and separated by thick septa, principally made up of embryonic and spindle-shaped cells, resembling some form of sarcoma. He regarded the growth as a form of adenoma, with cellular hyperplasia of the interalveolar tissue, and he suggested its reference for further consideration to the Committee of Reference. The specimen was, on the motion of Mr. Abraham, seconded by Professor Bennett, referred to the committee, Professor Bennett observing that last year he himself showed a tumour of a character usually regarded as benign fibroma of the breast, weighing about fourteen pounds, but though its removal was effected in a complete manner, tumours recurred in six months in the axilla, neck, and in every direction, some being as big as a man's head.

Analytical Records.

[WE think it right to direct attention to the system we adopt in the conduct of this department. Of the numerous articles of food and medicine submitted to us we select such as we think important to the medical profession and the public. Samples of these are bought by us in the ordinary way, and the results of our examinations reported.)

EXT. CINCHONÆ LIQ., DE VRIJ.

(DE VRIJ'S EXT. CINCHONÆ LIQ. COMPANY, FISHER-STREET, RED LION-SQUARE.)

This is a concentrated extract of red bark, prepared, we are told, in vacuo to avoid the oxidation of the natural acid. Dr. De Vrij, whose authority none will dispute, superintends the manufacture, and great care is taken to use bark, or mixtures of bark, of uniform composition. The manufacturers guarantee the presence of 7 per cent. of the cinchotannates of the alkaloids. These are great advantages. Unscrupulous makers are apt to be careless in the selection of the bark, and physicians are therefore apt to distrust cinchona extracts. Of course, we can only speak of the sample we have examined, but that we find to be exceedingly satisfactory. The rough test of liquor potassæ shows the large quantity of alkaloid contained in the extract, and more careful analysis proves that a due proportion of quinine, as well as the other alkaloids, is present.

ERGOTININE DE TANRET.

(WILCOX & CO., OXFORD-STREET.)

It is, of course, impossible by chemical analysis to ascertain the physiological activity on which the true value of this preparation depends. The ordinary tests show, however, that it is a genuine preparation of ergot, and as such we commend it to the notice of the medical profession. The solution is especially intended for hypodermic injection, and is said to have been adopted in the Maternité de Paris.

SANITARY FLAKE CHARCOAL.

(CAMPBELL & CO., PAISLEY.)

The practical use of wood-charcoal as a disinfectant dates from the well-known experiments of Dr. Stenhouse. Its oxidising power is remarkable, and it might be much more generally used than it is at present. It should be applied in small fragments, as free as possible from dust; and in such a form Messrs. Campbell supply it at an extremely low price. The sample sent to us had a specific gravity of 0·301 and yielded 1·26 per cent. of ash. It was therefore an excellent charcoal, well adapted for sanitary purposes, for which we heartily recommend it.

THE LANCET.

LONDON: SATURDAY, JANUARY 17, 1885.

LAST week we were able to announce two events which may be of good omen. On the 2nd instant the President of the Royal College of Surgeons of England received a deputation of the Association of Members of the College in reference to certain corporate rights and privileges claimed by the Members; and on the 8th instant the Council itself requested the President to invite the Association of Fellows to send delegates to the Committee on Charters and Bye-laws in order that the committee may confer with them respecting some alterations proposed to be made in the Charters and Bye-laws. Were we to adhere too rigidly to the teachings of past experience, we should not be sanguine of a satisfactory result of these conferences and deputations; but we would fain hope that the Council is at length beginning to be sensible of the reality of the organised opposition it must encounter if it continues to pursue its old policy of isolation and distrust. Ever since the establishment of the College, eighty-four years ago, the executive body has followed a line of conduct which has begotten the disaffection and the antagonism of the Members. Fifty-nine years ago more than a thousand Members of the College met together to protest against the abuses of the Council, and to agitate for some reform in its constitution. At that meeting it was resolved that the Members of the Council should be elected annually by the Members (there were no Fellows at that time), and that *each Member* should have a voice in the election. In March last, or fifty-eight years later, a general meeting of Fellows and Members was held in the College, when recommendations were adopted to the effect that the Fellows and Members should have a larger share in the management of the College, and that no alteration should be made in its constitution without the consent of the Fellows and Members, convened to discuss such alteration. The Council has *twice* deliberately refused to give effect to these recommendations. But the Association of Fellows has again submitted these recommendations to the Council, and has requested an appeal to the Fellows and Members. The meaning of this is too plain to be missed; and with the Association of Members threatening an approach, the Council is induced to ask a truce, and to seek a conference. At this stage outsiders may be content to suspend their judgment and await the issue. One thing is certain: the loyalty of the Fellows and Members to the College will finally overcome all the obstruction and prejudice which the present tenants of seats at the Council board inherit from a long line of predecessors. The Council alone is not the College, but the Council *and* the Fellows and Members.

ALTHOUGH the pathology of the affection known as paroxysmal hæmoglobinuria is still shrouded in obscurity, there have not been wanting numerous researches, mostly on the experimental side, which may eventually be found to throw light upon the condition. We say eventually, because each series of observations stands, as it were, apart, and there remains a wide gap still to be filled between the condition observed as a spontaneous affection in man and that artificially excited in animals. The questions which are most open for inquiry group themselves around its etiology. Is it a blood disease? or is it primarily a renal derangement? If malarial influences have no share in its production, what other agencies can explain its intermittent character? If exposure to cold is to be recognised as an exciting cause, how does it operate? These and other points too numerous to mention invest the affection with an interest which would be more widespread if the condition were more common. As it is, they suffice to render it imperative that every case as it occurs should be thoroughly sifted, for a satisfactory explanation of its phenomena may throw light upon the physiology of the kidney, as well as on its derangements. The most recent attempt to elucidate the subject is to be found in the current number of VIRCHOW'S *Archiv*, in an article by Dr. AFANASSIEW of St. Petersburg, based on an experimental research carried on by him in COHNHEIM'S laboratory at Leipsic. The aim of this inquiry was to observe the effects produced by the destruction of red blood-corpuscles within the living body, and the consequent setting free of hæmoglobin, either in the form of organic particles or in a state of solution in the serum of the blood. In that way a condition of hæmoglobinuria was set up, and by varying the agencies employed different degrees of the condition were established, and a more or less exact imitation of the human paroxysmal affection was obtained. The substances employed were glycerine, pyrogallic acid, and toluylendiamin, which, when administered (mostly subcutaneously) to dogs and rabbits, produced more or less marked hæmoglobinuria. Glycerine possesses the property of extracting hæmoglobin from the coloured corpuscles and causing its solution in the plasma. If the dose be a small one, hæmoglobinæmia is the sole effect; but a larger amount is soon followed by definite hæmoglobinuria. Jaundice, however, is not produced. Toluylendiamin breaks up the red corpuscles, so that the blood becomes filled with coloured granules, which accumulate in the liver, spleen, bone-marrow, and also in the kidneys; but, unlike the glycerine cases, there is no hæmoglobin held in solution. With feeble doses, jaundice, described as hæmohepatogenous, is present, with albuminuria; with stronger doses there are both jaundice and hæmoglobinuria, and the animals rapidly succumb. Pyrogallic acid has an action intermediate to the other two agents, extracting hæmoglobin from the corpuscles, and producing hæmoglobinuria with very feeble icterus. Thus by the use of these various agents effects of varying intensity were produced, comparable to the different degrees of paroxysmal hæmoglobinuria observable in man; for it is known that in this affection there may or may not be evidence of blood destruction, and there may or may not be concomitant jaundice.

If, now, we turn to the effects produced on the organs most concerned, we see that in each case there is produced a marked degree of nephritis. The inflammation is most evident around the glomeruli; and the denudation of the epithelium of Bowman's capsule is associated with an escape of albumen or of hæmoglobin within the latter. There is

also, especially in the cases of glycerine poisoning, fatty degeneration or coagulation, necrosis of the renal epithelium, often combined with a deposition of lime-salts into the degenerate cells. In one case of a dog, where ten successive attacks of hæmoglobinuria had been induced by this agent, the nephritis was of an extreme kind, with hæmorrhages into the tubules. The liver in each case also undergoes fatty degeneration; and in the toluylendiamin cases, where jaundice is a particularly marked symptom, the necrotic hepatic cells are in part laden with bile-pigment and the products of blood-disintegration, there being further an infiltration of round cells around the hepatic and sublobular veins. The author next proceeds to discuss in detail the reasons for variations observed in the mode of separation of hæmoglobin from the blood and its appearance in the urine. Sometimes it appears in the form of granules, sometimes in solution, the urine in the latter case containing no casts or sediment, but yielding the characteristic spectroscopic reactions. He suggests that the colouring matter which separates from the corpuscles in the form of yellowish-brown granules is not pure hæmoglobin but a modification of it, and that the particles may either be used up in the liver or deposited in the kidneys; or else that by long persistence in the blood plasma the colouring matter is dissolved and excreted with the urine in solution. The sediment in hæmoglobinuric urine is probably not true hæmoglobin or hæmatin, for it is insoluble and does not have the spectroscopic characters. The dissolved hæmoglobin or methæmoglobin is excreted at the glomeruli, owing either to circulatory derangement or to changes in the glomerular epithelium; whereas the formed products of corpuscular destruction are never found within Bowman's capsule, but are deposited as brown granules in the tubular epithelium. In many cases bile-pigment is to be found in both these situations; and where jaundice is very marked, casts containing such pigment block the tubules. Three kinds of casts are met with in cases of "hæmohepatogenous icterus" associated with hæmoglobinuria—viz., those containing crystals of hæmatin or hæmoglobin, those containing bilirubin crystals, and those filled with the pigmented granular débris of disintegrated blood-corpuscles.

Finally, in order to obviate the errors likely to arise from the practice of employing toxic agents to destroy the blood-corpuscles, he performed some experiments of transfusion of defibrinated blood heated to about 56° C., whereby the red corpuscles are broken up and the hæmoglobin is dissolved in the serum. The effect of such a transfusion is to induce hæmoglobinuria, and the anatomical changes in the kidney and liver are precisely those which occur when the blood-corpuscles are broken up within the body by glycerine and the other agents named. This is held to be sufficient proof that these changes are not due to the direct action of these substances on the organs, but to the separation of hæmoglobin from the corpuscles, and its escape into the general blood-stream either in solution or in a granular state. Dr. AFANASSIEW feels himself justified in describing the renal lesions as hæmoglobinuric glomerulo-nephritis, which in a later stage may pass into an interstitial nephritis, and the condition of the liver he styles "hepatitis interstitialis ex ictero hæmohepatogene." As a contribution to our knowledge of an obscure subject, and particularly as a demonstration that corpuscular disintegration is capable of inducing profound structural lesions, this article may be welcomed; nevertheless it leaves untouched the etiological question, which is the most interesting and obscure of all.

THE code of rules for the prevention of infectious and contagious diseases in schools, being a series of resolutions passed by the Medical Officers of Schools Association, cannot fail to be a useful guide to practitioners engaged in attendance on either our public or private schools. We encouraged in the first instance the formation of this Association, and congratulate the members on the general usefulness of the resolutions they have passed. Some shortcomings naturally present themselves in the work of so young an Association. For example, the members appear to have lost sight of the fact that the general hygiene of all our public schools is under the direction of the sanitary authority of the district in which the school is located, and that in reality the medical attendant of the school has no *locus standi* as an officer of health. His province is essentially clinical, and the sanitary laws of the country repudiate him on matters of public hygiene. The sanitary medical officer appointed by the district authority is responsible for the sanitary arrangements of our schools, and to him should be referred questions of drainage, water-supply, &c., as the legally constituted authority. His authority does away with the possibility of "*that undivided medical responsibility*" which the members of the Association appear to us unwisely to aim at. The law refuses to recognise this "undivided responsibility," and it would be better for the medical attendant of a school to acknowledge the constituted authority of the public medical officer of health, and facilitate, after the manner of a family practitioner, the free and unimpeded working of our public sanitary laws. There is ample room for this division of labour, and the Association seems to be endeavouring to arrogate to itself an authority which it can never in reality possess.

Another clause, to the effect that "an annual return of school sickness to the *governing body* of the school from the medical officer is very desirable," falls short of what we think necessary, for it should not be confined to the governing body, but is equally due to the parents of all the pupils and to the public generally, in order that those who contemplate using the school in future may have some ground on which to judge of its sanitation. The secrecy of the past in this respect should be discouraged in the future, and the Association will deserve the gratitude of parents by doing so.

The question whether there should be a single general infirmary for infectious and non-infectious cases, or a second isolated infirmary for infectious cases, is one upon which school authorities are much divided. A boy falls ill and is feverish. He is placed in the general infirmary without suspicion of anything infectious. In a day or two he develops a rash, and the infectious nature of his malady becomes apparent. It is a drenching November day or a bitter March day, with north-east wind. What parent would approve of his child being taken through the chilling air to the separate infirmary? What medical man would sanction such a course? This, we think, pre-

sents one of the difficulties of a separate infectious infirmary. A wing thrown off from the general infirmary for infectious cases, approached by a covered corridor well warmed and with through ventilation, along which the patient could be taken without risk, appears to us the most workable scheme for a school infirmary, and we know it to have answered well over a number of years where it has been fairly put to the test.

The clause providing that a master in whose house infectious illness has arisen should undergo thorough personal disinfection before resuming work in school is a wise though stringent rule, but we cannot help remarking how much it is in contrast with what the medical officers think necessary in their own case, which is to consist apparently of putting on a large mackintosh before entering an infectious ward. The stringent rule laid down for the master, if necessary in his case, is equally so in that of the medical officer, and should be as rigorously observed.

Some difference of opinion prevailed as to the period of quarantine after exposure to scarlet fever. Dr. CLEMENT DUKES suggested eight days, Dr. FERGUS seventeen days. The Association ultimately adopted by resolution fourteen days. We make no doubt Dr. FERGUS could give many instances of the development of scarlet fever after fifteen days' exposure to infection. We have known instances of such, and we think his suggestion should have been adopted by the Association, or even a longer period than he suggested. The question, When may a pupil who has had scarlet fever safely go home or rejoin school? we think to have ended in a somewhat lax resolution. It would have been better if the resolution had more fully recognised the fact that completion of desquamation may vary from the third to the twelfth week, and that no case can be regarded as sufficiently free from infection till at least a fortnight after desquamation has been entirely completed.

ALTHOUGH certain differences in practice still prevail among surgeons, yet it may be safely asserted that the comparative value of the varied methods of amputation is generally and justly appreciated, and the differences which exist are all explicable by the fact that the perceptions of varied minds always differ to some extent. The value of the so-called "subperiosteal" method of amputation has, however, excited far less attention in this country than on the Continent, or than it really merits. It is now seventy years since WALTHER of Landshut published a short note on this subject, and since then such well known men as OLLIER, TRÉLAT, PONCET, ESMARCH, and VOLKMANN have experimented upon it, practised it and written in its favour; while many other names less familiar to English surgeons have contributed to the literature of the subject. The procedure is not described in our English text-books and Systems of Surgery, and when the late Mr. SHUTER showed a patient upon whom he had performed subperiosteal exarticulation at the hip-joint at the Clinical Society of London, it was regarded by not a few as almost a new departure in operative surgery. We cannot doubt that, both in this country and in America, some surgeons have adopted this modification of the flap or circular method of amputation, but it certainly is by no means generally practised, or even recognised.

It may be well, therefore, to explain what the method is, and how it is best carried out, before entering upon a consideration of its merits. The special feature of the method consists in detaching a flap of periosteum from the portion of bone to be removed, sufficient to cover over the sawn end of the bone. The connexions of this periosteal flap with the muscles on its outer surface must be carefully preserved, that there may be no interference with its nutrition; and to counteract its tendency to retract with the muscles, its cut edges should be united by fine catgut, and great care be taken to secure rest to the stump by suitable compression. The detached periosteum should equal in length the diameter of the bone at the point of section, and the amputation flaps should be cut so that their base is this distance below the line of amputation; then when they have been reflected up to their base, the periosteum should be divided circularly round the bone, and detached by means of an elevator or raspatory.

The advantages that may be claimed for this mode of amputating are: First, that the sawn surface of the bone is brought into contact with the tissue which is physiologically fitted for its protection, and to which it becomes organically united most quickly and certainly; while, if the operation be carefully done, no part of the bone is bared of periosteum, and its vitality thereby endangered. Secondly, that from the periosteal flap a thick layer of new bone is quickly developed, which securely closes in the medullary cavity; by this and the rapid primary adhesion of the periosteal flap, the medulla of the bone is guarded against the spread of any inflammation or suppuration that may be present in the soft parts of the stump. Thirdly, that the stump is a better one than can be guaranteed by any other method, as there is no tendency for the bone to adhere to the cicatrix, and little if any liability of the bone to atrophy; the stump is firm, and the soft parts over it are mobile and supple. These are distinct advantages. But what can be said on the other side of the question? First, that when flaps are well devised and made, and the wound properly treated, a mobile stump without adhesion of the bone to the cicatrix is obtained. Secondly, that muscle will adhere to the sawn end of a bone, and that in such a case the medullary canal becomes closed in by a plate of osseous tissue; this lamella is, however, much thinner and of later formation than when a periosteal flap is made. Thirdly, that to detach and suture this flap of periosteum adds to some extent to the duration and difficulty of the operation. In the large majority of cases this objection should have no weight. As M. NICAISE points out in the current number of the *Revue de Chirurgie*, we have arrived at a period in the progress of surgery in which it is incumbent to study how, by attention to small details, we may give our patients the most useful stumps, for the more important measures by which the operation of amputation has been deprived of its chief dangers are known and practised with more or less success by all surgeons. Fourthly, in young persons the preservation of a flap of periosteum may lead to an osteophytic outgrowth from and around the bone. The liability to this greatly lessens after adolescence. But it seems clear that it only occurs when there is inflammation of the tissues of the stump or some abiding irritation of the osteogenetic tissues of the periosteum. And now that we

are able, in the great majority of cases, to exclude these processes with an approach to absolute certainty, this disadvantage is not of great moment.

These we believe are the arguments that may be advanced for and against this method of amputation. We cannot but think that, when carefully considered, they show a distinct balance in favour of the operation, and we hope that British surgeons will devote more attention to it than heretofore, and that we shall learn from them the results they obtain.

Annotations.

"Ne quid nimis."

LUNACY LAW REFORM.

WE must be excused for taking as much note of the medico-social aspect of the lunacy question as of that which may be more properly called its "professional" aspect. Regarded from the first-mentioned of these points of view, it must be confessed that it does not strike us as an impending calamity that "we are now within a very reasonable distance, indeed, of a strike among medical men against signing lunacy certificates at all." We do not quite know what "a very reasonable distance" may mean, though we have a fairly distinct notion of what "a measurable distance" —Mr. Gladstone's favourite phrase—signifies. However, the distance is not the most interesting feature of the case. So far from a general refusal to sign certificates being a calamity, we venture to think it would be a blessing to the community and to the profession. Matters would then, doubtless, be placed on a reasonable basis as regards the purely medical function of diagnosing mental disease distinguished from the absolutely non-medical, if not anti-medical, business of keeping private prisons for the incarceration of certified lunatics. It is most devoutly to be hoped that we are within "a very reasonable distance" of the auspicious moment when the Government may be ready to propose, and the Legislature find leisure to consider and pass, a short measure putting an end to certificates altogether. It is a most unreasonable procedure to certify a lunatic. The law blindly exacts certificates, and medical men give them, but both the command and the compliance are unreasonable and needless. By all means let us "strike," and rest assured good will come of it, though not perhaps precisely in the way some persons expect.

CEREBRAL PATHOLOGY.

AT the last meeting of the Clinical Society a paper was read by Dr. Hale White on lesions of the frontal lobes. It is a matter of surprise, considering the freedom with which such questions have been discussed, that so much yet remains to be learnt. Has it not been accepted as a fact for some time past that injury to or disease of one of the frontal lobes is unattended with important damage of the ordinary functions of mental life? Whether this absence of symptoms is due to insufficiency of examination or not seems to be a matter worthy of consideration. Another possible view of the case is to suppose that in the recorded cases the individuals injured in the frontal regions have not been of the educated sort, and that as a consequence the functions which should have been present have never been developed. It seems certain that this kind of explanation would hold good for many cases of absence of symptoms when we have to deal with infants and others whose mental powers have not yet appeared, for the all-sufficient reason that the structures which entitle them to the possession of the faculties are then in an immature condition. Moreover, it would appear that Hartley's time-honoured distinction between volitional and automatic actions is greatly in danger of being forgotten, or at least of being misunderstood. We should have thought that no one would have cavilled at Mr. V. Horsley's statement that the drawing of a triangular outline with one hand whilst the other was describing a circle was an impossible performance of consciousness. Consciousness is single and undivided, as best seen in close attention. But there are such processes as may safely be called subconscious, or almost unconscious, and amongst these must be classed the performances of telegraph-clerks, weavers, and interpreters of music, whether of the Chopin order or not. It is not uninteresting to consider how far education would be possible in the absence of that most important principle which shows that volitional acts do, after a series of performances, become automatous, requiring very little or almost no guidance from the highest intellectual centres. The last meeting of the Clinical Society might not unreasonably be called a psychological evening, for both Dr. Hale White and Mr. Victor Horsley made the paper which the former read the occasion for some general remarks on the psychological functions of the cerebral cortex, if such a mode of expression, where mind and matter are confused together, be allowed. The latter gentleman is a supporter of the view that the highest intellectual functions are mostly energised from the hinder portions of the brain, whilst the frontal regions are the special seats of the highest emotional faculties, including, as we understood him, the power of giving expression to these. The lines of Hamlet, "See what a grace was seated on this brow: Hyperion's curls; the front of Jove himself!" would on this showing not be testimony to the intellectual faculties of the Queen of Denmark's first consort. However, the time has not yet arrived when we can speak with certainty on such matters, though it is clear from Prof. Ferrier's experiments and many clinical observations that the perceptive functions associated with the most intellectual organs of sense, the visual and auditory, are represented in the posterior regions of the cerebral hemispheres. The view which Dr. Hale White propounded with regard to the most recently acquired faculties as having no very definite site in the cerebral cortex, so that either frontal lobe may assume the functions of the other, would appear to have some kind of connexion to the views of evolution and dissolution as propounded by Dr. Hughlings Jackson. Though it is usually taught that function precedes structure, yet there are many considerations which lend support to the notion that these elements go hand in hand. On this view it is not difficult to understand how, so to speak, virgin brain soil may be made by education to perform any functions whatsoever. True it is that through a long series of ages certain specialisations have already been effected, and the development of the individual must on the laws of evolution proceed along the lines which heredity has laid down—that ontogenesis must be rapid phylogenesis. But, potent as are the influences of untold generations of experience, still the present agencies are in a measure perhaps more powerful.

SCURVY.

WE have received by this mail an interesting paper by Brigade Surgeon Cameron Macdowall, containing a criticism on the new theories and experiences of scurvy, which was read before the Bombay Medical and Physical Society. Dr. Macdowall criticises Mr. Neale's experience as to the value of fresh meat as an antiscorbutic, and he also controverts the statement that certain of the Hill tribes live altogether without vegetables and yet are free from scurvy. He says that undoubtedly these do make use of vegetables, and also cases of scurvy do occur among them. Dr. Macdowall very properly insists that nothing should be allowed to supersede the use of fresh vegetables, or the administration of lime-juice to troops and sailors during

campaigns or long voyages, when vegetables cannot be obtained. Still we cannot agree with him in his depreciation of fresh meat rations as a prophylactic. Experience has also shown that too much reliance must not be placed on preserved vegetables, the crews of the whaling vessels, who are supplied freely with the Dutch preserved vegetables, which are generally admitted to be the best, often being severely visited with scurvy. It is probable that the antiscorbutic value of vegetables and meat depends on the freshness of these articles, and that by keeping changes occur which diminish this value. The nature of these alterations probably are very similar to those that take place in the saccharine elements, as we see in fodder preserved by ensilage, in which there is an increase of free organic acid, whilst the amount of alkaline bases present remains the same. He has moreover shown that in scurvy the amount of alkaline phosphates discharged by the urine are diminished, a fact subsequently confirmed by Zuelzer, and this he considers a proof that in this disease the alkalinity of the blood is diminished, and that the alkaline phosphates are consequently retained in the system to supply the deficiency. This view is supported by the experimental researches of Hoffmann and Loscar, both of whom found that the organism retained its alkaline bases when an attempt was made to reduce the alkalinity of the blood; and Dr. Macdowall is in error in supposing that it is based on Maly's researches, since on the question of the derivation of acid from the alkaline blood, in the case of urine, Maly and Ralfe distinctly differ.

THE SANITARY INQUIRY IN CALCUTTA.

WE regret to learn from the Indian papers that there has been an occurrence of an unpleasant character in the proceedings of the committee appointed by the Lieutenant-Governor to inquire into the manner in which the cleansing and conservancy of Calcutta have been carried out, and to report what further provision should be made with a view to increased efficiency. It appears that Surgeon-General Payne was requested by the committee to attend to give evidence; that in the course of his examination certain questions were put to him by Mr. Cotton, the member nominated by the municipal commissioners, which Mr. Beverley, the chairman of the committee, considered to be of "such an offensive character that Dr. Payne very properly declined to answer them." Mr. Beverley felt himself called upon to address a letter to the chairman of the corporation protesting in very strong terms against the course taken by Mr. Cotton, and this, with Mr. Cotton's reply, has been published in the papers. No report of the questions put has reached us, and we therefore refrain from giving any opinion on them, except that we cannot conceive an officer of Surgeon-General Payne's high character refusing to answer them without good cause; nor a gentleman of Mr. Beverley's social and official standing protesting in the strongest terms against Mr. Cotton's conduct in putting them, unless they were most objectionable. It appears from the correspondence that Mr. Cotton was coached up on these questions by Mr. Harrison, the chairman of the municipal commission, and that they were "intended to show Dr. Payne's hostility to the elementary principles of local self-government." This did not form any part of the question referred to the committee for report, and the effect of its introduction must have been, whether intentionally or not, to divert attention from the important subjects under investigation, and to mix up personal matters with questions of great public interest. Unless Mr. Cotton can show that he adopted the course which has given rise to so much unpleasantness in the interests of the Calcutta public, and not of the municipal corporation as distinct from this, he has laid himself open to severe reprehension, and has done much to damage the reputation of the body which he represents on the committee. We have every confidence that Sir Rivers Thompson will not allow himself to be influenced by this occurrence, but that he will carry out fearlessly and impartially the investigation into the working of the sanitary commission. In the mean time this method of raising an issue quite distinct from the question referred to the committee cannot fail to excite distrust, on the part of the public, in those by whom it has been adopted, and a suspicion that there is good reason for wishing to divert attention from the subject under investigation.

PROPOSED ENLARGEMENT OF THE ROYAL SURREY COUNTY HOSPITAL.

A SPECIAL meeting of the Court of Governors of this excellent and very necessary institution, held last week in the board-room of the hospital, was hardly, we should hope, needed to enforce its claim upon the attention of the wealthy and charitable county of Surrey at a time when it is obvious that it cannot adequately meet the demands made upon its space and resources. None the less, however, are we glad to see a long account of this meeting in the *Surrey Advertiser*, since it is only, too frequently, that by "bold advertisement" alone kindly hearts are impressed with the necessity for open-handed generosity. "Evil is wrought by want of thought as well as by want of heart," and good often slumbers for want of initiation. In this case excellent examples are not wanting. It was announced that the Earl of Onslow had generously offered land to the value of £1000 for £600, and supplemented it by a gift towards the expenses of £300. Mr. J. S. Budgett of Stoke-park, who very properly deprecated the selling of stock unless absolutely necessary, and pointed out that "to hesitate to believe that the county would contribute £5000 was an absurd and timid policy," also promised a contribution of £250 and £10 a year towards the increased amount that would be required annually to support the extension. It is also stated that before the governors left the room the list of subscriptions had nearly reached £1000. The Royal Surrey County Hospital has now to cope with a remarkable increase in the number of patients, and to provide for the wants of an extended area, therefore we are convinced that the committee being able to purchase the required land at once, though the building is not to be commenced until at least half the estimated cost (£6000) of the new wing is promised, the inhabitants of the county will promptly ensure not only a start, but the whole of the required sum by contributing of their abundance, of their sufficiency, and, we venture to hope, even of their mites. It is proposed to include in the intended additional accommodation separate wards for children.

AVOIDABLE ILLNESSES.

IF men were to reflect upon the amount of illness, not to mention other evils, which they bring upon themselves, a total which ever increases with their self-development in civilisation, they would sometimes question the reality of a progress which includes so many errors. Even if we leave out of sight the known results of faulty practice, there is still a large margin of what seem to be anomalous mishaps which day by day are shown to have had an acquired and avoidable beginning. It is always satisfactory to get at the root of these unaccountable flaws, especially when they nearly concern one's personal health. Their removal is then usually assured, and our former discomfort or dread is covered with the satisfaction of enlightenment and of remedial success. Trade-work has at all times illustrated, and does still continually illustrate, the truth of these remarks. Let us grant all that is due to its energy and enterprise, and still

the value of its productions is heavily discounted by errors which are not only due to oversight or ignorance but often to neglect. In so far everyone will admit the need of correction. By way of example, consider the case of staining and its applications. We showed a short time ago that some of the aniline dyes in the market, from whatever reason, were found to possess poisonous properties and to be unfit for dyeing articles of dress. Further evidence has not been wanting to confirm those observations. Another and older enemy of health, arsenic, has never been extirpated, but shows its front among us from time to time. Cases of poisoning by arsenical wall papers have been reported quite recently. The symptoms described, it is true, did not include the gravest possibilities, but chronic and intermittent ill health was proved to depend upon the presence of a highly coloured paper containing much arsenic. Mere colour we would add, however, is no test of quality in this respect. The most innocent-looking hues may be arsenical, and, conversely, the same tints may be had without any such poisonous admixture. Undoubtedly the only guarantee for safety is to be found in the discontinuance of this or other similarly hurtful substances as dyes in dwelling-houses. While there is any doubt about the matter, no custom in decoration can be safer or better than that of distempering walls and afterwards oil-painting them with some plain colour.

THE DWELLINGS OF THE PEOPLE.

AT a meeting of the Mansion House Council on the Dwellings of the People, held on Friday, January 9th, many matters bearing on the cleanliness and health of the London population were brought forward and discussed. Reference was made to valuable work done by the agents of the Council in educating the inhabitants of poor districts in sanitary usages by means of handbills and lectures on the subject. Important suggestions were also offered on certain points in which the law was still imperfect or inactive. Such were the removal of nuisances and of household dust, and the system of water-supply, the election of medical officers of health, the control of vestries and of house-holding vestrymen, the notification of infectious disease, the registration of house owners or lessees and of the inmates of tenements, the erection of mortuaries where necessary, the encouragement of sanitary officers in regard to salary, &c., and the protection in case of legal process of district surveyors of buildings. A report embodying the above-mentioned proposals was submitted to the meeting and adopted unopposed. Further suggestions relating to plans for cheapening house rents, and for thinning the civic population by building suburban dwellings, likewise received favourable consideration. Regarding the importance of each and all of the plans of reform described on this occasion, there can be no question. The Council have done well to signify their general agreement to them. There must, of course, remain among so many resolutions, matters of detail which call for thoughtful discussion, and perhaps for modification; but their gist, as they stand, is such as the medical profession as a body will not scruple to approve. The proposed measures of cleanliness, the removal of refuse, and the maintenance of water-supply, cannot fail to influence to the best purpose the great nest of contagion which exists in our midst. The notification of infectious cases is a not less important subject. The theory on which it rests is a principle in medical science. Sense and judgment in its application may render it a most serviceable aid in practice, and we hope that the want of these may not be suffered, as in some past instances, to mar its utility. The recommendations of the Council with respect to registration of ownership and of tenants must command our warm support. Indeed, without some system of the kind reform is hopeless. We cannot conclude these remarks without endorsing the statements made in favour of improving the standing, remuneration, and security of inspectors and district surveyors. Apart from the personal risks and expense which such men are liable to incur, there is much to dissuade and discourage them from the conscientious discharge of their duties. There is, therefore, the more reason why the authorities and the public should choose trustworthy men for such offices and should grudge them in their exercise no requisite facilities.

ADMINISTRATION OF THE DARENTH SMALL-POX CAMP.

THE complaints of bad administration at the Darenth Small-pox Camp have assumed a much more serious aspect since Mr. Nathan Robinson, himself one of the committee charged to see to the efficient working of the camp, made admissions at a recent meeting of the St. Pancras Vestry which at first sight go far to prove the case of the complainants, and we are glad to see that such an inquiry as we advocated last week is about to take place into the circumstances which have been brought under public notice. Briefly stated, the charges which have been made relate to the inferior quality of food, difficulty in securing regular meals, enforced labour beyond the strength of the patients, failure to supply sufficient clean linen, want of proper classification of patients, &c. On the other hand, Sir Edmund Currie, whose voluntary and incessant labours in connexion with the preparation of the camp and hospital ships at a time of great emergency are deserving of the highest recognition, both on the part of the managers of the Asylums Board and of the public, repeats his statement that some of the allegations made are absolutely untrue; also we publish in another column a letter by Surgeon-Major Ince in which strong testimony, as the result of a minute personal inspection, is given to the present satisfactory condition and arrangements of the asylum. We have always looked upon the huge aggregation of patients at Darenth as calculated to bring about administrative difficulties even of a more serious kind than those which are alleged to have taken place; and quite apart from the truthfulness or otherwise of the complaints, we think that good is certain to result from any sufficiently exhaustive inquiry that may be made.

ISOLATION IN GREATER LIVERPOOL.

THE city of Liverpool having at last provided itself with hospital accommodation, though of a limited and temporary sort, the Greater Liverpool which surrounds the borough finds itself in much the same sort of trouble as that which the parent city suffered from. The Toxteth-park Local Board of Health cannot but have known that the arrangement hitherto adopted, by which people have been pauperised for the sake of the protection of the public health, must come to an end; but apparently they have failed to act under the powers which they, as a sanitary authority, possess to provide suitable means of isolation for their district. The result has been that on the occurrence of some recent cases of small-pox they had to run hither and thither pleading with workhouse and sanitary authority to aid them in an emergency which should have been foreseen and provided against. For some considerable time they met with nothing but stern refusals; the city hospital was solely for Liverpool citizens, and the use of the workhouse as an infectious hospital had been prohibited by the Local Government Board. At last, however, this prohibition was disregarded, and once more Toxteth-park saves itself from some danger at the expense of pauperising some of its inhabitants. It is to be hoped that the lesson which has again been taught will not be allowed to pass unheeded. When the authority last met they decided to

find out if other sanitary bodies would co-operate with them in the matter of hospital provision. Whether by combination or otherwise, the Toxteth-park Local Board have a duty to perform to the inhabitants of their district, and they should forthwith take measures to make such hospital provision as is adapted to their special needs. Other sanitary districts which go to make up the Greater Liverpool would also do well to take warning in time.

HARMLESS LUNATICS TO BE SENT BACK TO THE WORKHOUSES.

IT is amusing to observe the irony of Father Time in his dealing with questions of socio-political reform. By the familiar statute known by the name of its framer as the Gathorne Hardy Act harmless lunatics were to be rescued from the neglect and tyranny of workhouse-management and brought under the benign influence of the asylum system. So much was this desired that, in addition to providing large establishments for the reception of imbeciles, four shillings a head was allowed per week for the maintenance of harmless lunatics in asylums. Under this inducement—until its illusory character was proved—the old women who would not get up, and the old men who would not go to bed, without more trouble than workhouse authorities cared or dared to expend on them were transferred to the asylums. Now they are to be sent back to the workhouses, in order, as it is thought, to make way for non-paupers in public asylums. In so far as this may be a clumsy step towards the abolition of private asylums, we hail the token of awakening; but we are not so very sure that the new move will be in the direction supposed. This may only be another of many devices for the providing of asylum accommodation adequate to the needs of a population which is increasing chiefly, if not wholly, because it is being rapidly multiplied by fanciful definitions of "insanity," and because the difference between *increase* and *accumulation* is not even yet adequately understood.

CHOLERA IN INDIA.

IN a short annotation in THE LANCET of October 4th, 1884, attention was drawn to the prolonged duration of cholera in the Tanjore circle. The sanitary commissioner of Madras (Dr. Furnell) attributed it to the deficient and contaminated water-supply, and predicted it would be considerably lessened as soon as a proper monsoon had filled and cleaned the tanks and watercourses. This prediction has been fulfilled. The south-west monsoon, which had held off during the months in which it usually makes its appearance—viz., June and July—came down late in August and September, and the mortality fell immediately from hundreds to tens per diem until the cholera disappeared entirely. Another very instructive example of the intimate connexion between a contaminated water-supply and cholera has recently shown itself in Madras town. A severe cyclone burst over Madras on November 21st, causing immense damage to houses, trees, and standing crops; but, greatest misfortune of all, causing a breach in the bund of the Red Hills tank or lake from which Madras is supplied with drinking water. The water from this immense reservoir, quite a little lake, flooded the country round, carrying away several villages and causing great loss of property and life, and depriving 400,000 inhabitants of their usual supply of water for domestic purposes. Recourse was had immediately to the old and deserted tanks and wells which dot the town, but whose use had for many months past been given up under municipal authority. Up to the date of the breaching of the tank no deaths from cholera had been returned for the month within the municipal limits of Madras. Five days after the catastrophe—viz., on November 26th—two cases occurred, and from that date the cholera has increased, until at the present time of writing the deaths number some ten to fifteen a day. In the meantime strenuous efforts have been made under a strong committee appointed by Government to obtain a pure water-supply from other sources, and with such success that at the date of our information the stand-pipes had begun to give forth a moderate supply of good water. There is little doubt cholera will again rapidly disappear.

THE REGISTRAR-GENERAL'S WEEKLY RETURNS FOR 1885.

THE area embraced by the Registrar-General's weekly returns during 1885 will be the same as it was last year—namely, the twenty-eight large English towns and the outer ring of suburban districts around London. The population of these towns, including the London suburbs, in the middle of this year is estimated at 10,021,684 persons, showing an increase of 184,696 upon the estimate for the middle of 1884. The population of London and its suburbs is estimated at 5,199,166, or more than 100,000 in excess of the estimate for last year; the increase of population of inner or registration London being 64,567, and of the outer ring 40,604. The largest of the provincial towns are Liverpool with 579,724 persons, Birmingham with 427,769, Manchester with 337,342, and Leeds with 333,139. Manchester with Salford would take third place with a population of 541,417, very little less than that of Liverpool. The smallest towns in the list are Huddersfield, 87,327; Wolverhampton, 79,185; Halifax, 77,378; and Plymouth, 76,045. The weekly returns also include statistics of Edinburgh, Glasgow, and Dublin, furnished by the Registrar-Generals of Scotland and Ireland, the aggregate population of these three cities being rather more than a million. And, lastly, the returns give certain information for thirty-three colonial and foreign cities supplied by various authorities abroad, the estimated aggregate population of these cities exceeding sixteen millions. Thus the Registrar-General's weekly returns for 1885 will give mortality statistics for populations at home and abroad amounting in the aggregate to more than twenty-seven millions of persons. It may be noted that the list of twenty-eight English towns specially dealt with in the returns includes all towns in England and Wales that had at the time of the last census a population exceeding 70,000 persons; the only exceptions being Croydon and West Ham, both of which lie within the compass of the outer ring of London.

"SINGULAR MEDICAL ACTION."

THE *Islington Gazette* reports under the above heading an action by Mr. John Walker Smythe, for the recovery of £2 13*s.* 6*d.* for professional services rendered, against a Mr. Pond. The charge was for attendance on the defendant's wife. The defendant filed a counter-claim of £4 for expenses incurred—so it was alleged—as a consequence of the plaintiff's negligence. The patient, according to the plaintiff, suffered from "injuries caused by her husband" and bronchitis. The defendant suggested another opinion, and Mr. Weston was called in. An abscess formed, and an attempt was made to show that by ordering cold water applications Mr. Smythe had treated it wrongly, as also by lancing it in the wrong place and at the wrong time. Mr. Smythe, thinking the nurse negligent of his instructions, retired from the case. Nothing was heard of the defendant's complaints till the bill was sent in. The attempt to show serious difference of opinion and practice between the medical men broke down completely, and the judge, after some very sensible remarks, gave a verdict for the plaintiff on both claim and counter-claim, with costs.

THE CLINICAL SOCIETY.

THE annual general meeting of this Society was the occasion for the reading of the Report of the Council and the Treasurer, which showed that the Society was in a prosperous state and numbered nearly 400 members. The Society had to regret the loss by death of Dr. Hall Davis, Dr. Barclay, Dr. Mahomed, Mr. Cæsar Hawkins, Professor S. Gross, and Mr. Wheatley. The exhibition of living specimens had been carried out on an increasing scale during the past year. Myxœdema, spina bifida, and Charcot's disease had been the subject of special work. Dr. Frederick Taylor proposed, and Dr. D. W. Finlay seconded, that the Report of the Council be received, adopted, and published in the Society's Transactions. Dr. Moxon proposed a vote of thanks to the retiring President, Sir Andrew Clark. He said that as he went away from the discussion the other night he was wondering what in other professions would correspond to the scene he had been witnessing, and he could not think of anything quite like it in the Law or in the Church. Perhaps in the Army and Navy there is something of the kind. He had heard and read very interesting discussions in connexion with these services in which our national dangers and defences have been considered. But at these important debates the Secretary of State for War was not to be seen nor the First Lord of the Admiralty. He congratulated the profession that its leaders were found able and willing to preside over Societies like the Clinical. The members were not, said Dr. Moxon, insensible of the sacrifice which is thus made for our benefit when time of such value is spent amongst us. Sir Andrew Clark had supported the clinical character of the Clinical Society. It was a great pleasure to propose a vote of thanks to the retiring President. He remembered proposing not many nights ago another vote of thanks in the Society, and if the Society would allow him he would like to allude to that occasion, because, largely through the chairman's courtesy to him, he was allowed to take up a somewhat ambiguous position, which led to his expressing his admiration of Professor Charcot under circumstances that seem to have prevented the earnestness and reality of that admiration from appearing clear to those who only read the report of what he said. He would now like to be allowed to say, with perfect distinctness, what he intended to have said on the former occasion, and to express his full recognition of the great advantages which the work of Professor Charcot had conferred on the medical profession, and the brilliantly successful manner in which he has thrown light on many obscure problems. Returning from this digression, he would again ask the Society to express warmly its thanks to Sir Andrew Clark. The vote of thanks was passed by acclamation. The list of officers for the ensuing year was published in THE LANCET of Dec. 27th, 1884.

A CONVENIENT MODE OF INQUIRY.

THE Education Department is, in a praiseworthy way, setting an example of ingenuity to other departments throughout the country. The allegations of over-pressure recently made are being specifically investigated. The inquiries already instituted have been, so far as we can see, carried out in a very careful and exemplary manner, and what makes them particularly valuable is the fact that they were conducted either by the managers of schools themselves or by the inspectors; in short, by one or other, or both, of the parties upon whom the responsibility of wrong-doing or neglect, if proved, must have fallen. This is an admirably simple and promising idea. We hope to see it extended. Instead of all the fuss and trouble of proceedings at Scotland-yard and at assizes, why not refer the whole business of criminal investigation and the repression of crime to the criminal classes themselves, who might be asked to form themselves into a standing committee of inquiry? Thus with all matters of management: let asylums for lunatics be inspected by their own committees; factories by their proprietors; let London milkmen analyse the milk; and so on. The reports obtained from these sources will be just as interesting and of precisely the same value as that which has just been furnished to the Board.

TUBERCULOSIS IN LARGE RUMINANTS.

TUBERCULAR inoculations in large animals have been but little practised, though they would appear to possess special interest for the pathologist. The progress of events in the lymphatic system and distant viscera may be watched more easily than in smaller animals. M. Colin has worked at this subject. His method is to introduce beneath the skin a drop of pulp with a thin section of tubercle taken from an animal recently killed. A tumour rapidly develops at the site of inoculation and opens towards the end of the second week; the orifice grows larger from ulceration, and a sort of gaping chasm is formed, with cheesy contents, having much resemblance to the cavities in the lung. Numerous grey granulations form in the wall around. At the same time the nearest lymphatic gland becomes swollen and tubercular, either as a whole or at several parts. The whole of the morbid process may subside after it has reached this stage, the viscera and remaining lymphatic structures not being affected. These local processes take place without any fever or wasting. In young animals the tendency to tuberculisation is much greater, and then the dissemination of the tubercle may be followed all along the lymphatic vessels into the thoracic duct, and finally over the different viscera, including the serous membranes. The periods of incubation and of spread to the viscera have been carefully worked out, but the report from which we take the above abstract is wanting in details.

PREVENTIVE MEDICINE IN SCHOOLS.

WE pointed out in an annotation last week that the teeth of all the children attending the communal schools in Brussels are examined by order of the State, and that during the year 1882-83 no fewer than 1250 pupils required the services of the dentists, which they would probably have never otherwise obtained. We are glad to note in this connexion that the managers of the North Surrey District School, Anerley, acting on the advice of the medical officer of the school, Mr. H. J. Prangley, have appointed a dentist to attend weekly in order that the children may have proper attention paid to their teeth. The managers and Mr. Prangley are to be congratulated on the important step they have taken. There can be no doubt that the appointment will receive the sanction, if it has not already been given, of the Local Government Board.

THE CAUSE OF SOOT-CLOUDS.

STRIPPED of its technicalities and reduced to the common-sense level of average human brain-power, the discussion about soot and fuel economisers amounts to this: We want less of force and rapidity and more of volume in the air passing through our domestic fire-places. They ought not to be so much like small blast-furnaces as they too generally are. The fuel, whatever it be, should burn quietly, consuming the combustible part of the fuel, allowing the gases—which are partly waste, unfortunately, and partly consumed—to rise slowly and passively and escape up the chimney without blowing up the residue of the carbon with them. A strong and rapid current of air through a fire must mean waste, and most probably will also mean soot or smoke. The air

which supplies oxygen to a fire should be wafted gently between and over the coals in the grate, not blown with a rush from below through them. If this simple fact be mastered, it will be easy to secure the object with almost any grate and any fuel. If it be not understood, the search for a special apparatus and particularly good fuel must be futile. Let us begin by first learning and then teaching the A B C of the process, which is really very simple if it be only understood. As it is, the cloud of words is becoming almost as great a nuisance as the soot-cloud itself.

THRUSTON PRIZE, CAMBRIDGE.

THE Thruston Prize of fifty guineas, which is awarded triennially to that graduate of Caius College who has published within the preceding three years the best original investigation in physiology, pathology, or practice of medicine, has just been adjudged to Dr. C. H. Ralfe, assistant physician to the London Hospital, for his researches in Urinary Pathology and Therapeutics. Communications giving the details of his researches have appeared from time to time in THE LANCET. In 1882 Dr. Ralfe collected these together, and published them in the form of a treatise, entitled "Morbid Conditions of the Urine dependent upon Derangements of Digestion," and it is for this work that the committee appointed by the College to decide the prize have made their award. This is the first time the prize has been bestowed under the new regulations of the recent University Commission. Formerly it was given annually, and was of the value of £18; it was in the gift of the Fellows, and was generally bestowed in rotation among the Doctors of Medicine, without any special work being required except a short address to be delivered by the recipient in the College chapel. The present arrangement is undoubtedly an advance in the right direction, since the element of competition greatly increases the value to the recipient; whilst the requirement of "publication" permits of criticism and comment on the work done.

CERTIFICATES IN LUNACY.

IN his annual report on the Metropolitan Imbecile Asylum at Caterham, Dr. Stanley Elliot refers to the inadequate material on which patients are at times consigned to asylums. Thus, in one case the information supplied by the medical practitioner was as follows: "Very subject to epileptic fits, which prevent his doing any work." It is added, as regards this patient, that he was undoubtedly of unsound mind; but Dr. Elliot expresses an opinion, in which all unbiassed persons will concur, that, in the interests of the liberty of the subject, no individual should be consigned to an asylum for the insane unless facts actually indicative of insanity are recorded by those who venture to sign certificates. We can only wonder that such a certificate as the one just referred to was allowed to remain in force.

REMOVAL OF ARTIFICIAL TEETH FROM THE ŒSOPHAGUS.

ON Wednesday, the 14th inst., a patient was admitted into the Middlesex Hospital having just accidentally swallowed a plate with four artificial front teeth. Mr. Lawson saw the patient and endeavoured to extract them with long forceps; but finding that, although he could feel them, they were so low down that he could not seize them, he decided to open the œsophagus. This he did, and removed the teeth. The plate was lodged in the œsophagus below the level of the cricoid cartilage, and was fixed by the sharp points of the clips which held it to the other teeth. The patient is making a satisfactory recovery.

SWISS DRUNKENNESS AND THAT OF OTHER COUNTRIES.

The Times continues its interesting series of communications on the drink question in Switzerland, which should be carefully read by public and philanthropic men in all the countries of Europe. The present communication consists of an analysis of the report of an inquiry into the whole subject by the Federal Council, which seems to have been carried out with great ability, and is supplemented by a report from Dr. Schuler, Federal Factory Inspector. The consumption of spirits, and, still worse, that of absinthe, has "portentously" increased. The increase of spirits has been much faster than that of wines, though the importation of wines has quadrupled in little more than thirty years. The greatest rate of increase of both was in the period of prosperity including and following that of the Franco-German war. The Federal Council attribute this most disastrous increase in the consumption of alcohol to two causes: first and mainly, to the introduction of free trade in alcoholic beverages, and the withdrawal from the Cantons (by the Constitution of 1874) of the power to limit public-houses; and secondly, and in great measure, to the commercial and agricultural prosperity which prevailed some ten years since. "Good times make drinking" in Switzerland as elsewhere. Spirits are very cheap; in the Canton of Berne two decilitres of schnapps (containing 6 oz. 8 oz.) may be bought for one penny—almost as cheaply as beer. The result in the production of pauperism, crime, insanity, physical incapacity, and death is told in the article. It is the disgrace of England to show more coarse drunkenness than most other countries, but in the amount of alcohol per head consumed she is exceeded. A table is given showing that this amount is greatest in the following countries in the order of their names: France, Belgium, Switzerland, Denmark, England, Germany. Assuming that spirits contain 50 per cent. of alcohol, wine 12½ per cent., and beer 5 per cent., the Frenchman's consumption of alcohol is at the rate of 19·67 litres per year, that of the Englishman 10·03, and that of the Swiss 13·45; the Dane, though he consumes 18·90 litres of spirits in the year, drinks so little wine and beer that the actual alcohol which he imbibes is represented by 12·22; the German is a long way in the rear with 8·30 litres. The Frenchman drinks almost as much wine as the Englishman does beer; it contains twice as much alcohol; besides, he takes brandy in his coffee. The ordinary Englishman does not diffuse his drinking as the ordinary Frenchman does; he drinks one or two days a week to his great disgrace, and, let us hope, repents during the remainder. There is this further difference in England: the existence of large classes who drink nothing or next to nothing, leaving the still enormous consumption of alcohol in England to fall on those pitiable fools who think it a harmless if not a healthy thing, and supply the statistics of our gaols and workhouses.

COCAINE IN RECTAL SURGERY.

COCAINE seems destined to play an important part in the treatment of painful affections of the rectum and genito-urinary system. Dr. Bettelheim of Vienna reports the case of a man, aged seventy-four, who had well-marked anginal attacks, the result of atheroma of the aorta and ossification of the coronary arteries. For some time he had, in addition, complained of rectal and vesical tenesmus. Percussion over the bladder showed that it was not dilated, and rectal examination demonstrated the fact that the prostate was much enlarged and probably the cause of the trouble. Cacao butter suppositories were ordered, each containing half a grain of muriate of cocaine. One of these was introduced into the rectum at bedtime, and the patient slept

well, and was not troubled during the night. The beneficial effects were apparent the whole of the following day. The suppository was not given that evening, and the patient passed an uncomfortable, restless night. The next day another suppository was ordered, and acted as well as the first. From the promptness and efficacy of the cocaine in this case, a brilliant future may be anticipated for the alkaloid in this department of surgery. It is now being largely used in many of the London hospitals in the treatment of piles, fissure, and fistula.

A JAPANESE NATIVE VILLAGE IN LONDON.

AT Humphreys Hall, Albert Gate, is now to be seen a complete Japanese village erected and occupied by natives of Japan. A considerable number (about 100) of Japanese people, of various trades and professions, have been brought over to this country with the object of familiarising us with their social customs, arts, industries, amusements, and even their religion—at least so far as regards a Buddhist temple, containing genuine idols and attended by two Japanese priests, can afford an idea of its mysteries. In the shops and houses of the village Japanese artificers pursue their various callings, embroidering, fan-making, china-painting, metal-working, screen-painting, umbrella-making, shoe-making, &c. In a theatre attached to the village various performances are given, such as fencing, wrestling, dancing by Japanese girls to the music of a native orchestra, and juggling. The Exhibition is an interesting one, and well worth a visit. By the way, the Japanese have for some time shown their appreciation of English medical education by sending over students to our hospitals. Some years since, if we remember rightly, a Japanese gentleman was house-surgeon to, and held other appointments at, St. Thomas's Hospital. Mr. Tannaker Buhicrosan, the promoter and managing director of the Exhibition, intends to hand over the proceeds to his wife, a Japanese lady who, a Christian herself, intends to conduct a mission to Japan for the purpose of propagating Christianity in, and reforming the marriage laws of, her native country.

POISONED "SLEEP" AND DEATH.

ANOTHER sad case of "death by misadventure"—which phrase is rapidly coming to mean "poisoning with a narcotic"—draws attention to the folly of persisting in the refusal to treat sleeplessness as wakefulness. In this instance the victim was a member of our profession, Mr. Lionel John Shepherd, L.R.C.P., M.R.C.S., house surgeon at Poplar Hospital. The deceased had formed a habit of reading at night, and his over-taxed and weary brain could not sleep, so that Mr. Shepherd had recourse to narcotics. Taking an overdose accidentally, the poison did more mischief than simply stupefying him—its action was carried a little too far, and he died. The painful misadventure is much to be deplored; and not less is the course of treatment in which it occurred to be regretted also.

THE CASE OF THE CONVICT BRIGGS.

IN the *Grimsby News* of Jan. 2nd there is published a long letter from Dr. Ewing Whittle, criticising the medical evidence given at the trial of the husband of Thirza Briggs. We have already commented on this case. Dr. Whittle adduces other reasons in support of the theory of death from natural causes, to most of which we unhesitatingly subscribe. It is not necessary to give Dr. Whittle's argument in detail, considering, as we do, that more than enough has been elicited to warrant the Home Secretary ordering a full investigation of the case in its medical bearings.

TUBERCULAR INFECTION FROM SEXUAL CONNEXION.

IF tubercle be contagious, whether of bacillary origin or not, there is no reason why sexual connexion should not sometimes be the means of communicating the disease. But a clear proof of such an occurrence would be difficult to find, even were there no doubt of the nature of tubercle. Tubercle being contagious, the possible routes by which it infected would be so numerous that absolute demonstration could only be made in the experimental laboratory. M. Fernet, at a recent meeting of the Société Médicale des Hôpitaux, maintained that the infection of tubercle could take place either from the man or from the woman. The cases which he brought forward as substantiating his views were some in which the disease of the genitals was the most prominent, and probably the first lesion in the body, and in which the history showed that the tubercular disease began soon after sexual connexion with an individual the subject of tubercular disease of the genitals. Such a concurrence of events no doubt points strongly, though not conclusively, in the direction indicated by M. Fernet.

CERTIFICATION OF INFECTIOUS DISEASE AT HASTINGS.

THE medical profession at Hastings will do well to look narrowly to the new Bill which is proposed to confer additional powers on the Corporation of Hastings in regard to infectious cases. By one section of the Bill every medical practitioner attending such a case is forthwith to fill up, sign, and deliver or send to the medical officer, a certificate stating *the name of the patient, the situation of the building, the name of the occupier*, and the nature of the infectious disease. This is an intolerable burden to impose on medical men, even for the handsome remuneration of 3*s.* 6*d.* It ought to be resisted in every constitutional way. It is contrary to the public interest to convert busy and responsible medical men into clerks of the Corporation. We shall hope to hear of their united and determined opposition to making reports which should clearly come from the householder.

USE OF COCAINE IN LITHOTRITY.

WE understand that a lithotrity, with rapid evacuation of the fragments (Bigelow's operation), was performed under cocaine at the St. Peter's Hospital on Thursday last, with perfect success. The bladder was injected with half an ounce of a 4 per cent. solution of cocaine, and the operation was begun and completed *painlessly* in a quarter of an hour.

THE RELIGIOUS NEWSPAPERS AND QUACK ADVERTISEMENTS.

SOME of the best friends of religious newspapers, and even of missionary journals, are becoming seriously scandalised at the growth of the advertising of quack medicines in their columns. The feeling of disgust is not confined to the medical profession; nor, we must admit, is the scandal of quack advertisements confined to the class of papers in question. But the scandal is most striking and most unseemly in them. When a man sees in his religious newspaper an advertisement of a man or a medicine as pretending to cure a disease in his child or his wife beyond the bounds of the medical art, the pretension being backed perhaps by a great name, he is apt to yield to the temptation, and when the coarse pretension is refuted by the death of the patient he has a sense of injury. Such advertisements are questionable in any paper; but in those organs of the press which are supposed to represent "whatsoever things are

true" they are a positive offence. We appeal to our contemporaries to consider this representation, and to believe it made to them in no narrow professional spirit.

THE chairman of the Dundee Parochial Board at the monthly meeting on the 6th inst., replying to a deputation from the Aberdeen City Parochial Board on the subject of accommodation for pauper lunatics, stated that Dundee was in the same difficulty as Aberdeen in regard to finding accommodation for their lunatic poor; and after some discussion a committee was appointed to consider the matter. and if they saw fit to join the Aberdeen Board in a memorial to the Lord Advocate for an affirmation of the principle that parochial boards, if they consider it desirable, can build asylums of their own.

IT is with regret we have to record the death of Dr. William Rowlatt of Paris, at the early age of thirty-one. The melancholy event took place on Dec. 2nd last, during his voyage home from Australia in the *Melbourne*. Dr. Rowlatt was a young physician of great promise, and was an occasional contributor to our pages.

WE regret to have to record the death of Dr. H. T. Lanchester at his residence, Park House, Croydon, aged forty-seven. Dr. Lanchester, who was chairman of the Finance Committee of the Croydon School Board, and Physician to the General Hospital, was formerly in partnership with Dr. Alfred Carpenter.

THE Italian Senate after two days' debate adopted on the 11th inst., by 96 votes against 21, a Bill for improving the sanitary condition of Naples. A sum of 100,000,000 francs is to be expended during the next ten years upon the work, which will be carried out under the direction of the Government.

DR. E. BUCHANAN BAXTER, late Professor of Materia Medica and Therapeutics at King's College, and Physician to the Hospital, died on Wednesday last, after a prolonged and painful illness. We hope next week to publish a sketch of the life and work of this lamented physician.

THE discussion at the Royal Medical and Chirurgical Society on Dr. Kidd's paper on the Distribution of the Tubercle Bacilli in the Lesions of Phthisis has been adjourned to a special meeting of the Society, to be held on Wednesday, January 21st, at 8.30 P.M.

A LETTER of sympathy, signed by upwards of 200 of the principal residents of the village of Solihull, has, we learn, been presented to Dr. E. S. Page.

REPORT OF THE MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD.

[SECOND NOTICE.]

IT will be remembered that in the Report of the Medical Officer of the Local Government Board for 1882-83, Dr. Burdon Sanderson referred to the conditions under which spontaneous determination of the septic process took place, especially as the result of the coming into existence of chemical bodies in the liquid dealt with; the bodies in question being acids of the aromatic group. Dr. Buchanan also stated that, in connexion with researches which he had organised as to disinfectants, sustained work would be commenced with a view of ascertaining the behaviour of some better known contagia in presence of various colytic agents. Dr. Sanderson, in the recently issued report, gives the results of further experiments in connexion with this subject, and referring to phenyl-propionic and phenyl-acetic acids—aromatic acids of the acetic series—he states that they are both superior to carbolic acid in their influence of rendering a cultivation liquid unfit for the growth of bacteria, and that of the two phenyl-propionic acid is the more active. Dr. Klein, who has been associated with Dr. Sanderson in this work, has now inquired into their value as disinfectants, and Dr. Sanderson summarises the conclusions arrived at by explaining that although both bodies possess to a very marked degree the power of killing morbific microphytes, the higher of the two acids, phenyl-propionic acid, has been found to be the more powerful.

Dr. Klein experimented with the two acids in question to ascertain their influence on definite bacteria, whether having pathogenic properties or not. So far as pathogenic bacteria are concerned, the bacilli of anthrax, swine-plague, and tubercle were selected. After detailing his method of action, Dr. Klein explains that in order to pronounce a particular substance a germicide, it is necessary to show that the substance acting on the organisms destroys their life, and hence incapacitates them under all circumstances from producing either a new brood or the disease which before they were capable of starting. With regard to non-specific organisms, Dr. Klein dealt, first, with the small spherical micrococcus derived through blood of healthy rabbits, but he found that both the phenyl-propionic and the phenyl-acetic acids proved powerless to destroy it. The large spherical micrococcus derived from the same blood was next dealt with, the same failure being observed; and a similar result ensued with the bacterium termo and the bacillus subtilis cultivated in pork broth. The bacillus anthracis was next experimented on, this bacillus having been selected, as Dr. Buchanan explains, because there is no acute infective disease of man or animal the etiology and pathology of which is so well understood as that of anthrax, because the characteristic symptoms it produces during life cannot be mistaken, because its causative relation to a microphyte is beyond dispute, and because its contagium has the advantage of being known to exist in two phases. Where this contagium was dealt with in the form of spores, and was exposed for as long as forty-eight hours to a solution of the two acids, having a strength of 1 in 200, no result was produced, the report explaining that the spores thus experimented on still remained capable of communicating the infection of anthrax to guinea-pigs on inoculation. When, however, bacilli free from spores were experimented on, a satisfactory result ensued, the virulence of the infection was completely destroyed, and it was evident that the destruction was final. A solution of phenyl-acetate or of phenyl-propionate only containing 1 in 2000 of the salt sufficed to produce this result after an exposure of from twenty to thirty minutes, and stronger solutions served the same end in much less time. In the case of the swine-fever virus much the same results followed. The experiments were also extended to the tuberculous virus, the human and bovine virus being separately dealt with, but the desired result was not attained; turberculous matter, as Dr. Buchanan puts it, appearing to be in its power of resistance to these particular "disinfectants" comparable with bacillus anthracis in its phase of spore rather than with its filaments or rods. As yet Dr. Klein, who has been aided by Mr. Lingard in this part of his experiments, has not tested the behaviour of tubercle bacilli towards the two acids under consideration. Incidentally, however, an interesting experiment was made with a view of ascertaining how far the process of boiling affected the activity of the virus of tubercle as it exists in tuberculous sputum. The sputum being mixed with 0·6 per cent. solution of common salt was boiled for as long a period as ten minutes; but on inoculation into guinea-pigs it produced the same nodular enlargements of the inguinal glands which follow on the inoculation of the unboiled sputum.

Whilst dealing with the virus of swine-plague a further experiment was made by Dr. Klein, which goes to indicate the value of chlorine as an air disinfectant. In a series of cases he produced swine-plague in a pig, and when the animal was in a state which is known to be capable of conveying the infection to another pig by means of the surrounding air, the air in the stable in which the diseased pig was placed was made pungent with chlorine gas, and a second pig was made to occupy an

adjoining stall, the experiment with the second pig being repeated over and over again. The healthy pigs were, as a rule, exposed for six hours each day during several days, and when the evolution of chlorine was repeated at the end of the first three hours no harm resulted to them; but the failure in one case thus to keep the air in the stable thoroughly pungent with chlorine resulted in the disease being conveyed to one of the hitherto healthy pigs.

These experiments are probably the most precise which have been recorded as to the value of aerial disinfectants, and they are regarded as so far satisfactory that the medical officer to the Board announces that they will be repeated and developed on a larger scale, "in the hope of obtaining some available guides for actual sanitary practice."

Reverting to the experiments which Dr. Klein recorded in last year's report as to the mitigation of poisons by attenuation, it is still evident that the results which were promised by M. Pasteur are not achieved by the adoption of his methods, but it would appear highly probable that a change in the power of an infective organism, anthrax for example, is produced as the result of its passage through different species of animals. Some further information is also supplied in the report as to pathological researches in connexion with tubercle.

Although Dr. Buchanan is unable to announce that any practical conclusion has as yet been arrived at in regard to either of the scientific branches of investigation which are being carried out under his supervision, it is probable that no subjects could be indicated concerning which extended knowledge of a precise sort would be likely to prove of greater value in connexion with the prevention of disease than those which are dealt with in this portion of his report, and it must be remembered that although the process of discovery in such matters is perhaps the more slow because the workers employed so well know the pitfalls that have to be avoided, yet at every stage some valuable information is procured which serves to direct others who are labouring in similar directions. From this point of view alone the report under consideration has a special value.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

A SPECIAL general meeting of the Fellows was held on the 10th instant, presided over by Mr. E. H. Bennett, to consider alterations in the Supplemental Charter and Bye-laws of the College as proposed by the Council. A notice of motion by Dr. Brunker in reference to the election of Council by ballot papers was ruled by the President as unnecessary, having already been adopted by the College. Mr. Mapother moved that Clause 5, as amended by the Council, should be adopted. The clause had reference to the chairman of the day at any meeting having a casting vote in case there should be an equal number of votes recorded. This was seconded by Mr. Gore, but Mr. Hamilton thought it placed in the hands of the chairman a very grave and great responsibility, and might have a prejudicial effect. Mr. Mapother was willing to admit the rule in the case of the chairman of a meeting of Council, which was accepted by Mr. Hamilton and adopted. Clause 7 had reference to Bye-laws hereafter made being approved by his Excellency the Lord Lieutenant instead of by the Secretary of State. Dr. Cameron, Vice-President, who moved its adoption, said it would save expense and trouble. Mr. Corley seconded it, and it was passed. Clause 11: By this clause professors and lecturers are prohibited from being examiners. The Council recommended the propriety of cancelling this prohibition; no examiner to hold office for more than three consecutive years, and not more than two teachers connected with any one school or hospital to be eligible for seats on the Board of Examiners. Proposed by Mr. Wharton, seconded by Mr. Corley, and adopted. Clauses 12 and 13 had reference as to the election of Council by ballot papers, and their adoption was proposed by Dr. Brunker, seconded by Dr. Robinson, and passed. Clause 19 was proposed to be amended by adding that candidates for letters testimonial of the College should satisfy the Council that they were of good moral character. Proposed by Mr. McGusty, seconded by Mr. Wharton, and adopted. Clause 19: Mr. Mapother moved that candidates who possessed other qualifications in medicine and surgery than that of the College should be permitted to be examined for the diploma in midwifery. This was seconded by Mr. Nixon, and passed.

The next business had reference to the admission of women to the diplomas of the College. In considering in committee the changes of Charter proposed by the Education Committee, the Council resolved, "That a new clause be inserted, to provide that all provisions of the Charters, Bye-laws, and ordinances as to education, examination, and granting of diplomas to Fellows or Licentiates shall extend to include women." Dr. Cameron (Vice-President) thought the suggestion of the Council should be adopted, and that it was necessary to pass it if they intended to join the College of Physicians for a conjoint diploma. Although he did not consider women eligible for the surgical part of the profession, yet he thought the College should not prevent them obtaining a surgical qualification, if they so desired. He proposed the adoption of the resolution, which was seconded by Sir Robert Jackson. Mr. Hamilton said he wished to amend the clause by leaving out the term "Fellow." He thought they satisfied the demand of the public by throwing open the College to women. The amendment was seconded by Mr. Joliffe Tufnell. Mr. P. C. Little thought that any Licentiate, according to the Charter, was eligible for the Fellowship. Dr. Kidd supported Mr. Hamilton's amendment, and considered it the duty of the College to admit women, and it was wrong to throw any impediments in their way; on the contrary, they should remove all obstacles. At the same time he thought it a mistake on the part of ladies to join the profession. He believed that it was the intention of Government that women should, as well as men, be entitled to all the advantages of admission to the medical profession. Mr. Wharton agreed with Mr. Little, and asked could the President receive the amendment. The President ruled that the amendment applied to a change in the Charter, and could be received. Mr. Jacob thought it discretionary on the part of Council to refuse admission to the Fellowship; and Mr. Thomson thought it illogical, if women were admitted Licentiates, to refuse them the Fellowship. Mr. Martin considered the Fellowship admitted to the corporate rights of the College, and therefore did not think it advisable, for that reason, to admit women to the higher qualification. Mr. Corley spoke in favour of the proposal to admit women, and thought, sooner or later, they would have to adopt the example of the College of Physicians. On the amendment being put, the President decided the ayes had it, but on a division being demanded it was lost by eighteen to fourteen votes. The original resolution was ultimately adopted by twenty-five to eleven votes.

THE OUTBREAK OF SMALL-POX AT THE THREE COUNTIES ASYLUM.

WE are indebted to Mr. Swain, Medical Superintendent of the Three Counties Asylum at Arlesey, for particulars of the recent serious outbreak of small-pox at that institution. It would appear that the disease suddenly manifested itself almost simultaneously in three different wards. The first case was suspected on December 11th in the person of a patient, a young woman suffering from secondary dementia, who had been resident in the asylum for two years. She gave no warning of her illness, and the first evidence of her condition was the presence of a papular eruption. She was immediately isolated; on the following day six other patients and two nurses showed symptoms of having been attacked, and in five days it was found that forty persons were infected. These were all removed to the detached hospital connected with the asylum as soon as suspected. The attack then seemed to abate, and the cases occurred at intervals and in much fewer numbers till the total reached fifty-six, at which it now remains. By the 17th a large quantity of guaranteed lymph had been procured, and on this and the following three days the entire number of patients and staff (about 1200 persons) were vaccinated. To this fact Mr. Swain attributes the checking of so sudden and so general an onslaught of the disease.

The patients attacked were chiefly amongst the feeble and demented, two being general paralytics and a large proportion epileptics. The disease assumed a malignant form in many cases; and the number of deaths, fourteen, has been consequently high. Amongst these were two

patients aged seventy-one and eighty-six years respectively, one general paralytic, and several unvaccinated. One nurse, who had not been vaccinated as a child, contracted the disease and died. There were five nurses in all attacked. The cases occurred chiefly amongst those sleeping in a large associated dormitory, where patients mostly epileptic and suicidal are kept under continuous observation. There has been only one case on the male side. Those remaining in the hospital are progressing favourably, and it is hoped that the outbreak has been successfully checked.

The source of infection, notwithstanding the closest investigation, remains a mystery; but it may be worth mentioning that one of the local newspapers reports the fact that a person with small-pox eruption actually out on him was refused admission into a London hospital as there was no room, and was allowed to depart and travel down by the Great Northern line to a neighbouring village, where since there have been six cases with two deaths.

MAHOMED MEMORIAL FUND.

THE following additional subscriptions have been either received or promised:—

	£	s.	d.		£	s.	d.
[1]G. B. Allen, Esq.	5	0	0	W. C. Low, Esq.	5	5	0
Miss Beale	2	2	0	Edward Lund, Esq.	10	10	0
Dr. Biss	2	2	0	Dr. Leech	5	0	0
Dr. Brailey	3	3	0	C. Lamb, Esq.	2	2	0
His Honour Judge Chalmers	5	5	0	J. M. Maidlow, Esq.... ...	10	10	0
Dr. Carrington	5	5	0	James Matthew, Esq. ...	3	3	0
The Earl of Devon	1	0	0	John Mackern, M.B. ...	5	5	0
T. D. Galpin, Esq.	2	2	0	Mrs. Nathaniel Montefiore	21	0	0
J. F. Gandar, Esq.	2	2	0	Edward Norman, Esq. ...	5	0	0
R. Gayler, Esq.	1	1	0	[1]W. B. Owen, Esq.	1	1	0
R. Gibbs, Esq.	1	1	0	Dr. Edward Penny	2	2	0
Dr. Clement Godson ...	5	5	0	Dr. Slight	2	2	0
[1]C. Hilton Golding Bird, Esq.	15	15	0	Dr. Burdon Sanderson ...	10	0	0
				Dr. Simon (Birmingham)	1	1	0
Charles Higgens, Esq. ...	5	0	0	[1]Dr. Eustace Smith	5	5	0
R. G. Hunt, Esq.	1	1	0	Dr. Trend	1	1	0
H. S. Joseph, Esq.	2	2	0	Dr. Charlewood Turner ...	5	5	0
T. J. Kent, Esq....	2	2	0	Edward T. Western, Esq.	2	2	0
W. Keiller, Esq....	2	2	0	[1]Dr. W. Wood	25	0	0
John Lane, Esq....	2	2	0	G. A. Wright, Esq.	2	2	0

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VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 6376 births and 4255 deaths were registered during the week ending the 10th inst. The deaths showed an increase of 60 upon the number in the previous week, and were equal to an annual rate of 24·9 per 1000 of the estimated population of these towns in the middle of this year, against 20·2 and 25·0 in the preceding two weeks. During the thirteen weeks ending the 27th ult. the death-rate in these towns averaged 21·4 per 1000, against 23·0 and 21·2 in the corresponding periods of 1882 and 1883. The lowest rates in these towns last week were 19·0 in Bolton, 19·1 in Brighton, 19·6 in Sheffield, and 20·4 in Bradford and in Derby. The rates in the other towns ranged upwards to 30·9 in Manchester, 31·0 in Leicester, 34·8 in Preston, and 36·0 in Cardiff. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 311 and 375 in the previous two weeks, were 372 last week; these included 38 from measles, 51 from scarlet fever, 42 from diphtheria, 37 from "fever" (principally enteric), 36 from small-pox, and 27 from diarrhœa. No death from any of these zymotic diseases was recorded last week in Birkenhead, whereas they caused the highest death-rates in Leicester, Wolverhampton, and Cardiff. The greatest mortality from whooping-cough was recorded in Sheffield and Wolverhampton; from measles in Newcastle-upon-Tyne, Leicester and Cardiff; from scarlet fever in Leeds and Halifax; and from "fever" in Newcastle-upon-Tyne. The 42 deaths from diphtheria in the twenty-eight towns included 26 in London, 4 in Bristol, and 3 in Liverpool. Small-pox caused 48 deaths in London and its outer ring of suburban districts, 1 in Liverpool, and 1 in Newcastle-upon-Tyne. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had been 1079 and 1013 on the preceding two Saturdays had further fallen to 1001 at the end of last week; the admissions, however, which had been 244, 161, and 171 in the previous three weeks, rose again to 224 last week. The Highgate Small-pox Hospital contained 87 patients on Saturday last, against 92 at the end of the previous week; 22 cases were admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 416, 370, and 537 in the preceding three weeks, further rose to 609 last week, and exceeded the corrected weekly average by 93. The causes of 113, or 2·7 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Nottingham, and Leicester, and in six smaller towns. The largest proportions of uncertified deaths were registered in Oldham, Huddersfield, Salford, and Birkenhead.

[1] Omitted from previous lists.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 26·9, 29·6, and 30·7 per 1000 in the preceding three weeks, was 30·5 in the week ending the 10th instant, and was 5·6 above the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 20·2 and 20·5 in Paisley and Leith, to 34·9 in Perth and 35·5 in Glasgow. The 744 deaths in the eight towns included 30 which were referred to whooping-cough, 26 to measles, 16 to diarrhœal diseases, 12 to scarlet fever, 5 to diphtheria, 5 to "fever," and not one to small-pox; in all, 94 deaths resulted from these principal zymotic diseases, against 110 in each of the preceding two weeks. These 94 deaths were equal to an annual rate of 3·9 per 1000, which exceeded by 1·7 the mean rate from the same diseases in the twenty-eight English towns. The 30 deaths from whooping-cough exceeded the number returned in recent weeks, and included 16 in Glasgow, 5 in Perth, and 3 in Edinburgh. The fatal cases of measles, on the other hand, which had been 34 and 38 in the previous two weeks, declined to 26 last week, of which 19 occurred in Glasgow and 5 in Dundee. The 16 deaths attributed to diarrhœa considerably exceeded the numbers in recent weeks, and were 7 above the number in the corresponding week of last year. Of the 12 deaths from scarlet fever, showing a further decline from the numbers in the preceding two weeks, 8 occurred in Glasgow and 2 in Edinburgh. Four of the 5 deaths from diphtheria were returned in Glasgow, and the 5 from "fever" were fewer than in any recent week. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 174 and 203 in the previous two weeks, were 198 last week, and were 53 above the number returned in the corresponding week of last year. The causes of 92, or more than 12 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 34·1, 26·6, and 38·5 per 1000 in the preceding three weeks, declined again to 31·2 in the week ending the 10th inst. During the thirteen weeks ending the 27th ult. the death-rate in the city averaged 29·4 per 1000, the mean rate during the same period not exceeding 19·8 in London and 19·7 in Edinburgh. The 211 deaths in Dublin last week showed a decline of 48 from the high number in the previous week, and included 19 which were referred to the principal zymotic diseases, against 13 and 24 in the previous two weeks. Of these 19 deaths, 6 resulted from scarlet fever, 5 from "fever" (typhus, enteric, or simple), 3 from measles, 2 from diphtheria, 2 from whooping-cough, 1 from diarrhœa, and not one from small-pox. They were equal to an annual rate of 2·8 per 1000; the rate from these diseases last week being equal to 2·0 in London and 1·9 in Edinburgh. The fatal cases of scarlet fever and of "fever" showed a decline from the numbers returned in the previous week. The deaths from whooping-cough and diphtheria, on the other hand, were more numerous. Six inquest cases and 5 deaths from violence were registered within the city, and 70, or a third of the deaths, were recorded in public institutions. The deaths of elderly persons showed a further

increase upon recent weekly numbers, while those of infants had declined. The causes of 29, or more than 13 per cent., of the deaths registered during the week were not certified.

MORTALITY IN LARGE ENGLISH TOWNS IN 1884.

The average death-rate during the fifty-two weeks ending 27th ult. in the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return was equal to 21·5 per 1000 of their population, estimated at 8,762,354 persons in the middle of last year. This rate was slightly lower than the rates recorded in these towns in 1882 and 1883, which were 22·3 and 21·6. In London the rate last year did not exceed 20·3, while it averaged 22·6 in the twenty-seven provincial towns, having an aggregate population somewhat exceeding that of London. The recorded rates in these provincial towns ranged from 17·8 and 18·4 in Brighton and Bristol, to 26·4 and 27·2 in Manchester and Preston. The sex and age proportions of the populations in these towns, however, vary widely, and it is necessary to take account of such variations before using the rates of mortality in the several towns as trustworthy measures of the health of the different communities. The Registrar-General in his last annual summary for 1883 published the factors for correcting the recorded death-rate in each of these towns for differences in the sex and age constitution of their populations. By applying these factors to the mean recorded death-rates in the fifty-two weeks ending December 27th last, corrected death-rates are obtained which are trustworthy for comparative purposes as a measure of the health of the several towns during 1884.

Death-rates in 1884.

Towns.	Death-rate per 1000 living. From all causes. Recorded.	Corrected.	From principal zymotic diseases.
Twenty-eight towns ...	21·5	22·9	3·5
Brighton	17·8	18·3	1·7
Bristol	18·4	19·0	1·8
Derby	18·4	19·1	2·2
Portsmouth	19·3	19·8	3·0
Norwich	21·0	20·1	3·1
Birkenhead	19·4	20·7	2·3
Plymouth	21·1	21·0	2·0
London	20·3	21·5	3·4
Huddersfield	19·6	21·5	1·8
Hull	21·1	21·8	3·6
Bradford	20·1	22·2	2·4
Birmingham	21·4	22·8	3·9
Leicester	22·0	23·0	4·1
Sheffield	22·4	24·1	4·2
Sunderland	23·1	24·1	3·5
Salford	22·2	24·2	4·3
Nottingham	22·9	24·3	3·9
Newcastle	23·0	24·3	3·2
Wolverhampton	23·7	24·4	3·9
Halifax	23·4	25·4	2·4
Leeds	24·2	25·9	4·9
Blackburn	24·0	26·2	4·1
Cardiff	24·2	26·3	4·7
Bolton	24·1	26·4	4·4
Oldham	24·5	27·2	3·5
Liverpool	25·2	27·6	4·5
Manchester	26·4	29·4	3·7
Preston	27·2	29·5	5·2

The figures in the accompanying table are instructive, the towns being arranged in the order of their corrected death-rates from the lowest. It will be observed, however, that the order of the recorded rates differs but slightly from that of the corrected rates, showing that the crude death-rate per 1000 living may be accepted as a fairly approximate test of the health condition of a population, when the means for correction are not readily available. The excess of mortality due to urban aggregation is, however, almost always understated if town death-rates are not corrected for the abnormal age constitution of urban populations. The lowest corrected rates for last year were 18·3 in Brighton, 19·0 in Bristol, 19·1 in Derby, and 19·8 in Portsmouth; whereas five Lancashire towns appear at the bottom of the list: Bolton, 26·4; Oldham, 27·2; Liverpool, 27·6; Manchester, 29·4; and Preston, 29·5. In the last column of the table is given the death-rate in each town from the principal zymotic diseases, which ranged from 1·7 in Brighton and 1·8 in Bristol and Huddersfield, to 4·7 in Cardiff, 4·9 in Leeds, and 5·2 in Preston. Although the zymotic rates do not run in the same order as the corrected rates, there is a general agreement between them, and excessive zymotic fatality accounts for a considerable proportion of the excessive death-rates from all causes. Brighton, indeed, has the lowest corrected death-rate and the lowest zymotic rate, while Preston is absolutely at the bottom of the list, whether judged by its corrected death-rate from all causes or by its death-rate from the principal zymotic death-rates. The excessive mortality in Manchester and Preston, maintained year after year, entails serious responsibilities upon the sanitary authorities of those towns. It is noteworthy that six of the seven Lancashire towns (included in the twenty-eight towns) appear among the seven at the bottom of the list. Salford takes a higher place, standing in the sixteenth place from the top. The health of Salford has markedly improved in recent years, but its death-rate is probably favoured by the fact that its population consists in great measure of the outgrowth of Manchester; in fact, the two municipalities form one city, and should be under one sanitary organisation.

Correspondence.

"Audi alteram partem."

THE IMPROVED SANITARY STATE OF FORT WILLIAM.

To the Editor of THE LANCET.

SIR,—The letters of Deputy Surgeons-General Marston and De Renzy on the extinction of cholera epidemics in Fort William, with some remarks on the same subject by Professor Pettenkofer,[1] lead me to believe that I can throw some light on the origin of the improved medical history of the garrison of that fortress, which is rightly regarded by Dr. Marston as instructive, interesting, and deserving of exhaustive investigation.

I was myself quartered in Fort William in 1840, when in temporary medical charge of the 21st Royal North British Fusiliers, to which regiment I was attached when it was in a most sickly state; and I had an opportunity in 1858, a quarter of a century since, of carefully and minutely examining its eminently insanitary condition, as I will now proceed to narrate as briefly as possible.

My friend, Lieut.-Col. (now General Sir Orfeur) Cavenagh, was at that time Town Major of the Fort, and under his skilled and untiring guidance I visited every part of the fortress, and scrutinised carefully every structural and other arrangement connected with it which appeared to have any direct relation to the health of the garrison, and the lamentable amount of preventable sickness which had long prevailed among the troops, native and European. To the Sipahis duty in the fort was at that time almost a terror, as I found when I joined the 47th Native Infantry at Barrackpore, and it was the turn of my regiment to furnish the native guard. Nearly every man told off for the duty feigned sickness to escape it, as they averred on account of its great unhealthiness, a dread I afterwards found to be by no means ill founded.

In May, 1858, Dr. E. Campbell, then garrison surgeon, brought to the notice of the military authorities certain grave defects in the drainage, conservancy, and some other arrangements of the fort, which he believed to exercise a prejudicial influence on the health of the troops, and he suggested measures for their improvement.

The soundness of Dr. Campbell's views, and the accuracy of some of his statements, as well as the feasibility of the remedies he proposed, were questioned by the garrison engineer and town major, while both admitted the great desirability and importance of removing effectually every cause of unhealthiness found to exist in the enceinte of the fortress. They differed from him chiefly as to the right methods of dealing effectually with them. In these circumstances the Government of India appointed a special

[1] THE LANCET, January 3rd, 1885, and December 13th, 1884.

committee to examine and report as speedily as possible upon the question.

The committee consisted of Colonel Paton, Deputy Quartermaster-General of the Army, Staff-Surgeon (now retired Inspector-General) James Anderson, and myself, who then occupied the office of Inspector-General of Prisons. Dr. Anderson was well acquainted with the fort, having had charge of the 2nd European Fusiliers when in the garrison, and I then possessed a less intimate acquaintance with it, as mentioned above. The committee was appointed in July, 1858, and, after much consideration and examination, submitted a report of the results of their inquiry early in September of the same year. The matters specially inquired into were the drainage of the fort, its water-supply, and conservancy arrangements, which were all found to be extremely defective. The objectionable state of all these was detailed, and remedies were suggested for their improvement. The strength of the garrison at that time, including all hands, was 5170 souls.

We recommended that the garrison surgeon and assistant-surgeon should be *ex-officio* the sanitary officers of the fort, and bring all matters affecting its healthiness to the immediate notice of the military authorities. Dr. Campbell had proposed a special sanitary officer, a view in which we were unable to concur, as it was clearly a part, and a very important part, of the duties of the garrison medical staff. Our conclusions included the entire reconstruction of the drains and relevelling of the enceinte of the fort, so as to secure the removal of all impurities at once; the extension of the water-supply of the garrison by the formation of special tanks or reservoirs for the storage of water for drinking and cooking, and by the pumping up and filtration, with the aid of steam-power, of a sufficiency of river water for all cleansing and conservancy purposes; the provision of a plunge-bath, and the reconstruction of the latrines and lavatories; the reduction of the vegetation in the fort; the more free use of charcoal as a deodorant and disinfectant; an entire change in the urinals, and the daily removal of all excrementitious matters; improvements in the garrison cells; the ordure of the fort, which was not carried off by the *Cunette*, to be transported to a distance down the river in a properly constructed covered filth boat; and the *Cunette* being strictly confined to its proper use in time of peace, and more thoroughly cleansed and scoured than it then was.

The cordial thanks of the Government of India were conveyed to the committee for the thorough manner in which the duty was performed and for the clear and able manner in which the results of their investigation were embodied in the report.[2] Immediate orders were issued to the Public Works Department to carry out all the recommendations that were practicable with the least possible delay, and thus commenced measures which have not since been relaxed, to secure the healthiness of Fort William. The table printed by Dr. Marston shows how quickly the good effects of those measures were experienced as respects cholera, and that it preceded by several years the introduction of the filtered water of the Calcutta Municipality. I entirely concur with that officer in considering that the improvement of the health of the troops in Fort William was due to sanitary improvement all round, and not to any single cause, however important.

I may possibly take another opportunity of stating my views on the cholera portion of the question, for I recently had an opportunity of again seeing that disease in Paris during the present epidemic, when I found not the smallest difference between its ordinary course and characteristics as I witnessed them half a century ago in the same city, and as I found them a few weeks since.

The pathology of cholera is still a sealed book, and until the mystery of its origin is revealed we must, I am afraid, be content to rely on prophylactic measures to prevent its introduction or extension. These were as well understood thirty years ago as they are now, as can be proved from published records, should it be necessary. Continental nations are now realising the inefficacy, and even danger, of quarantine regulations as they are, and can only be carried out. The circulars recently issued on the subject at home and abroad have added nothing whatever to our knowledge of the matter, and are not likely to do so in existing circumstances.

I am, Sir, yours faithfully,

F. J. MOUAT, M.D.

Durham Villas, Kensington, W., Jan. 5th, 1885.

[2] Minute of Military Department, Government of India, Oct. 7th, 1858.

FRACTURES OF THE SKULL, FOLLOWED BY COLLECTIONS OF CEREBRO-SPINAL FLUID BENEATH THE SCALP.

To the Editor of THE LANCET.

SIR,—Since my friend Mr. Godlee has directed attention to my papers on this rare condition, and has brought before the Pathological Society two cases bearing upon the subject, I should be glad to be allowed to make a few further comments on the circumstances with which this phenomenon is associated. My four short papers have been published in the Guy's Hospital Reports for 1876, 1878, 1881, and 1884, and have hitherto (as Mr. Godlee suggested) escaped the notice of the profession in this country, though the first case attracted the attention of Professor Verneuil in Paris, who published some comments upon it. In these papers I gradually arrived at more decided opinions, and in my later papers I ventured on two definite conclusions—viz.: 1. That simple fractures of the skull, followed by tumours of cerebro-spinal fluid beneath the scalp, occur only in children. 2. That when cerebro-spinal fluid escapes in quantity from the vertex (whether the fracture be simple or compound) the ventricle of the brain has been laid open. The first of these conclusions is borne out by the record of all the published cases, and I reasoned out its truth for the future in the following way: The skulls of children are flexible, and when the bones are fractured the edges of the fracture may be driven far into the brain without damage of the scalp. In adults, on the other hand, owing to the rigidity of the bones, one fractured edge will almost certainly cut through the scalp before the other can penetrate far into the brain.

The second conclusion, though contrary to the ordinary teaching, which supposes that in the majority of cases cerebro-spinal fluid escapes from the subarachnoid space, is nevertheless supported by all post-mortem evidence; and I would here suggest that in suspected cases, to prevent error after death, the brain and its covering ought to be hardened for some months in spirit (as was done in both my cases) before being examined. Again, compound fractures of the skull, with injury to the brain and without escape of cerebro-spinal fluid, are common, the reason of this being that the subarachnoid space on being injured rapidly throws out a greenish solid lymph, which glues up its cavity.

I would submit that neither of Mr. Godlee's interesting cases was a true case of cephal-hydrocele, and that they ought not to be included in any table of such cases. In neither was the fluid withdrawn, the clear, faintly albuminous, watery, cerebro-spinal fluid, though it would appear from the post-mortem examination in the first case that the conditions were present which might eventually have led to such a tumour being formed after the blood and inflammatory products had been absorbed.

The pulsation of a tumour beneath the scalp will occur whenever there is a direct and free communication through the bone between the tumour on the outside and the contents of the skull, whether that tumour be soft, solid, cerebro-spinal fluid, serum, or blood. In this respect a comparison may be drawn between the pulsation occurring with a hole in the calvaria and the impulse on coughing communicated to all tumours, fluid or gaseous, which have a free communication with the abdominal cavity, the impulse from within being felt externally where the wall is deficient. The diagnosis of cerebro-spinal fluid tumour must rest on other grounds than pulsation and increase in size when the child cries. I pointed out that there was a peculiar thinness (for lack of a better word) in the feeling of fluctuation, and a tendency to displacement, which allows the gap in the bone to be distinctly felt. Moreover, the tumour may be translucent, and there is an absence of fever such as is present when the tumour contains pus. As regards treatment, I insisted in my first paper, in 1876, upon the wisdom of leaving these cases as much as possible to nature. Aspiration cannot assist the cure, and appears to add seriously to the danger. It is, therefore, only justifiable as a means of diagnosis, and then is best performed with the needle of a hypodermic syringe.

Now that attention is being drawn to this class of head injuries, it is to be hoped that observers will carefully distinguish between the serum of blood-clot and the watery, barely albuminous, cerebro-spinal fluid.—Yours truly,

R. CLEMENT LUCAS, B.S., F.R.C.S.

Finsbury-square, Jan. 10th, 1885.

DARENTH SMALL-POX CAMPS.

To the Editor of THE LANCET.

SIR,—In consequence of the discussion now going on in the public journals, both general and professional, regarding the Darenth Small-pox Camps, and the conflicting statements therein contained, I determined to visit them myself, alike in the interests of the metropolitan ratepayers as in the cause of truth and humanity, in order to ascertain by a complete and careful investigation the present real state of things there. I may premise that my visit was totally unexpected, and that not a single member of the Metropolitan Asylums Board was personally known to me. Having during a continuous period of twenty years in the Indian Medical Service had considerable practical experience of camp management, both military and civil, as field hospitals, and camps for epidemics of cholera and gaol fevers in particular, and having been during the last four years of my sojourn there superintendent of the Rawalpindi gaol—one of the largest, and having an average of over 1000 prisoners daily,—I thought I might venture to form an approximately accurate opinion upon the subject.

I arrived at the camps—there are two, one for males and juveniles over ten years of age, the other for females and children, and some three hundred yards apart—at noon, and spent about four hours there, designedly timing my visit so as to be present during the midday meal. I examined and tasted the meat (roast beef), potatoes, pudding (baked currant), the broth and beef-tea, the bread-and-butter, and also the beer, and I found them all, both in quantity and quality, good and well cooked; each patient had also some greens, and those who did not wish for beer were allowed milk-and-water, lemonade, or ginger-beer. The quantity of meat I considered superabundant; there was no fixed quantity, each being allowed to take as much of everything as desired; and I saw with much regret large quantities of beef and mutton, the remains of joints, cast into a tub to be eventually cremated, being informed by the superintendent, Dr. Waylen, and the steward, Mr. Harper, who with a solicitor, specially, and equally unexpectedly, deputed by the Asylums Board to examine into the complaints which have lately appeared in print, accompanied me throughout my searching inspection, that there was no other way of disposing of it.

I afterwards visited the sleeping tents, examined the bedding, the pillows, mattresses, &c., which are filled with horsehair, as well as the personal clothing of many of the inmates, and found them all clean, suitable, abundant, and of superior quality; indeed, in this latter respect, in my opinion, extravagantly so. I also visited the kitchens, the general stores, laundry, bath-room, the disinfecting and engine rooms, as well as examined the sanitary, and especially the conservancy arrangements—the dry-earth system is universal,—the drainage, and the water-supply, and found them all satisfactory. The infirmaries—three, one each for the males, females, and children—I particularly inspected; they are substantial wooden structures, and in cleanliness, order, lighting, and temperature, all that can be expected. I may here state that all the tents and wooden sheds are warmed by means of steam-pipes, and that a suitable temperature, superintended by special attendants night and day, is regularly maintained. During my visit a batch of twenty women and children had just arrived from the ships near Dartford; they were conveyed in a three-horse omnibus, and, although they had travelled during a severe snowstorm, they arrived in a comfortable condition, and their clothing was in every way suitable. All the patients throughout the camps appeared happy and comfortable. I spoke to many of them, of all ages and of both sexes, and they all expressed themselves satisfied; indeed, although in all the places visited the question was loudly asked, there were no complaints; but on our leaving the mess-room of the male patients we were dismissed with loud, lusty, and repeated cheers, which were audible at some distance outside after we left.

In short, the condition of all the patients seemed in all respects highly creditable to the local authorities; and I noticed particularly the respectable appearance and gentle demeanour of the subordinate establishment, especially of the female nurses. The patients are provided with books, games, and gymnastic apparatus, and there are entertainments—such as singing, recitations, &c.—every evening in the assembly-rooms. Toys and suitable picture-books are also provided for the children; and the scale of diet throughout seems to be a liberal one. The total number of patients was 658. The number of sleeping tents was thirty-five; all of them very large and lofty, having double flys, and standing upon raised brick pillars, about three feet high. They are provided with wooden flooring, and the superintendent has adopted, of his own design, and for all of them, glazed doors, giving them the cheerful appearance and lightness of an ordinary dwelling. The estate on which the camps are pitched consists of about 300 acres; the site is ample, sloping, well sheltered by the adjoining Darenth wood, and overlooks some of the most beautiful scenery in the country. It is about 400 yards from the main road, and from the three or four residences about it; the inhabitants of which are thus completely insured against the possibility of being contagiously affected. The establishment appears ample and efficient. The superintendent seems entirely devoted to his somewhat disagreeable duties, and he is assisted by two fully qualified assistants.

There appears to me to be no grounds whatever for any anxiety regarding the welfare of these poor and unfortunate patients, whose condition has naturally excited the sympathetic solicitude of the general public, and the managers of the asylums board deserve the highest praise and the best thanks of the community for their efforts in so rapidly organising this large and novel institution.

I am, Sir, yours truly,

JOHN INCE, M.D.,
H.M.'s Indian Medical Service, Retired List.

Jan. 12th, 1885.

TUBERCLE BACILLI AT THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

To the Editor of THE LANCET.

SIR,—As I was prevented by the rules of debate from speaking again in the discussion on tubercle bacilli at the Medical and Chirurgical Society on Tuesday evening last, perhaps you will kindly allow me a few lines of your space to say that I heard nothing from Mr. Watson Cheyne which directly met my statements and inquiries made at the previous meeting. We are still left in doubt as much as ever whether Dr. Koch strictly adheres to the fractional principle in his cultivations. In one passage of his report to the Association for the Advancement of Medicine by Research, Mr. Cheyne would have us believe that the fractional principle was adhered to by Dr. Koch throughout a long succession of cultivations, although Dr. Koch himself withholds the detailed information on that point, not only in his first paper, but equally in his final reports of eighteen months' later date. In another passage Mr. Cheyne implies that the whole of the first cultivation was transferred to the second test-tube, "and so on." In his remarks on Tuesday evening, he seemed to treat the quantity of scales or crusts carried forward as a matter of indifference, and even of uncertainty. But everyone knows that the very principle of the pure cultivation of fungi which was introduced by Brefeld (and which I saw applied to disease-producing fungi by Dr. Grawitz at Berlin eight years ago is to make each successive crop of organisms grow from the smallest possible fraction of the former crop.

It is needless for me to meet Mr. Cheyne's round assertion that I am from first to last in error. My printed statements as to matters of fact are all authenticated by references, and they are not to be overthrown by a display of virtuous indignation. As to my interposition in this business, I do no more than exercise the right and duty of every member of the profession to hold and express an intelligent opinion on a disease which confronts us every day.

I am, Sir, your obedient servant,

C. CREIGHTON, M.D.

New Cavendish-street, W., Jan. 14th, 1885.

COCAINE AS A LOCAL ANÆSTHETIC.

To the Editor of THE LANCET.

SIR,—Evidence of the value of cocaine is so rapidly accumulating that additional testimony seems scarcely required. I should, however, be glad to add a few lines to my letter which you published on Nov. 22nd. I have continued to use it in varying quantities for many purposes, and seldom without satisfactory results. Ophthal-

surgeons have found a weak solution sufficient, and it is desirable to economise its use. In laryngeal cases weak solutions often suffice, but, as I have said, stronger ones may be required. I have had to employ 10, and sometimes 20 per cent.; but have often avoided this by using repeated applications of 2, 4, or 5. Much depends on the depth to which it is necessary to induce, and the time it is required to maintain, anæsthesia. I have succeeded six times in growths of the larynx without exceeding 5 per cent. When the attachment is firm and deep this will not be enough. In the nose 5, 10, 15, or 20 per cent. may be required, according to the extent and depth of anæsthesia necessary. Superficial anæsthesia may be produced in this and other mucous membranes by 2 to 5 per cent. Tactile anæsthesia may be tolerably complete when sensibility to thermal and other impressions is incomplete. In three cases of excessive hyperæsthesia I have completely removed the condition with 2 and 4 per cent. In seven or eight cases of excessive pain in late laryngeal phthisis it has been quite arrested by cocaine. In extreme dysphagia in the same disease some patients have been enabled to take food after sparing but careful use of the anæsthetic. In several of these cases a weak solution of 1 or 2 per cent. has answered. The remedy may be used as a spray instead of painting. This a weak spray for a very short time renders the throat or nose anæsthetic.

There is another effect which none of your correspondents notice. The cocaine produces pallor, sometimes quite extreme, of the membrane to which it is applied. This it would do in health, and in the same way it often causes the immediate disappearance of hyperæmia, an effect the importance of which is obvious. Considering that there may be an arrest of our supply, it would be well if those who are using the alkaloid internally would content themselves for a time with a fluid extract of the cuca leaves, which can be easily obtained. For fear of encroaching too much on your space, I will only add to-day that I had anticipated Dr. A. H. Bennett's suggestion, and have made a number of experiments with other alkaloids, the results of which I shall be happy to furnish if you can find room for them in THE LANCET. I am, Sir, yours truly,

Bean-street, Park-lane, Dec. 6th, 1884. PROSSER JAMES.

To the Editor of THE LANCET.

SIR,—A lady suffering from two small recto-vaginal fistulæ, who had been three times operated upon by a distinguished London surgeon with only a partial amount of success, came under my care a few days ago. The fistulæ now being small I determined to "raw" the edges by means of the actual cautery, using that of Paquelin for the purpose. Before applying it I painted the vaginal surfaces thoroughly well with a 4 per cent. solution of the hydrochlorate of cocaine. Partial insensibility ensued in about two minutes, and the patient bore the operation very well, remarking that she "felt the burning, although she did not feel pain." I was pleased and yet disappointed; pleased that she "did not feel the pain," but disappointed after the glowing accounts I had read with regard to cocaine that she should "feel the burning." Were I using it again I would employ a stronger solution, say 10 per cent., as subcutaneous injection in my case, owing to the thinness of the tissues, would hardly have been practicable.

I am, Sir, yours faithfully,

J. RUDD LEESON, M.D. Edin.,
Late Demonstrator of Anatomy, St. Thomas's Hospital.

Wimbledon, Jan. 10th, 1885.

"AGORAPHOBIA."

To the Editor of THE LANCET.

SIR,—Having seen in your last impression a request from a surgeon to give an account of a case of agoraphobia treated satisfactorily, I venture to write to your valuable journal and offer suggestions founded upon a case for some years under my care, which has ended in complete recovery, whether *post hoc* or *propter hoc* it is not for me to say.

The patient was a robust man, in the prime of life, between thirty and forty, fond of exercise, above the average intellectual development, but much subject to the "blues." I have always maintained it is not a *disease*) to which has been given the pedantic title of "agoraphobia." I have no hesitation in affirming that this symptom is usually due to sexual and alcoholic excess. We all know that some men can indulge to a much greater extent in the two excesses above-named without any serious consequences than can others. And it is the imitation of these Sileni and Priapi by their weaker brethren which constitutes the chief cause of agoraphobia.

In my experience the exhibition of drugs is of little avail in such cases. The fault is not on the side of morbid excess, but of morbid imitation; and if you can once get the patient to recognise this fact, the cure is, as a rule, in his own hands. Tonics stimulate the already excessive desire; whereas sedatives, such as bromide of potassium, debilitate the patient to such a degree as to prevent his carrying out his daily avocations. The agoraphobic patient should keep a strict account of his expenditure to the heathen gods (Bacchus or Venus), and should use his best endeavours to lessen it. He should also endeavour to keep an account of the number of hours he walks in the day, and should increase them as his strength improves. He should also note the time he goes to bed and the time he rises in the morning, especially remarking if he should be awake in the night, and for how long.

This is not the place to enter into a discussion on insomnia, although this, too, is undoubtedly a minor cause of agoraphobia. As a rule, the simplest remedies for this disease are the best. My favourite prescription is an hour's brisk walk in the open air before going to bed, followed up by a hot glass of wine and water, not forgetting the nutmeg.

I may, I hope, be excused if I add a few empirical hints gleaned from my patients in these cases. The patient must be spirited and courageous; he must force himself into the street to take walking exercise. The pace should be slow for the first quarter of an hour, and then worked up by slowly increasing degrees to the usual speed. Should the symptom be very aggravated, the patient should only (in London) walk in the open streets, where he can obtain a cab should he require one. Should he be obliged to traverse any short distance, across an open space, and should he then feel that horrible sensation (described by Legrand du Saulle) of the heart being squeezed as in a vice, a few sharp blows with his fist on the epigastrium will restore the action of the organ to regularity, and often bridge over the abyss till he can reach a place of security. Agoraphobia depends much on association; therefore let the patient avoid all places in which experience has shown him that the sensation is apt to arise.

Claustrophobia generally accompanies agoraphobia. This is not the fear of *open* spaces, but the fear of *shut* spaces. Most of the cases under my care have experienced this sensation when at stool. This I attribute to two causes: one physical, which is the debilitating effect of passing the fæces; the other moral, from the fear that if the patient should faint he might fall against some object and injure himself. A patient liable to faint at stool (and this is very common) should leave the door of the closet unbolted, and have a servant outside ready to respond to his call should he feel unwell. Far be it from me to encourage the practice of secret drinking; but I have known one agoraphobic patient much improved by carrying a flask of wine in his pocket, which he could take on an emergency, and in extreme cases even brandy is allowable. A walk with a companion is a most valuable remedy in this disagreeable state of things; as thereby the heart's action is rendered more regular and more powerful, and the fact that there is some one at hand to assist should occasion arise gives the patient a confidence he can never feel when alone.

The treatment of agoraphobia may be thus summed up. 1. Diminish sexual intercourse. 2. Diminish alcoholic stimulants. 3. Increase exercise. 4. Take enough, but not too much, sleep. Your obedient servant,

HENRY SUTHERLAND.

Richmond-terrace, Whitehall, S.W., Jan. 1885.

TREATMENT OF INTESTINAL OBSTRUCTION.

To the Editor of THE LANCET.

SIR,—If you will allow me a final word in reply to Mr. Steele's letter in your last number, I would merely observe that I consider it amply confirmatory of my original statement, that rest, opium, and starvation had for many years been the recognised treatment in cases of intestinal obstruction. He observes that I "still look upon Mr. Thomas as merely one of many authors who have laid down the so-

called rest, opium, and starvation treatment." That is precisely my view of the matter, while at the same time giving Mr. Thomas every credit for pointing out certain improvements in diet, and for protesting against mechanical remedies when ignorantly and excessively employed. Mr. Thomas says that "between Sydenham and himself a void exists." This is not unlikely, but it fails to convince me that they are the only two persons who have ever known anything about intestinal obstruction. Mr. Steele describes himself as a young practitioner. With increase of years and experience I feel sure that he will discover that to rigidly apply one uniform and restricted method of treatment (to the exclusion of all others) to a disease under which are classed pathological conditions as widely asunder as the poles is neither logical nor in accordance with the principles which govern medical science in other instances.

I am, Sir, your obedient servant,

Liverpool, Jan. 13th, 1885. W. MITCHELL BANKS.

TREATMENT OF FUNCTIONAL AMENORRHŒA.

To the Editor of THE LANCET.

SIR,—Will you allow me to draw the attention of the profession to a remedy for functional amenorrhœa which has been very successful in my hands. It consists in the persevering use of an infusion of the bog- or buck-bean *(Menyanthes trifoliata)*, taken hot every morning half an hour before breakfast, for some weeks if necessary. The rough mode of making this infusion is by half filling a tumbler with the dried plant, and pouring upon it five or six ounces of boiling water over night. This makes one dose, or in some cases two. In order to avoid the inconvenience of this process, Mr. Martindale has kindly made a liquid extract of the drug, the dose of which would be a tablespoonful in half a tumbler of hot water, I am induced to send you this letter in the hope that others will try this remedy and report upon it.

I am Sir, yours faithfully,

Harley-street, W., Jan. 14th, 1885. JULIUS POLLOCK.

THE M.D. EXAMINATION AT THE LONDON UNIVERSITY.

To the Editor of THE LANCET.

SIR,—The published results of the recent M.D. examination of the University of London have occasioned much comment in professional circles, and at the present juncture such comment may not be without influence on the side of those who are agitating for a teaching university in London, unless, as we are informed is likely to be the case, a special committee of the Senate be appointed to inquire into the circumstances.

The examiners in logic and psychology alone rejected 51·7 per cent. of the candidates, including those who presented themselves in both medicine and logic together, and those who entered for the latter subject only. Seventeen candidates entered for the whole examination: of this number eleven passed; six, although passing "a highly creditable examination in medicine," were rejected in logic; and three were rejected in medicine. Now, the most apparent absurdity of this result is the fact that examiners in logic and psychology should be the means of compelling these six legally qualified medical men, who pass "a highly creditable examination in medicine at the M.D.," to be re-examined, not only in their own subject, *but also in medicine*. This fact must have been painfully apparent to the medical examiners when assembled in conclave to decide the results.

Dr. Inflammation: "Candidate A.B. displays a highly creditable knowledge of medicine." Professor Abstract: "Indeed! He has failed to reach the necessary standard in logic and psychology, and it will be necessary for him to be re-examined *in medicine again also*." Why should this be? The examiners in medicine have no power to compel a candidate to appear again in logic, &c., if he passes in logic and failed in medicine.

Might I be allowed to appeal to your readers to explain away by some obscure (or simple if possible) "logical" method the absurdity of these facts.

I remain, yours faithfully,

December, 1884. MEDICUS.

LIVERPOOL.

(From our own Correspondent.)

DEATHS IN LIVERPOOL FROM ZYMOTIC DISEASES IN 1884.

At the last meeting of the Health Committee some interesting statistics, compiled by Dr. J. Stopford Taylor, the medical officer of health, respecting the death-rate during the past year, were read. The deaths from zymotic causes amounted to 2973, of which the following details are given:—

Disease.	Deaths during 1884.	Average for previous ten years.
Small-pox	106	82
Measles	611	441
Scarlatina	197	620
Whooping-cough ...	546	466
Diarrhœa	841	704
Diphtheria	80	53
Fever	205	402

The deaths from fever and diarrhœa were much lower than had ever been known before, a circumstance which may be fairly attributed to the many sanitary improvements which have been lately effected in the city.

HOSPITAL SUNDAY.

Sunday, the 11th inst., being the second Sunday in the year, was observed as Hospital Sunday in Liverpool, collections being made in all the churches, chapels, and other places of worship in the city and suburbs. Unfortunately the weather was most unfavourable, being wet and very boisterous during the whole of the morning; hence a falling off in the amount of the collections has been observed; a circumstance which is much to be regretted, as all the local hospitals and dispensaries are greatly in need of increased support. The total amount advised to the treasurer up till the 14th inst. amounted to £3299.

CONCERTS AT THE ROYAL INFIRMARY.

At the Royal Infirmary a concert was given on the 3rd inst. in one of the wards, which was beautifully decorated for the occasion. The performers were members of the resident medical and nursing staff, aided by friends; among the audience were members of the committee and of the honorary medical staff, with their wives, families, nurses and patients. An excellent programme was gone through, the various songs being extremely well rendered. The audience showed their appreciation by frequent applause, in several cases an encore being demanded, and a most enjoyable evening was spent by the visitors.

DANGERS OF STONE-THROWING.

An inquest was held last week on the body of a boy aged eleven by the borough coroner. It appeared from the evidence that on New Year's Day the deceased was running away from a lad who had used threatening language to him, when he was struck on the back of the head by a stone, which his assailant was seen by a witness to throw at him. The deceased expired on Saturday night from concussion of the brain, and a verdict of manslaughter was returned against the boy who threw the stone, who was only fourteen years of age, and admitted his guilt after being duly cautioned. This dangerous practice prevails to a very considerable extent in Liverpool.

MANCHESTER.

(From our own Correspondent.)

CHEAP DINNERS FOR SCHOOL CHILDREN.

ONE, and by no means the least, of the results followin the agitation on over-pressure in our elementary schoo has been the prominence given to the fact that many of th children attending these are sent in a half-starved conditio often, indeed, commencing their day's work on an almo empty stomach, and as a remedy for which cheap dinne for those who cannot obtain the necessary food at hon have been established. This experiment, commenced London, has been also put upon trial here, chiefly throug the instrumentality of Mr. Alexander Forrest, whose wor

are situate in one of the poorest and most densely populated districts of the city, Holt Town, and who has become very intimately acquainted with the poverty so prevalent around. He with the assistance of some friends has made arrangements whereby during the past two months nearly 200 dinners have been supplied daily. A charge of one penny has been made where possible, but in 15 per cent. of the dinners it has been found, after careful inquiry, that even this small sum was not able to be paid, and free tickets have therefore been given to these. The cost of the dinners has, exclusive of labour, been a trifle over a penny per head, so that some help is required from charitable friends if they are to be continued through the winter. In the discharge of this truly charitable work, the difficulty which meets the philanthropist is the danger of pauperising the parent whilst endeavouring to prevent the starvation of the child.

CHRISTMAS AT THE HOSPITALS.

Christmas and the New Year were celebrated in some of our hospitals. At the Ancoats and Ardwick Hospital a Christmas-tree and some theatricals were arranged for the patients, and were attended by a goodly number of friends of the institution. This hospital has of late been doing much good work. For some years its wards were almost empty; but, thanks to the exertions of a few energetic friends, amongst the foremost being the honorary secretary, Mr. A. Forrest, above-mentioned, two of the largest wards are now fully equipped and filled with patients. At the Eye Hospital, the Children's Hospital (Pendlebury), the Monsall Fever Hospital, and the Infirmary at Hope, some seasonable festivities were provided for the inmates.

HOSPITAL EXTENSION.

At the last meeting of the board of management of the Royal Infirmary a scheme was brought forward and approved for considerable alteration and extension of the Monsall Fever Hospital belonging to that charity. For some years past arrangements have been in force between the infirmary and the corporation of Manchester for the reception at the Monsall Hospital of cases of infectious disease requiring isolation in hospital, the corporation not possessing, like the adjacent borough of Salford, a hospital of their own. The estimated cost of the proposed extension exceeds £20,000, and this the infirmary ask the corporation to find if they desire to continue to use the Monsall Hospital, pointing out that it is no part of the duty of that charity to provide accommodation for the infectious diseases of the city and neighbourhood, and that they cannot be expected to expend this large sum out of the funds of a charitable institution to relieve the health committee of what is essentially part of their duty as the legal sanitary authority of this large population. Unfortunately, at the present time there is a dispute pending between the corporation and the infirmary as to the length of time cases are retained in hospital, the former asserting that they are kept longer than is necessary, thus greatly increasing the cost of isolation, and when the last accounts were sent in by the infirmary board they deducted more than £500 from the bill on these grounds. This the infirmary have firmly resisted, and have notified the health committee that unless the charges are paid in full their patients will no longer be received; and for the present there the matter remains.

At the annual meeting of the Ear Institution it was reported that, owing to the increase of patients, it had become necessary to remove to more commodious premises, and an appeal was made for more subscriptions to meet the increased expenditure connected therewith. It had been found necessary to appoint, for the first time, a house-surgeon. The Lock Hospital, also, is contemplating extending its work by the addition of a special department for diseases of the eye. The committee of this hospital urgently appeal for more help from the public if the work is to be carried on, even to the extent hitherto done.

WATER-SUPPLY.

At the last meeting of the city council an important step was taken in reference to the water-supply of Manchester. The late dry autumn placed us uncomfortably near to a water famine, and it was resolved, on the recommendation of the waterworks committee, that the scheme for bringing water from the Lake district in Cumberland, which has been in abeyance, should at once be actively proceeded with.

EDUCATION AND HEALTH.

On the 9th inst. a largely attended meeting was held in the town hall, for the further consideration of the proposed conference to be held here on education and health. Mr. Oakley (H.M. Inspector of Schools), chairman of the executive committee, stated that Lord Aberdare had consented to become president, and much support was promised to and interest manifested in the proposed meeting, and it was resolved that the necessary steps be at once taken to complete the arrangements for holding the same. From the names of those who have given their approval and promise of help, and from the subjects proposed to be brought forward for consideration and discussion, it bids fair to be a conference of a very useful and interesting character.

The graduates of Aberdeen were somewhat disappointed at their annual dinner recently held at the Grand Hotel by the inability of Sir Andrew Clark to preside thereat, as had been arranged. In his absence the chair was occupied by Dr. Ross, a very enjoyable and convivial evening being spent.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

NEWCASTLE INFIRMARY.

A SPECIAL court of governors is called at the infirmary for the 23rd proximo, to consider the resolution passed on the 23rd of December last, and which runs as follows:—"That this committee recommends the design of Messrs. Lamb and Armstrong as the best means of adding to the infirmary on its present site; but the medical board, having submitted to this committee the opinion of the staff that the hospital, instead of being added to, shall be removed to another locality, resolved that the whole matter be again referred to the body of the governors, and that for this purpose a general meeting be called this day month." So that we are to have the whole question of enlargement or removal to a new site considered on its merits, full weight, I trust, being given to the recommendation of the medical staff. At a recent meeting of the Newcastle Trades' Council the subject of having a working man as a representative on the infirmary committee was discussed, and upon the whole in a very fair and reasonable spirit. It was stated that there were many questions that came before the infirmary committee with regard to letters of admission, patients' conduct, and nurses' behaviour, that could be adjudicated upon by a working man better than by those who were not in constant communication with those who mostly used the infirmary, and that the experience of the relief committee showed that the working man representatives had been the means of solving many cases of sham distress. Further, it was stated that it was well known that the infirmary was greatly imposed upon by persons who were able to pay for medical aid. One speaker said he knew of families in good circumstances who, whenever the slightest thing ailed them, said, "Go to the infirmary." These people were not in a friendly society, but altogether relied upon the infirmary for their medical requirements. It was pointed out at the meeting that anyone could become a life governor by paying a sum of money, but not a small one for a working man. It was thought that a bye-law might be passed by the infirmary authorities whereby, considering the very important sum of money now contributed by the working classes to the Hospital Sunday Fund, a means might be found for a representative working man being on the house committee.

CURIOUS DISCOVERY OF SKELETONS AT TYNEMOUTH.

The men employed in the excavation for the new park at Tynemouth have come across a quantity of human remains. The whole of the skeletons, numbering, as far as they can be put together, twelve or fourteen, were stated to be above the average height of the present generation; one in particular was stated as measuring 8 ft. 3 in., the skull being also, according to account, of extraordinary thickness; but a later and more careful measurement of the bones went to show, as might have been expected, that the height would be about the average of men of the present day, 6 ft. or so being about the maximum. Not one of the separate pits in which they have been found is more than 4 ft. in depth, the majority of them being from 18 to 20 inches from the surface. They are supposed to have been interred during the Cromwellian era, but this point is not yet decided.

FROST-BITTEN SEAMEN.

The steamer *Rydal Water*, of Liverpool, arrived in the Tyne last week with two seamen very severely frost-bitten while on the passage from New York, which port they left on Dec. 18th last. They say that on the day the vessel left she was covered with ice, and that the spray from the sea no sooner fell upon the crew than it was frozen. The sea swept over the vessel with great force, one wave broke the bridge, and the ship was hove to for three days during the passage, which lasted twenty days. Both men are severely injured in their feet and hands, and have been admitted into the borough hospital, North Shields.

POISONING BY FLUORIC ACID.

An inquest was held last week on the body of a young servant girl who had been living at Tudhoe Grange, near Durham. It seems that on Sunday evening she drank a quantity of fluoric acid, which was used by her master for staining glass. Soon after she took the poison she told the children to tell their mother. Dr. O'Hanlon was soon in attendance, using the stomach-pump and all other means, but his efforts were unavailing, and she died in great agony in three hours and a half after taking the acid. The jury, in giving their verdict, expressed the opinion that such a deadly poison should have been kept under lock and key. It appears to have been left in a cupboard.

THE CARRIAGE TAX.

An important meeting was held here last week on the subject of the carriage tax, the speakers showing its pressure on the medical profession, the trade, and the general community.

Newcastle-on-Tyne, January 14th.

SCOTLAND.

(From our own Correspondent.)

SCOTCH UNIVERSITY STATISTICS.

THESE statistics have some interest in view of the agitation at present going on in London for the establishment of a teaching university there. The matriculation returns for Edinburgh show these results:—The aggregate number of students matriculated during the year being 3401, as against 3396 on the register of the previous year. These were divided between the different faculties as follows:—Faculty of Arts, 1064; Divinity, 113; Law, 500; and Medicine, 1724; the percentage composition being: in Faculty of Arts, 31·2 per cent.; Divinity, 3·2; Law, 14·7; and Medicine, 50·67 per cent. The entries in the register show that of the 1724 students in the latter faculty, 689, or 39·4 per cent. were from Scotland; 605, *or 35·1 per cent., from England;* 44, or 2·6 per cent., from Ireland; 104, or 6·3 per cent., from India; 247, or 14·3 per cent., from the different British colonies; and 34, or 1·9 per cent., from foreign countries. The following is an analysis of the respective ages of students attending the university:—Under sixteen there are 14 students, or equal to 0·41 per cent.; between sixteen and twenty-one, 1573, or 45·7 per cent.; between twenty-one and twenty-six, 1401, or 41·2 per cent.; between twenty-six and thirty-one, 317, or 9·3 per cent.; between thirty-one and thirty-six, 64, or 1·9 per cent.; and between thirty-six and forty and above forty, 16 in each, or equal to 0·47 per cent. The register of members of the General Council for the past year has just been completed, and shows an increase of 237, the number enrolled being 5158, as against 4921 on the last register. In Glasgow there is a slight, but very slight, falling off in the number of matriculated students, the number being 2091, as against 2115 last year. In the faculty of Medicine, however, there is a slight increase, the figures being 557, as against 536 last year.

HEALTH OF GLASGOW IN 1884.

Dr. Russell reports that during 1884 there were 13,929 deaths registered, a rate of 27 per 1000, being 1 per 1000 below the rate of 1883, 1 above the average of the five years immediately preceding, exactly the same as the average of the ten years 1874-83, and 4 per 1000 below the average of the ten years 1864-73. Dr. Russell remarks that, high as the death-rate of 27 is, if we examine the records of the Registrar-General for 1855, when his office was instituted, we shall find that from that date to 1879 the death-rate of Glasgow never fell so low in any one year; and that only in four years of the 29 during which we have had a Registration Act in operation, has it been lower than 27. In appreciating our present position it is always necessary to remember what our death-rates have invariably been until within the last few years. In these comparisons I have adhered wholly to the Registrar-General's rates, which have, since the census, been based on a population below the reality. According to my estimate of the population, the death-rate last year was 25¼. During the past fortnight the death-rate in Glasgow has been very high, 36·8 per 1000. The proportion of deaths under five years to the total mortality rose to the extreme figure of 52½ per cent., this enormous child mortality being due to the coincident increase of measles, whooping-cough, and scarlet fever.

It is announced that Professor G. H. B. Macleod of Glasgow has been chosen a Foreign Corresponding Member of the Académie de Médecine of Paris. He has also been asked to accept the office of President of the Section of Surgery at the approaching meeting of the British Medical Association at Cardiff, but has not been able to accede to this request.

IRELAND.

(From our own Correspondent.)

ROYAL COLLEGE OF SURGEONS IN IRELAND.

SEVERAL important alterations in the Supplemental Charter were agreed to by the Fellows at a special meeting held last week; among the rest being the admission of women to the Fellowship as well as Licence of the College. The proposer of this latter resolution, I am informed, did not intend to include the word "Fellow" in the clause admitting them to the Licence in Surgery; but on a division being taken an amendment removing the word "Fellow" was lost by about four votes. There was a good deal of confusion at the time the division was taken, and I am convinced that several Fellows who did not wish to allow women to the higher qualification, but had no objection to their being admitted Licentiates, voted on the wrong side by mistake. The meeting was not so large as might have been expected; probably only about fifty Fellows were present at the proceedings, and not quite forty votes were recorded on any division. The result of this resolution will be that when it becomes law women will not alone be eligible for the Fellowship, but, when Fellows, can be candidates for places on the Council, for examinerships, and for various chairs established by the College, and, lastly, can fill the office of president when elected to that honourable position.

ACADEMY OF MEDICINE IN IRELAND.

A special general meeting of the Academy will be held on Saturday, the 17th inst., to consider the following resolution passed by the General Council:—1. "That it is expedient that a fixed salary shall be paid yearly to the general secretary of the Academy, in consideration of the fact that the editing of the Transactions is part of his duties." 2. "That the salary of the general secretary shall be fixed at £100 a year." 3. "That the following be nominated Honorary Fellows of the Academy:—Sir James Paget, Theodor Billroth, Professor Virchow, Professor Pasteur, Professor Charcot, Dr. Austin Flint, Dr. Keith, Professor Schroeder, Professor Kölliker, Sir Joseph Lister." 4. "That it be recommended to the Academy that application be made to the Government for accommodation in the new science and art buildings."

SCHOOL OF PHYSIC, TRINITY COLLEGE, DUBLIN.

At a meeting of the medical students of this institution held on the 9th inst., it was unanimously resolved to form a volunteer corps on the lines advocated by Surgeon-Major Evatt. It is expected that the latter gentleman will shortly visit Dublin and give a lecture on the subject.

DUBLIN ORTHOPÆDIC HOSPITAL.

The committee of this institution have made arrangements for holding a grand fancy dress ball for the benefit of the hospital, there having been a large outlay consequent on moving to the present premises in Brunswick-street. The ball has been fixed for the second week in February, and will be held under distinguished patronage.

CORK-STREET FEVER HOSPITAL.

Dr. Sydenham Chandlee has been elected resident medical officer and registrar to this institution, in the vacancy caused by the death of Dr. Maturin, to whose lamented decease reference was recently made. The cases of measles in hospital are much beyond the average, and the disease appears to be assuming an epidemic form.

The National Orthopædic Hospital and the Pitt-street Institution have been amalgamated, as the objects of the two institutions are identical and have members of the medical staff attached to both hospitals.

Dr. Stewart, dispensary medical officer of Donaghadee, has been placed on the Commission of the Peace for co. Down.

Dublin, Jan. 13th.

PARIS.

(From our Paris Correspondent.)

THE ACADEMY OF MEDICINE.

DR. BERGERON, of whom I have spoken in my letter of Dec. 13th as having been elected Vice-President of the Academy of Medicine only two months ago, in the room of the late Dr. Fauvel, has passed in the usual course to the President's chair, which he will occupy for the present year; and Professor Trélat has been elected Vice-President in his stead. M. Schultzember has been elected Member of the Academy of Medicine in the Section of Physics and Chemistry, in the room of the late Professor Wurtz.

PLASTIC OPERATIONS ON THE PALATE.

Just before his election to the Vice-Presidentship of the Academy of Medicine, Professor Trélat read a very interesting paper before that learned body on the relative merits of plastic operations on the palate and the use of prothetic apparatus as a substitution for the former. In giving the history of these operations, M. Trélat stated that Roux created staphylorraphy during the latter end of his practice, for he then only operated on small fistulæ, the operation consisting in bringing together the two edges of the gap in the soft and hard palate, in addition to which the patient was obliged to wear a prothetic apparatus. This operation, however, was never practised by him before the patient reached the age of sixteen. A few years later Wolfe performed staphylorraphy in a young girl of ten. Seeing this, several surgeons expressed the opinion that the operation might be performed at a much earlier age. Otto Weber, of Bonn, and Billroth, had recourse to the operation in patients only a few months old. Simon of Breslau operated on an infant of fifteen days old, and Rouge of Lausanne operated on an infant of only a week old. The operations in these conditions were not generally attended with success, which induced Maisonneuve, Larrey, and Nélaton to declare that the results obtained from plastic operations on the palate were far inferior to those obtained from prothetic apparatus. Notwithstanding this declaration by such eminent men, M. Trélat believes in the superiority of plastic operations, though he admits that in certain circumstances prothetic apparatus may be found useful as a *dernier ressort* when the operation has failed, or when the condition of the parts does not permit of one. Moreover, it must be remembered that these apparatus are not always well borne, besides being a source of much trouble and expense to the patient. M. Trélat performed forty-six plastic operations on the soft and hard palate, and from his experience he concludes that these operations should not be performed before the age of seven, nor should they be undertaken when the opening in the palate is too large, or when there would not be sufficient substance in the soft parts. In concluding his paper, M. Trélat insisted on the necessity of submitting children affected by this infirmity to a sort of phonetic education, before as well as after the operation, particularly those who have a wide opening in the palate.

FARADISATION AS A TEST FOR DEATH.

During the recent epidemic of cholera, and owing to the great resemblance of cholera patients to those apparently or really dead, certain physicians advised the adoption of faradisation to distinguish the one form from the other before resorting to interment. Dr. Bochefontaine undertook a certain number of experiments with the view of ascertaining the value of this test. The results he obtained were absolutely negative, in so far that faradisation did not permit one to distinguish real from apparent death.

ANTAGONISM OF THE SYMPATHETIC AND PNEUMOGASTRIC NERVES.

At a recent meeting of the Société de Biologie, M. d'Arsonval read a note from the unpublished papers of the late Claude Bernard on the Antagonism of the Sympathetic and Pneumogastric Nerves, which contains the following conclusions:—1. The pneumogastric nerve is the antagonist of the sympathetic in the abdomen. 2. The pneumogastric plays the same part with regard to the abdominal viscera that the cord of the tympanum does with regard to the salivary glands. In this work M. Claude Bernard equally established the fact that it is at the level of the duodenum that the temperature of the blood is at its greatest height, on the condition, however, that the temperature is taken when the animals are fasting.

UREA IN THE BLOOD.

In a paper on the proportion of urea in the blood, MM. Gréhant and Quinquaud arrived at the following conclusions: 1. The venous blood, returning from the head or limbs, contains no more urea than the arterial blood conveyed to these parts; consequently, any urea from these must be carried away by the lymphatics. 2. Blood which has passed through the spleen or liver contains more urea than arterial blood: the difference is greatest during digestion, and the quantity of urea may reach nine milligrammes in 100 cubic centimetres of blood.

Paris, Jan. 13th.

Obituary.

DR. HERBERT DAVIES, F.R.C.P.

IT is with deep regret that we record the death of Dr. Herbert Davies of Finsbury-square, in the sixty-seventh year of his age. He had for some time been the subject of dilatation of the heart, but it was only during the last year that the well-known consequent obstructions to the circulation had developed so as to occasion serious alarm both in his own mind and to his friends, and which ultimately terminated in most distressing paroxysms of cardiac apnœa.

Dr. Herbert Davies was born on September 30th, 1818, and was the son of Dr. Thomas Davies, a former physician to the London Hospital, who on resigning general practice in the East-end of London went to Paris and studied auscultation and diseases of the chest under Laennec. On returning to London he devoted himself to the study of diseases of the heart and lungs, was one of the first, if not the first, to introduce the use of the stethoscope in this country, and established the special hospital for diseases of the heart and lungs which is now represented by its successor in the City-road.

From 1828 to 1832 Dr. Herbert Davies was educated at North End School, Hampstead, where he became head boy, and used to relate that on occasion of the distribution of prizes he was sent to London to bring up Campbell the poet, who was to preside, and who it was feared might forget his engagement. In 1836 he entered as a student at the London Hospital and matriculated at Caius College, Cambridge, in October, 1838. In the Lent term of his second year he migrated to Queen's College in the same university, and was a scholar and prizeman at both colleges. In January, 1842, he took the degree of B.A. as twenty-eighth wrangler, the year in which Professor Cayley was senior wrangler, and in which the late Charles Kingsley, the present Bishop of Ely, and several other distinguished men took their degrees. His private tutor was Professor Potter, Professor of Natural Philosophy and Astronomy in University College, London. Dr. Davies, in the opinion of his contemporaries, would have stood much higher in the mathematical tripos had he not been disabled for more than a year preceding the examination by an affection of his eyes, which prevented his working by candlelight. In January, 1843, he took his degree of M.B., and in 1844 was elected to the Edwards' Fellowship at Queen's College, and in 1847 to a Foundation Scholarship in the same college. In July, 1848, he took his degree of M.D. After taking his B.A. degree he spent some time in the

schools of Paris and Vienna, and on returning to London became Assistant Physician to the London Hospital in 1845, and subsequently full Physician and Consulting Physician on his retirement in 1874. In his own university Dr. Davies had held the offices of Examiner for the M.B. degree and Assessor to the Regius Professor of Physic, and in the College of Physicians of London, of which he became a Fellow in 1850, he had filled the offices of Examiner and Censor.

From the time of his settling in London Dr. Davies had been actively engaged in professional duties both as a teacher and practitioner. He early showed the advantages accruing from a liberal education and a well-trained mind, and, whether as an observer, teacher, or practitioner, acquired and maintained the reputation of a sound and able physician. Throughout his whole career his character was stamped by an open straightforwardness, high integrity, and Christian faith and principle that could not fail to secure the respect and esteem of his colleagues and all who were brought into contact with him; whilst his genial disposition, urbanity, kindness of heart, and unselfish conduct endeared him to those who had the privilege of knowing him in closer social intercourse. The services that he rendered to the London Hospital, not merely as a physician, but in the active management of both hospital and school, more especially during the cholera epidemic of 1866, were such that he received from the governors a special vote of thanks, accompanied by the presentation of a piece of plate. As a consultant and as medical adviser in the various public appointments that he held, few men could be more worthy of the confidence and regard in which he was held, whether in his professional capacity or as a private gentleman.

The principal of Dr. Davies' professional writings are—(1) "A Course of Lectures on Diseases of the Heart and Lungs," a work which at the time of its publication was an excellent *résumé* of the subject as then known, and shows a critical acquaintance with the diagnostic and pathological views of the German school; (2) "On the Treatment of Acute Rheumatism by free Blistering," a practice which he showed not only afforded great relief to the attendant pain, but also reduced the temperature and shortened the duration of the disease; (3) a paper read before the Royal Society and published in their Proceedings, "On the Law regulating the Relative Magnitude of the Areas of the four Orifices of the Heart," in which his mathematical knowledge was, with great ability, brought to bear in support of his views; this was followed by a second paper on the same subject, entitled "On the Form and Areas of the Heart's Orifices."

Dr. Davies has left a widow, three sons, and four daughters—two of the sons having adopted their father's profession, to uphold, it may confidently be hoped, a name that will have an honourable place in the records of medicine. The funeral took place on Friday last at the Hampstead Cemetery, Finchley-road.

THOMAS BUCHANAN WASHBOURN, M.D., F.R.C.P. LOND.

DR. WASHBOURN, who died on December 11th, 1884, at his residence, Ashmeade House, Gloucester, of Bright's disease and pneumonia, at the early age of fifty-five, was educated at the Gloucester Cathedral School, and commenced his professional studies at the Gloucester Infirmary as a pupil of the late Mr. Thomas Cox Buchanan, from whence he went to Guy's Hospital, where his career was marked with great success. He matriculated at the University of London, and in 1850, at the First M.B. examination, he obtained a gold medal for Chemistry, and honours in Anatomy and Physiology. In 1853 he graduated M.B., and obtained a gold medal for Physiology and Comparative Anatomy, and the scholarship and gold medal for medicine. He became a Member of the College of Physicians of London and graduated M.D. Lond. in 1854, and subsequently, in 1865, he was elected a Fellow of the College of Physicians.

Unfortunately, Dr. Washbourn's health prevented him from commencing practice in London as he had intended to do, and he was obliged to refuse the offer of an assistant-physicianship at his Alma Mater. A long sea-voyage somewhat improved his health, and shortly after his return to England he settled down in Gloucester, where he practised until his death.

Amongst the appointments held by Dr. Washbourn were the posts of Senior Physician to the General Infirmary at Gloucester and the Gloucestershire Eye Institution, Consulting Physician to St. Lucy's Home of Charity and the Children's Hospital, Consulting Physician to the Gloucester Dispensary, and Consulting Physician to the Lydney Hospital. Dr. Washbourn was a J.P., a Trustee of the Gloucester Charities, and in 1859 filled the office of Alderman. Whilst occupying this latter position Dr. Washbourn devoted himself to sanitary matters, and it was largely through his works and influence that the new system of sewers and the public park were obtained for Gloucester. He was the author of "Reports of the Sanitary Condition of Gloucester, 1851 to 1868," and other papers and pamphlets on allied subjects. He was elected an honorary member of the Metropolitan Association of Medical Officers of Health, and Fellow of the Statistical Society; and was also a member of the Anthropological Institute, and a Fellow of the Royal Geographical Society.

THE SERVICES.

Deputy Surgeon-General Alfred M. Tippetts, of the Army Medical Staff, who was mentioned in despatches for his services in the last Afghan War, has been appointed on the Staff of Major General F. Willis, Commanding the Northern District, as Principal Medical Officer. Mr. W. P. Colman, of Brighton, has been appointed Civil Acting Surgeon to the 4th Dragoon Guards, vice Surgeon-Major Ffolliett, removed to Aldershot.

WAR OFFICE.—Deputy Surgeon-General Francis Holton, M.B., half-pay, has been granted retired pay, with honorary rank of Surgeon-General. Deputy Surgeon-General John O'Nial, C.B., to have the local rank of Surgeon-General whilst employed as Principal Medical Officer with the Forces on the Nile.

INDIA OFFICE.—The Queen has approved of the retirement from the Service of the undermentioned officers of Her Majesty's Indian Military Forces:—Deputy Surgeon-General Colvin Smith, M.D., C.B., of the Madras Army; Surgeon-Major Thomas Gray Skardon, of the Bengal Army; Surgeon-Major Horatio David Steel Compigne, M.D., of the Bengal Army; Surgeon-Major Robert Pringle, M.D., of the Bengal Army.

The undermentioned officer is granted a step of honorary rank on retirement:—Deputy Surgeon-General James Alexander Caldwell Hutchinson, M.D., of the Bengal Army, to be Surgeon-General.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen passed the Second Examination for the licence (Anatomy and Physiology) on the 12th inst.:—

Noble, W. H. Francis. | Treharne, Edward
Simson, Francis Taylor. | White, Lancelot Percy.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 8th inst.

Ashley, Sydney Dukes, London Hospital.
Copeman, Sydney Arthur Monckton, St. Thomas's Hospital.
Fox, John Alfred, Guy's Hospital.
Fryer, Charles, Guy's Hospital.
Maudsley, Henry Sydney, St. Mary's Hospital.
Melson, George Hyde, Queen's College, Birmingham.
Pitchall, John Maynard, Westminster Hospital.
Thirkill, Henry, Leeds School of Medicine.
Watts, Alfred Thomas Guy, Cambridge University.

The following gentleman also on the same day passed Primary Professional Examination:—

Gerald Cree, Middlesex Hospital.

CANTOR LECTURES.—The next lecture on "Climat to be given by Dr. Poore at the Society of Arts on Mon next at 8 P.M., will deal with the "Floating Matter in Air and the study of Bacteriology as applied to Climate."

HERBERT MILITARY HOSPITAL.—On the 8th inst fire broke out in this hospital, which caused considera damage to the building, but fortunately was not atten with loss of life.

A HOUSE has recently been taken in Southend the Christian Medical Mission. A trained nurse is to engaged, and the committee hope, when a suitable site been provided and sufficient funds are available, to und take the erection of a cottage hospital.

ST. JOHN AMBULANCE ASSOCIATION.—Advices by last mail report that very encouraging progress is being made at the Victoria Centre of the St. John Ambulance Association; and that the Duke of Manchester and the Governor, Sir Henry Loch, as representing the Chapter of the Order of St. John, had consented to attend a public meeting called to give further impetus to the movement.

QUARANTINE AT MADEIRA.—A telegram has been received by the Union Steamship Company from their agents at Madeira, dated the 10th inst., intimating that the quarantine restrictions which have been in force at that island for some months past have been abolished. Passengers will therefore now be permitted to land as usual without spending some days in the lazaretto.

UNIVERSITY COLLEGE HOSPITAL.—On the 9th inst. a concert in aid of this institution, organised by servants of the London and North-Western Railway Company, took place in the meeting-room at Euston Station. The secretary of the hospital stated that the servants of that railway company had done during the last seven years given £400 to the hospital. The People's Contribution Fund, since its establishment in 1878, had raised £3000 for the hospital. The total in-patients in 1884 numbered 3000 and the out-patients 5000. The concert was most successful, and the proceeds, without any deduction whatever, were handed over to the institution on behalf of which it was held.

A NATIONAL HEALTH INSTITUTE.—A memorial has been forwarded to the Executive Council of the late International Health Exhibition by the Committee of the Manchester and Salford Sanitary Association, suggesting that out of the surplus funds of the late Exhibition an Institute of Health be endowed, such institute to receive the books sent to the late Exhibition as a nucleus of a National Health Library, to carry on the work already commenced in the Laboratory of Biological Research, and to endeavour to co-operate with the Committee of the Parkes Museum of Hygiene and with other sanitary associations for the promotion of the study of sanitary science.

LIVERPOOL MEDICAL INSTITUTION.—At the annual meeting held on Thursday, January 8th, the following list of officers, Council, and Microscopical Committee was elected. Those marked * did not hold the same office last year. President: Dr. Robert Gee. Vice-Presidents: Dr. J. Drysdale, Dr. J. H. Wilson, *Dr. J. Birkbeck Nevins, *Mr. C. T. Paul. Hon. Treasurer: Dr. James Barr. Hon. General Secretary: Dr. William Alexander. Hon. Secretary of Ordinary Meetings: Dr. William Williams. Hon. Librarian: Dr. J. E. Barton. Council: Dr. J. Grimes, Dr. F. Imlach, Dr. R. T. Owen, Mr. R. N. Pughe, Mr. T. Shadford Walker, Dr. T. E. Young, *Dr. F. J. Bailey, *Dr. J. Cameron, *Mr. Reginald Harrison, *Dr. H. Harvey, *Mr. H. O. Thomas, *Mr. R. Williams. Microscopical Committee: Dr. W. Alexander, Dr. P. M. Braidwood, Mr. H. Briggs, *Dr. Hyla Greves, *Mr. G. Hamilton, Mr. J. S. Hicks, *Dr. J. R. Logan, Mr. Rushton Parker, Mr. P. T. Pope, and Dr. W. Williams.

Medical Appointments.

All communications for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

[illegible] RICHARD J., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Heavitree District of the St. Thomas Union, vice Williams.

[illegible] THOMAS, M.D., F.R.C.P.Lond., has been appointed Physician to the London Fever Hospital, vice Mahomed, deceased.

[illegible] JAMES, M.B., C.M.Glas., has been appointed Resident Physician and Superintendent of Knightswood Hospital, Maryhill, Glasgow.

[illegible] RICHARD, F.C.S., F.I.C., has been appointed Public Analyst for [illegible]

[illegible] FRANK SAMUEL, L.R.C.P.Lond., M.R.C.S., has been appointed Honorary Medical Officer to the Guest Hospital, Dudley.

[illegible] CHARLES H. P. D., M.D., M.Ch.R.U.I., L.R.C.S.I., has been appointed Medical Officer for the Cookstown Dispensary District, vice [illegible] Graves.

[illegible] M.B., M.R.C.P.Lond., M.R.C.S., has been appointed Assistant-Physician to the London Fever Hospital, vice [illegible]

[illegible] JAMES, L.R.C.P.Lond., M.R.C.S., has been appointed House-Surgeon and Secretary to the Scarborough Hospital and Dispensary, vice Young, resigned.

HAW, WALTER H., B.A., M.R.C.S., L.S.A., has been appointed House Physician to Charing-cross Hospital.

HAYDON, WILLIAM RUDALL, M.D., C.M.Glas., has been appointed Medical Officer for the Cruwys Morchard District of the Tiverton Union, vice E. Haydon.

HEATH, JAMES, M.B., C.M.Ed., has been appointed Senior House-Surgeon to the Torbay Hospital and Dispensary, vice Thistle, resigned.

JOLLIFFE, A. R., M.R.C.S., L.S.A., has been appointed House-Surgeon to Charing-cross Hospital.

KIDDLE, Mr. W., has been appointed House-Surgeon to Sir Patrick Dun's Hospital, Dublin, vice G. D. Cowen, M.B., B.Ch., T.C.Dub., L.M.K.Q.C.P.I., resigned.

MAGUIRE, ROBERT, M.D.Lond., M.R.C.P. (late Pathologist to the Manchester Royal Infirmary, and Assistant Lecturer on Pathology in the Owens College), has been appointed Physician to Out-patients at St. Mary's Hospital, Paddington.

MARRACK, WILLIAM, M.R.C.S., L.S.A.Lond., has been reappointed Medical Officer for the Bradninch District of the Tiverton Union.

MARRIOTT, JOHN, M.R.C.S., L.R.C.P., has been appointed House-Surgeon to Charing-cross Hospital.

NORRIS, E. STACY, M.B.Cantab., M.R.C.S., has been appointed Medical Officer for the First District of the Windsor Union.

PHILLIPS, SIDNEY P., M.D., M.R.C.P.Lond., has been appointed Junior Assistant-Physician to the London Fever Hospital, vice Gulliver.

SOMERVILLE, JOHN FRENCH, L.F.P.S.Glas., L.A.H.Dub., has been appointed Medical Officer for the Fourth District of the Hollingbourn Union.

THOMAS, B. WILFRED, M.R.C.S., L.R.C.P., has been appointed House Physician to Charing-cross Hospital.

TROTTER, WALTER O., L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Pocklington No. 1 District of the Pocklington Union, vice Boissier.

TYRRELL, W. GUY BEAUCHAMP, L.R.C.P.Lond., M.R.C.S., has been appointed Junior House-Surgeon to the Torbay Hospital and Dispensary, vice Heath.

VANN, ALFRED MASON, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Eastern District of the Durham Union, vice Robson.

WALLINGTON, W. T., L.S.A., has been appointed Resident Obstetrical Officer to Charing-cross Hospital.

WHITWORTH, WILLIAM, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the St. Agnes District of the Truro Union, vice Whiteley.

WILLIAMS, WILLIAM MICHAEL, M.B., C.M.Glas., has been appointed Medical Officer and Public Vaccinator for the Pentrefoelas District of the Llanrwst Union, vice Evans, resigned.

WINTER, W. H. T., L.K.Q.C.P.I., has been appointed Medical Officer for the No. 2 District of the Wolverhampton Union.

Births, Marriages, and Deaths.

BIRTHS.

CROWE.—On the 8th inst., at Worcester, the wife of G. Wyndham Crowe, M.D., of a son.

HUTTON.—On the 9th inst., at West-green-road, Tottenham, the wife of Edwin R. Hutton, L.R.C.P. Lond., of a daughter.

JOHNSON.—On the 11th inst., at Kingsland-crescent, N.E., the wife of J. Bovell Johnson, M.D., &c., of a son.

MARTIN.—On the 9th inst., at Chapel-street, Park-lane, the wife of John Henry Martin, M.D., of Cambridge House, Portsmouth, of a son.

MARRIAGES.

DAVY—TUCKER.—On the 6th inst., at Chard, Henry Davy, M.D.Lond., of Exeter, to Beatrice Mary, eldest daughter of Walter J. Tucker, Esq., of Chard.

STANDEN—O'LEARY.—On the 6th inst., at St. Anne's, Moseley, by the Rev. Canon Wilkinson, D.D., assisted by the Rev. J. Leverett, M.A., Vicar, Peter Standen, M.B., C.M., of Stanton-hill, Mansfield, to Frances Jane, elder daughter of John Gibson O'Leary, of the Ferns, Moseley.

DEATHS.

BAXTER.—On the 14th inst., at Weymouth-street, Portland-place, W., Evan Buchanan Baxter, M.D., Professor of Materia Medica, King's College, London.

LANCHESTER.—On the 8th inst., at his residence, Park House, Croydon, of congestion of the lungs, Henry Thos. Lanchester, M.D., F.R.C.S., aged 46.

MANN.—On the 11th inst., at Warltersville-road, Hornsey-rise, N., John Mann, M.R.C.S., L.S.A.L., aged 82.

NUTTALL.—On the 26th ult., at Ayr, N.B., George Robert Nuttall, M.R.C.S., late Bombay Medical Service, aged 63.

ROWLATT.—On the 2nd ult., on board the s.s. *Melbourne*, Dr. William Rowlatt, of Paris, aged 31.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, January 15th, 1885.

Date.	Barometer reduced to Sea Level and 32, F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Jan. 9	29·77	S.	33	33	...	46	30	·04	Foggy
,, 10	29·43	S.W.	46	45	...	51	31	·12	Raining
,, 11	28·99	W.	42	39	...	46	37	·21	Cloudy
,, 12	29·61	N.W.	32	...	...	39	30	·13	Cloudy
,, 13	29·61	N.	34	33	...	36	31	·03	Snowing
,, 14	29·74	N.E.	32	...	...	38	30	...	Overcast
,, 15	29·95	E.	38	37	...	40	32	·09	Raining

Medical Diary for the ensuing Week.

Monday, January 19.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. each day, and at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND COMMERCE.—8 P.M. Dr. G. V. Poore: The Effects of Soil, Drainage, and Vegetation upon Climate (Cantor Lecture).

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. T. Lauder Brunton: Digestive Disorders, their Consequences and Treatment (Lettsomian Lecture).

Tuesday, January 20.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 P.M., and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M., and on Fridays at 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Moseley: Colonial Animals.

PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. President's Address.—Mr. Pepper: Malignant Disease of the Spermatic Cord.—Dr. Norman Moore: Congenital Disease of the Heart; Disease of Sacro-Iliac Joint (card); Drawing of a Renal Tumour consisting of Cholestearine (card); Rupture of the Heart (card); Perforated Aortic Valve (card).—Dr. Charlewood Turner: Horse-shoe Kidney, Sarcoma of both Adrenals (card).—Mr. Davies-Colley: Synostosis of Dorsal Spines.—Dr. Samuel West: Cases of Mediastinal Tumour.—Mr. John Poland: Suppurating Bronchial Gland opening into Œsophagus and Left Bronchus (card).—Mr. Shield: Rectal Polypus (card).

Wednesday, January 21.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour. Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

HOSPITALS ASSOCIATION.—8 P.M. Mr. C. J. Radley: The Relation of the Provident Dispensary to the Hospital.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Special Meeting.—Adjourned Discussion on Dr. Percy Kidd's paper on the Distribution of the Tubercle Bacilli in the Lesions of Phthisis.

Thursday, January 22.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Dewar: The New Chemistry.

Friday, January 23.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—9 P.M. Prof. Moseley: Fauna of the Sea-shores.

QUEKETT MICROSCOPICAL CLUB.—8 P.M. Papers by Dr. W. B. Carpenter and Mr. F. Parsons.

CLINICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Althaus: A Case of Hemianæsthesia from Congenital Brain Disease.—Mr. Treves: A Case of Scrofulous Gland Disease with Phthisis.—Mr. C. J. Symonds: A Case of Stricture of the Œsophagus, illustrating a new method of employing the Œsophageal Catheter.—Dr. Hale White: A Case of Myxœdema, with a Post-mortem Examination.

Saturday, January 24.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Dr. Waldstein: Greek Sculpture.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

"THE UXBRIDGE TRAGEDY."

IN consequence of the difficulty we have experienced in obtaining a copy of the full depositions relating to the above case, we are reluctantly compelled to postpone the insertion of Mr. Bowlby's letter, dated Jan. 6th, with comments thereon, until next week.

W. B.—We would suggest that an application be made to the deputy coroner who held the inquiry. Should that be unavailing, the Home Secretary might be communicated with.

Mr. J. W. Watson's complaint should be addressed to the Editor of the "Directory."

MEDICAL OFFICERS OF HEALTH AND PRIVATE PRACTICE

To the Editor of THE LANCET.

SIR,—As the leading authority on professional matters, does it come within your province to give an answer to the following inquiries? 1. Do you consider the medical officer of health for a town containing 50,000 inhabitants should devote his whole time to his public duties, or be allowed to continue his private practice as well? 2. Would his connexion with a hospital for contagious and infectious disease tell for or against his holding such an appointment.—I am, Sir, yours truly,

Jan. 10th, 1885. H. D. F.

*** 1. The question, being to a great extent hypothetical, is not easy to answer. The nature of the answer would also depend upon the competency of the individual. Speaking generally, we would prefer to see medical officers of health independent of private practice; but it is rare to find that a town of 50,000 inhabitants offers a salary sufficient to command the entire services of a really competent officer. Under these circumstances we would rather that a competent officer should be allowed to practise privately than that a less efficient officer should at an inadequate salary, give his whole time to the duties of officer of health.—2. Connexion with an infectious disease hospital is, as a rule, an advantage to an officer of health and to the authority he serves.—ED.

Medico.—1. Perhaps the Lettsomian Lectures now in course of delivery will, when concluded, answer our correspondent's purpose.—2. Application had better be made to the Director-General.

Dr. Purcell.—Yes.

"THE MEDICAL DIRECTORY FOR 1885 AND THE NORTH-WEST LONDON HOSPITAL."

To the Editor of THE LANCET.

SIR,—Will you kindly allow me to state, in reply to the letter of your correspondent, "A Governor of the North-West London Hospital," that the appearance of the names of Sir Andrew Clark and Mr. Christopher Heath as attached to the consulting staff of this hospital was *not* the result of "wrongful information." Both these gentlemen gave their consent when asked a few weeks ago to resume their connexion with the hospital. In deference, however, to the united request of the former staff, they subsequently withdrew their consent, *but not until after the Medical Directory was in the press.* I had already explained this to Sir Andrew Clark and Mr. Christopher Heath. Enclosed is a copy of Sir Andrew Clark's letter to me in reply.

Your correspondent would have shown better taste had he asked for an explanation before rushing into print, and unjustly stigmatising the managers of a public charity.—I am, Sir, yours obediently,

ALFRED CRASKE, Secretary.

North-West London Hospital, Jan. 10th, 1885.

"16, Cavendish-square, W., Dec. 31st, 1884.

"DEAR SIR,—I beg to ackowledge with thanks the receipt of your courteous note of explanation, which is perfectly satisfactory, and I am,

"Faithfully yours,

"ANDREW CLARK, M.D.

A REMEDY FOR THE PHYLLOXERA.

As the result of a number of experiments which have been conducted by Professor Baur of San Francisco, it is stated that a sure cure for phylloxera has been found in quicksilver. The remedy is, according to a report recently issued by Professor Baur, half an ounce of quicksilver, thoroughly mixed with an equal weight of clay, in the soil of the hole in which the vine is planted. The suggestion as to the use of mercury came from the fact that a small globule of that metal in a case of mounted butterflies will protect them against the depredations of beetles, and also to the fact that mercurial treatment is destructive to insects. The report expresses the belief that a dose of the mixture will protect a vine for at least twenty years. The efficiency of the quicksilver remedy has, it is stated, been determined by many experiments which have already been reported upon, and other trials are also being made.

Mr. Lewis Evans.—The lecture originally appeared in the New York *Medical News* of Nov. 22nd, 1884, and was subsequently reprinted by Dr. Bartholow for private distribution.

Mr. H. R. Kerr.—The matter shall have consideration in our next.

THE ENGLISH CONJOINT BOARD.

To the Editor of THE LANCET.

SIR,—I think the enclosed answers which I have obtained from the Secretary and Assistant Secretary of the Royal College of Surgeons in reply to the inquiry whether, having passed the Primary M.R.C.S. and intending to present myself at the Intermediate (M.B.) London next year, I should be able to avail myself of the advantages of the final examination under the conjoint scheme, will interest many beside myself, and therefore trust you will be able to give them a place in your journal.

I am, Sir, your obedient servant,

Jan. 12th, 1885. C. L.

"Royal College of Surgeons of England,
"Lincoln's-inn-fields, W.C., Jan. 3rd, 1885.

"SIR,—With reference to your inquiry of the 12th ultimo I have now to reply to you as follows—viz.: 1. That so far as the subjects of the Intermediate Examination of the University of London comprise the subjects of the first examination under the Examining Board in England by the Royal Colleges of Physicians and Surgeons, so far will you be exempt from passing such first examination. 2. That, as it would appear that Pharmacy is not included in the Intermediate Examination, you will have to pass in that subject to complete what will be required of you under the combined examination before admission to the final examination of the Board. 3. And that you will learn from the enclosed Regulation what are the other conditions applicable to your case. "I am, Sir, your obedient servant,

"EDWARD TRIMMER, Secretary."

"EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGE OF PHYSICIANS AND THE ROYAL COLLEGE OF SURGEONS.

"Any candidate for the Licence of the Royal College of Physicians and the Membership of the Royal College of Surgeons who shall have commenced his professional study before Oct. 1st, 1884, shall, on production of the certificates required by both Colleges when he commenced his professional study, and on payment of the required fees, be admissible to either or all of the examinations of the Examining Board. Any candidate who shall have passed before the 1st October, 1884, at either of the two Colleges, the first or second examination, or the first and second examinations, will be exempt from the equivalent examinations of the Examining Board."

"Royal College of Surgeons of England,
"Lincoln's-inn-fields, W.C., Jan. 10th, 1885.

"SIR,—In reply to your further letter of the 5th inst. I have to acquaint you that you will be required to pay the fee of ten guineas required for the first examination when you present yourself for examination in Pharmacy. I have to add that had you passed in that subject as well as in other subjects elsewhere, you would nevertheless have been required to pay the same fee.

"I am, Sir, your obedient servant,

"FRED. G. HALLETT, Assistant-Secretary."

A MIDWIFERY COINCIDENCE.

To the Editor of THE LANCET.

SIR,—The following may be interesting to some members of the profession:—In November last a woman called on me, and asked me if I would attend her two daughters in their confinements, her elder daughter expecting her second child and the younger being a primipara. She also informed me that as they lived at different parts of the town, she could not be with both at the same time to nurse them, and had decided to have them at her own house until they were safely delivered and ready to return home. I asked her when she expected them to be confined. She replied, "The first week in December." I said, "What, both in the same week?" Her answer was, "Yes, the same week and the same day;" and I added, "Perhaps the same hour." Her response was in the affirmative. On Dec. 3rd I was called to the house; I went upstairs and delivered the younger daughter of her first child. All being satisfactory, I descended to go home, when I was met by the elder daughter, who informed me that she felt unwell, and asked me to look at her. I reascended with her, and in the course of the following half-hour safely delivered her of her second child, and thus fulfilled their mother's expectations. Both mothers did well, and in due course returned to their respective homes.—Yours very truly,

Hillsboro', Sheffield, Jan. 13th, 1885. WILLIAM JOHN SUMNER.

A LADY OVARIOTOMIST IN CHINA.

WE take the subjoined clipping from the *North China Daily News* of Nov. 27th, 1884:—

"The formidable operation of ovariotomy was performed in Shanghai on the 25th ult., for the first time successfully in North China. The operator was Miss Elizabeth Reifsnyder, M.D., of the American Woman's Union Mission. Dr. Reifsnyder has in course of construction a hospital for native women, designed, with all the most recent improvements, by Mr. F. M. Grattan of Shanghai. For the case referred to she was obliged, as her own hospital has not yet been opened, to seek the good offices of the doctors attached to St. Luke's Hospital, Hongkew. A suitable room was specially prepared, and the result has amply rewarded the trouble taken. A tumour weighing more than a fourth part of the patient's entire weight (33 lb. out of a total weight of 114 lb.) was removed, and the woman is now ready to leave the hospital, perfectly recovered. The patient in this instance came from the interior of the An-huei province, a distance of more than 500 miles, attracted by reports of foreign surgical skill, and it is not too much to hope that this remarkable success will help to spread the renown of foreigners, and will bring within the reach of foreign aid a class of people and a class of cases which have hitherto held aloof from the hospitals in which advice and assistance can be obtained only from men."

We understand that ovariotomy has been performed some half-dozen times at mission hospitals in South China. The results have been anything but encouraging; a fact not to be wondered at when the broken-down condition in which patients with chronic diseases are always brought to foreign hospitals in China is remembered.

MEDICAL EXAMINATIONS AT OXFORD.

To the Editor of THE LANCET.

SIR,—Kindly permit me, through the medium of your columns, to draw attention to the above subject, in the interest of present and future Oxford men. As many of your readers are aware, the opportunities for entering the medical profession at Oxford are conspicuous by their absence; and the path is made as thorny as possible by the restrictions put upon us by that worthy, if somewhat privileged body, "The Board of Medical Studies." The particular grievance to which I now wish to draw attention is the length of time that is allowed to intervene between two examinations. At Cambridge the examinations are held at intervals of six months or so, so that if a man has the misfortune to be "ploughed" he can go up again at the end of that time should he feel disposed. At Oxford, on the other hand, examinations are held but once in the year, and an unsuccessful candidate thus has to wait twelve months before he is allowed again to trouble the examiners. This long delay I maintain is both unnecessary and a hardship, more especially with regard to the first examination, which mainly consists of anatomy and physiology. At the "Primary" College of Surgeons a man to be "referred to his anatomical and physiological studies" for six months is an exception, and he is rightly considered to know very little about his work; the ordinary reference is for three months only. Is it not, then, a great disadvantage to the Oxford man—who is, I fancy, as a rule, quite equal in ability to the College of Surgeons candidate—that such a long time should elapse before he can try his hand again at his 1st M.B., and especially in these days when medicine and surgery require such a great share of the time at his disposal. Trusting that this letter will attract the attention of some of the responsible authorities at Oxford,

I remain, Sir, yours truly,

Jan. 13th, 1885. B. A.

RAMSGATE CORPORATION BILL.

To the Editor of THE LANCET.

SIR,—I would not trespass upon your space had not the subjoined extract from the proposed Ramsgate Municipal, or rather Corporation, Bill afforded amongst us considerable amusement, as it may, I trust, amongst your readers.

The "Council" propose to bring forward this particular Bill before Parliament next session. I will not enter into the merits of the same, but simply quote the following extract (Part I., Section 5):—"'Infectious disease' means and includes small-pox, cholera, typhus, typhoid, scarlet, and relapsing fever, and diphtheria, and such other diseases as the Corporation, under the provisions and for the purposes of this Act, *may from time to time declare to be infectious.*"

I should fancy the medical officer of health might have something to say upon the subject. Imagine, Mr. Editor, for one instant our borough magnates sitting in solemn conclave, each with a medical encyclopædia in hand, working out the question of tweedledum and tweedledee—bacteria, bacillus, and all the germs. I think that whoever drew up the draft of the proposed Bill might, at least, have had the courtesy towards the town's most excellent medical officer, and to the profession generally, to have added, "as we are by our medical officer or officers of health advised." I suppose the Corporation (last year first incorporated) were so taken up and entirely engrossed with their own magnitude—municipal improvements, "drainage schemes"—that in drafting the Bill now quoted from they forgot that there is a certain quantum of respect due to the medical profession. In these degenerate days it is very wonderful how forgetful are these corporations, local boards, &c.

I am, Sir, yours truly,

CHARLES CHITTENDEN,

Ramsgate, Kent, Jan. 10th, 1885. Late Surgeon R.N.

COLOUR BLINDNESS IN GERMANY.

UP to April 1st, 1883, 139,452 railway *employés* were examined in Germany with reference to colour blindness. It was found that of these 998 had no idea of colour. Of 115,154 engaged in the general work of the service, it was ascertained that 46 were completely, and 273 partially, insensible to differences of colour. Among 13,616 engineers one only was completely, but 27 others partially, in the same case.

Mica.—Professor Liveing, Cambridge.

Mr. D. Jones must apply to the deans of the respective schools.

THE PHYSIOLOGY OF THE FEET.

To the Editor of THE LANCET.

SIR,—There seems to be a difference of opinion among experts as to how people walk normally—that is, with heelless shoes, or when barefooted. During a recent journey in the mountains I observed particularly scores of natives, plain-men, and hill-men of various nations. Invariably the heel first touches the ground, but there can be little or no shock on impact, and the sole of the foot is planted immediately afterwards; and as few natives step out straight-kneed, there is a more gliding motion than in Europeans. I myself often use heelless sandals; but walking straight-kneed I notice, especially at the beginning of a march, the shocks sent by each step up the spine, for which reason, when going down hill, I plant the whole foot flat, or even the toes rather first. This affords more security against slipping. Natives walking with slightly bent knees avoid these shocks, and as most of them carry loads this is important. In going down hill they also plant the foot nearly, but seldom quite, flat. I do not include in these statements those whose worn out or very loose grass shoes compel them to drag their toes along the ground. I am, Sir, yours truly,

ARTHUR NEVE, F.R.C.S.Ed., &c.

Kashmir, N. India, Nov. 20th, 1884.

MACARONI INFECTION.

To the Editor of THE LANCET.

SIR,—It is doubtful whether we ought to eat macaroni this year as usual. When I was at Naples some time ago it seemed impossible ever to touch it again; but I was assured that all sent to England was made in clean manufactories, and was not that which we saw drying by the roadside all along the way to Pompeii. Still, one feels that with cholera raging both at Naples and Genoa during the past summer everything must have been contaminated; though on inquiry at one of the principal Italian warehouses I find that no special precaution has been taken in buying their stock. A guarantee that such a useful and wholesome article of food need not be excluded from our bill of fare would be acceptable. I am, Sir, yours truly,

Bournemouth, Jan. 13th, 1885. W.

An Anxious Father should consult his medical attendant. We do not give medical advice.

Mr. E. Y. Yeates.—Not received.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Risdon Bennett, London; Sir E. Lechmere, London; Dr. Braxton Hicks, London; Mr. A. M. Roberts, Buckhurst-hill; Mr. E. A. Opie, Beckenham; Dr. F. W. Barry, London; Mr. A. E. Barker, London; Dr. W. Stokes, Dublin; Mr. Stretton, Birmingham; Messrs. W. H. Mills and Co., Port of Spain; Dr. Dobson, Windermere; Mr. Sumner, Hillsbro'; Mr. Gardner, Bournemouth; Mr. Mitchell Banks, Liverpool; Dr. Clifford Allbutt, Leeds; Dr. Kingston Fowler, London; Dr. Julius Pollock, London; Mr. Jas. Startin, London; Mr. J. W. Watson, Whitwick; Mr. McKinney, Nunhead; Dr. W. Alexander, Aldershot; Mr. Craske, London; Dr. McMunn, Oakleigh; Mr. L. Wray; Mr. Lewers, London; Brigade Surgeon MacDowall, Bombay; Dr. Butt, Watford; Messrs. Fraser and Co., London; Mr. Bowlby, London; Mr. Kesteven, London; Surgeon-Major Ince; Mr. G. Shirres, London; Dr. Radcliffe Crocker, London; Mr. C. Chittenden, Ramsgate; Dr. Lewis Evans; Mr. Clement Lucas, London; Dr. H. Sutherland, London; Mr. Rivington, London; Dr. Dingley, Wolverhampton; Dr. Leeson, Twickenham; Mr. Dolan, Halifax; Dr. Iliff, London; Mr. Vernon Chapman, Kansas; Dr. Hughlings Jackson, London; Dr. Gibbins, Dalston; Messrs. H. E. and R. Mason, Great Grimsby; Dr. O'Neill, Lincoln; Dr. Squire, London; Mr. Martindale, London; Mr. Shore; Mr. Watson, London; Mr. Leaver, Stratford-on-Avon; Mr. Dodds, Montrose; Miss Tuck, Chesterfield; Mrs. Haines, Maidstone; Dr. Richardson, London; Mr. Jago, London; Mr. Groves, Dorchester; Mr. Romney; Messrs. Boake and Co.; Mr. Mellin, Peckham; Messrs. Wright and Co., London; Messrs. Holbrook and Son, Portsmouth; Mr. Molding, Chobham; Mrs. Ogston, Newcastle-on-Tyne; Dr. Illingworth, Clayton-le-Moor; Mr. James, St. John's-wood; Mr. Flower, Melksham; Mr. Borney; Messrs. Sonnenschein and Co.; Mr. Macmillan, Blackheath; Mr. Saunders, Manchester; Mr. Pullin, Street; Mr. Buckley, Bulwell; Mr. Howard, Camden-town; Mr. Spear, Grahamstown; Mr. Juler, London; Mr. Laver, Sheffield; Dr. Dalby; Mr. Maythorn, Biggleswade; Mrs. Pratt, Cardiff; Mr. H. Ker, Halesowen; Dr. W. R. Smith, Cheltenham; Mr. P. Pope, South Ayling; Mr. Horsfall, Leeds; Dr. C. F. Murray, Ashfield; Mr. Morrant Baker, London; Dr. Douglas Powell, London; Mr. T. H. Pounds, Rochester; Mr. F. A. Southam, Manchester; Mr. W. Rose, London; Propria quæ maribus; J. C. H.; G. M., Maidstone; B.A.; H. D. F.; Medico; W.; Medicus; Nepenthe; Colee, Clapham; A. K.; A. S. L.; Observer; C. L.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. White, Hackney; Mr. Williams, Brixton; Mr. Bigg, London; Dr. Leckie, Pontypridd; Messrs. Watters and Son; Mr. Key, Pontypridd; Dr. Wallace, Glasgow; Mr. Utting, Liverpool; Dr. Standen, Mansfield; Miss Hartley, Worcester; Messrs. Roberts and Co., Southgate; Mr. Barff, Blackheath; Miss Wardell, Stanmore; Mr. Keeting, Manchester; Mr. Gardiner, London; Dr. Parry, Bridgend; Mr. Heap, Swanage; Mr. Rogers, Truro; Mrs. Lay, Northampton; Mr. Carde, Bristol; Dr. Coombes, Castle Carey; Mr. Castle, Worksop; Mr. Rutt, Turnham-green Mr. Scunthorpe; Dr. Glover, Derby; Mr. Hodge, Middleton; Dr. Shirtliff, Kingston-on-Thames; Miss Johnstone, Waterloo; Mr. Hemming, Pontypool; Dr. Sutherland, Castletown; Mr. Shaw, Manchester; Dr. Duffus, Macclesfield; Mr. Gordon, Liverpool; Dr. Lattey, Southam; Mrs. Portman; Mr. Grigg, London; Dr. Home, Sandwich; Dr. Armstrong, South Shields; Mr. England, Winchester; Mr. Maclaren, Stieney; Messrs. Burgoyne and Co., London; Mr. Speck, Morristown, U.S.A.; Mr. Evans, Bodrinog; Mr. Kinder, Leicester; Mr. Gould, Tenbury; Miss Beacheroft, Bedford; Mr. Boyveau, Paris; Mr. Clark, Southampton; Dr. Manche Malta; Mr. Mann, Bradford; Mr. Berry, Loughborough; Mr. C. P. White; Mrs. Hartley, Worcester; Mr. Sprake, Brighton; Mrs. Pratt, Halesowen; Mrs. Maynard, Hastings; Mr. Baker, Hereford; Mr. Jesse, Henbury; Mrs. Rawlins, Westgate-on-Sea; Mr. Grime, Blackburn; Dr. Caldwell, Shotts; Dr. Adye, Bradford-on-Avon; Mr. Solom, Durham; C. H. R., Canterbury; L.R.C.P., Manchester; Medicus, Liverpool; F. S., Exeter; Medicus, Regent's-park; M.B., Southsea; Max; Secretary, Bootle; M.D., Chester; Medicus, Dorchester; R.; H. J., Holloway; Forceps, Derby; Medicus; Samoa; Pathologist; F.S.A., Wye; M.D.; Alpha, Notting-hill; Verus; B.; S. C., Duncanfield; E. F., Clifton; Rus; Medicus, Southport; Q. Q. Practitioner, Sudbury.

Essex County Chronicle, Temperance Chronicle, Manchester Examiner Leigh Chronicle, Debater, Chicago Daily News, Liverpool Courier, Social Salvation, &c., have been received.

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Clinical Lectures
ON
CASES ILLUSTRATING RENAL SURGERY.

Delivered at University College Hospital,

BY ARTHUR E. BARKER, F.R.C.S.,
ASSISTANT PROFESSOR OF CLINICAL SURGERY AT UNIVERSITY COLLEGE, AND ASSISTANT SURGEON TO UNIVERSITY COLLEGE HOSPITAL.

LECTURE II.

GENTLEMEN,—The next case is also that of a child, and illustrates in the first place the difficulty of diagnosis of certain renal affections, and in the next the freedom with which the kidney may be dealt with in exploratory operations without risk to the patient. I may remark here that this point was far less known when this case was operated upon, nearly three years ago, than it is now, for since then many similar exploratory operations have been performed and data have accumulated.

The points I wish particularly to emphasise may be summarised in the title which follows:—

CASE 2. *Complete History of Renal Calculus; Exploratory Lumbar Incision, with Palpation and Multiple Acupuncture of the Kidney; no Stone detected; Operation Wound healed in a few days, with no ill effects.*—A. G——, aged nine years, was admitted into University College Hospital, under my care, on Jan. 23rd, 1882. Previous to this he had been treated for renal calculus both at Ormond-street and at St. Peter's Hospitals. His illness appears to have dated back three years, when his parents first noticed that he had pain and difficulty in micturition. He was then circumcised at the Children's Hospital; but a little later the additional symptoms of pain in the right side and hæmaturia were noticed. He was then taken to St. Peter's Hospital for Stone, where he remained for about a month, during which period he was several times sounded for calculus in the bladder, with a negative result. The rest in bed, however, seemed to check the bleeding, but the pain in the loin was as bad as ever. After this I admitted him into hospital to observe his case, and here again the rest seemed to relieve him almost completely, and he left the hospital accordingly soon after. Again, however, he was readmitted on Jan. 23rd, 1882, all the symptoms having returned. They are noted as follows in the hospital register:—"Paroxysms of pain gradually increasing in intensity, and felt in the loin and tip of the penis. During the pain there is severe retching, but no actual vomiting. The urine is not always bloody after the attacks of pain, but is usually lighter at first, and then becomes darker and darker and thicker, resembling pure blood at times; micturition five to six times daily; no history of increased frequency at any time. The bowels are stated to be much relaxed after taking hot food. The boy has always been delicate, and suffered much from bronchitis as an infant; his father is also asthmatic and catarrhal, as are the other children of the family, but the mother is healthy."

On Jan. 31st I examined the flank with the hand carefully, as also the bladder and ureter through the rectum, the boy being under the influence of chloroform, but could find nothing abnormal anywhere. The urine passed immediately after this was very clear, but that voided the night succeeding was dark reddish-brown, containing blood and white corpuscles and oxalate of lime crystals. The next day the boy seemed very well. On Feb. 3rd, it is noted that the urine just passed was more bloody than any seen yet. It was acid, of a specific gravity of 1025, and contained crystals as before. In other respects the general health was good, and there were none of the paroxysms of renal colic formerly complained of. Here, then, there appeared to be the completest evidence of renal calculus, hardly a symptom, as usually described, being absent. In the first place, there was pain in the right renal region of a very severe character, paroxysmal and running down to the tip of the penis, and followed by severe hæmaturia. The urine at the same time was acid, and contained crystals of oxalate of lime and red and white corpuscles. The fact of the kidney not being enlarged excluded new growth, as the symptoms dated back three years, and appeared to negative tubercular disease of the same standing. Either of these diseases existing for three years would almost certainly have been accompanied by enlargement of the kidney. Then, after manual examination of the loin, there was an increase of hæmaturia the next day. There was not, however, any increased frequency of micturition at any time, so far as we could make out, and this was the only symptom of calculus absent.

It appeared therefore that, everything having been done by ourselves and at two other hospitals to mitigate the sufferings of the child without avail, the proper course to pursue was to cut down upon the kidney, explore it carefully, and if possible, remove the stone, if present, from it. With this object in view, I cut down upon the kidney on February 8th by an oblique incision running from above and behind the tip of the twelfth rib downwards and forwards. To gain room the tip of this rib was removed with bone forceps. I now passed my finger over both surfaces of the kidney, but found nothing abnormal. I then punctured the organ in all directions about twenty times with a long needle passed deeply, but with a like negative result. As I could not decide to remove a kidney in which nothing was to be discovered abnormal, I closed the wound. This was one of the first cases in which this mode of exploration was adopted in this hospital, and the effect of it was watched with much interest. There was very little difficulty in it. Only one muscular vessel required ligature and the punctures of the kidney hardly produced any bleeding. The palpation of the organ, which was small and highly placed behind the ribs, was the only matter of any trouble. In the exploration I used every antiseptic precaution except the spray, and after suturing the wound covered it with lint and carbolic oil and a pad of dry salicylic wool, a small drain-tube having been inserted in the lower angle.

The next day there was little to note except slight tenderness in the side and uneasiness. Temperature 99·8°; pulse 144 to 155. The following night the patient slept better, and was brighter the succeeding morning. Temperature 100·6°; later 101·3°; and at 6 P.M. 99·6°. He had passed sixteen ounces of urine in twenty-hour hours, with some pain at the tip of the penis, but far less than before. The urine passed at 6.30 last evening was light-coffee coloured, with thin ropy deposit and very acid; sp. gr. 1032. That passed at 1.30 A.M. was lighter still, and strongly acid; and that voided at 8 A.M. was still lighter, and had only a slight tinge of blood; sp. gr. 1034.

The wound was dressed for the first time on Feb. 10th, and was found quiet, with only a trace of odourless serum around the tube, which was removed; it was dressed as before. On the 13th there was a slight pain in the flank after a meal consisting of mutton chop and bread. At 2 P.M. he passed some very thick alkaline urine of deep reddish-brown colour, with deposit; sp. gr. 1032. By the 14th he had got over all the effects of the operation, and had been sitting up in bed for some days. There was very little pain in the side, but some after micturition. The urine about this time was only a little smoky, with red and white corpuscles in fair amount and oxalate of lime crystals. On the 17th he seemed quite well, but the urine remained as before, and there was still pain in the side. On the 21st I removed the wire sutures, as the wound had healed by first intention. On and after the 27th he was out of bed and running about, all pain, both in the side and penis, having disappeared, and except for paleness he looked very well. He went to Eastbourne on March 1st, having no pain anywhere. The urine at this time was 1025 and acid, with a slight trace of albumen, due no doubt to the presence of blood.

It is worthy of remark that from this time onward for a considerable period the patient was free from all lumbar or other pain, and only noticed a little blood in the urine. This has been noticed since in other cases. When he returned from the seaside he looked well and hearty, and remained so for some time. A few months later, however, he seemed to fall off in health, and with this there was a return of the old symptoms. He was then readmitted into the medical wards for observation, but nothing new was discovered. Rest, good diet, and tonics appeared, however, to benefit him, and the symptoms became less severe. Since his discharge I have not seen him.

In considering this case in the light of further experience I am inclined to think it possible that, although the symptoms appeared so typical, we may have had to deal here, not with a renal calculus, but with a small tubercular deposit, or ulcer, in the pelvis or ureter. I cannot help

thinking that the two conditions in their early stages may give rise to identical symptoms. In a later stage we know that they closely resemble each other in their manifestations. Of this I have had an excellent illustration quite recently in a case admitted into hospital in an almost dying state. The symptoms might either have been held to indicate renal calculus or tubercular pyelitis. On the death of the patient (a man aged about fifty), soon after I found well-marked tubercular disease of the right kidney, right ureter, right vesicula seminalis, and of the epididymis of both sides. The deposits were caseating, but not very much broken down. The left kidney was sound. Be this as it may, we learn from the foregoing history that even with the most complete history of renal calculus, and with all the assistance of our recently devised lumbar incisions and explorations, we may yet be baffled in detecting a stone in the kidney when we actually have the organ between our fingers. Either this, or there is some other condition beside the presence of a stone which can give rise to identical symptoms. On the other hand, a sufficient number of cases are now on record, where with such a history and exploration a stone has been found and removed, to justify a resort to such a proceeding even in doubtful cases. And this appears distinctly to be our duty when we consider how devoid of risk the measure is when employed with care and all antiseptic precautions. You will observe that this little boy, far from being in any way injured by the exploratory operation, was actually known to have been relieved of some of his most distressing symptoms for some months afterwards; and though we cannot definitely put this down to the credit of the operation, it is, at all events, satisfactory to observe the fact, especially as it has been noticed in several cases of the same exploration since undertaken.

CASE 3. *Pyonephrosis; Aspiration of thirty-six ounces of Pus; Relief; subsequent Re-accumulation, then Rupture of the Collection into the Sheath of the Psoas Muscle, with pointing in Scarpa's Triangle; Nephrotomy; Drainage of large quantity of Pus from the Kidney; Relief.* — This case is of a somewhat different kind, and illustrates points which are sufficiently indicated in the title affixed to it, to which I invite your attention. It is chiefly remarkable for the fact that a large pyonephrosis eventually made its way along the sheath of the psoas muscle, and so into Scarpa's triangle, taking, in fact, the same direction precisely as an ordinary psoas abscess from spine disease, a most unusual course for a renal abscess, which usually forms in the loin and points somewhere above the crest of the ilium. It is also noteworthy that whereas before the incision was made into the kidney only a slight trace of pus was found in the urine, some time after the operation the ureter became more pervious, and pus was passed freely by the urethra. During July, 1884, it escaped from the lumbar sinus and bladder alternately about every other day, ceasing almost completely to come one way when abundant the other. Another point is perhaps suggested here—namely, whether it is an advantage to the patient that the perviousness of the ureter should be re-established where there is a suppurating kidney. In this case the appearance of pus in the bladder in considerable amount some months after the nephrotomy, during which the patient's health was materially improved, was soon followed by the occurrence of pain in the kidney opposite to that first affected. This pain seemed for a time troublesome, and was accompanied by tenderness on palpation and other symptoms mentioned below, the patient's health at the same time appearing to fall off. All this suggested to me the possibility of the other kidney becoming secondarily affected from irritation in the bladder due to the pus passing that way, it being impossible to keep this pus perfectly sweet for months with an open sinus in the loin in a patient up and going about out of doors. The case also suggests a limit of operative interference for pyonephrosis, based upon evidence pointing, it is believed, to unsoundness of the opposite kidney, or, at all events, arousing grave suspicion as to its healthiness. The case is briefly as follows:—

A. F——, aged forty-eight, originally a shoemaker, now a porter, was admitted into University College Hospital, under the care of Dr. Roberts, on Jan. 21st, 1884. At this time he had a large lumbar swelling, with all the characteristics of an accumulation of fluid in the kidney, and which was diagnosed to be renal, on the same grounds generally as those given in Case 1. There was a history of an attack of inflammation of the kidneys two years before, which compelled the patient to keep his bed for eight weeks, during which time the urine was very thick; otherwise his general health, past and present, was noted as good. His viscera and all secretions except the urine were normal, the latter containing a slight cloud, which showed corpuscles, but only a trace of albumen and no sugar; its specific gravity was 1014, and the average percentage of urea for ten days only 1·6; the temperature was 99·4°. Soon after his admission Dr. Roberts kindly asked me to see the patient, and I had only to endorse the view that this was a renal swelling, and to suggest that it was a pyonephrosis; I therefore aspirated the collection from behind at the point mentioned in Case 1, and drew off thirty-six ounces of laudable inodorous pus on Feb. 6th. No calculus was felt by the needle. After this the man lay in bed for seventeen days, and during this time the sac did not refill. He seemed so much better that on Feb. 23rd he was allowed to go home, with directions to return from time to time for observation. A few weeks later it was clear that the sac was filling again, as was expected. By the middle of March I was surprised, however, to find that not only had the pyonephrosis returned, but that it had given way, and now stretched from the flank to Scarpa's triangle under Poupart's ligament, fluctuating the whole way. This offered a remarkable contrast to the previous condition, where the sac was sharply defined below, and indicated that the collection had most probably burst into the sheath of the psoas muscle.

As the patient was now beginning to suffer again I readmitted him on March 31st with the object of drawing off the pus by incision in the loin. Accordingly, the patient being under the influence of ether, on April 2nd I made an oblique incision three inches long midway between the last rib and the iliac crest downwards and forwards, through skin, muscles, and fascia. Reaching the sac I opened it with a firm thrust of my finger nail, and gave exit to twenty ounces of pus. This opening led directly into the pelvis of the kidney, and with the finger I and my colleague, Mr. Godlee, could feel the calyces of the organ. A probe passed inwards and downwards reached nearly to the groin, but nowhere was a stone to be found. As the drainage from the loin seemed sufficient, I did not think it necessary to make a counter-opening in Scarpa's triangle, but placed a large tube in the lumbar opening before partially stitching it together. Very little blood was lost during the operation, which was conducted under strict Listerian precautions. There was a moderate amount of shock on the same evening, the temperature falling to 96°, but on the following morning the patient is noted as being very comfortable. Pulse 80; temperature 99·6°. The wound was dressed on the 4th and looked well, the general condition being also good. On the 5th the patient was sick several times, complained of pain in the hypogastrium and around the umbilicus and did not look at all well, the temperature being 101°; his urine was almost black from carbolic acid and contained a little above the normal percentage of urea—namely, 2·8 on the whole amount. This, however, only equalled twenty-three ounces in twenty-four hours, making only about 310 grains of urea excreted in the same time. The patient, however, was below the average weight and size and, it must be remembered, was in bed on restricted diet. (His weight was 120 lb., and he ought to have been eliminating about 400 grains of urea.)

On the 7th all the above symptoms had disappeared, and the patient looked very well. The dressing was changed under the spray. On the 8th there was again carboluria, with a slight rise of temperature, but the other symptoms of carbolic intoxication were absent, and he passed forty-seven ounces of urine, with a specific gravity of 1020, and a percentage of 1·85 of urea, or about 407 grains in twenty-four hours. The condition of the wound from this date on requires no comment. It healed up to the drainage opening quickly, and the patient was soon able to get up and go about, wearing a Listerian dressing of gauze, &c. At the beginning of May he was sent to the convalescent home, still wearing an antiseptic dressing as before. After the operation the temperature was satisfactory throughout, except on April 4th and 5th, during the period of carbolic intoxication, when it rose to 101°, falling again with the disappearance of the symptoms. Again, on the 7th, after the second dressing, it rose to 100°, corresponding to the reappearance of the carboluria; after this it was only 99·4° once, but usually normal, until he left the hospital.

When the patient returned from Eastbourne a month later, at the beginning of July, he looked very well indeed, and continued so for a time, the fistula in the loin being still

open. Then, being out of work and not having an abundant diet, he seemed to lose strength again. At the beginning of August I readmitted him for observation and to see whether anything could be done to get rid of the sinus in the loin. I found, however, that there were but two courses open to us, only one of which could be regarded with favour—viz., either to encourage closure by rest and the free drainage of the part or to remove the kidney. The latter idea I abandoned at once, for the following reasons:—First, the patient seemed to have lost strength lately; again, his temperature had, after August 4th, regularly risen each evening two, or even three, degrees, to fall again, though not quite to normal, in the morning; there was nothing about the wound or abscess to account for this. He now also began to complain of a good deal of pain in the left flank, with some tenderness on palpation in the left renal region. This pain radiated down the left thigh and testicle, and was at times described as severe. There was now no pain or tenderness on the side operated on. At this time, too, he began to complain of scalding on micturition and to pass more pus than before, with acid urine, which contained besides a good deal of phosphates. The pus when coming from the sinus was diminished in the urine, and *vice versâ*. All this—together with the fact that the percentage of urea had originally been below normal before the operation, and was now, after all immediate effects of the latter had passed off, still below, being only 1·3 on an average of ten days—led me to suspect that the opposite kidney was also not sound. This surmise, of course, if accurate, contra-indicated nephrectomy. The patient left the hospital on Saturday, September 27th, and with none of the symptoms mentioned above very prominent; but for the weakness due to confinement to bed there would have been no reason for his not following his calling. For the last ten days of his stay in the hospital (September 14th to 24th) the amount of urine passed in twenty-four hours was very constant, the average being only 32·2 ounces; the specific gravity was steady each day at 1025; the percentage of urea was also perfectly constant, at 1·9 for every twenty-four hours—this gives an average of only 293·6 grains of urea for each of the ten days. The temperature was above normal, showing usually a slight rise each night. The morning average was 100·3°, the evening 100·4°, for the last ten days; but the difference between morning and evening was usually more than this average showed. (This diminished elimination of urea in spite of the presence of pyrexia is worth noting as part of the evidence, in all probability, of derangement of the excretory power of the left kidney.) The urine was still slightly turbid from the presence of pus, but when this subsided it showed no evidence of the presence of albumen. It was *still* foul to some extent, though acid again, having been until lately either neutral or alkaline. The fact that the patient suffered considerably from carbolic intoxication on very slight provocation is also worth noting, and, taken with other facts, lends support to the view that the left kidney was probably inadequate to any great extra strain thrown upon its eliminatory functions.[1]

We now turn to another case offering a different class of phenomena for consideration.

CASE 4. *Tubercular Kidney; Extreme Prostration; Exploratory Nephrotomy; Drainage; Considerable Improvement for some months; subsequently Amyloid Disease of Opposite Kidney and other Internal Organs, and Death from Asthenia five months later.*—Regarding the following case the conclusion is, I think, justified that the limit of operative interference was reached in dealing with it. To have gone further at the time the patient first came under surgical treatment would almost certainly have led to a fatal termination, whereas what was done may fairly be held to have improved the health, relieved suffering, and prolonged life.

The patient, A. P——, aged twenty-seven, was admitted into University College Hospital on May 12th, 1880, under the care of Dr. Bastian. Her history was that she had begun to lose health about six months before (Sept. 1879). She suffered then from weakness, great headache, occasional shivering, anorexia and diarrhœa, to such an extent as to be obliged to give up her employment as governess; she had been losing ground ever since. She described symptoms, noticed at the age of seventeen, extremely like those due to the passage of a renal calculus, and since then there has been frequently a "brick-red" sediment in the urine. The same symptoms were noticed last August, and at that time there had also been pain in the loins from the last rib to the nates, with thirst, diminished flow of urine, and abundance of "brick-red" sediment. Then at the end of September she noticed a lump in the right side of the abdomen rather larger than an egg, slightly tender on pressure. This remained about eight weeks, and then gradually went away. During its presence she had occasional sickness, increased frequency of micturition, with pyuria, and also diarrhœa. Since January no pus had been seen in the urine, and the tumour had quite disappeared. But in February her left thigh and leg became very much swollen, tender, and itching, and shortly after the right limb became similarly affected, with much loss of power besides. She was admitted into hospital on March 12th, 1880.

At this time she was very emaciated and anæmic, and her lower limbs were as described, the veins being marked out and hard besides. The nervous and respiratory systems showed nothing abnormal. The pulse was 128, regular in force and rhythm, and compressible. The abdominal organs appeared normal to palpation, except for a fulness in the right flank extending to the iliac fossa, where its margin was distinct. This tumour was not painful on pressure, and there was resonance over it in front. The urine was 1020, slightly alkaline at first, but acid later. It contained no albumen or sugar, but deposited a little mucus. There was still much headache. Her family history was good.

With rest in bed, care in diet, and other general treatment, some improvement took place in the patient's condition; at first she became less anæmic, the swelling in the legs became much better, and she felt stronger, the headache, however, being still distressing at times. The temperature rose nightly, often to between 103° and 104° with striking regularity, and was normal in the morning. On April 6th the patient had a rigor. On April 21st I was kindly asked to see her, and endorsed the view that the tumour in the right flank was renal, and probably contained pus and a stone. I therefore explored it with an aspiration needle through the loin in the usual way, and at a moderate depth struck a collection of the most fetid pus, of which I drew off an ounce and a half. On thrusting the needle a little deeper, nothing but pure blood came away, and no calculus was felt. No ill effects followed this exploration, and no pus or blood was seen in the urine. The condition remaining as before, I cut down upon the kidney from the loin a week later, on April 27th. On reaching it, an aspiration needle was thrust into the organ, and some pus again evacuated. Along this needle I passed a knife, and through the opening thus made my finger, which I thrust into the pelvis of the organ. Pretty free bleeding resulted for a few moments, but then ceased. No calculus was felt, and the pelvis of the kidney was found to be smooth wherever it was reached. The strictest Listerian precautions were observed. This operation produced considerable shock in the weak condition of the patient, from which, however, she recovered fairly rapidly. On the same evening the temperature rose as usual, and reached 103°. The next morning it had fallen to 95·2°, and only rose to 97·2° at 10 A.M.; from this on for twenty-four hours the average taken in the axilla and rectum every two to three hours was 95·5°, and it then only very slowly rose until in twenty-four hours more it had touched the normal again. After this it remained nearly normal for five days, and then rose as before in the evening, but not within two degrees of the usual evening temperature before the nephrotomy. Indeed, to the termination of the case the temperature was shown to be permanently modified for the better by the drainage of the suppurating kidney. All the subnormal temperatures were verified by repeated observations with different thermometers. The patient's general condition during the period of very low temperature seemed but little affected, but a few days later it appeared much improved. She was brighter and ate and drank with more relish and was soon able to sit up a little. On the whole the nephrotomy may be said to have produced marked benefit for a time. The urine throughout remained almost normal, only showing a trace of albumen; the legs became less œdematous and gained strength, and the patient could soon sit up. All this time the wound drained well but showed no tendency to close

[1] NOTE, Jan. 20th, 1885.—I saw this patient last week, and examined him. He says he is better, and feels no pain in either flank. The urine looks normal, and has been so for some time; it has no deposit. There is no tenderness in the renal region on either side on manipulation. There is still a very small sinus in the right loin, which secretes a drachm or two of pus in the day. The patient is thinner than when last seen, but this may be accounted for, perhaps, by his diet.

from below, and a probe still could be passed downwards and inwards towards the ureter for a distance of eight inches. On passing my finger into the wound its whole length nothing in the shape of a deposit or stone could be felt on any occasion.

In this case the question was several times debated whether the kidney ought to be removed; but to this measure I was strongly opposed on account of the weakness of the patient and the fact that the swelling in the lower limbs probably indicated some thrombosis of the larger systemic veins, due to causes not yet discovered, but still undoubtedly grave; besides this, there was slight albuminuria; and I am confident now that attempt to remove the kidney would have had a fatal result. The subsequent history of the case may be briefly summed up. In the early part of June the patient became listless and dull, taking but little interest in things around her and giving up reading; she also became irritable and careless about passing motions and urine in the bed; diarrhœa also became a prominent symptom. The superficial veins on the right side of the abdomen and groin became much dilated, those of the left slightly so. From June 30th albumen was found in the urine in steadily increasing quantity, only a trace having been present before. Later on (July 20th) casts, hyaline, granular, and epithelial, were found. On July 26th there was an attack of convulsions, ending in stupor. Two days later another fit, with increased stupor and weakness, was noticed, and again on the 29th. On the 30th there was some sharp bleeding from the sinus, and she died at 3 A.M.

The autopsy, made by Dr. Barlow during my absence from town, shows how well justified was the conclusion that removal of the kidney would have been an improper operation in this case as it presented itself to us. The brain was generally healthy, though the sulci were abnormally wide and the convolutions somewhat wasted. The heart showed small vegetations on the aortic, and some larger ones on the mitral, valves, otherwise nothing abnormal. The lungs and pleuræ were fairly healthy, showing no tubercles. The liver was healthy. The spleen was enlarged and markedly amyloid. The left kidney was much enlarged and notably amyloid, the cortex being fatty and increased in depth. The right kidney, which had been operated on, was firmly adherent to its surroundings, including the cæcum and ascending colon. It was hollowed out into several rough tuberculated spaces, into one of which the lumbar wound entered, and all its secreting substance seemed destroyed. The ureter was also rough and lumpy. This kidney contained some greenish pus, but no calculus. The renal vein was filled with a soft cheesy thrombus, which extended into the vena cava upwards nearly to the heart, and downwards for about three inches.

A sufficient explanation of the gravity of this case from the first is furnished by these notes without further comment.

ABSTRACT OF

Lettsomian Lectures

ON

DISORDERS OF DIGESTION,

THEIR CONSEQUENCES AND TREATMENT.

Delivered at the Medical Society of London on Monday, January 19th, 1885,

BY T. LAUDER BRUNTON, M.D., F.R.C.P.,
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LECTURE II.

BILIOUSNESS and indigestion are terms used so frequently together that we do not always sufficiently distinguish between them. Biliousness is, in all probability, of complex origin. The difficulty we have in ascertaining the exact causation of biliousness is no doubt largely due to the fact that disturbance of the liver affects the stomach and intestines, and *vice versâ*. The arrangement of the bloodvessels in the liver and alimentary canal accounts for the close connexion of these structures. Dr. Brunton has found, by a number of experiments on the artificial circulation of blood through the livers of rabbits, that the liver is highly elastic. When the bottle containing the blood was raised two or three feet above the liver, so as to increase the pressure under which the blood flowed through it, the organ expanded almost like a sponge, and again contracted when the pressure was diminished. In the experiments the rate of flow from the hepatic veins was very variable; the rate appeared to depend upon the quality of the blood. A vicious circle may be readily formed by the production of venous engorgement of the liver from the absorption of the products of imperfect digestion. Fasting and the use of medicines may break this vicious circle. Dr. Beaumont's observations on Alexis St. Martin proved the close connexion between the tongue and stomach. Stimulation of the gastric mucous membrane by gentle rubbing with a glass rod or feather may cause the same changes in the stomach as the ingestion of food. Pallor and secretion of mucus are caused by strong irritation, and stronger irritation still causes nausea and vomiting. These experiments throw light on the condition known as biliousness. The varying states of the appetite may be explained. Dr. Beaumont observed once in Alexis St. Martin that the tongue had a thin whitish fur when the appetite was craving, the stomach showed several red spots and patches abraded of the mucous coat, tender and irritable; the gastric digestion was prolonged to seven hours. Here there was indigestion. Two days later the usual appetite was gone, the tongue was thinly coated of a yellowish tint, the face was sallow, and the stomach showed several deep-red patches. Mucus and bile were present in the stomach, and coated a muslin bag. The sallowness showed that the condition was one of biliousness, and that the liver was involved. On the succeeding days the venous congestion of the stomach was increased. Persons who suffer from malaria may suffer from disturbance first in the liver and next in the stomach, the opposite to that just described. Malarial poison, whether it be a bacillus or not, appears to have a particular power to affect the liver, spleen, and vaso-motor centres. The usual symptoms of indigestion are flatulence, weight in the epigastrium, acidity, and pain; and it may be worth while to try to ascertain the conditions to which each of these symptoms is due. Analysis of gastric gas shows that it chiefly consists of the gases of the atmosphere from which the oxygen has been absorbed. The gastro-intestinal mucous membrane may secrete gas in large quantities. Malarial patients may suffer from a tendency to flatulence without any other symptom; this being probably due to obstruction of the portal circulation of the liver. Flatulence may be associated with cardiac distress, as in running to catch a train, and as occurs in patients with cardiac disease, as the term "heart-wind" of Dr. Mitchell Bruce indicates. Decomposition of food may give rise to the formation of gas. Gas may pass from the intestines into the stomach. Excessive swallowing of air is regarded by Dr. Brunton as the most frequent cause of gastric flatulence. Tenacious fluids like pea soup carry down a good deal of air. The conditions which give rise to frequent swallowing of air are: (1) Continued salivation; (2) a sense of irritation at the back of the throat; (3) a feeling of acidity in the stomach; and (4) a feeling of oppression about the epigastrium. Irritation of the vagus, as Czermak showed, is the cause of the feeling of constriction across the chest like a huge iron band clutching it, known to the Germans as "beklemmung." Depressing emotions probably act on the vagus nerve centre. Frequent swallowing may overcome the feeling of constriction, since Kronecker showed that swallowing does away with the vagus cardiac inhibition; the popular phrase "swallowed his grief" is related to this. The observations of Ebstein and Zeckendorf[1] seem to show that hysterical distension of the intestines is due to paralysis of the pylorus. An analysis by Kolbe and Ruge of the gases passed per anum by a man after different kinds of food appears to show that it is the production of marsh gas, which chiefly gives rise to the flatulence of the intestines. Marsh gas may be passed in eructations. Ewald[2] had a curious case under his care, in which the patient was astounded to find, on trying to light a cigar, that inflammable gas was issuing from the mouth. Persistent eructations of sulphuretted hydrogen point to serious organic disease.

Acidity and flatulence may alternate in the same individual. The feeling of acidity is not always due to the acid, but

[1] Pathogenese der Bauchtympanie Inaug. Diss. Göttingen, 1883.
[2] C. Anton Ewald, Reichert, Du Bois-Reymond's Archiv, 1874, p. 217.

to an increased sensitiveness of the stomach or œsophagus, or to some abnormal condition of the cardiac orifice. Swallowing a piece of hot potato proves that the œsophagus is more sensitive than the stomach.

Dr. McNaught has shown[3] that in irritative dyspepsia the acidity was not above the normal, and Professor Talma[4] of Utrecht has proved the same thing by giving to patients who suffer from acidity an artificial gastric juice containing only the normal proportion of hydrochloric acid, and yet they suffered from the feeling of acidity. Increased formation of acid by the decomposition of food may cause the feeling of acidity.

The pain of heartburn seems to be due to irritation of the cardia and of the œsophagus, seeing that the pain of the stomach is rather a feeling of weight than of pain. An escape of wind may give relief. It may be that the wind stretches the cardia and so allows the acid contents to come in contact with that structure. Colic may rarely be due to violent spasm of the stomach. Alkaloids absorbed from the rectum into the general circulation produce greater effects, as Mr. Savory showed for strychnia, than when absorbed higher up, probably because the liver has the power of excreting these bodies.

Retarded hepatic circulation, by preventing the too rapid absorption of the peptones, may prove of service to the organism. In his article on diabetes in Reynolds's System of Medicine, Dr. Brunton has insisted on the difference between glycosuria and true diabetes. Lehmann[5] found that sugar injected into the mesenteric veins of a rabbit during digestion does not appear in the urine, although the same quantity injected in the same way in a fasting animal would produce glycosuria.

In some statistics of life insurance drawn up in New York[6] one out of every eleven healthy persons was found to present traces of albumen in the urine. Some experiments by Leube[7] on 119 soldiers showed that in 4 per cent. the morning urine contained albumen, and albuminuria occurred in no less than 16 per cent. after a severe march. Parkes[8] found about 10 per cent. of temporary albuminuria in hospital patients. Dr. Warburton Begbie writes: "It is surely a satisfactory consideration that a condition of excessive albuminuria—the urine becoming nearly solid by heat and nitric acid—may, after all, not indicate the coexistence of any structural change in the kidney."[9] The albuminous substances in the blood appear to consist of such large molecules that they will not diffuse through the healthy glomeruli, but the products of digestion, peptones, and hemi-albumose will diffuse through the glomeruli. The white of egg appears to have a smaller molecule than serum albumen. Dr. Brunton swallowed six eggs in rapid succession, with the result that no albuminuria followed, though a violent headache, with sickness, were produced. Dr. D'Arcy Power, however, succeeded in taking a sufficient number of eggs to cause albuminuria. In this case the digestion was unable to deal with all the egg albumen ingested. The different kinds of albumen may be distinguished by noting the temperature required to cause coagulation. Stokvis proved that hemi-albumose injected under the skin may pass out of the kidneys without producing any injury to these organs, but if the injections be frequently repeated organic disease may be set up. Oxaluria, like albuminuria, may be transient.

According to Esbach, cabbage is singularly free from oxalate of lime, and oxaluria, caused by its ingestion, must be due to some other cause than simple excretion. Esbach[10] points out that if a reducing agent, like sulphuretted hydrogen, be added to a strong solution of urates, crystals of oxalate of lime are at once produced.

Shortness of breath may be due to dyspepsia; this may be mechanical from distension, or it may be due to disturbance of the circulation. Actual asthmatic attacks may occur in relation with disturbed digestion.

The "stomach cough" was next considered. Stomach irritation may supplement irritation of the pharynx, and the combined irritation be sufficient to excite reflex coughing. The pharynx is the place where the respiratory and digestive tracts cross one another, and irritation here may excite coughing and vomiting; this site, too, is readily affected by digestive disorders. Faintness, shortness of breath, and intermittent pulse are signs due to disturbance of the heart from indigestion, produced either mechanically or through the nervous system. Alkaloids may be formed in the intestine and absorbed there, acting like digitalis on the heart. Alkaloids, acting like muscarine, are formed from the decomposition of albuminis outside the body. The microbe of cholera may act by producing alkaloids.[11] What is the cause of sudden death in some gouty patients? It is possible that the contracted kidneys may be unable to excrete a cardiac poison assumed to be formed by disordered digestion in such cases. Some symptoms of indigestion—languor and disability to move—resemble poisoning by curare, and these symptoms may be due to the production of an alkaloid in the intestines.[12] The researches of Ludwig and Schmidt-Mulheim render it probable that peptones are the poisonous agents in such cases. Bocci[13] has found that, from human urine, an alkaloid can be extracted which has exactly the same action as curare. This alkaloid has not been shown to be the same as that obtained by Brieger[14] from the peptones formed by the digestion of fibrin with gastric juice, to which he has given the name of peptotoxin. Bile is not always bitter, though organic alkaloids may be. The absence of bitterness from freshly secreted bile has been observed by Dr. Brunton and Mr. W. E. Green of Sandown; by the latter in a case of biliary fistula. It is conjectured that the bitterness of gall is dependent on admixture with alkaloids. Bence Jones and Dupré have shown that the liver and some other animal organs yield an alkaloid resembling quinine in many of its actions.

The Greeks showed their wisdom by locating hypochondriasis under the ribs and when they made use of the term melancholia. In the "Histoire de ma Vie," George Sand says, "Whether it is the bile which has made me melancholy or the melancholy which has made me bilious—this would resolve a great metaphysical and physiological problem which I will not take up—it is certain that sharp pains in the liver produce symptoms in all those who are subject to them of profound sadness and a wish to die. Since my disease first appeared I have had happy years, and when it seized me again, although I was in the condition most favourable to love of life, I felt myself suddenly seized by a desire for eternal repose." Sydney Smith describes in a very humorous way the connexion between low spirits and dyspepsia.[15] People are fully alive to the liability of poisoning from sewer gas, but they do not perhaps sufficiently bear in mind the danger they are in from the putrefactive products formed in the inside of the body. Senator[16] described a most instructive case in which the patient became collapsed and nearly died with all the symptoms of poisoning by sulphuretted hydrogen generated in his own intestines. Dr. Golding Bird[17] has described a particular class of nervous symptoms in which hypochondriasis and depression of spirits are accompanied by a deposit of oxalate of lime in the urine. Dr. Roberts[18] says, "these symptoms may be present in typical completeness without oxaluria, and conversely, oxaluria may exist in the highest intensity, and even go on to the formation of a mulberry calculus, without causing any of the above-mentioned symptoms." Murchison and Garrod have treated of the irritability due to poisonous substances in the blood.

Headaches are usually due to decayed teeth or irregularity in the eyes; when from the latter the pain is usually occipital or frontal, but it may be temporal. In headache from indigestion the upper surface of the eyeball will be found excessively tender, and the tension in the globe appears to be increased. As the subjects of such headaches grow older the headaches tend to be replaced by giddiness, and this change occurs about the period when the eyes are becoming hypermetropic.

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[3] Medical Chronicle, Jan., 1885.
[4] Zeitsch. für Klin. Med., Bd. viii., p. 414.
[5] Akadem. Praefschr., Amsterdam, 1873.
[6] Medical Investigations, United States Life Assurance Company, 261, Broadway, New York.
[7] Gaskoaskiel, Leube, Lehre vom Harn, p. 369.
[8] On Urine, p. 178.
[9] Albuminuria in cases of Bronchocele and Exophthalmos, Edin. Med. Journal, April, 1874, and Works, Syd. Soc. Ed., p. 355.
[10] Journal des Connaissances Méd., 1883, p. 155.
[11] Vide Researches relating to the Pathology and Treatment of Cholera by Lauder Brunton and Pye-Smith, Practitioner, Nov. 1884, *et seq.*
[12] Lauder Brunton on Indigestion as a Cause of Nervous Depression, Practitioner, Oct. and Nov., 1880.
[13] Archives des Sciences Médicales, vol. vi., No. 22, 1883.
[14] Berich. d. Deut. Chem. Gesellsch., xvi., pp. 1186 and 1405; 1883.
[15] A Memior of the Rev. Sydney Smith, by Lady Holland, vol. i., p. 125, London, 1855.
[16] Berlin. Klin. Wochensch. 1868. No. 24.
[17] Urinary Deposits. Fifth edition, p. 251.
[18] Urinary and Renal Diseases. Third edition, p. 79.

REMARKS ON THE

CIRCULATION OF THE BLOOD.

HISTORICAL NOTICE OF THE DISCOVERY THAT THE VEINS OF THE BAT'S WING, WHICH ARE FURNISHED WITH VALVES, ARE ENDOWED WITH HEART-LIKE RHYTHMICAL CONTRACTILITY, WHEREBY THE BLOOD IS ASSISTED ONWARD IN ITS COURSE TO THE HEART: A PROTEST AGAINST EFFORTS MADE TO IGNORE A CRUCIAL FACT IN NATURE.

BY T. WHARTON JONES, F.R.C.S., F.R.S., &c.

(*Concluded from p. 100.*)

IT would appear that the teaching in respect to the extreme circulation in the bat's wing at King's College has been as imperfect as at University College. At King's College this seems to have been owing to photophobia preventing observation, but at University College there seems to have been, in addition to the spasmodic closure of the eyelids preventing observation, some degree of deafness interfering with the correct acquirement of any knowledge of the subject by word of mouth. If the invalids thus affected had consulted me I would have done my best to relieve them. None, however, came, though I am confident I could have worked a miraculous cure, to the benefit not only of themselves, but also of the students of the respective Colleges. I may, therefore, say of the said invalids, "O! fortunati nimium! sua si bona norint!" Leaving King's College, with its photophobia, I come to address myself to University College. In the "Manual of Physiology" of Dr. Michael Foster, formerly a pupil of University College, now Physiological Secretary of the Royal Society, and Professor of Physiology in the University of Cambridge, of late much in the hands of medical students, and pronounced by the last Harveian orator as being in his estimation the best of its kind, is to be found the following passage (page 155, second edition), where, speaking of alleged rhythmical variations in the "calibre of arteries," he says: "They may be compared with the rhythmic movements of the veins in the bat's wing and of the caudal vein of the eel." This utterance is quite meaningless. If the author had ever observed the objects in nature to which he refers in this manner, he would have ascertained at a glance that, though variations in the calibre of the artery of the rabbit's ear[1] may be seen at frequent intervals (constriction with exclusion of blood and regurgitation, alternating with enlargement by distension with blood, the constriction caused by the action of the tonically contractile muscular fibres of the wall of the artery, while the enlargement by distension with blood is permitted by the relaxation of these same muscular fibres), such alterations are not rhythmical. Again, he would have ascertained at a glance that there are no rhythmical movements of the caudal vein of the eel, either in the form of rhythmical contractions or in that of rhythmical pulsations, though there is a caudal lymph heart, which by its rhythmical contractions propels the lymph into one of the two veins which unite to form the caudal trunk, but that there is no pulsation by rhythmical distension of the vein thereby produced, nor could be under the physical circumstances of the case.[2] And then, again, he would have seen in the bat's wing spread out under the microscope, if he had examined it, phenomena which he would never have described as "rhythmic movements"[3] merely of the veins, without any notice of the course of the blood, as it is thereby influenced. It is, moreover, quite evident that Professor Michael Foster could never even have read in the Philosophical Transactions my paper on the Rhythmical Contractility of the Veins of the Bat's Wing, nor that on the Caudal Heart of the Eel.

Probably what Professor Michael Foster says in the passage above quoted may have been inspired by a jotting in his note book, made when a student attending the lectures of the late Dr. Sharpey, Professor of Physiology in University College and some time Physiological Secretary of the Royal Society. My reason for this conjecture is that Dr. Sharpey's knowledge of the subject in question appears not to have been derived from observation any more than that of Professor Foster. In an edition of Quain's Anatomy, at one time in use among the students of University College, the histological part of which was written by Dr. Sharpey,[4] it is stated that the rhythmically contractile muscular fibres of the walls of the veins in the bat's wing are similar in their microscopical characters to those of ordinary veins, a statement which is directly opposed to the fact.

In my paper in the Philosophical Transactions particular pains are taken to describe, both verbally[5] and pictorially, the peculiar microscopical characters of the rhythmically contractile muscular fibres in question. And by way of contrast I insisted on the fact that the muscular fibres of the walls of the veins of the ear of the long-eared bat which, as above mentioned, are unendowed with rhythmical contractility, do indeed present microscopical characters similar to those of ordinary veins. All this I had long before mentioned to Dr. Sharpey in conversation. Nevertheless, at a meeting of the Royal Society, about fifteen years after the publication of my discovery, having occasion to refer to the microscopical characters of the muscular fibres of the walls of the veins in the bat's wing, I asked Dr. Sharpey, sitting in his chair of office, what grounds he had for stating in a Student's Manual of Anatomy that the microscopical characters of the rhythmically contractile muscular fibres of the walls of the veins in the bat's wing are similar to those of the walls of ordinary veins. To this Dr. Sharpey replied, in a very confident tone, that I had told him so. Whereupon I rejoined that I never told him any such thing. From this it is evident that Dr. Sharpey had not only never examined the objects in nature, and had never read my paper, or even the abstract of it -nay, had failed to hear what I had told him by word of mouth; and yet, *incredibile dictu*, he had for years taught in his lectures what is contrary to the fact in nature, besides recording the same in print.

The business which the founders of the Royal Society proposed to themselves was, among other philosophical inquiries, to discourse of the circulation of the blood, the valves in the veins, the venæ lacteæ, and the lymphatic vessels. Considering that this was the programme of the Royal Society's work two centuries ago, the discovery of the rhythmical actions of the veins of the bat's wing with their valves would then have been hailed with observance, and would have found in Mr. Hooke, the "experimenter," a more intelligent and ingenuous exponent than Dr. Sharpey and his pupil, Dr. Foster, or Dr. Burdon Sanderson, his successor at University College, have proved themselves; while as "curator" Mr. Hooke would have taken better care of the drawings than Mr. Bell did.

Dr. Schiff, the well-known German physiological experimentalist, who at one time carried on his researches in Florence, in a transcendental frame of mind, apparently, interpreted the intermittent constrictions, which the artery of the rabbit's ear may be seen to undergo, as a provision for promoting the onward course of the blood, analogous to that which is found in the systole or rhythmical constrictions of the veins of the bat's wing. The fact, however, is that the effect of the constrictions of the artery is directly the reverse of this. By the constriction of the artery there is produced not only an arrest of the flow of blood, but an actual reflux, the consequence of which is that the ear becomes for the time exsanguine and cold. When, however, relaxation of the muscular wall of the artery supervenes, the flow of blood then takes place freely, the calibre of the vessel being dilated by distension, and the ear becomes again red and warm, as in blushing. All this is so obvious that one is amazed at the blunder. Dr. Schiff, however, did not fail to find proselytes. Dr. Virchow, for example, misled apparently by the current erroneous doctrine that constriction of small arteries sends the blood onward into the capillaries instead of back towards the heart, gave in his adhesion to the opinion.

Some years ago, in a clinical lecture at University College

[1] These must be the variations Dr. Foster refers to. He could surely not mean the less frequent variations in the calibre of other arteries, much less the distensions of arteries constituting the pulse.

[2] This will be shown in another communication.

[3] Here it is to be remarked that no pulsations are caused by the rhythmical contractions of the veins. This, it is obvious, depends on the increasing width of these vessels.

[4] In a subsequent edition by Professor Schaefer I have not found the veins of the bat's wing mentioned at all. A unique kind of muscular fibre not mentioned in a student's manual of histology! This omission is, however, less objectionable than a statement directly opposed to fact.

[5] Verbally also in the abstract above quoted from the Proceedings of the Royal Society.

Hospital, I challenged Professor Virchow to re-examine the point and retract his mistake. I am not aware, however, that he has done so. It is amusing to contemplate how people shut their eyes to nature's work, pretending at the same time that they see things which do not exist—a line of conduct which King Lear sarcastically recommends, thus:

"Get thee glass eyes,
And, like a scurvy politician, seem
To see the things thou dost not."

And all this passes under the name of "experimental research." But it is still more amusing to see how one blunderer improves on the mistake of another. Thus, a former editor of Kirkes' Manual of Physiology, having heard of Schiff's *discovery*, but not taking the trouble to read Schiff's account of it, much less to look on the original, tells his student readers that Schiff had discovered rhythmical contractions of the vein of the rabbit's ear, whereby the flow of blood therein was expedited as in the bat's wing. I called the attention of Mr. Morrant Baker, the present editor of the book, to the blunder, whereupon he struck it out and substituted a true account of what is seen in nature. I here call upon the authors and editors of the text-books on Physiology which I have been criticising to follow the example of Mr. Morrant Baker, and would recommend students to require a demonstration of the real facts in nature instead of the loose assertions made in lectures. They will thereby be saved from the strain and perplexity of mind they undergo in trying to understand what is unintelligible. May I also ask examiners to contribute their assistance in the matter, by inquiring of the candidates whether they have had demonstrated to them such and such facts in nature before asking any questions thereon. On the other hand, it might be suggested to examiners not to propose questions on a subject with the facts of which they have not made themselves acquainted by observations of their own.

To conclude. "Hear now this, O foolish people and without understanding; which have eyes and see not; which have ears and hear not. The prophets prophesy falsely and the priests bear rule by their means; and my people love to have it so."

Ventnor, Isle of Wight.

ANEURYSM OF THE UPPER THIRD OF THE BRACHIAL ARTERY.

LIGATURE OF AXILLARY; HÆMORRHAGE; AMPUTATION AT SHOULDER.

By GEORGE BUCHANAN,
PROFESSOR OF CLINICAL SURGERY IN THE UNIVERSITY OF GLASGOW.

SPONTANEOUS aneurysm of the upper part of the brachial artery is very rare. I have consulted the most recent contributions to the subject, and can find only three cases recorded. The most complete and concise account is to be found in the American *Journal of Medical Science* for 1882, in an article by Dr. L. Emmet Holt of New York, to which I refer the reader for details. One case of his own in 1881 was cured by an ingenious instrumental compression. A second case is quoted from the *Buffalo Medical Journal* for 1870, reported by Dr. Kibler, in which the axillary artery was tied in its lower third. Hæmorrhage occurred on the eighth day; the axillary artery was tied higher up, and the patient recovered. The third case was reported by Scarpa in 1809. No operation was attempted, and the patient died of hæmorrhage. A few other cases are recorded, in which the aneurysm was situated at the middle or lower third; for these I refer to the paper above-named and to the recent works on surgery. Cases of traumatic aneurysm have been reported of every part of the brachial artery, in some of which the axillary artery has been tied, but the present paper refers only to spontaneous aneurysm. It is curious that, except Scarpa's case in 1809, no case should be reported till 1870, and the two recorded since have been in America.

The following is a report of what appears to be the fourth case of aneurysm at the upper part of the artery:—

Francis A——, aged thirty-one, a labourer, was admitted on Dec. 3rd, 1884, to the medical wards of the Western Infirmary, under Professor McCall Anderson's care, complaining of numbness and loss of power in the right arm. He stated that about four months ago, without any assignable cause, he felt this sensation for the first time, and that it came on suddenly and continued and increased. About three months ago he found a swelling on his arm beside his armpit, and felt that it was beating, but he had no pain in the spot. On admission he was found to have partial loss of sensation and motion in the right hand and forearm and a continuance of the tingling. The right hand was soft and clammy, and the temperature 94°; while the left was 95·6°. The right radial pulse was almost imperceptible, but that on the left side was full and bounding, as, indeed, was that of every other artery accessible to the finger. The apex beat of the heart was displaced downwards and to the left side. There was a diastolic murmur over the aortic cartilage and a systolic murmur over the aorta. He had a cough and spit, and complained of shortness of breath, and had night-sweats. He admitted that he was habitually intemperate. Dr. Anderson's opinion was that he had a much enlarged heart with aortic disease and some general deterioration of the system owing to his habits of life. The aneurysm being discovered, he was transferred to my surgical wards on Dec. 15th.

The aneurysm was about the size and shape of a hen's egg; the upper end came close up to the axilla and felt very soft, just as if it would give way on the slightest manipulation, but it could be lifted off from the artery, which could be felt beating distinctly in its normal situation just where the axillary ends. When pressure was made with the finger on the third part of the axillary artery pulsation in the tumour completely stopped, but the patient complained bitterly of the pain of the pressure even for a few seconds. The third part of the subclavian could be pressed against the first rib with ease, but the pain was even more severe.

It was quite obvious that there were only two courses open to me, amputation at the shoulder or ligature of the axillary, and I determined to adopt the latter, if there seemed any reasonable hope of success. The two dangers to be feared in ligature of the axillary, even when successfully accomplished without any complications, are gangrene from want of sufficient collateral circulation and hæmorrhage. I was perfectly aware of the anatomical disadvantage of the axillary artery, but I judged that the imperceptibility of the radial pulse proved that the blood was reaching the hand and forearm by some channels which had become established during the existence of the aneurysm. With regard to hæmorrhage, it is true that the vicinity of the great branches of the axillary artery would cause a current which would militate against the formation of a clot above the ligature, and so favour the occurrence of secondary hæmorrhage. But catgut ligature applied with antiseptic precautions acts in a very different way from the ordinary silk ligature, and I hoped, by disturbing the parts as little as possible, to apply a catgut ligature in such a way as to secure consolidation of the wound and included ligature by first intention. If the patient should take chloroform well, if the operation were performed rapidly, and if union by first intention should occur, but little shock would be given to a patient very unable to bear it. On the other hand, amputation at the shoulder-joint in a man enfeebled by excess was a most unpromising alternative.

Accordingly, on Dec. 19th, I ligatured the axillary artery. The patient was put under the influence of chloroform with very great care and anxiety, owing to the known disease of the heart. No inconvenience arose, although he took a large quantity. The arm was stretched out at an obtuse angle to the trunk, and the skin of the axilla thus put on the stretch. The pulsation of the axillary artery could be felt from the upper end of the aneurysm to where it was covered by the anterior fold of the axilla, a space of about two inches. I made an incision about three inches long obliquely across the course of the vessel, and along the lower border of the pectoralis major muscle. After dividing the subcutaneous tissue at the distal end of the wound, I felt the vessel beating directly under the deep fascia, with the median nerve superficial to it. A slight division of this fascia enabled me to put a blunt hook under the nerve, by which it was held aside. A few touches of a director disclosed the artery, the great vein having slipped down out of danger whenever the fascia was divided. Without exposing more of the arterial wall than to allow the introduction of the aneurysm needle, this was passed round and a strong chromic catgut ligature drawn through. It was tied firmly but not too tightly, and the arterial wall proved to be quite elastic and apparently strong. The operation was bloodless, and the wound was

rendered aseptic by the application of carbolic acid solution. The sides were drawn together with four thin silver wire sutures, and carbolised gauze dressing applied. Pulsation was found to be completely arrested in the aneurysm. Cotton-wool was wound round the limb, and the patient was placed in bed with the arm supported on a pillow.—8 P.M.: The patient complains of heat. Temperature 101°; hand and arm quite warm. One-sixth of a grain of morphia given subcutaneously.

Dec. 20th.—9 A.M.: Patient had some sleep, feeling fairly well, but hot. Temperature 99°. No sickness or pain; hand and arm quite warm. I changed the dressing; edges of the wound apparently cohering; no discharge. 8 P.M.: Feels very warm; temperature 103°. Subcutaneous injection of morphia.

21st.—Was restless first part of the night, but after a draught of thirty grains of bromide of potassium quieted and had a good night's rest. Temperature 100°.

22nd.—The patient feels so well that he asked to be allowed to sit up in bed to dinner, but was enjoined the most absolute quiet and rest. I dressed the wound again. To all appearance it was united, with no discharge, but I did not disturb it to ascertain if it were consolidated at the bottom. The aneurysm was much reduced in size, and felt quite solid. Temperature of hand and arm good. At noon the man felt a sudden sensation of pain and called the nurse, who found the bandages soaked with blood. Dr. Somerville, my house-surgeon, was at hand and took off the dressing. He found the wound bulged with clot, but no active bleeding. He obtained the assistance of Mr. Maylard, one of the dispensary staff, who grasped the arm over the wound ready to compress if the flow should recommence. Meanwhile Dr. Somerville telegraphed for me, and by 1 o'clock I arrived at the hospital. The man had been put partially under the influence of chloroform to allow of the pressure on the axilla without pain, and in this state I had him removed to the theatre. On opening the wound and turning over the clots which filled it I found that the blood came with great force from a small opening a short way above the ligature, which was felt by the forefinger to be firmly tied and still grasping the artery. The vessel did not seem to have given way at the ligature, but a short way above it, so that when I pushed the point of my forefinger against the bleeding spot I could easily arrest the flow, and had a small part of the vessel under my finger above the ligature. Keeping my left forefinger on the bleeding spot, with my right hand I split the fascia with a director about an inch further up than at the first operation. The median nerve and musculo-spiral were lying close together on the surface of the artery, but with two blunt hooks they could be easily held apart, and the trunk of the vessel brought into view. The aneurysm needle was passed and a catgut ligature brought round the vessel. This was tied by Mr. Maylard, but was just over the aperture in the artery and failed to check the hæmorrhage. The proceedings were repeated, and this time the ligature was firmly placed half an inch above the bleeding point, and effectually arrested the bleeding. To prevent all risk of hæmorrhage from the lower end of the vessel, I applied, with ease, another catgut ligature between the sac and my first ligature. Antiseptic dressing was then applied as before, and the patient was removed to bed, and ordered to lie absolutely quiet. My house-surgeon watched himself by the bedside till 4 P.M., and thereafter he was watched continuously by my clinical students, who kindly volunteered to take that duty in rotation. At night he was feverish and restless. A quarter of a grain of morphia was given subcutaneously.

23rd.—Passed a good night, and is very easy this morning. Partakes freely of iced milk. In the evening, again, a hypodermic injection of morphia was given.

24th.—Again a good night. Looks much calmer and easier this morning. Dressings not changed. At 1 P.M., when two students were on duty, they noticed blood on the dressings. My house-surgeon was on the spot at once, and, removing the dressing and opening the wound, he placed his thumb on the bleeding vessels and arrested the hæmorrhage. Dr. Beatson, one of the dispensary staff, was sent for, and without delay he took charge of the vessel while the man was put under chloroform. As a further precaution, a door-key, the ring of which was padded with lint, was put over the subclavian. I was summoned by telegraph, and, fortunately, happened to be at home at the time, so that I arrived within twenty minutes of the occurrence. The patient was removed in his bed to the theatre without loss of blood and still under the influence of chloroform. I amputated at the shoulder-joint, making a large semilunar flap above, and completed the operation with very little loss of blood. In two hours after the patient had rallied so as to be able to tell us he was feeling easier, and later on he drank a cup of tea. He slept a good deal during the night, but was restless and feverish from 5 A.M.

26th. At 9 A.M. he was better, but was very feeble; it was obvious he would not completely rally from the shock of the two hæmorrhages and the amputation. He continued in the same state during the day, but became weaker in the evening, and died at 8 A.M. on the 27th.

Anatomical examination of the arm. I am indebted to Dr. Bruce Young, anatomical demonstrator in the University, for a careful dissection of the extremity after its removal. It was quite obvious that the capillary circulation was perfect, with no tendency whatever to gangrene. The vessels were injected with great care from the radial artery; but even though gentle pressure was used, the coats gave way in the middle of its course, and the wax became extravasated, but about the elbow the vessels were well filled. The aneurysmal sac was full of dark clot, very firm, and no doubt in process of complete fibrination. The aneurysm was in the upper third of the artery, just about where the superior profunda is given off, that vessel being found injected adjoining the sac. The whole of the arteries entering the biceps and coraco-brachialis muscles were abnormally large, and one unusual branch, the size of a crowquill, pierced the coraco-brachialis and could be traced running up evidently into the deltoid, where it would inosculate with the anterior circumflex. The whole of the superficial arterioles were unusually enlarged; still it seemed to me strange that when the artery was tied above the superior profunda the blood should pass by these small channels so readily as to secure the limb against even temporary coldness.

Post-mortem examination of the stump.—In the amputation the knife had divided the upper end of the aneurysm, and the aperture of entrance of the artery into the sac was clearly seen. It seemed to have been a fusiform aneurysm, one side of which had become distended into the ovoid shape it subsequently assumed. At the seat of ligature the parts had been matted together, and the relations of the vessels and nerves much altered by the application of the thread ligatures to numerous points at the time of the amputation. The artery from the innominate to the axillary was dissected out from the surrounding parts. It was soft and apparently in the first stage of fatty degeneration, but quite tough enough to bear considerable pulling about. The last ligature which I had applied to the trunk of the vessel on the 22nd was found firmly tied in its place, compressing the sides together, and no appearance of giving way of the coats was to be found. The part of the artery from which the hæmorrhage had occurred on the 22nd had been destroyed in the manipulations necessary to ligature the main vessels at their amputation.

The heart was found to be nearly twice its normal size, the aortic orifice greatly encroached upon by numerous and tough vegetations. The lungs were œdematous. The other organs presented no special features.

Glasgow.

ON FUNCTIONAL AND FALSE MURMURS.

By J. KINGSTON FOWLER, M.A., M.D.,

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(*Concluded from p. 102.*)

5. *Changes in the Pericardium.*—It is quite unnecessary to give the ordinary rules for distinguishing a pericardial friction sound from a valvular murmur. I may, however, point out that these morbid sounds are most frequently heard at one particular spot—viz., the sixth left interspace and over the seventh rib close to the base of the ensiform cartilage. Here the right ventricle is in contact with the chest wall, and it is on its anterior surface that the "white patch" is most commonly found. The sound produced by the movement upon each other of the pericardial surfaces at this spot is systolic in time, usually short, sharp, localised

and superficial; it seldom acquires a blowing character. In fact, it often resembles more nearly a rough reduplication of the first sound than a murmur. It is perhaps doubtful whether the altered sound, which is so commonly heard at this spot, is in all cases due to the presence of a "white patch" on the pericardium. The effect of change of position upon this murmur is variable in some cases. I have found it disappear entirely when the patient is in the recumbent position, as often happens in the case of ordinary friction murmurs audible at other places, whilst at times it is hardly at all affected by such a change. Dr. Angel Money's description of this murmur closely accords with my own experience; it was present in twenty-nine of the 111 cases examined by him. Three years ago I examined a gentleman presenting this murmur, who informed me that, fifteen years previously, his life had been refused for insurance on the ground of valvular disease of the heart.

Another favourite site of these local thickenings of the pericardium is the extreme apex of either ventricle; there it usually appears, post mortem, as a shaggy, villous-looking tuft, covering an area the size of a threepenny-piece, whilst on the anterior surface of the right ventricle it takes the form of an irregular flattened star-like patch.

6. *Altered Conditions of the Muscular Walls of the Heart.*—It has been held that a systolic murmur may be produced simply as the result of the contraction of a hypertrophied left ventricle, but of this I have never been able to satisfy myself, and I am disposed to doubt whether it ever takes place. So far we have been dealing with conditions which suggest valvular disease when it is absent. In the following cases we have to explain the existence of valvular incompetence independent of organic change. The subjects of anæmia, rheumatism, chorea, and, I must add, women in the puerperal state furnish the most common examples of this condition. In such cases it is not uncommon to find a systolic murmur at the apex varying much from time to time in many characteristics, usually soft and blowing, but occasionally loud and harsh in quality; often not limited to the apex, but conducted along the axilla to the angle of the scapula, where it may be distinctly audible. There may be found with it a moderate degree of accentuation of the pulmonary second sound. This murmur indicates that the mitral valve is for the time incompetent, but it does not necessarily imply that any structural change has taken place in it. The exact mode in which this incompetence of the valve is brought about has been, and still is, a much disputed point. The very important researches of Hesse[1] of Leipzig, conducted in the laboratory of Professor Ludwig, have thrown much light upon this and on other points connected with the mechanism of the heart's contractions.

Dr. Hesse by very ingenious means has contrived to obtain casts of the heart and its cavities representing as nearly as possible its exact condition in systole and diastole. From these it appears that, contrary to what has generally been taught, there is no shortening of the left ventricle in systole, that the apex although it moves does not approach the base, and that the distance from the apex to a line through the auriculo-ventricular orifices is the same in systole as in diastole. The conus arteriosus descends slightly towards the apex. The heart becomes cone-shaped during systole and is narrowed at the base in both diameters. The apices of the papillary muscles of the left ventricle approach the aortic orifice, not, however, by any upward motion, but by a movement in a plane parallel with that of the auriculo-ventricular orifices. The result of this movement is to allow the anterior curtain of the mitral valve, which is during diastole stretched obliquely across the cavity, to be floated up so that it may assist in closing the orifice, the musculi papillares at the same time contracting in order to prevent the valves from being driven too far into the auricle. Hesse has also shown what a very important part the contraction of the muscular tissue surrounding the auriculo-ventricular orifices plays in effecting closure of those openings. The average of three observations on different parts showed that the circumference of the base during diastole was 65 centimetres, and during systole 36 centimetres, a mean difference of 29 centimetres; the ratio of the circumference in diastole to that in systole being therefore as 13: 7.2, or a reduction of nearly one-half.

Now, in anæmia the muscular tissue of the ventricles is feeble if it be not in a state of commencing fatty degeneration, the cavities are dilated and the cordæ tendineæ consequently stretched, whilst the auriculo-ventricular orifices are probably enlarged. When systole begins, instead of a reduction in the circumference of the base of nearly one-half there is probably only a feeble contraction, and this, added to the increased initial tension of the tendinous cords, the result of dilatation of the cavity preventing the valves from being immediately floated upward, allows of reflux into the auricle, with the usual result, a systolic murmur at the mitral or tricuspid apex, or at both points of regurgitation occurs on both sides. It is interesting to note that, as in pernicious anæmia, the left ventricle is the first to show signs of fatty degeneration; so in chlorotic anæmia the murmur at the mitral orifice precedes that at the tricuspid. I have lately had under my care two cases, which well illustrate the difficulty that often arises in deciding whether or not a systolic apex murmur is of functional origin or due to organic disease. Both were young girls about eighteen years of age, extremely anæmic, and presenting all the well-known signs and symptoms of that condition. In both a loud systolic murmur was audible at the apex and conducted through the axilla to the angle of the scapula. In neither case was there any evidence of pulmonary engorgement. One patient had suffered from a previous attack of acute rheumatism; in the other there was no rheumatic history. Under the administration of large doses of the carbonate of iron the anæmia in both cases almost disappeared; but, contrary to what one would have expected, a loud apex murmur of undoubted organic origin still remains in the patient who gave no history of rheumatism, whilst in the other case the heart sounds are now quite normal.

In such cases a positive diagnosis can only be arrived at by carefully noting the effects of treatment.

The fugitive murmurs frequently found in the subjects of rheumatism and chorea may, I believe, be best explained on the hypothesis I have used in discussing the origin of the apex murmur of anæmia—viz., regurgitation the result of a feeble contraction of the muscular tissue surrounding the auriculo-ventricular orifices. I confess that I have never been able to understand such a condition as "spasm of the papillary muscles." Hesse's experiments appear to have demonstrated the true function of these portions of the muscular tissue of the ventricles. Time does not allow me to say anything on the origin of the hæmic murmurs audible at the base of the heart; and in the arteries it is a wide and well-worn subject on which I have recently published my views.[2]

Having now reviewed the chief conditions which may produce alterations in the heart's sounds simulating the results of organic disease of the valves, I would venture to suggest some precautions useful in the examination of all cases presenting cardiac murmurs. Assuming that an accurate history of the case has been obtained, which is obviously of the greatest importance, and also that the presence or absence has been noted of those consecutive changes in the heart which are almost invariably associated with disease of any given valve, and of which perhaps none affords more information than the site of the apex beat, if there is still room for doubt, it is well to note carefully the following points:—

1. The exact period in the cardiac cycle occupied by the murmur. False murmurs often do not exactly coincide with the commencement of systole or diastole; they often follow the one and precede the other.

2. The site of maximum intensity and the line of conduction of the murmur, these usually do not coincide with what is found in similar murmurs of organic origin.

3. The condition of the lungs. In doubtful apex murmurs signs of pulmonary engorgement are strongly in favour of organic valve disease, as they are almost invariably absent in the reflux of anæmia.

4. The effect of change of position upon the sound. It is most important to examine every case both standing and in the recumbent position. False murmurs often disappear when the patient lies down, whilst organic murmurs, especially that of mitral stenosis, may be only audible in that position. A murmur which suddenly and completely disappears when the patient lies down, provided there be not at the same time any marked alteration in the pulse-rate, is almost certainly not due to organic disease of a valve.

5. The accentuation of the pulmonary second sound is

[1] Beitrage zur Mechanik der Herzebewegung: Archiv für Anatomie und Physiologie, 1880, p. 328.

[2] On the Origin of Anæmic Murmurs. Churchill. 1884.

much less marked in cases of anæmic than organic mitral reflux.

6. The conduction of an apex murmur to the angle of the left scapula is no absolute sign of organic origin; whilst organic murmurs are often inaudible at that spot.

7. False murmurs often disappear completely when the breath is held.

8. The pulse, which cannot err, may at once negative a suspicion of organic disease founded on the presence of a murmur.

The great importance of an accurate diagnosis in cases of suspected valvular disease of the heart as regards both prognosis and treatment, and the practical difficulties attending it, will, I trust, be considered a sufficient excuse for having brought the rather trite subject before you this evening.

ON

SOME COMPLICATIONS OF TRACHEOTOMY, WITH ILLUSTRATIVE CASES.

BY ROBERT WILLIAM PARKER, M.R.C.S.,
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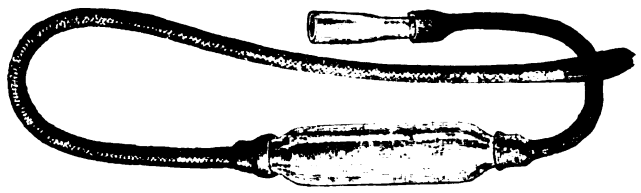
AMONG the cases which present themselves in practice of urgent dyspnœa in children there are some in which a diagnosis is all but impossible; the urgency is so great, the history of its onset so vague and uncertain, that tracheotomy must be performed at once and the diagnosis established afterwards. Amongst such cases will be found a not inconsiderable proportion in which the dyspnœa is not due to diphtheria, but either to a more or less chronic inflammation, or to an unsuspected foreign body or new growth. In many of these cases, owing to the youth of the patient and the smallness of the parts concerned, diagnosis is all but impossible; the true cause may be guessed at but cannot be established, and that being so the proper remedy cannot be applied. I have collected from my case-books of the past eight or ten years a number of these cases, which I purpose relating in the present paper. Their study will help to suggest, in similar cases, a possible diagnosis, and the mode in which sometimes they should and sometimes should not be treated. Cases of diphtheria are a class quite apart; for, besides the local lesion, we have to reckon with a septic condition which may diffuse itself through the system and materially modify the course of the operation. Tracheotomy for removal of a foreign body or for chronic catarrh—a purely local lesion—is an infinitely less serious operation. On the other hand, the subsequent course of these latter cases presents difficulties and anxieties of their own, which are very troublesome. It is chiefly with these that I purpose to deal in this paper, under the term "complications," by which I mean conditions that retard or prevent the restitution of the laryngeal function and the permanent removal of the cannula. These complications are so various and often so unexpected that quite an exceptional interest attaches to them; no two cases ever appear to be quite alike. Some of the complications depend on the almost indispensable use of a cannula to keep the artificial opening in the trachea patent; some depend on the nature of the disease, some on accident.

Certain possible complications connected with the operation itself may just be referred to *en passant*. Occasionally the surgeon, having opened the trachea for laryngeal diphtheria, is disappointed at the non-appearance of air bubbles or mucus or membrane; the truth being that he may have detached a layer of false membrane, or even the mucous membrane itself, from the tracheal wall, and have inserted the tube into the interval so formed. Such a mistake need not lead to any serious consequences, and can be easily remedied; the use of a dilator, and the careful swabbing out of the trachea and larynx, which I advocate as routine practice in all cases of laryngeal diphtheria before any attempt is made to insert the tube, will effectually prevent or remedy such an occurrence. Sometimes, after swabbing out the trachea, when the membrane is very plentiful and very thick, pieces of it get drawn down into a bronchus during forced inspiration, and may materially interfere with the entrance of air into the lungs. Again, if much hæmorrhage occur during the operation, blood may get drawn down into the air passages, where, besides interfering with respiration, it will if left alone shortly decompose, and then give rise to septic pneumonia. In all such cases an effort must be made to remove these obstructions. Other means having failed, the instrument (Fig. 1) will be found very useful.

The death of Dr. Rabbeth, after heroically but ineffectually attempting to suck out membrane and other obstructing products of diphtheria from a tracheotomy tube, induces me to describe this instrument, and the purpose it is intended to serve, more fully than I otherwise should have done, seeing that it is figured and its use indicated in my work on "Tracheotomy in Laryngeal Diphtheria." I hold that diphtheria is largely a local disease at all stages, and that local remedies are necessary if we would successfully combat the disease. With this view I recommend that the larynx and trachea be thoroughly swabbed out with some suitable disinfectant, and that this swabbing be repeated once or twice or oftener during the day, according to the severity of the case, as long as the diphtheritic infection continues to manifest itself by the deposition of membranous exudations. A long feather dipped in glycerine of boracic acid, or other solution, answers admirably for this purpose; its introduction causes the patient to cough, and thus the loosened membrane and other exudations are expelled. Occasionally, however, these exudations get wedged in the bronchi, and then there is more difficulty in getting them out; it is for such cases that my trachea aspirator is intended. Before using, the longer tube is soaked in hot carbolic solution in order to make it supple. The shorter one serves as the mouth-piece. The glass bulb is filled with carbolised cotton-wool; this effectually shuts off the poison from the mouth of the operator when suction is made, for it is well known that even germs cannot penetrate through such a filter as this. The object in performing tracheotomy is not merely the introduction of a silver tube, but the removal of the foreign

FIG. 1.



Trachea aspirator.

matter which has caused the respiratory obstruction, whatever its nature may be, and I believe this may be accomplished through a slit in the trachea held open by a dilator more easily than through a silver tracheotomy cannula. Let the surgeon, therefore, be in no hurry to insert the tube; rather, while the patient is still under chloroform, let him carefully examine the interior of the windpipe, holding it open with a dilator, and make sure that all extraneous matters have been thoroughly got rid of. In one of the cases I am about to relate the diagnosis was difficult and uncertain, but, thanks to this method of dilating the tracheotomy wound and examining the trachea, the true cause of the laryngeal obstruction, a crop of warts on the vocal cords, at once became obvious.

There is a further danger to which I may perhaps just allude, though it is not a complication in the sense in which I am now using the word; I mean the danger of sudden death apart from local conditions. It depends, however, on the fact that the trachea has been interfered with. In my own experience not less than four such cases have occurred. It would seem as if this danger is associated with injury or disease of all the organs supplied by the pneumogastric nerve; thus cases of sudden death are not unfamiliar from simply washing out an empyema cavity, and I can remember a case of gastrostomy in which death rapidly followed the operation, apparently from nerve shock and without other signs to explain it. I will only say that in all these four cases death was quite sudden and quite unlooked for; the breathing appeared to be normal until within a few moments of death, there was no struggling or foaming at the mouth, and that in the cases in which an autopsy was made nothing was found to account for death. The interval between the operation and death varied in all the cases, ranging from four days to four months. I consider them in all respects parallel with the sudden deaths which occasionally follow on opening or washing out

the pleural cavity, or even an over-distension of the pleura. They arise probably from a too powerful or too long-continued irritation of the peripheral branchlets of the pneumogastric.

The cases are classed under the following headings:—1. Acute or subacute changes due to the lesion, for which tracheotomy has been performed. 2. Chronic laryngeal changes. 3. Irritative changes due to the mere presence of a tube. 4. Accidental conditions. 5. Ulceration due to an ill-fitting tube.

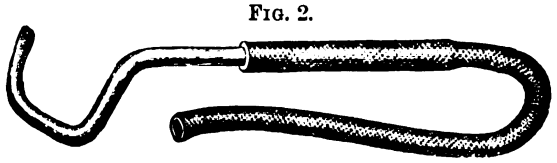
1. *Acute or Subacute Changes due to the Lesion, for which Tracheotomy has been performed.*—In severe cases of diphtheria there is sometimes found deep ulceration with excavation of the mucous membrane after the false membrane has been detached, a condition which may be found at any part of the larynx. Such ulceration is usually accompanied by swelling of the adjacent submucous tissue, and the ulcers themselves not infrequently become covered with florid flabby granulations, which are very troublesome to heal. This thickening of the submucous tissue may also be directly continuous with that in the pharynx, and independent of ulceration. After scalds of the glottis it invariably exists for a longer or shorter period, and in greater or less intensity. It is this swelling that leads to the obstruction to breathing (not seldom fatal) which is known to occur after apparently slight scalds of the pharynx and larynx. At the present time I have under observation a child who was tracheotomised four or five years ago for laryngeal obstruction following a not very severe scald of the glottis. Several attempts to dispense with the tube have been made, but hitherto without success.

In the laryngitis which is occasionally associated with congenital syphilis, the lesion is of a rather different kind; it more resembles the mucous patches which occur in the mouth and about the lips. The membrane is thickened and raised owing to its infiltration with cells; the submucous tissue of course partakes more or less in the change. In older children occasionally a destructive phagedænic ulceration may occur either primarily in the larynx, or by extension from the arches of the palate or epiglottis, or from the wound. In perichondritis such as is met with in a few cases as a sequela of typhoid fever and of other febrile conditions, the inflamed mucous membrane is symptomatic of deeper changes rather than a primary condition; its course, clinical manifestations, and treatment will depend on the primary lesion. A form of laryngitis occurs also occasionally after febrile conditions, and the exanthemata are apparently due to the breaking down of exudative material which has collected in the glandular structures of the mucous membrane. These local conditions, which may all give rise to dyspnœa and necessitate the performance of tracheotomy, will generally persist for some time after the operation; the surgeon is usually brought face to face with his case when the dyspnœa is so urgent that the operation must be performed at once, and the diagnosis made afterwards. It is in such cases that the foregoing conditions become complications, the full significance of which will only become apparent at the end of a few days, when, the urgent dyspnœa having been relieved, the question of removing the cannula begins to present itself. The diagnosis of the various conditions is not very difficult, but it is essential to successful treatment. The ulceration which diphtheria occasionally produces may be suspected in the larynx, if respiration through the glottis is delayed for some time after the general disease has subsided, and more especially if a similar condition has been seen about the tonsils or palate or external wound. The expectoration of bits of membrane or of pellets of inspissated mucus with shreds of necrotic submucous tissue attached and blood-stained on the deeper surface occurs from time to time, and makes such a diagnosis almost certain. In most cases of this kind among younger children there will be considerable delay in laying aside the silver tube; if the child be poor and ill nourished, this ulceration may heal very slowly, and months may pass before the laryngeal function is re-established. In syphilis, a diagnosis which has often to be made by a process of exclusion, improvement will rapidly set in on an antisyphilitic treatment, while the condition will remain stationary or become aggravated if merely treated by general remedies. Apart, however, from this method of diagnosis there may be a history of congenital syphilis, and perhaps also evident syphilitic lesions of other organs: thrush in the mouth, snuffling, condylomata about the anus, local thickenings on the long bones or bones of the skull. Any such signs would be in the highest degree suggestive of the probable nature of the laryngeal lesion, if laryngeal obstruction were found associated with one or other of the above-named conditions. In doubtful cases a mercurial course can be tried if the laryngeal urgency is not very great; a few days at most will suffice to test the value of such treatment.

The action of corrosive fluids and of hot steam or water varies with the amount swallowed, with the nature of the fluid, and with the heat of the water or steam. Occasionally diphtheria, or a membraniform inflammation which is indistinguishable from diphtheria,[1] may attack a throat so injured; in which case treatment will have to be in accordance with general principles, as already laid down. If the laryngeal cartilages become diseased they will have to be removed, and the ulceration of the adjoining mucous membrane will probably not begin to repair until their removal is accomplished; furthermore, the necrosed cartilage may become detached and fall into the air-passages unless it is removed. The history of a case should be carefully ascertained in all instances, not only for purposes of differential diagnosis, but for treatment also. A most troublesome point in many of these cases—one, indeed, common to all—will be the difficulty in removing the tube. A consideration of the history, the probable pathological condition of the larynx and trachea, the stage of the disease, its duration, the age of the patient, the presence or absence of secondary lung complications, are details each one of which will have to be carefully weighed and the treatment varied accordingly.

For the purposes of local applications, whether disinfectant, astringent, or solvent, to the throat, nothing is so effectual as a good spray. I would especially urge the value of a steam spray. The greater power of this over a hand spray ensures a finer pulverisation of the fluid which is being used; and it is thus more easily and more thoroughly brought into contact with every part of the diseased membrane, even up in the posterior nares; it is also more easily tolerated. In cases of diphtheria where solvents are being used to destroy false membrane, a steam spray is of first importance. By causing the patient to inhale through the larynx, or making him attempt to do so, the spray reaches the glottis and materially assists in getting rid of the viscid mucus or membrane which tends to collect at this spot. Occasionally, however, strong solutions of nitrate of silver are required, and these of course cannot be sprayed in. For such cases I have found the little instrument figured above very useful. It can easily be made, and bent to any angle most convenient to the requirements of the case. It consists of a piece of glass tubing bent in the flame of a spirit lamp to the required shape, to the end of which an indiarubber mouthpiece is attached. When about to be used, a little nitrate of silver solution of the required strength is put into it; the pointed extremity is passed through the tracheal wound up to the larynx, and the fluid is blown out through the indiarubber tube. By its use the fluid is brought to bear directly on the part affected.

FIG. 2.



An Instrument for applying Solutions to the Larynx through the opening in the Trachea.

The undetected presence of a foreign body near the glottis is sometimes a source of trouble after an operation which has had to be hurriedly performed, and in which the history of the cause and the mode of onset are not clear. In young children the diagnosis is often very difficult, for a laryngoscope can only seldom be used. Even when the history points to the presence of a foreign body as the probable cause, it is not always possible to detect it. In this respect the following two cases are interesting; I had the opportunity of observing both, but they were not actually under my own care.

CASE 1. *Sudden Dyspnœa; no appreciable Cause: Tracheotomy: Death: Autopsy revealed the presence of a bit of Eggshell in the Larynx.* A small child was taken

[1] For a case of this kind which I have recorded, vide Clinical Society's Transactions, vol. viii., 1875. For a similar case, by Mr. Davies-Colley, see Pathological Transactions, vol. xxxiii., 1882.

suddenly ill with laryngeal symptoms and with urgent inspiratory dyspnœa. It was playing about previously. There was no appreciable cause. When I saw it, shortly afterwards, the child was greatly distressed; its voice was gone, and death seemed imminent. Tracheotomy was at once performed, and gave instant and complete relief. A few days later attempts to remove the tube were commenced, but were quite unsuccessful. The child died in convulsions, and at the autopsy a small piece of eggshell was found adhering to the side of the larynx.

CASE 2. *Sudden Dyspnœa; Fishbone suspected as the Cause; Tracheotomy; Measles; Death; Autopsy; Impaction of Bone in the Glottis.*—A little boy, eighteen months old, taken with sudden dyspnœa while or shortly after eating fish for dinner. The cause was immediately suspected—viz., that he had swallowed a fishbone. A most careful search with the finger was made in the pharynx and upper part of the larynx, as far as possible, but without success. Tracheotomy had to be performed hurriedly. After its completion another search for the suspected bone was made, but with no better success; the tube was then inserted. The boy did well after the operation, except that his temperature remained high. Frequent attempts to remove the tube were made. He could neither phonate nor inspire through the glottis. An attempt to examine with the laryngoscope failed. A catheter could be passed into the mouth through the tracheal wound, but the child continued quite unable to breathe without his silver tube. The question of thyrotomy and other plans of treatment were discussed. The child's age was an element of great difficulty. However, about three weeks after the tracheotomy the child took measles, which was very prevalent at the time, and died of lung complications. At the post-mortem examination the glottis was found quite closed, with a long slender fishbone between the cords. The upper extremity of the bone projected into the pharynx, and it seemed a little remarkable that its presence was not detected by the finger when search was made for it.

These cases are of interest as showing the difficulties which beset diagnosis as well as treatment. In such cases the number of failures will certainly be lessened if the treatment of feathering out the glottis be practised as a matter of routine in all cases. But whether this treatment be adopted or not, it may be laid down almost as a rule of surgery when tracheotomy has been performed on account of a foreign body, that the persistence of the symptoms points to a persistence of the cause; little, therefore, is gained by waiting. The larynx should in all cases be examined, both from the wound and from the mouth, to make sure that the foreign body is not impacted in some part or other of the larynx, and further attempts must be made to remove it.

(To be continued.)

A NEW LONG SPLINT FOR FRACTURE OF THE THIGH.

BY GEORGE SHIRRES, M.B., C.M.,
LATE RESIDENT ASSISTANT-SURGEON, ROYAL INFIRMARY, ABERDEEN.

IT has often occurred to me while putting up cases of fractured femur in Liston's long splint that if the splint could be lengthened after it had been adjusted to the limb, it would be an improvement; and it seemed that such an object might be attained if the splint were constructed of two pieces or slides fitting into one another. That by such means a splint might be made which could be altered to any length so as to suit a child or an adult, and which after it had been adjusted to the limb might be still further lengthened. With these ends in view a splint has been devised of which the accompanying engraving (kindly supplied by Messrs. Arnold and Sons) gives a very good idea. This splint consists of two iron slides freely movable upon one another. The lower slide having its edges inverted so that the upper may fit into it. It is three feet long by three and a quarter inches broad. The upper slide has on its inner surface a strip of iron on each side; these when the slides are fitted into one another form a hollow along which iron plates may move. Each slide has a long narrow slit passing up its centre, on the sides of which supports may be clamped. Each slide is provided with a support; that of the upper slide consists of a brass bar in the form of a screw half an inch long. The top of this screw expands into a flat circular head with a hole in the centre. The foot of the screw passes freely through the centre of a circular iron plate one inch and a quarter in diameter, and is then riveted into the centre of another plate of the same kind. A thumb-screw turning around the brass bar acts on the upper plate, pressing it down. The brass bar passes along the inside of the narrow slit in the upper slide, the edges of the slit passing between the two iron plates which may by means of the thumb-screw be firmly clamped on to it at any part of its length. The lower support is nearly similar in shape to the upper one, and may in the same manner be firmly clamped on to any part of the slit in the lower slide. To the head of this lower support a screw, one quarter of an inch in diameter and nine inches long, is attached; the upper end of this screw passes through the hole in the centre of the head of the upper support. A disc one inch and an eighth in diameter travels along the screw between the two supports and catches the upper one. The thumb-screw of the lower support is provided with a shoulder which passes through the slit in the upper slide when the two slides overlap one another. The lower plate on the upper support and the upper plate on the lower one can be moved along the hollow between the two slides (formed by the two iron strips on the upper slide). So that the splint may be broken at any part by clamping the supports and connecting them by the long screw and disc. By moving the upper slide along the lower and clamping the supports when necessary, the splint may be made long enough to suit any patient, and when the splint has been adjusted to the requisite length it may be still further lengthened by turning the disc on the screw. The upper end of the splint is rounded outwards so as to fit into the axilla, and is provided with holes for the perineal band. There is an aperture in the splint four and a half inches from the lower end to accommodate the external malleolus. There is also a cross-bar fixed to the lower end of the splint acting as a foot-piece, which may be fitted on at either edge of the splint, so that it may be used for either side.

The advantages which I believe this splint to possess are:—It may be set at any length so as to suit a child or an adult. After the splint has been clamped at the requisite length and adjusted to the limb, extension may be put on by simply turning the disc on the screw so as to do away with the necessity of tightening the perineal band, forming at the same time a very easy and practical method of extension. In transport and on board ship, and in circumstances where weights cannot be used, the gradual extension, which can be produced by means of this splint, will, I believe, be found particularly valuable.

In working out this splint I have to thank Professor Ogston, of Aberdeen, for many valuable suggestions. The splint may be had from Messrs. Arnold and Sons, West Smithfield, London.

Tillotson-place, W.C.

CASE OF

VERTEBRO-MENINGEAL RHEUMATISM.

BY J. E. BLOMFIELD, B.A. OXON.,
RADCLIFFE TRAVELLING FELLOW.

THE case of which the following is a short account occurred in the practice of Professor Jaccoud, at the Hôpital de la Pitié, Paris. Taking into consideration its rarity, and the facility with which the diagnosis of rheumatism could be established, it is worthy of wider notoriety than is afforded by being the subject of a clinical lecture, and is certainly interesting as a contribution to our knowledge, which is far from complete, of the various phenomena of rheumatism. The patient was a man of robust appearance, forty years of age, who had enjoyed good general health until the 24th of January of last year, when he presented

himself at the hospital complaining of pain in the region of the neck, of the shoulders, and in both upper extremities. This painful state was not produced by degrees, but had arisen suddenly without assignable cause. The pain was violent, and, according to the description of the patient, it seemed as if his arms were being twisted off. The slightest movement increased the pain. The seat of the pain was not localised, but it seemed to shoot down the arm. The neck was held quite rigid by the contractions of the muscles, so as to prevent any movement of the cervical vertebræ, and this part of the spinal column was bent backwards so as to constitute a slight opisthotonos.

On examining the arm there was nothing seen to account for the pain. There was no redness or swelling, and the joints themselves were quite free from any suspicion of disease; but it was possible to discover that certain areas of the skin were devoid of sensibility; and, further, that these points were spontaneously painful—that is to say, the patient presented the phenomena of *anesthésie douleureuse*. When seen by Professor Jaccoud it was discovered that the region of the spine marked by the fifth, sixth, and seventh cervical vertebræ was very tender. Pressure over this region increased not only the local pain, but also the pain down the arms; and taking into consideration the character of the pain and the local tenderness, the professor came to the conclusion that the lesion was central, and, further, that it was rheumatic, because there was no history of a blow or other injury. There was no evidence of syphilis or tubercle; in fact, he considered it as a case of articular rheumatism of the upper part of the spinal column, involving the meninges; and, in accordance with this opinion, ordered a treatment of sodium salicylate. But to complete this diagnosis there was one point wanting, and that was the temperature. On the day of the examination the patient's temperature was normal, but in the evening it rose to 39·4° C., thus supplying the fact which was missing. The correctness of the diagnosis was well illustrated by the treatment, for the effect of the sodium salicylate was marked and immediate. The pain diminished, and with it the rigidity; and by the end of February the patient left the hospital practically cured, only a slight rigidity of the neck remaining, obviously due not to the muscular contraction, but to the articular lesion. But in the first fortnight of March he presented himself again at the hospital in exactly the same condition as before, with the addition that the lower limbs were also affected in a similar manner. Soon, however, another manifestation showed itself, which is of great importance as adding another item of support to the diagnosis, and that was the tumefaction and redness in the left knee and ankle.

The patient was now a hopeless cripple in bed, not daring to move a limb because of the pain, which, as before, was much exaggerated by any movement, though when encouraged to make the requisite effort it was found that perfect power over the muscles was retained. This, however, did not last long, for towards the end of March it was found that there was a loss of ability to move the limbs however much the patient tried; in fact, there was complete akinesia and anæsthesia of all four extremities. It is an interesting fact that this loss of motion appeared first in the arms and afterwards in the lower limbs. The treatment adopted at this time was iodide of potassium, but no marked benefit was noticed, and the patient continued in much the same state during April, with the exception that defecation and micturition became affected, and the patient passed his motions under him unconsciously.

In the month of May mercurial inunctions night and morning were added to the previous medication, not with the idea of counteracting any syphilitic taint, but because of the well-known property of mercurials of removing plastic deposits, to which his troubles were attributed, and some slight improvement seemed to be gained. In the month of June the patient was again in much the same state, except that an ulcer over the sacrum was added to his other troubles. In September, during the absence of Prof. Jaccoud, the treatment was changed and strychnia was given, and soon after this a sign of improvement appeared, due probably not to the change of drug, but to the salutary influence of time, aided possibly by the previous medication. Whatever was the cause the power of movement began to return, first, in the upper limbs, and then in the lower, and at the same time the anæsthesia disappeared and gave place to a degree of hyperæsthesia, and with these improvements the ulcer on the sacrum began to heal. The muscles were found to have preserved their electric reactions in a normal state, despite the time that they had remained useless.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.* lib. iv. Procemium.

LONDON HOSPITAL.

TRANSVERSE FRACTURE OF THE PATELLA; ASPIRATION OF THE JOINT; SUPPURATION; ANTISEPTIC INCISIONS INTO THE JOINT, FOLLOWED A FEW DAYS LATER BY WIRING OF THE FRAGMENTS; RECOVERY; REMARKS.

(Under the care of Mr. RIVINGTON.)

FRACTURE of the patella is an injury which requires both care and skill in its treatment, and the fact that there is still so much difference of opinion in the profession as to which is the best method to pursue in such cases is an additional proof of this. The methods employed are numerous, and Mr. Rivington's case was one in which it was necessary to use more than one of these methods, and in which there is every prospect of a strong limb and useful joint being secured to the patient.

Charles A——, aged fifty-eight, was admitted on the 29th December, 1883. He had fractured his left patella transversely a little below the middle, by falling on the kerb. There was a great deal of effusion. A back splint and ice-bag were applied. Two days afterwards the house-surgeon made an attempt to bring the fragments together with strapping. On Jan. 11th, there being still much swelling and effusion, Mr. Rivington aspirated the knee-joint, dipping the trocar and cannula in a strong solution of carbolic acid, and using the spray to make "assurance doubly sure." Only two drachms of mingled blood and serum could be obtained. Antiseptic dressing and an ice-bag were applied. On the 16th the house-surgeon tried to reduce the distance between the fragments with Malgaigne's hooks inserted into strapping and gutta-percha, and the separation was diminished about a third of an inch. This procedure did no good, as it increased the effusion, and the hooks were accordingly removed. A week later, finding that pus was oozing from the puncture made by aspiration, Mr. Rivington had the steam spray turned on and an anæsthetic administered, and he opened the knee-joint freely, making an incision on each side of the patella, removing a good deal of clot from the joint, washing it out, and inserting drainage-tubes. Finding at the end of the week that the case was doing well, he had the patient in the operating theatre, and cut down on the patella by means of a vertical incision in the middle line, removed all the vascular granulation tissue uniting the fragments, scraped the fractured surfaces, taking away projecting edges with cutting pliers, and wired the fragments together. The wire was beaten down on to the patella, the lateral openings enlarged, and drainage-tubes inserted. The operation was performed with all antiseptic precautions, and a back splint applied on its completion. On the 5th the wounds were redressed; there was very little discharge. On the 12th the drainage-tubes were removed, and on the 22nd the openings into the joint had closed. On March 7th antiseptics were discontinued. On the 10th the wounds had healed. On the 22nd the limb was taken off the splint. There was considerable inflammatory thickening round the knee-joint, and it was slightly painful as well as stiff. On the 25th the patient was allowed to get up. Change from the horizontal to the vertical position produced œdema of the limb. The patient, naturally a spare, delicate-looking man, was in fairly good health, although weakened by his long illness. He could not bear any weight on the limb. By April 7th he was able to walk a little, but his feet swelled when he was up, and more especially the left foot. He was ordered an elastic bandage. He had very little movement in the joint, and no attempt was made to remove the stiffness for fear of breaking down the union of the fragments,

as has happened in other cases. The knee-joint ached occasionally, but there was no severe pain. There was bony union, and the patient was daily gaining power when discharged.

Remarks by Mr. RIVINGTON. Although it may not be desirable to treat all cases of fracture of the patella by wiring, and although I should hesitate to undertake the operation in an old case where there was much separation, and where division of the quadriceps was likely to be required to bring the fragments into position, I think the procedure is indicated in recent cases like the foregoing, where there is difficulty in drawing the fragments into good position. Hitherto the operation, considering that it is a new procedure, has been attended with very favourable results, for though two deaths have taken place in more than fifty cases, in one at least of the cases certain precautions were omitted which experience would now suggest. There was no lateral incision made for drainage, and the fragments were not brought nearly into apposition. When this is found to be impracticable it would be safer to abandon the operation, as I think was wisely done by my colleague, Mr. Mansell Moullin, in his published case. In the second fatal case the operation was severe, and the patient, being a hard drinker, was a most unfavourable subject for its performance. The failure of the aspiration in the present case was doubtless due to the late period of its use, the blood having coagulated in the joint, and I think the suppuration must be attributed to the attempt made to bring the fragments together with Malgaigne's hooks. I should not myself have selected this procedure whilst the effusion remained unabsorbed. The use of Malgaigne's hooks I have always avoided, except when employed by insertion into strapping or gutta-percha. Some years ago a case occurred in which the direct use of the hooks necessitated amputation of the limb. On the other hand, some very good results have followed their employment in the mediate method mentioned. Two cases in which bony union and good movement were obtained were shown at the London Hospital Medical Society about a year ago. They had been under my colleague, Mr. Couper. I examined them carefully, and could not detect any mobility of the fragments, which were apparently united by bone. Time, however, sometimes proves the fallacy of supposed bony union. In a lecture published by Mr. Hutchinson in March, 1882, he states that he obtained bony union in about half his cases treated with back splint, strapping, ice, and abstinence from examination of the fragments. I have not myself been able to obtain anything like this proportion of osseous union by the same method, and I must confess that I am sceptical as to the proportion given even by so deservedly high an authority. The future treatment of fracture of the patella must, I think, depend on whether bony union is to be obtained. If possible or not, certainly limbs do not always appear to be so useful or satisfactory to the patients when bony union has been secured as in many cases of fibrous union; but, on the other hand, there are a good many instances of fibrous union in which life is rendered miserable by the condition of the limb. If we are to be satisfied with fibrous union, Mr. Heath's plan of immediate treatment by plaster-of-Paris, allowing the patient to walk about on crutches, is as good as any other, and obviates the risk of atrophy of the quadriceps and the disagreeable confinement to bed. If we are to aim at bony union, some other method more reliable than the ordinary modes of treatment must be adopted. In Mr. Mitchell Banks's valuable Clinical Notes mention is made of a simple plan of bringing the fragments together by passing a thick silver wire through the joint immediately underneath the patella, and pressing the fragments together and retaining them in apposition by twisting the ends of the wire over pads placed in front of the bone. Antiseptic precautions are adopted. I have not yet had an opportunity of trying this method, but I hear it favourably spoken of by those who have done so. The interval in the above case, between opening the joint to remove breaking-down blood-clot and wiring the patella, was allowed to elapse for the purpose of avoiding any discredit to the operation in case the foundation had already been laid for inflammatory action and blood contamination by the breaking down of the wound made in aspiration. The patient's temperature had risen to 101°, and he did not seem so well as he had been. He improved after the joint was cleared, and his temperature did not exceed 99° during the treatment after wiring the patella.

BOURNEMOUTH COTTAGE HOSPITAL.

SEQUEL TO THE CASE OF BULLET WOUND OF THE SKULL; NECROPSY; REMARKS.

OUR readers will recollect the case of bullet wound of the skull which was published in THE LANCET of Jan. 10th, and will read with interest the following notes of the case, for which we are also indebted to Mr. F. Gardner, who appends remarks. The patient was under the care of Dr. Hartford during the latter part of the time. Cases of injury to the brain are not uncommon. Bullet wounds are somewhat infrequent in civil practice; when they do occur, they are usually the result of attempted suicide, and a fatal result generally ensues early. At the present time, when the surgery of the brain has received a fresh impetus, tumours being not only diagnosed and localised by the physician, but removed by the surgeon, the careful observation and record of cases of wound or injury of that organ are specially important.

The patient remained quite well from Dec. 13th until Jan. 1st, 1885. The wound did not heal, however, a small quantity of pus escaping daily.

Jan. 1st.—The patient complained of much pain in the head. He had had no sleep. There was very little discharge from the wound; there was no paralysis; no fever; pulse 60.

2nd.—Pain in head had increased; patient was more restless. There was an increase in amount of discharge from the wound. He complained of loss of vision of both eyes. Temperature 97°; pulse 40, and weaker.

7th.—Vomiting came on and patient was more restless; bowels constipated.

9th.—Patient had constant nausea, also a convulsion. Temperature 97°; pulse only 20. Breathing was very slow and there was considerable accumulation of mucus in the throat and chest. Bowels constipated in spite of purgatives. Patient was only semi-conscious.

11th.—Patient became more and more comatose, and died at 4 P.M.

Autopsy, twenty-three hours after death.—Rigor mortis well marked; body well nourished. The wound in the left eyebrow presented the appearance of a depressed cicatrix, the centre being adherent to the structure beneath. A small sinus passed in some distance to some rough bone. On opening the skull the membranes presented no sign of recent or old inflammation. On removing the dura mater the surface of the brain presented a healthy appearance, except at the anterior aspect of the left frontal lobe, which was blackened, and from which a quantity of very fetid green-coloured pus escaped through an opening inadvertently made into the substance of the brain in removing the calvaria. On removing the brain the cranial nerves were seen to be healthy, and the dura mater lining the base of the skull showed no trace of inflammation. The neighbourhood of the wound in the frontal bone was next examined. A mass of bone projected on the inner surface, the mass presenting sharp bony points, to which the brain was firmly adherent. This mass of bone appeared to have been pushed through the dura mater, and so pressed directly on the brain at a spot corresponding to the blackened surface of the left frontal lobe. Some loose pieces of bone, with rough edges, were removed from the inner and upper aspect of this projecting mass. When removed, a cavity was opened, in which lay the bullet flattened antero-posteriorly and separated from the skin and depressed cicatrix in the wound by small pieces of bone similar to those removed from the inner part of the projecting mass. The bullet lay immediately beneath the level of the outer wound, resting on the orbital plate of the frontal bone. The cavity in which it rested had blackened walls and contained a little pus. The brain was then examined. The whole of the left frontal lobe was blackened on its anterior aspect, and its substance was occupied by a large abscess containing some three or four ounces of very offensive-smelling, greenish-coloured pus. The smell was characteristically gangrenous. The rest of the brain was healthy; there were no signs of inflammation or other collections of pus. The other viscera were not examined.

Remarks by Mr. GARDNER.—The post-mortem examination confirms the opinion given that the bullet in this case remained within the skull, although the patient to all intents and purposes recovered from the injury. The man was shot on Aug. 13th, 1884, and was discharged from hospital on Oct. 1st, 1884, strong and well, with only a small granulating wound at the seat of injury. He remained quite well

without a single symptom, cerebral or otherwise, until Jan. 1st, 1885, three months after he left the hospital. The wound, however, had never healed. On Jan. 1st, 1885, he first complained of headache, and after twelve days he died. This case makes another addition to those already on record of the possibility of recovery even with a foreign body within the skull, and in close proximity to the brain. Such cases are now not very rare. The points of rarity in this case are:—1. The absence of meningeal inflammation, although the dura mater was pierced by a mass of bone with rough edges. 2. The absence of cerebral symptoms, although this mass pressed upon the brain and its sharp bony points were adherent to the brain substance. 3. The absence of any fever during the last twelve days of life, although post mortem an abscess containing four ounces of fetid pus was found in the frontal lobe of the brain surrounded by gangrenous brain substance. It is also worthy of note that in the remarks on the case as published in THE LANCET of Jan. 10th, the probable situation of the bullet was suggested as being below the level of the wound and resting on the orbital plate of the frontal bone. In this position it was found and, as also proposed, the brain was uninjured by the ball itself. That such an accumulation of pus should be found within the brain with no symptom of fever, paralysis, or cerebral irritation, beyond headache, is a remarkable fact.

HALIFAX UNION INFIRMARY.

A CASE OF CÆSAREAN SECTION; DEATH; AUTOPSY.

ON Dec. 30th, 1884, Dr. Dolan performed the operation of Cæsarean section on a primipara, aged twenty-six, a pianist, whose height was only 3 feet 11 inches. She had been in labour five hours. There was great pelvic deformity, the antero-posterior diameter being one inch and a half. Carbolised catgut was used for the uterine wound, silver wire for the abdominal walls. The child was living. The patient died in fifty-four hours.

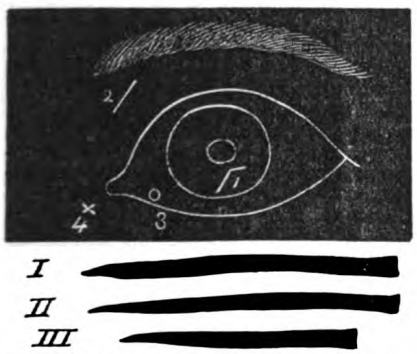
A post-mortem examination was held seventeen hours after death. The uterine wound was found open, a large clot having been forced through it, owing to the occurrence of vomiting. There was peritonitis, which was the probable cause of death.

NEWCASTLE-ON-TYNE INFIRMARY.

WOUND OF THE CORNEA, WITH PROLAPSE OF THE IRIS; REMOVAL OF FOREIGN BODIES FROM THE ORBIT; CURE.

(Under the care of Mr. FREDERICK PAGE.)

THREE months ago a young married woman was admitted into the Newcastle-on-Tyne Infirmary in consequence of an injury to her left eye, which she had received three days previously, as she said, from a blow. Both eyelids were swollen, and in the cornea, at the situation indicated on the diagram 1, was a ragged wound, a quarter of an inch in



length, through which a piece of iris protruded the size of a large shot. There was no blood in the anterior chamber and the lens was unaffected. No other wound could be seen. A strong solution of atropine was put into the eye at intervals, and twice or thrice the protruded iris was touched with nitrate of silver. In a few weeks the wound in the cornea healed, and she was allowed to go home, still, however, with some swelling of the lids. Six weeks after the accident she returned complaining of pain and difficulty in opening her left eye. At the situation marked 3 in the diagram a foreign body could be felt beneath the skin some distance from the surface. The lid could not be everted. A cut was made in the skin, and with some difficulty a steel headless nail, of which I. is an exact outline, was extracted from the orbit. In a few days she was seen again, and in precisely the same situation another foreign body was detected. She was put under chloroform a second time and another nail (II.) extracted. On everting the lid an unhealed wound in the palpebral conjunctiva was seen, through which the nails had entered the orbit. Eight weeks after the accident she again applied, complaining of a purulent discharge and uneasiness about the inner canthus. At the spot marked 4 another nail could be felt through the skin. Separating the lids as far asunder as possible with a speculum, under chloroform, a careful search showed an unhealed wound of the conjunctiva of the lower lid, from which another nail (III.) was drawn out of the orbit. In the sclerotic, opposite this wound, and in a line with the wound in the cornea, was the cicatrix of a recently healed puncture; and Mr. F. Page believes that nail III. had transfixed the globe, entering at the ragged wound in the cornea, passing out of the eyeball at the spot marked 2, and burying itself in the orbit at 4. The patient now has a useful eye, her sight is unaffected, and her pupil nearly perfect.

On going more carefully into the history of the case it was ascertained that the woman was in a cupboard reaching an iron saucepan from a shelf above her head. The saucepan fell, struck her on the head, and she fell down insensible. In falling, to reach the floor she had to pass another shelf, upon which stood a flat box containing a number of nails like those taken from the orbit. It is strange how these nails got where they were found, and passing strange that the patient should have escaped without injury to the optic nerve or brain, and with a good useful eye. It may be added that the patient is a strong healthy woman with a family, and that there is no reason to doubt the account she has given of the accident.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Conclusion of the Discussion on the Tubercle Bacillus and Pathology of Phthisis.

A SPECIAL meeting of this Society was held on Wednesday last, the President, Dr. George Johnson, F.R.S., in the chair.

Dr. K. FOWLER said that he wished to make a few remarks on the distribution of the lesions of phthisis, more especially in relation to the presence of some septic virus as the agent in disseminating tubercle from one part of the lung to another. Tubercular lesions were not found to extend at random through the lungs, and generally not by direct extension of the morbid process. The situation of the secondary lesions of phthisis gives evidence of the presence of tubercular virus. It should be observed that lesions in the upper lobe do not differ from those found in the lower lobe; those who hold to the inflammatory theory say that the tubercular disease is grafted on the primary inflammation. He was frequently seeing cases of arrested phthisis; such instances were met with clinically and at the post-mortem examinations. In those who die of cancer evidence may be found that they had previously been the subject of tuberculosis; there is a family history of phthisis in many cases of cancer. In the specimens of arrested phthisis some puckering of the pleura and fibrosis of the underlying lung, with pigmentation, were to be found; and very frequently also there was infiltration about the posterior horizontal branch of the bronchus, near to the posterior apex of the lower lobe, and almost exactly opposite the fifth dorsal spine. This lesion may be arrested in the state of cavity. In other cases of phthisis this region was very prone to be affected. He considered that the virus of phthisis was of a specific nature, and since the bacillus had been discovered he was inclined to accept it as the specific agent. This virus would account for the auto-infective property of tubercle. The secondary deposit of tubercle was not always situate on the same side of the lungs as the primary one; we may have a "crossed lesion," and in these cases the patient could not lie on the side the lung of which was primarily affected. Probably infection took place during the night, and was due to the

inhalation of septic material along the bronchi. He believed in the unity of phthisis. With regard to heredity, he could not concur in the views of Germain Sée, that the child derived its tubercle from the blood of the mother during fœtal life. In most cases of acquired phthisis he thought that the virus of the disease was taken in through the respiratory passages. There was danger from the close aggregation of healthy with tubercular individuals when a predisposition existed in the former; predisposition may vary at different periods of life, just as may be evidenced in zymotic diseases. Three factors were necessary to the development of tubercle: (1) the seed of the disease, which was probably the bacillus; (2) a proper soil, either hereditary or acquired; and (3) certain conditions, which may vary from time to time even in the life history of the individual.

Dr. S. Coupland spoke of the great contrast between the views now prevalent and those generally held about 1873, when the discussion took place at the Pathological Society, at which Dr. Wilson Fox and one or two others were the only supporters of the view that all phthisis was essentially one and the same disease. He considered that whereas Dr. Bastian advised at that meeting the absolute disuse of so misleading a term as tubercle, it would appear that now the word would be quite appropriate. Our conception of tubercle is now infinitely wider than when Virchow first gave the name to the miliary bodies. Whereas histological features were generally accepted as the test for tubercle, and experimental inoculations used to be thought fallacious, now the position was reversed, and histology was regarded as insufficient to establish the nature of a supposed tubercle. The views which regarded phthisis as everywhere the same were more firmly substantiated by the recent additions to knowledge, and these recent acquirements were decidedly of value even if they only confirmed the knowledge which had already been attained. If we apply this new test of the bacillus to discriminate the tubercular from other lesions, the field of tubercular disease will be found to be very much widened. Koch had found the tubercle bacilli in two cases of ulcer of the tongue, in four cases of strumous pyelitis, in cases of chronic disease of the bladder and rectum and of suprarenal disease, and in a case of tubercular disease of the uterus; also in specimens of strumous disease of the testicle, and in caseous tumours of the brain, as well as in twenty-one strumous caseating lymphatic glands, chiefly of the neck. The bacillus had been found also in the granulation tissue of chronic disease of joints and of diseases of bone, and scantily in examples of lupus of the skin. These observations are quite in accordance with the accepted views of tuberculosis as a general infective disease which may attack the body at any point, and which thence is liable to become further disseminated throughout the system. The evidence in favour of the real arrest of the tubercular process was strong. It might be that it was through the activity of the bacilli that the caseous matter is softened, and hence an explanation of the large numbers of bacilli usually found in caseous matter is afforded. It might be that, owing to the inertia and want of activity of bacilli, parts became shrivelled, fibrous, and cretified.

Dr. Theodore Acland said that it required one who had worked in this field to properly appreciate the value and labour which Dr. Kidd had bestowed on his researches. He proposed to deal only with the practical side of the question, and proceeded to relate the results of some observations made by himself and Mr. Edmunds on the presence or absence of bacilli in the sputum. In all cases where it was possible he had inquired into the occurrence of the bacilli in the tissues of the patient after death. He had succeeded in finding bacilli in nearly all cases of tubercular disease which he had investigated. In some instances he had found innumerable bacilli during life, but none after death. In others, though there were innumerable bacilli found in the lesions after death, he had not detected any during life. Special mention was made of a case of laryngeal disease in which, though bacilli were abundant, there was not a single giant cell to be seen in the tubercular lesion, though many microscopic sections had been examined. In three cases of general tuberculosis he had not been able to discover a single bacillus; also in one of tubercular peritonitis, and in cases of tubercular disease of joint and bone. He had not found the micro-organisms in those tissues which had not been exposed to the atmosphere. His methods might have been at fault, but yet in every specimen of Perlsucht in bovine tuberculosis he had not failed to detect the bacilli. He alluded to the fact that Dr. Hensen of Bergen had found bacilli like those of tubercle in leprosy and glanders. He asked how it was that there was frequently no proportion between the number of bacilli and the extent of the tubercular lesion. Reference was made to a paper recently read by Mr. Croft, in which, though many specimens of diseases of the joint were examined, he had not been able to procure a single one in which a bacillus was present; and, further, Dr. Mules had been unable to discover bacilli in tubercular choroiditis (Ophthalmological Transactions, 1884). Here we must suppose either that the lesions were not tubercular or else that bacilli may be absent.

Dr. Douglas Powell then read a letter from Dr. Creighton, which expressed regret that he was unable to be present at the meeting. The chief passage in the letter was as follows:—"The interpretation put by Mr. Watson Cheyne upon a printed sentence of mine relating to Koch's procedure is one that I certainly did not intend it to bear, and did not suspect that it could be made to bear. I wish most explicitly to disclaim any charge of personal bad faith against Dr. Koch, and to express my regret that the words 'his omission might be taken in good faith,' which I inadvertently let pass, should have given the slightest colour to that charge."

Dr. Heron congratulated Dr. Kidd on so valuable a piece of work, which was an able endorsement of the work published by Koch in 1882. He then criticised some of the remarks made by Sir Andrew Clark, who stated that in eleven cases of fibroid phthisis he had not discovered the bacillus, though whether the investigation was clinical or anatomical, or both, did not appear. The bacillus would most certainly be found in such cases if sufficient search were made. Similarly with regard to the cases of acute tuberculosis in which no bacilli had been detected. He considered, in opposition to Sir Andrew, that if the life history of caseous pneumonia were so very distinct from the life history of tubercular phthisis, the occurrence of the same bacilli in both forms of disease tended to minimise the importance of the part played by the life history. At the London Hospital, a few years ago, he ventured to assert that the presence of the organism might be an aid in prognosis, for where the bacilli were numerous he predicted a rapid course, and where they were scanty a slow one. He was glad to hear the remarks of Dr. Moxon on the prognostic significance of clumps of bacilli in the stained specimens of sputa, for he had also made the same observation, and seeing that it remained so long unverified, he had been somewhat disappointed.

Dr. Bernard O'Connor criticised some of the remarks made by Dr. Green and Mr. Watson Cheyne. If bacilli were the index of tubercle, what are we to say about Lustgarten's discovery, in chancres and syphilitic gummata, of bacilli undistinguishable from the bacilli of tubercle.

Dr. Drysdale reviewed the various theories which had been extant during the past forty years. After studying at Paris and working at the Consumption Hospital, he became convinced that phthisis was a virulent inoculable disease. He said that the bacilli had now been discovered in about 3400 cases and were absent in but a few. He regarded this new doctrine as the most important addition to pathology known to him.

Mr. Macnamara referred especially to the investigation of early stages of tubercular disease of bone, such as may be met with in the head of the femur, where the child not unfrequently dies from tubercular meningitis or from tubercle of the lung. He had failed to verify the presence of tubercle bacilli in a growth which could be nothing else than tubercle. The process began at the junction of the diaphysis with the epiphysis. In five or six cases most thoroughly examined, he had never been able to discover the bacillus in the early stage of the disease, though he had frequently found the micro-organisms when a sinus communicating with the open air led down to the diseased bone. Reference was made to a case, in which the patient had suffered from pain in the femur for years, which had been under the care of Mr. Cowell. In this case a sudden accession of fever with formation of abscesses in the popliteal space was the indication for amputating the limb. It was then found that the matter was full of bacilli, although there had been no external opening, and without there being any opening into the cavity of the bone itself. The bone was exhibited to the Society. This patient had no symptoms of phthisis, and it was surprising that there should have been no extension to the rest of the body.

Dr. Percy Kidd, in reply, said that the discussion had

not called in question the specificity of the bacillus until this evening. Remembering the ignominious collapse which took place after Spina's publication, it would be well to hold our hands before accepting the results of Lustgarten's researches in syphilis. The objections made by Dr. Creighton, if they could be sustained, were serious; but it seemed to him that Mr. Watson Cheyne had already fully answered them. Dr. Wilson Fox had referred to the aniline dyes as liable to lead to error, but Koch did not trust solely to the staining of the bacillus as a means of proving his point, for the cultivations and inoculations were far more important, though the staining was a convenient method of finding the bacilli in the tissues. Koch admitted that other micro-organisms may give similar reactions—as, for example, that of leprosy. With regard to Dr. Green's definition of phthisis, he would accept it as more perfect if the qualification that "consolidation which had a tendency to undergo fibro-caseous changes" were added. The idea of the septic virus had been known since the time of Villemin. He agreed with the views of Dr. Wilson Fox and others on the unity of phthisis. In his own experience he had found the detection of the tubercle bacillus to be of great value in doubtful cases. It must have been a great satisfaction to Dr. H. Weber to have predicted that phthisis was a germ disease so long ago as 1868. From his observations he would say it was not uncommon to find the bacilli *in* the ordinary cells of tubercle, especially in cases of acute miliary tuberculosis. With regard to the observation of Metschinkoff, quoted by Mr. Sutton, he thought that it was of much significance. The insemination of tubercle might be prevented by the protective influence afforded by the vigour of the cells of those individuals who were not prone to phthisis. He regarded the epithelioid cells of tubercle as perhaps the most important histological elements in the early lesions of tuberculosis. As to the remarks of Dr. T. Williams on the protective action of the giant cells, he said that this was not proved by the bacilli being at the periphery of the cell, for it was here that the nuclei were situate, and where activity was greatest. The giant cells seemed to be inert structures, and in his opinion did not have any defensive action. The small number of bacilli in acute miliary tubercle was remarkable; the bacilli were more numerous in nodules rather larger than the miliary bodies, and where there were the signs of catarrhal pneumonia round about them. The number of the bacilli probably depended on the stage of growth. It was not at all infrequent to have to examine many sections before bacilli were found. As to the method of preparation and examination which he had adopted, he could only say that he had followed the account of Mr. Watson Cheyne, given in the *Practitioner*, in his report to the British Medical Association. The sections were left about twelve hours in the first staining solution, though two hours, with sufficient warming and changing of the fluid, were enough in some cases which he had tried. He advised the use of benzol instead of chloroform for dissolving the Canada balsam, and cedar oil instead of oil of cloves. At one time he believed the bacilli were only to be found in lesions exposed to the atmosphere, but he had now given up this notion. He had undoubtedly seen bacilli in a caseous vesicula seminalis, though they were rather scanty. In this patient there were follicular ulcers in the ileum. It is possible that the spores of bacilli may be present without the rods; and as the former may not be stained by the ordinary methods, this would explain the failure to find bacilli in some cases. Inoculation was followed by tuberculosis, even when the tubercle failed to yield evidence of bacilli. Koch had found bacilli in every one of nineteen cases of acute miliary tuberculosis examined, and Dr. Kidd had not failed to discover them in six instances. He regarded Mr. Watson Cheyne's suggestion of a chemical poison produced by bacilli as very valuable. He believed that spread by contiguity only took place to a small extent; the blood-vessels disseminated tubercle widely. Bacilli may be seen reaching into the lumen of the artery in tuberculosis of the pia mater. Weigert's observations on the spread of tubercle by the pulmonary veins were made before the bacilli were discovered. He could not coincide with the views of Dr. Moxon, that we should not expect to find tubercular bacilli in cases of fibroid phthisis. In conclusion, he did not think that the bacillus afforded a complete solution of the tubercular process, though he believed it to be essential. Koch had suggested abrasions on the skin as not improbably the mode of inoculation in some cases. The desquamation of epithelium after measles was a doubtful explanation of the determination of tubercle to the lung. It was not impossible to explain the wide differences between caseous pneumonia and fibroid phthisis on the views now held. As to diathesis or disposition, he asserted that some peculiar disposition on the part of the individual was necessary. There was nothing to support M. Germain Sée's notion of the mode of inheritance of tubercle. He was in complete accordance with the views of Dr. Andrew, expressed in the Lumleian Lectures, which postulated the coexistence of a predisposition with the introduction of some virus from without.

PATHOLOGICAL SOCIETY OF LONDON.

Malignant Disease of the Spermatic Cord. — Congenital Disease of the Heart.—Synostosis of Dorsal Vertebræ.—Tubular Epithelioma of Upper Jaw.—Suppuration in Joints in Congenital Syphilis.

AT the ordinary meeting of this Society, held on Tuesday last, Dr. J. Syer Bristowe, F.R.S., President, took the chair for the first time.

Dr. BRISTOWE, on taking his seat as President, delivered an address, in which he glanced at certain points in the history of the Society as he was acquainted with it from personal experience, and recalled certain reminiscences of some of its presidents in its earlier years—of Dr. Latham, Mr. Cæsar Hawkins, Dr. Babington, and Dr. Copeland. The Society had only been in existence a few years when Dr. Bristowe joined it, and he bore witness to the success which it more rapidly attained than any other Medical Society; it became and continued a success because it satisfied a real want. It was emphatically the Society of the young and ardent seekers after truth in that branch of knowledge which is the foundation of all scientific medicine. The Society could only encourage original investigation of the first order indirectly by inducing workers to display specimens which presented points of novelty or of special interest. Its chief duty was the collection and record of material; discussion of the specimens shown could never be prolonged, for it was impossible for anyone to discuss an abstruse pathological subject on the spur of the moment. He fully agreed with the view expressed by his predecessor in the presidential chair, that the formal debates which had been held on several occasions lacked spontaneity, and were in reality but a series of monologues.

Dr. PYE-SMITH, at the end of the meeting, proposed, in a few well-chosen terms, a vote of thanks to the President for his address, which was seconded by Dr. CAYLEY and carried by acclamation.

Mr. A. J. PEPPER read notes of a case of Myxoma of the Left Spermatic Cord, removed from a patient aged seventy-five years. The tumour had been growing for ten months; it weighed, when fresh, rather more than a pound. It was completely encapsuled and was readily shelled out of its bed of areolar tissue. Two or three small cysts projected from the growth, the anterior surface of which was deeply grooved by the spermatic cord. Neither the testicle nor the vas deferens was implicated. There were no secondary deposits. The sectional surface presented generally a gelatinous quivering appearance. Under the microscope there was seen a clear ground substance, threaded by fibres of connective tissue, and strewn with round, oval, angular, and branched cells. In some parts round and fusiform cells, and even cartilage cells, were to be seen. The author of the paper remarked that he had used the term "malignant" on account of the rate of the growth of the tumour and its structural affinity to sarcoma. He then alluded to several recorded cases of connective tissue tumours springing from the spermatic cord, and remarked on the impropiety of classing them with the carcinomata, since in the first instance they attacked neither the skin nor the spermatic epithelial tract.

Mr. PEPPER also exhibited specimens of Colloid Cancer. The primary growth sprang from the connective tissue of the left spermatic cord, apparently having arisen from the remains of some fœtal epithelial structure, since neither the testicle nor the vas deferens was affected. Seven years later the œsophagus became the seat of colloid cancer, and from this the patient died. At the post-mortem examination similar deposits were found in the omentum, abdominal glands, and in the right spermatic cord. Dr. BRISTOWE inquired whether the disease was colloid in the œsophagus; this was answered in the affirmative.—Mr. ALBAN DORAN

asked whether there were secondary growths within the cyst of the first specimen. Mr. PEPPER replied that there were not; the cyst wall was smooth internally. Mr. BUTLIN referred to a case under the care of Mr. Walsham, in which the growth was a spindle-celled sarcoma; it was possible for epithelial tumours to originate from the tunica vaginalis. Another case, removed by Mr. Willett, was also a sarcoma, and here the testicle and tunica vaginalis were perfectly free from disease.

Dr. NORMAN MOORE showed a specimen of Congenital Malformation of the Heart. The case was that of a boy aged three years, who was under Dr. Moore's care at St. Bartholomew's. The heart showed great hypertrophy of the right ventricle, the left ventricle being of normal size. The tricuspid and mitral valves were natural. The pulmonary artery was given off at the normal situation; at its root its external measurement was barely a quarter of an inch. Internally its valves were represented by a small cone projecting into the artery, with a perforation at its apex no larger than a medium-sized pin. The aorta was larger than natural, and measured three-quarters of an inch across (external measurement at its origin); its valves were normal, and its orifice communicated freely with both ventricles exactly over a circular orifice at the top of the ventricular septum, about three-quarters of an inch in diameter; the foramen ovale was also widely open. The ductus arteriosus was closed, and the distribution of the vessels of the aortic arch was normal. During life the child was deeply cyanosed, and when it had measles the rash had the appearance of a general purpura. The child was under observation from April 10th to Nov. 4th, 1884. When its heart was acting quietly a systolic murmur was audible all over the chest, most distinct at a point midway between the left nipple and the sternum. There was no thrill when the heart's action was irregular, owing to pulmonary catarrh, and then no murmur was audible. In addition to a deep general cyanosis there was great dilatation of all superficial veins, those of the eyelids being especially sinuous and distended. The veins of the fundus of the eye were very tortuous also. There was always an offensive discharge from the mouth, and the child sank rapidly with a necrosis of all the tissues of the right cheek, including a small piece of the superior maxillary bone. The fingers and toes were greatly clubbed. On cutting into them at the autopsy, the clubbed ends could be reduced by pressure to the normal shape. Microscopical sections of one of the terminal phalanges of the second right toe showed that the clubbing, while chiefly due to mere engorgement, was associated with some thickening of the walls of the blood-vessels. There did not seem to be any general increase of connective tissue. The mother had had another child cyanotic soon after birth, which died at the age of eighteen days. The cyanosis of this child was not noticed till some time after birth. Dr. William Hunter, in 1783, gave the first exact description in England of a heart with a small pulmonary artery and free communication between the auricles and between the ventricles. The cause of death is various in these cases. In the present one it is worthy of remark that death was due to necrosis, a change directly due to the defective conditions of circulation. In spite of its extreme cyanosis the child passed through an attack of measles with no more difficulty than a healthy child.

Mr. DAVIES-COLLEY showed photographs of a case of Synostosis of the Dorsal Vertebræ. The patient was a man aged thirty-two, whose father had rheumatic fever twice, and his mother died of phthisis, otherwise there was no history of gout or rheumatism. He was a sailor at the age of seventeen, and then began to suffer from severe rheumatic pains as the result of exposure to all kinds of weather. He was later on subjected to great alternations of temperature at a cement factory; later still he found great difficulty in rising after stooping, and was frequently exposed to the action of cold and damp. About eight years ago the back began to grow out, and he suffered from lumbar and abdominal pain. Nearly eleven years ago he had an attack of gonorrhœa, which caused no difference in the previously existing rheumatism. His height used to be 5 feet 6 inches, but was now 5 feet 2 inches. There was no tenderness on preseure over the dorsal spinous processes. The erector spinæ muscles were fairly strong. Difficulty was experienced in going upstairs. At the junction of the first rib cartilage with the sternum there was a prominent bony mass. The chest was very rigid and scarcely expanded half an inch in full inspiration. There was but an interval of two inches between the umbilicus and ensiform cartilage. The knee-jerks were normal. He improved under treatment with iodide of potassium. Similar cases had been recorded by Mr. Clutton, Dr. Allen Sturge, and Dr. Fagge. The disease was probably due to a chronic inflammatory change occuring in the periosteum and ligaments around the vertebræ, or possibly in some cases between the laminæ and spinous processes. There was possibly also some outgrowth of bone about the head and tubercles of the ribs, which would cause diminution in the thoracic movements. The gonorrhœa did not have anything to do with the causation of the disease, for the rheumatism was not worse when the gonorrhœa came on. Dr. WILKS thought that such cases were not uncommon, though but little recognised clinically. Many of the pains and other troubles which old persons experienced were due to such changes. It was very common to find various degrees of ankylosis between the vertebral joints which were of the nature of osteoarthritis. He referred to the case of a lady who suffered pain in the large occipital nerve, and in whom all the limbs were affected with chronic rheumatic arthritis. Dr. NORMAN MOORE said that he had shown in the last session of the Society specimens of the vertebræ of a Roman in whom the osteo-arthritic disease was exceedingly well marked. The vertebræ may be ankylosed by an overgrowth of bone between the dorsal spines as well as between the centra. He considered that the changes in young people were not the result of the same disease as that which occurred in old people.—Dr. GOODHART asked how far injury, as the carrying heavy loads on the back, could account for such conditions.—Dr. BARLOW thought that the specimens in the museums showing union of vertebræ by means of splints of bone, chiefly in front and at the sides, which kept the spinal column nearly straight, were of a different nature from those cases of spondylitis deformans where there was arching backwards of the dorsal spine with considerable curvature. He had seen four typical cases of spondylitis deformans. One was that of a volunteer, aged twenty-six, who had got damp and had severe backache after camping out; his height was diminished by five inches; the patient committed suicide owing to the intensity of the pains. In two other cases occurring in individuals aged about forty, gonorrhœa in one, and acute rheumatism in the other, preceded the spondylitis deformans, which was also associated with rheumatic arthritis. He had seen another case of spondylitis deformans where no signs of osteo-arthritis were present. The plaster jacket produced no benefit in either of the two cases in which it was used.—Mr. J. BLAND SUTTON said that he had seen changes in the spinal vertebræ of a camel exactly resembling those seen in man. Large masses of bone ankylosed the vertebræ together. There was no difference between the osteo-arthritic changes in man and those seen in animals. The extinct great Irish elk was a witness to the antiquity of the disease. Mr. DAVIES-COLLEY, in reply, considered that the disease in old people was different from that in the young. He did not agree with the suggestion of Dr. Goodhart that there was paralysis of the muscles supporting the spine.

Mr. BILTON POLLARD showed sections and drawings of a specimen of Epithelioma of the Upper Jaw removed by Mr. Christopher Heath, at University College Hospital, in October last. The patient was a man aged sixty. He had received a severe blow on the right cheek eight years previously. Nine months before admission his nose began to bleed on the right side, and three months later the right cheek began to swell, and later the right nostril became blocked. On admission a swelling of the right cheek was observed, but the skin over it was not implicated. The hard palate was bulged close to the alveolus on the affected side; there was no sinus between the mouth and antrum; the teeth were sound, and the alveolus healthy. There was no enlargement of the lymphatic glands, and no family history of new growths. At the operation the growth was found to fill the antrum, right nasal fossa, and sphenoidal sinus. The patient made a good recovery, and left the hospital in four weeks. The growth was greyish-white in colour and of firmish consistence, with bands of denser tissue running through it. The greater part was composed of tubes of small cells ramifying through a hyaline and finely fibrillated stroma; the tubes anastomosed freely, and islets of colloid degeneration were scattered within them; the tubes were without lumina. Here and there cells of a larger size were seen, evidently of epithelial type. The stroma was really composed of spindle-shaped cells. The tumour had

alliances with the plexiform sarcoma of Billroth, but was much more like the tubular epithelioma of Cornil and Ranvier. Clinically, the tumour had resemblances to the "boring epithelioma" of M. Reclus[1] and to those cases shown by Mr. Butlin in 1881.

Dr. CARRINGTON read for Mr. Lane a paper on Suppuration in many of the Joints of an Infant eight weeks old, who had had specific eruption all over the body and snuffles. There was much emaciation. Treatment was effected by mercury and stimulants without result. During life only the left elbow-joint was swollen. At the autopsy suppuration was found in the right hip and right shoulder and both elbows; these were distended with pus. The ribs were markedly beaded; there was no softening to be detected between the epiphysis and diaphysis. The changes were most marked about the humerus and ulna of the right elbow. No suppuration in the thymus was found. A firm yellowish-pink coloured gumma was seen in the upper lobe of the right lung, and in the liver there were one or two whitish patches of doubtful nature. The case seemed to be rare and unlike those described by M. Parrot. One recorded by Dr. Lees in the Clinical Transactions for 1880 was nearly allied to it.

The following card specimens were shown:—Dr. Charlewood Turner: Horseshoe Kidney and Sarcoma of both Adrenals. Mr. John Poland: Suppurating Bronchial Gland opening into the Œsophagus and Left Bronchus. Dr. Norman Moore: (1) Disease of Sacro-iliac Joint following Parturition; (2) Renal Tumour composed of Cholesterin; (3) Aneurysm of the Anterior Aortic Valve. Mr. M. Sheild: Rectal Polypus. Two recent specimens were shown:—Mr. M. Sheild: Morbid Growths, probably Gummata, in the Liver of a Woman, aged twenty-four. Mr. Battle: Cyst containing Creamy Fluid, removed by Mr. Sydney Jones from the intestinal wall of a woman, aged twenty-five.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Jan. 14th, Sir Joseph Fayrer, K.C.S.I., M.D., Vice-President, in the chair.

Surgeon-General MOORE read a paper on the Constitutional Requirements for Tropical Climates, with special reference to Temperaments. After remarking that in former times more attention was paid to temperament than is now the case, the author proceeded to prove by reference to the "Vedas" that the Aryans when they descended into India, 5000 years B.C., were white in colour; their habits and constitutions being then adapted to a northern climate. But the influence of warm climates impresses certain peculiarities on those who inhabit them. Exposure to the heat of a tropical climate tends to bronze the white skin; unless the possessor unfortunately becomes subject to that slow blight of the constitutional powers manifested by a diminution of red blood-corpuscles, in which case the skin is blanched. Then there is a positive diminution of inspired oxygen, owing first to the expansion of the air from heat, and secondly to the lessened number and force of respirations, consequent on the lassitude experienced and on the smaller amount of physical exertion taken in the tropics, where actual necessaries in the shape of food are produced under the minimum of labour. Doubtless, the Aryan Hindoos, once meat-eaters, left off consuming flesh as a desideratum of residence in a hot climate, and probably as a presumed means of maintaining the white skin on which they prided themselves. The Brahmins, who wrote the "Vedas," must have been intellectually capable of appreciating the evil of too much carbonaceous food in a tropical country, although not reasoning the matter out by the light of nineteenth-century science. However this may be, there is no doubt that the Aryans, once white, with northern temperaments and habits, have, during the lapse of ages, by the survival of the fittest, been converted into the modern Hindoo, with his typical temperament, which may be regarded as a compound of the nervous and bilious, and in which all the inhabitants of Hindoostan, whether Aborigines, Hindoos, or Mahomedans, partake; and when we recollect that in one or two generations Celts and Saxons, Teutons and Danes, *cum multis aliis*, are converted into the sallow typical inevitable Yankee, the change during thousands of years of the light Aryan into the dark Hindoo seems facile. Now, theoretically, it would appear that the European, who in type and temperament most closely resembles the natives of India, would be best fitted to encounter the adverse influences of a tropical climate; and, practically, this appears to be the case, as Europeans marked by the bilious or bilio-nervous temperament usually enjoy the best health in India. The term bilious is a misnomer, as implying in persons of that temperament a tendency to hepatic derangement which does not exist in any extraordinary degree; the bilious appearance depending on a participation in that cutaneous deposit of carbon marking the dark races. But there must be no predominance of the nervous temperament, as a highly sensitive and sympathetic nature is not most conducive to health and happiness, when submitted to the daily ills and irritations of tropical life. A French physiologist is credited with saying that "If you want long life, you should possess a bad heart and a good stomach." Without endorsing this assertion, it may be stated, with certainty, that a highly nervous organisation, especially if, as is often the case, associated with feeble digestion, is not fitted for prolonged tropical residence. The temperament next best fitted for the tropics is the sanguine, perhaps explainable by the somewhat less liability of individuals of this type to tropical anæmia. But, on the other hand, there is tendency to hepatic affection, and the sanguine temperament enduring only for a period may rapidly or suddenly give way. The longer, however, persons of sanguine temperament live in India, the more decided is the change which takes place towards the bilious variety, explainable by a consideration of the general effect of a tropical climate on the system of the European, which is much the same as that converting the ancient Aryan into the modern Hindoo. Discarding such hypothetical causes as marsh miasmata and telluric influences, the author gave reasons for regarding *heat* as the principal factor in producing the changes, so often of a deteriorating nature, which take place in the system of the European sojourning in the tropics. Thus, temperaments become associated with acquired diatheses—as the scorbutic, the malarious, and the syphilitic, all of which should forbid tropical residence. The latent scorbutic taint is extremely prevalent in India, and as there is a pathological resemblance between gout and scurvy, the system tainted by the latter is extremely like to develop the former, and therefore hereditary tendency to gout should be regarded as against the advisability of a tropical career. Again, an hereditary tendency to hæmorrhage should be similarly regarded; for bleeding from the nose and gums being the ordinary manifestations of the hæmorrhagic diathesis, and also of malarious and scorbutic taints, it is easy to conceive how the latter, being established, may excite the dormant diathesis of the former. Hereditary tendency to insanity or epilepsy should also unfit for tropical residence, both of which are liable to be excited by heat. There is another malady which, although not regarded as hereditary, should unfit for tropical residence, and that is albuminuria. Years back hot climates were regarded as favourable for the first stage of renal affections. Experience, however, has proved that tropical countries should be forbidden to all who have passed albumen, unless from accidental causes. Idiosyncrasy, especially when it shows itself in an inability to take quinine, should unfit for Indian life. So should the deadly fear of disease, which causes some people to see danger everywhere, and, like Voltaire, to regard the atmosphere as "a blue and white mass of noxious exhalations." Age and sex are important considerations. Persons possessing the suitable temperament may proceed at a younger and remain till a later age than those of opposite temperament. The period at which officers are required to vacate active employment in the public services is fifty-five, which even in India is too early. For it must be recollected that such men represent the survival of the fittest, men who supported the burden of the day under which so many comrades succumbed, and who may therefore be credited with more than the average *vis vitæ*, with prudence of life, and with the suitable temperament. As regards sex, it was observed that, if it is desirable that males should not proceed to the tropics before the growth of the body is matured, it is especially desirable that females should not do so until the growth is matured, and the periodical functions are firmly established. Dr. Moore concluded his paper by lamenting the absence of ordinary care evinced for themselves by Europeans generally in India. In the discussion which followed Sir Joseph Fayrer, Surgeons-General Manifold and Cornyn, Drs. Lawson, Dickson, and Dow took part.

[1] Progrès Médical, 1876.

MEDICAL OFFICERS OF HEALTH SOCIETY.

AT a meeting of this Society held on Dec. 19th, 1884,

Mr. HENRY ARMSTRONG read a paper on the Status of the Medical Officer of Health as a Criterion of Sanitary Progress, The author remarked as follows:—A correct idea of the public desire for sanitary progress is to be formed by the position accorded to medical officers of health. In the present state of opinion the post of a health officer is one of devotion and self-sacrifice without adequate return. He is doing good work and his action is approved at head quarters, but the feeling among health officers in general is one of disappointment with their position. The causes of dissatisfaction are external and internal to the body of officers of health. The former include the anomalies of sanitary districts as regards area and population to be supervised, the amount of attention to be bestowed on his district by the officer, the terms of appointment, irregularities of remuneration in different districts, and smallness of salary as compared with other public professional officers, want of proper consideration for the office and officer on the part of local authorities, as shown by their treatment of his advice (reports, &c.) and the amount of authority given him; opposition between the health officer and the inspector of nuisances, sometimes promoted; the personal relations existing between the health officer and individual members of his authority; his remuneration is generally inadequate, and he is sometimes tempted to take other and even unprofessional duties to eke out a slender income. His salary in many instances is liable to reduction, generally owing to the short period for which he is engaged; he is exposed to frequently recurring risk of loss of office without cause on his part; he has no prospect of pension with advancing age, and his relations with the public are difficult. Duty brings him into conflict with private interests. He does not receive sufficient support from those in authority. Internally, the causes of dissatisfaction are, among others, that medical men accept appointments at unfairly low rates of remuneration and without due regard to the responsibilities of the duty they undertake to discharge. The foregoing circumstances react on each other, both on the part of the public and the practitioner; the cause of sanitation, and, *pari passu*, the status of the officer practising it, suffer. The status of officers of health may be improved (1) by equalising the health appointments through compulsory combination of small districts, and by appointing superintendent medical officers of health over entire counties or groups of counties; (2) by the Local Government Board exercising more control over the appointments and duties of officers; (3) by local sanitary authorities being deprived of the option of ignoring the sound advice of their health officers; (4) by extending the authority of health officers; (5) by making his recompense and prospects equal to those of other professional men on his own level; (6) by giving the officer satisfactory tenure of his appointment. The holding of health appointments by private, general, or consulting practitioners is not desirable. The salaries of the appointments should be sufficient to render such a mode of increasing the income unattractive. The officer may with advantage hold certain other public appointments relating to hygiene—e.g., those of medical superintendent to a hospital for infectious diseases, coroner, public vaccinator, superintendent, registrar of births and deaths, lecturer on hygiene at a medical school, examiner for university degrees in sanitary science. He may also under certain circumstances act as public analyst if he has received proper and sufficient training for that office, and if he has assistance so as to prevent the work from interfering with his other duties. He should not accept such offices as superintendent of scavenging, inspector of nuisances, veterinary inspector, &c. The intending medical officer of health of the future should undergo a term of pupilage and assistancy with a health officer, and before applying for full appointment should be able to produce a distinctive sanitary diploma or degree, such as that of Doctor or Bachelor in Hygiene, by examination after completion of a recognised curriculum. The paper concluded by recommending that the questions raised be referred to the Council for their report with the view of practical action being taken by the Society.—In the discussion which followed, the President, Drs. Gibbon, Walford, Saunders, Seaton, and Bate, and Messrs. Jacobs, Furnivall, Blyth, and Hartt took part.

WOLVERHAMPTON DISTRICT MEDICAL SOCIETY.

AT the meeting of the above Society, held on Jan. 8th at Wolverhampton,

Mr. VINCENT JACKSON read a paper on a Cheap and Ready way of Treating Club-foot. Having given an able and interesting summary of the history of the subject, which dated from 1837, he enumerated the varieties of the deformity and divided the treatment into operative, manipulative, and mechanical. For the latter purpose he strongly recommended the use of plaster-of-Paris, as being far cheaper and quite as effectual as the more costly special instruments. Mr. Jackson then demonstrated his mode of procedure.

Mr. A. E. CHESSHIRE read a communication on the Value of Cocaine as a Local Anæsthetic for Operations on the Eye, and stated that he had used it in forty cases, and found that it abolished or so lessened pain that most ophthalmic operations could be performed with comfort both to the patient and to the operator. He used a 5 per cent. solution applied every five minutes.

Mr. JACKSON exhibited a specimen of an Aneurysm of the External Iliac Artery with ligature of that vessel, the patient having died in twenty-six hours from acute gangrene.

Dr. DINGLEY exhibited a specimen of Cancer of the Kidney, the chief interest of which was that no trace could be found of the other kidney. The renal artery, ureter, and vesiculæ seminalis were also missing, but there were two suprarenal bodies and two testicles. Also a specimen of a new growth in the liver, probably of a malignant character, and the intestines showing perforation, occurring in enteric fever.

In the discussion which followed the papers Dr. Lycett, Dr. C. R. Smith, and Mr. Jackson took part.

Reviews and Notices of Books.

Elementary Text-book of Zoology. General Part and Special Part: Protozoa to Insecta. By Dr. C. CLAUS, Professor of Zoology in the University of Vienna. Translated and Edited by ADAM SEDGWICK, M.A.; assisted by F. G. HEATHCOTE. With 706 Woodcuts; pp. 615. London: W. Swan Sonnenschein and Co. 1884.

THIS work, by a distinguished naturalist, represents the present state of zoological knowledge. It has been translated into French by M. G. Moquin Tandon, who has, moreover, made considerable additions to the original. We are glad to see it in an English dress, and, after having compared many passages with Claus' treatise, to give our testimony that Messrs. Adam Sedgwick and F. Heathcote's translation is executed with singular fidelity and idiomatic clearness. The general plan of the work is similar to that of Rymer Jones's treatise on the Animal Kingdom, a work that at the time it was written was a very good epitome of zoology. The general part, which extends to nearly 200 pages, discusses many subjects, however, which were not thought of in the days of Rymer Jones, and which are the outcome of modern research. Referring to the origin of life, Professor Claus speaks very cautiously, merely stating that in the present state of our knowledge there is no evidence to show that an independent abiogenetic generation (generatio æquivoca, or spontaneous generation) actually takes place even in the simplest and lowest forms of life, although very recently some investigations, as those of Pouchet, have led by the results of remarkable but equivocal experiments to the opposite view. "The existence of the generatio æquivoca," he observes, "would offer a very important service to our contention for the physico-chemical explanation; *it even appears to be a necessary postulate in order to explain the first appearance of organisms*," a statement that indicates the strong tendency which exists amongst many naturalists to refer the beginnings of life to purely natural causes. The "cell" is stated to consist of a small lump of a semi-fluid albuminous substance

(protoplasm), containing as a rule a dense or vesicular structure—the nucleus; which is frequently surrounded by a peripheral structureless membrane. In this definition the term albuminous seems open to question, since protoplasm does not present the chemical characters of albumen, and the nature of the nucleus might have been better given. It is interesting to read Professor Claus' definition of an animal. It is, he says, to be defined "as an organism provided with the power of free and voluntary movement, and with sensation, whose organs are internal, and are derived from a development of the internal surfaces of the body; which needs organic food, inspires oxygen, changes potential energy into kinetic, under the influence of oxidation processes in metabolism, and excretes carbonic acid and nitrogenous waste products."

A chapter is devoted to the organisation and development of animals in general, in which after the characters of cells and the tissues derived from cells have been considered, the subjects of correlation of organs, the structure and functions of the compound organs, development, the alternation of generations, polymorphism, and heterogamy are successively *but briefly* discussed. The fifth chapter is occupied with an account of the theory of natural selection, and the various evidence in favour of that of descent is given. All this part is so interesting, and places so well before the reader the concepts of modern biology, that it deserves to be studied, even by those who do not wish to follow the details of the structure of the different orders and families of animals that are subsequently given.

We venture to take one example of the mode in which a group of animals is treated by Professor Claus, and we select the "Trematoda" from the general interest they possess. Professor Claus defines them as "elongated and usually segmented Platyhelminthes without mouth or alimentary canal, with organs for attachment at the anterior extremity." He commences their description by pointing out that, whilst originally regarded as single animals, the view advanced by Steenstrupp that the proglottides must not be disregarded, and that whilst the individuality of the tapeworm may be justly insisted on, the subordinate and morphologically more restricted degree of individuality of the proglottis must also be admitted. A general description of the tapeworms follows, the characteristic features of the Bothriocephalus, Acanthobothrium, Tetrarhynchus, and Taenia being incidentally mentioned. The successive stages of development are then described, from the egg, through the embryo stage, and the formation of a vesicle which converts it into a bladder worm with one (Cysticercus) or several (Coenurus) hollow buds, but still sexually immature animal. The bladder worm, it is then shown, entering the alimentary canal of another animal, loses its vesicle by the action of the digestive fluids, whilst the head or scolex, becoming free, gradually produces a chain of proglottides by a form of sexual production. The differential characters of the Taenidæ and of the several families included under that name are then given. The account of the Cestoda is illustrated by fourteen woodcuts. The manner in which the volume is got up by Messrs. Sonnenschein reflects great credit upon them, the paper, the type, and the impressions of the very numerous and admirably illustrative drawings being alike excellent.

The Principles of Ventilation and Heating, and their Practical Application. By JOHN S. BILLINGS, M.D. Pp. 216. London: Trübner & Co. 1884.

THE author states the object of this work to be "to present the subject [of heating and ventilating buildings] in such a way that architects will appreciate its importance in their work—and understand its difficulties and the general principles which should guide them in endeavouring to overcome these difficulties—more fully than many of them seem to do at present." As might be anticipated of any work by Dr. Billings, it bears evidence of a careful study and practical knowledge of the subject. But it has been written chiefly with reference to conditions in the Northern States of America, and is therefore not so applicable as it might otherwise have been to this country. Of this Dr. Billings is well aware, for he observes: "The fact that good ventilation is expensive is not so well recognised as it should be, for the reason that much of our literature on the subject is furnished by English authors, who write with reference to the climate of England. This climate is very different from our own, being much more uniform. ..... In this country rooms must be kept at a temperature of from 68° to 70° F. to ensure the comfort of the occupants; while in England 60° F. seems to be the recognised standard. Open fireplaces and grates can therefore be used there more extensively than here, and in arranging apparatus for heating by indirect radiation it is necessary to provide more heating surface than is called for by the specification of English engineers." His remarks on the heating and ventilation of churches, theatres, and large public buildings deserve the careful consideration of architects and others entrusted with their plans and erection, for though great progress has of late been made, and some recent examples show how much may be done, it must be admitted that, as a rule, the condition of places for public assemblage is still capable of much improvement. He has devoted a chapter to the ventilation and heating of schools, of which he says that "of all classes of buildings in the United States, public or private, there are probably none which are in such an unsatisfactory condition as regards their ventilation." We doubt whether in this country the same remark might not be justly made, and we would recommend the subject to the notice of members of school boards, and of all who are interested in the welfare of the rising generation. The subject of the heating and ventilation of hospitals has received more than an average amount of attention from architects; but it is evident from the author's observations and his description of the methods adopted in various recently erected hospitals that there is still much room for improvement, both as regards efficiency and expense. We trust that Dr. Billings' work may receive the attention it deserves from architects and others in charge of or responsible for the construction of public buildings, feeling assured that it will tend to promote improvement in a direction in which it is much needed. The book is illustrated by woodcuts and has the advantage of an index, which might, perhaps, have been advantageously made more copious.

Plant Lore, Legends, and Lyrics. By R. FOLKARD, jun. London: Sampson Low, Marston, Searle, and Rivington. 1884.

FOLK-LORE has enjoyed a considerable amount of popular favour during the last few years, and numerous articles on the folk-lore of plants in particular have found their way not only into journals devoted to horticulture, but even into some of the leading daily newspapers. The volume under consideration is the result of an accumulation of material originally intended for a similar purpose, but which, owing to the discontinuance of the journal in which it would have been issued, is now published in the present form, with numerous additions and an excellent index. It will doubtless be found very much more convenient for reference in the form of a complete work, especially as it is now arranged, consisting in the first part of sixteen chapters under different headings, and in the second of the plants arranged in alphabetical order under their vernacular names. The first part contains a good deal that is of interest to students of the history of medicine and materia medica, particularly the chapters bearing the titles of "Plants

and the Planets," "The Doctrine of Signatures," "Magical Plants," "Plants of the Devil," &c. The work is got up in an attractive style, is illustrated with copies of quaint woodcuts from old herbals and books of travels, and forms a very suitable book for a birthday gift to anyone interested in plants and their uses. The book bears evidence of careful revision, being unusually free from typographical errors. In a few cases, however, the botanical names, especially those of a specific character, have been omitted. The very natural error of confounding the pita or Mexican aloe (Agave Americana) with the Barbadoes aloe (Aloe vulgaris) is one of the very few botanical errors noticeable.

Diseases and Injuries of the Eye. By GEORGE LAWSON, F.R.C.S., &c. Fifth Edition. London: Renshaw. 1885.

THE issue of a fifth edition of this excellent work is testimony to its sustained popularity. In preparing a new edition Mr. Lawson has spared no pains to make his work representative of the best contemporary knowledge. Many articles have been rewritten, and several new subjects have been added. Indeed, every page shows evidence of conscientious revision. With the fullest confidence we can continue to recommend Mr. Lawson's manual, in spite of many rivals, as in most respects the best in our language, whether for the student or for the practitioner.

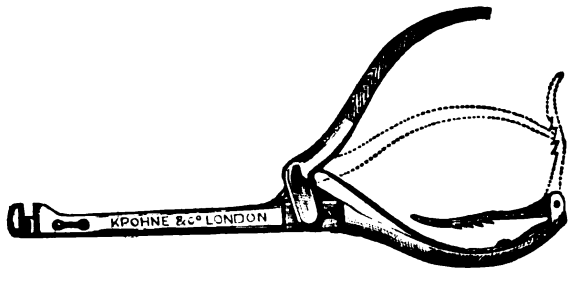
Street's Indian and Colonial Mercantile Directory, 1884-85. London: Street and Co.

WE have received a copy of the tenth issue of this work, which is calculated to prove of immense advantage to all who have business connexion with any or all of England's foreign possessions. It contains trade returns, tariffs, populations, and full particulars of the steam and other communications with the various places treated of; the leading merchants, traders of every class, and professional men are fully enumerated. A concise description of each county and town is furnished, along with a list of the principal products. As in previous years, maps are in this issue given of all the principal countries mentioned in the letterpress, and particulars of the various railways in operation, or in course of construction, are supplied where practicable.

New Inventions.

HAGEDORN'S SURGICAL NEEDLES AND NEEDLE-HOLDER.

MESSRS. KROHNE & SESEMANN have submitted to us some excellent surgical needles and a very convenient needle-holder, which have been devised by Dr. Hagedorn of Magdeburg. The needles are semicircular in shape, the



section of the stem being an oblong parallelogram of the same thickness throughout its length. The point has a single cutting edge on its convex surface. The advantages which these needles have over the curved needles in general use are that the puncture they make is a fine slit at right angles with the edge of the wound to be united and therefore when the suture is tightened the edges of the puncture are approximated, not made to gape; the puncture of the needle is also at right angles to the surface of the wound, and the suture approximates the whole thickness of the parts through which it is passed with equal tension; and the needles are stronger and much less liable to break when held in a holder than those in common use. The needle-holder is very simple in construction; it grasps the flat surfaces of the needle, and can seize and hold the point as securely as any part of the stem. The jaws are closed with a lever handle, which can be fixed by a ratchet. For special purposes these holders are made of different lengths and shapes, but anyone who will use them will soon be convinced of their great convenience and merit.

THE METROPOLITAN ASYLUMS BOARD.

A REPORT, dealing with the operations of the Metropolitan Asylums Board, has been recently issued. This is the first time that any attempt has been made to bring the whole work of this body into one view, and the handbook commences with an account of the provision made for the care of harmless lunatics. The first asylum founded was that at Leavesden, near Watford, and the whole cost of the asylum's buildings, and the land on which it stands, upwards of eighty acres, a farm being worked in connexion with the asylum, is set down at £177,818. The accommodation provided is for 1100 females and 900 males, the cost being £88 16*s.* a bed. The sister asylum at Caterham stands in the midst of 154 acres, and the expenditure upon that asylum up to date has been £192,382. This asylum provides for 2050 patients—namely, 1150 females and 900 males. The third and fourth asylums for this class of patients are at Darenth, in Kent, where, for the imbecile classes alone, the managers have acquired 173 acres. One asylum here is for imbecile children. There are upwards of 600 children in this asylum, many of them hopeless idiots, but some capable of being trained into work of a useful character. The second asylum is for adults, and there are now 900 of the same character of patients as fill the Leavesden and Caterham asylums. The cost of the asylums and lands at Darenth was £247,951. Thus, in all the Board has about 5500 imbecile patients under its care. The provision for fever includes five asylums, which find beds for 951 patients, and provision is being made for 512 convalescent patients at Winchmore-hill, where the land has been acquired, and the building of the asylum is proceeding. The Eastern Homerton Fever Asylum cost, for land and buildings, £87,772, and provides 300 beds for fever. The South-Western Asylum, Stockwell, which provides 228 beds for fever, cost on the whole £104,094, and additional works are being carried out now to the cost of £2000. The North-Western Asylum (the Hampstead Hospital) cost £54,820, and there has been additional expenditure of late to the sum of £3200. The asylum has 150 beds for fever patients, and a few beds for such severe small-pox cases as arise in the district. The Western (Fulham) Asylum, which affords 90 beds for fever cases, cost £64,257, and further expenditure is being incurred. At the South-Eastern Asylum (New Cross-road) there has been an expenditure of £70,835, and accommodation is provided for 150 fever patients. In each of these asylums a limited number of beds is provided for the reception of small-pox patients.

The provision for small-pox, apart from the other asylums, has been of a very complete character. Accommodation has been provided for 1600 patients to be treated at one time, the hospital ships, the camp at Darenth, the Plaistow hospital, and five other places being used for the purpose in the emergency. The ships have cost £28,129, the ambulance station in the east of London has cost £10,552, the Darenth camp has cost £34,561 in establishing and £50,942 in maintaining, the Plaistow asylum has cost £4692, the ambulance steamers and wharves have cost £6173, the south-eastern ambulance station has cost £4661, and the western one, exclusive of construction, has cost £3961. The report concludes with a statement of the work done in connexion with the *Exmouth* training ship and a complete account of the expenditure, the cost of the patients in the various asylums being given in detail.

THE LANCET.

LONDON: SATURDAY, JANUARY 24, 1885.

LAST week we published an account of the meeting of the Medical Society, at which Dr. HERON showed the differences between cultivations of Dr. KOCH'S comma bacillus of Asiatic cholera and Drs. FINKLER and PRION'S bacillus of cholera nostras. It will be remembered that the most striking of these differences lay in the fact that whereas KOCH'S organism liquefied nutrient gelatine but slowly, that of FINKLER and PRIOR did so rapidly and extensively, so that whilst in the case of the latter the track made in the gelatine by a platinum wire used for inoculation was in the course of a few days wide and stocking-like, in the case of Dr. KOCH'S organism it presented the appearance of a mere thread. The value of this diagnostic mark of the comma bacillus of cholera has, however, been very materially diminished by the publication within the last few days, in BÖRNER'S *Medicinische Wochenschrift*, of a very carefully drawn up account of the discovery by Dr. DENEKE, of the Hygienic Institute at Göttingen, of a comma-shaped organism in some stale cheese. Dr. DENEKE instituted careful comparisons between the commas which he thus found and those of KOCH on the one hand, and of FINKLER and PRIOR on the other, and found that "as regards its morphological characters as well as its mode of growth in, and action upon, nutrient gelatine, the cheese comma approximated much more closely to the bacillus of cholera than to the other." A minute account is given of its microscopical characters, of its mode of growth in meat broth and in gelatinised material in test tubes, and also when spread out on glass plates, but as this agrees in most particulars with the accounts which have already been frequently published concerning the cholera microbe, it is not necessary to reproduce it here in its entirety.

It is mentioned that in the earlier stages of growth the "colonies" of these cheese commas appear to the naked eye very like those of the cholera commas, but that under a power of one hundred diameters some slight differences may be detected. In test-tube cultivations in gelatine the resemblance is stated to be still closer, and "it is often difficult to distinguish cultivations of the cheese bacillus in the earlier stages from those of the choleraic bacillus in a somewhat more advanced stage." As in the case of KOCH'S bacillus, the growth along the track of the inoculating wire is thread-like, though somewhat wider, and the upper part of the funnel-shaped cultivation is similarly characterised by the development of an air vesicle. Dr. DENEKE did not succeed in developing his commas on potatoes, but he found that when cultivated in agar-agar, and in solidified blood-serum, no distinction could be made between them and those of cholera, or of cholera nostras, either as regards their mode of growth, or their action on the medium. Dr. DENEKE, however, considers the cheese organism to be physiologically distinct from that of cholera, although he appears to base, perhaps, his chief conclusion that this is so on the results of some experiments on animals. Following the example of MM. NICATI and RIETSCH, he introduced a small quantity of the cheese commas directly into the duodenum of two guinea-pigs, as also a small quantity of a cultivation of choleraic commas into the duodenum of two other guinea-pigs. The two animals of the former experiment recovered, the two of the latter died; but it is added that as one of these guinea-pigs succumbed within six hours (consequently before it could reasonably be expected that the microbes could have manifested their assumed virulent properties), and also because a portion of the material introduced had escaped into the peritoneal cavity, it is not claimed that this experiment proved anything.

Judging from the very contradictory results which have from time to time been announced as a consequence of infecting animals with choleraic material, and judging also from the circumstance (to which we drew prominent attention a short time ago) that Dr. EMMERICH of Munich had succeeded in producing cholera-like pathological lesions by means of a totally different microbe, no great importance can be attached to the death of the other guinea-pig referred to by Dr. DENEKE. It is, however, clearly manifest that he has drawn attention to an organism which, both morphologically and physiologically, very closely resembles the comma bacillus of cholera, even if it be not absolutely identical with it.

The importance of the observations is materially enhanced by the fact of the microbe having been detected in one of the ordinary articles of our food; it must therefore presumably be more or less constantly introduced into the alimentary canal. It is now well known that organisms of a similar type are frequently present in the mouth in health, but, strange to say, it would appear that they are by no means to be so readily detected in normal alvine secretions. It is possible that during *health* the action of the juices of the mouth and stomach is inimical to their further development; as indeed appears to be the case with Dr. KOCH'S comma microbe, seeing that it does not develop in the intestines of animals when administered by the mouth, and hence the necessity which has arisen for introducing it directly into the duodenum for experimental purposes. This is a phase of the question which Dr. KOCH and his supporters have completely ignored when comparing the physiological properties of various comma-shaped bacilli. It is already abundantly manifest that organisms of this character are by no means so restricted in their distribution as was supposed at the time when one of the tribe was fixed upon as being the cause of cholera. Much has been learnt since then, but there is still much to be done; and workers in this field of research may rest assured that every addition which they make to our knowledge of these curved microbes will be warmly welcomed at the present time, not only by the profession but also by the public at large.

INFLAMMATION, in itself a purely mechanical derangement of the circulation, presents many varieties, in which its basal type of action is more or less altered and complicated by the advent of contagion. These lie, one may say, upon the borderland between local and communicable dis-

ease, and present examples of the passage of one form into the other, so that we have come to talk of inflammation as affording a nidus for septic development. The cases of a common cold, of "idiopathic" erysipelas, of simple and rheumatic tonsillitis, might all be quoted in illustration. Treatment is necessarily much affected by these considerations. One finds that one has to deal not only with an obvious effect which is actively destructive of the tissues which it implicates, not only with so much of mechanical causation as this represents, but with a further more subtle cause, a "germ," which is at least the vehicle of a still more remote and perhaps original stimulus. Sometimes it would seem that the cause had been overwhelmed by the created morbid action—that is, that the implanted poison, if not rendered inert, had been largely supplanted in importance by the tissue irritation to which it gave rise. There is reason to doubt whether in such a case its primary force has been greater than that of mere mechanical irritation. In other instances, it lives, multiplies its power, and works, destructive but indestructible, exhibiting all the characters of sustained malignancy, in addition to being readily transferable by contact from one subject to another. The former group of symptoms exemplifies the meaning of the old term "inflammation," the name of a result; the latter we take to be commanded and absorbed by its cause, and we call it "septic disease." Yet among the milder cases not credited with contagious properties one finds examples of transference of the disease between associated persons, as also, probably, in the undoubtedly malignant class, instances of contact without such transference. These facts show that the borderland of infection to which we have referred is a fairly wide one, presenting degrees of risk. They also give some colour to the opinion that there has been an evolution in its history in the direction of aggressiveness, and that bacilli and spores are, without distinction, media of transit rather than the sole causes of the infectious properties. The treatment of ophthalmia may serve to indicate the bearing of these points in pathology on therapeutics. In the various forms of this disease there are grades of contagion and of virulence. Even the comparatively innocent catarrh, which is not usually regarded as being contagious, seems occasionally to assume a severer form, and is communicated to the healthy eye, just as the action of eczema is sometimes engrafted on a sound skin. The ophthalmia of infants, the much more destructive and poisonous purulent form seen in adults, and the gonorrhœal variety also show ascending series of infectiousness. It will be said that for the latter varieties a special germ is active in each case. There is room to doubt, nevertheless, how far the differences attributed to these are peculiar to themselves, and whether they are not of degree only, rather than of kind. In any case, it is a characteristic of this class of disease that the basal inflammatory change continues the most prominent feature. The uniform efficiency of nitrate of silver is a proof of this. The germ, whatever it may be, is extinguished by a drug directed against the mechanical changes it has caused. This very remedy, moreover, has little or no repute where septic poisoning is the predominant evil. It cannot control the rapid tissue infection then apparent. Ocular diphtheria does not benefit by it, but antiseptic measures are here everything. Thus we seem to pass by stages along one morbid process from states of weak infectiveness but high local irritability, to others allied in type but highly contagious. Treatment must follow a corresponding course, and its results furnish in themselves, we cannot but think, a guide to the true pathology.

WE not unfrequently receive inquiries as to whether a medical officer of health should or should not be allowed to remain in private practice. One such inquiry we answered briefly in our last week's issue; but the subject is again urged upon us in another form. On the question generally, we have no hesitation in saying that under ordinary circumstances we should prefer to see medical officers of health independent of private practice; but, as matters now stand, we are quite certain that the universal application of this rule would in many parts of the country be distinctly prejudicial to the interests of public health. In the first place, the number of medical men who have by examination and otherwise fitted themselves for holding the post of officer of health is by no means large, and so long as this is the case it is better that towns and districts be officered by men of ample experience in the various branches of their profession, and who are still in practice, rather than by others who are less competent, but who would be willing to give their whole time to their official duties. Then, again, there are officers of health who, though in practice, are unquestionably competent to discharge the duties pertaining to the post they occupy, and whom we should be sorry to see replaced merely in order that they might be succeeded by others who have seen little or no practice, and who intend altogether to discard the ordinary work of their profession. There is a further point which we think of even greater importance. We hold that no district, whether urban or rural, has a right to demand the entire services of a competent officer of health unless it is prepared to guarantee a salary sufficient for the payment of such services; and we have occasionally seen with regret that some medical men, in their desire to get a footing in the sanitary service of the country, have undertaken to give themselves wholly to sanitary work at salaries which they should have regarded as hardly ample to command their services for more than one or two days in the week. Some districts, again, are either too small or too sparsely populated to give occupation to an officer who has no other professional calls upon his time, and in such districts private practice, within certain limitations, may be useful both to the officer and to the district which he serves. But where an adequate salary can be ensured we feel strongly that the ordinary practitioner is likely to find himself hindered in his work as health officer, both by the calls which in practice are made upon his time, and by the difficulties which he will experience in dealing impartially in his official capacity with those upon whom he is also dependent in his practice. When, after a lapse of some years, there shall be a sufficient number of properly trained practitioners to fill the many posts of officer of health, we shall hope to see most districts officered by those who are independent of practice; and where districts are not in themselves capable of paying such salaries as should command the entire services of a skilled officer, we trust that the authorities may in advance combine with adjoining districts, so that they

may collectively offer a proper remuneration for the services they require. Until such a time arrives each case will have to be judged on its merits.

IN the December number of the *Revue de Chirurgie* is a translation of a Russian paper by Dr. SKLEFASSOWSKY, in which he relates the case of a man on whom he has performed an osteoplastic operation first devised and practised by Dr. WLADIMIROFF of Kazan, by whose name it may perhaps best be known. The operation consists in the removal of the posterior part of the foot and the ankle-joint and the union of the anterior part of the foot to the leg, so that the foot is in a line with the leg, and the patient subsequently walks upon the heads of the metatarsal bones and the fully extended toes. The method of procedure is as follows:—An incision is made straight across the sole on a level with the middle of the scaphoid bone; on each side this incision is continued up to the malleolus, and then straight across the back of the ankle. The incisions are all carried down to the bone, and the ankle-joint is entered from behind and disarticulated. This done, the heel is seized, and the soft parts of the dorsum of the foot are carefully separated from the bones, care being taken not to expose or injure the dorsal artery of the foot. The transverse tarsal joint is now to be opened and disarticulated, and the os calcis and astragalus removed. The articular surfaces of the cuboid and scaphoid, and the lower ends of the tibia and fibula, are to be sawn off, and the foot is then to be applied to the end of the leg, and first the bones, then the soft parts, united with sutures.

The advantages claimed for this operation are, that while permitting of the removal of diseased parts it preserves healthy structures, and is not such a mutilation as is a SYME'S or PIROGOFF'S amputation, or an amputation through the lower third of the leg. The result is stated not to be a great deformity, the line of the limb is preserved, and the foot forms an excellent basis of support. The cases for which it is suitable are intractable ulcers of the heel, disease of the tarsus limited to the os calcis and astragalus, and new growths similarly limited. SKLEFASSOWSKY performed the operation for a very chronic ulcer of the heel, which had resisted all treatment for nine years, and which invalided and crippled an otherwise robust man. PIROGOFF'S amputation is usually rejected for cases of strumous disease of the ankle or posterior tarsus on account of the liability to recurrence of the disease in the stump, and at first sight it might appear that WLADIMIROFF'S operation lies open to the same objection. But the cases are not quite parallel. In PIROGOFF'S amputation part of the os calcis is preserved, and this very bone may have been involved in the primary disease. In the latter operation the os calcis and astragalus are completely and wholly removed; these are the bones which are the most frequent seats of strumous and tubercular disease, and it is a common occurrence to see chronic destructive changes in them, or involving the ankle-joint, which disable but do not otherwise injure the anterior part of the foot. For suitable cases the operation is certainly worthy of being carefully tested. SKLEFASSOWSKY'S patient had shortening to the extent of one centimetre only, which is quite an insignificant amount.

Annotations.

"Ne quid nimis."

THE CASE OF DR. BRADLEY.

AT the last November assizes, David Bradley, M.D., formerly practising at Brimmington, Derbyshire, was convicted of having attempted to commit a rape upon Eliza Swetmore, the wife of a collier. The indictment included the more serious offence, but the jury found the prisoner guilty on the minor charge only. The prosecutrix, who admitted she had been the subject of epileptic fits since she was eleven years of age, and that her father had been confined in a lunatic asylum, deposed as follows:—She went to the surgery of the prisoner for some medicine, and whilst there he had carnal knowledge of her against her will, both whilst she was on two chairs, and again on the floor. She further stated that she resisted with all her might, and that she cried out, "Oh, doctor, don't." The latter assertion was corroborated by the housekeeper of the accused, and there seems no reason to doubt its accuracy. After the alleged rape she went immediately to the house of a neighbour, and complained of the assault. When Dr. Bradley was taxed with the offence, he said the prosecutrix had had a fit; at the same time he informed his housekeeper of the charge made against him. It transpired during the hearing before the magistrate that the surgery-door opened on to the street, and that the only indication of a struggle on the part of the deceased was that her neckerchief was off, and there was a small indentation on her neck. Dr. Palmer, who examined her the same evening, found no signs of the specific offence, but is said to have given it as his opinion that an epileptic fit would not be recovered from within half an hour, whereas the alleged assault did not occupy more than five minutes, after which the woman walked unaided out of the surgery. No evidence was forthcoming of injury or marks on Dr. Bradley's person or dress. The Lord Chief Justice, who tried the case, and concurred in the verdict, remarked, when charging the grand jury, that "the woman's statement was curious," but he seems to have been impressed with the calm and unbiased manner with which Mrs. Swetmore gave her evidence at the trial, and this he said was a great deal in her favour. He further dwelt on the fact that the counsel for the defence did not cross-examine the prosecutrix on her evidence-in-chief, as regards her statement that Dr. Bradley removed her hat when she went into the surgery, and let her leave the building when the proper thing—she being ill—was for her to remain in it. The last statement cuts both ways, for what would be more natural, if the crime had been committed, than that the accused should try to detain his victim in order to persuade her to consent to conceal his guilt. Again, with regard to the duration of an epileptic fit, every medical man knows that it may be momentary, or end only with the death of the subject. The removal of the woman's hat was the most likely thing to be done either by a doctor or a layman, as witness the daily treatment of fits in the streets. Assuming that a rape was neither committed nor attempted, what are the alternatives? Either the woman made the accusation *mala fide*, or she was impressed with the belief that she had been ravished, a belief albeit unfounded in fact. From a careful perusal of the depositions and a calm and deliberate investigation of the case in all its bearings, we are driven to the conclusion that the last hypothesis is the correct one. Persons of neurotic taint, especially those subject to perturbations of the feelings, and a general perversion of orderly innervation, such as is so often witnessed in epileptics, are liable to misinterpret their sensations in the direction of the one most prominent for the time being. If Mrs. Swetmore's evidence is to be relied upon, we fail to see the justice of

the verdict. She swore positively that Dr. Bradley effected his purpose both on the chairs and on the floor, and yet the jury acquitted him on the major count of the indictment, finding him guilty only of the attempt. The evidence is to our minds perfectly consistent with the innocence of the convict, and we doubt not that had the court been aided with independent expert testimony, Dr. Bradley would not now be undergoing two years' imprisonment with hard labour. We understand that a petition to the Home Secretary is in course of preparation.

REMUNERATION OF MEDICAL OFFICERS OF HEALTH.

SOME time since we drew attention to the attempt that was being made by the Rural Sanitary Authority of Chesterfield to reduce the salary which Dr. Angus Mackintosh received in his capacity of medical officer of health, and we expressed a hope that, under the circumstances of the able and indefatigable services which Dr. Mackintosh had so long rendered to the district, the proposal would be resisted by the central authority. Fortunately, the Local Government Board announced the withdrawal of repayment of half the salary if the authority persisted in their intention. Notwithstanding this, however, and under the impression that they only had to show a bold face, the authority made the appointment at a reduced salary; but when, later on, they found they had really lost repayment of £200 a year, they rescinded their resolution, and Dr. Mackintosh continues at the original salary. It is promised that a similar attempt will again be made in March next, and it is to be hoped that both the Local Government Board and the officer of health will be firm in resisting it. The action of the Board is limited by the Public Health Act. The Board can refuse repayment, but they cannot refuse sanction if a properly qualified officer himself accepts a reduced salary which the authority are prepared to pay entirely out of the rates.

A MAGISTRATE'S OPINION ON MADNESS.

A CASE which has just occurred at Dungarvan, in which a woman about whose insanity the local magistrates were not sure, although the doctor was, on being remanded to the workhouse, attacked the inmates indiscriminately, and placed her own child on the fire, with the effect of burning it dangerously, will serve, and doubtless be utilised, to illustrate the sort of opinions which may be generally expected from magistrates if they are empowered to act as censors of medical certificates. We have not a particle of faith in the efficacy of this sort of lunacy reform. We do not understand how any member of the profession can support it. It seems an insult to the general body of practitioners to suppose that their written judgments would acquire greater value in consequence of the authority acquired by a formal process of attestation before a justice of the peace. We would not stoop to such a proposal. It assumes that which we emphatically deny—namely, that there is need of some measure like this to guard against the *mala fides* of certifiers. No such need exists. The reform we desire, and the only reform we could willingly accept as sufficient, is such a change in the law as would relieve the profession of the entirely non-medical and strictly legal duty of drawing up and signing documents which are warrants for imprisonment, and at the same time legal instruments of social disqualification and personal disability and disgrace. Let who will assert the contrary, we affirm that anyone and everyone who has been certified to be of unsound mind is permanently damaged in his or her own eyes and in those of the community. This injury ought not to be inflicted for the mere sake of treating a case of brain disturbance called "insanity," when no one in his senses even dreams of doing the same wrong to the character of a fellow-subject when he chances to be affected with that often far more formidable brain disturbance which is called "delirium." Laymen, albeit they hold Her Majesty's Commission of the Peace, cannot possibly be competent to decide on the medical issue, Is or is not a particular person insane? As well ask the local representative of Beadledom to diagnose a case of valvular disease of the heart. The notion of trusting the magistracy with such a duty is preposterous, and ought to be scouted as itself madness.

THE WAGES OF THE WORKING CLASSES.

IT is satisfactory to be told by so good an authority as Professor Leone Levi that the earnings of the working classes amount to £521,000,000 per annum, or, exclusive of food &c., £470,000,000; yielding an average of 32*s.* per week per family, assuming each family to have 2·17 earners. Comparing the earnings of the working classes for the year 1867 with those of 1884, there is an increase from £38 to £42 14*s.* With good health and good thrift the case of our working classes should not be so bad as it is. We may well believe with Professor Levi that in no other country are the working classes so well off. The next most important question is, How are the wages spent? It is useless to maintain that the answer to this question is satisfactory. Part of the unthrift is to be lightly condemned, but much of it is really culpable. The enormous amount spent on drink is not denied by any authority. It is said that while we as a nation spend on bread £70,000,000, on milk £30,000,000, on butter and cheese £25,000,000, on house rent £70,000,000, and on the rent of farms £60,000,000, we spend on alcoholic liquors £136,000,000. We want improvements in cooking for the working classes, so as to make the most of their food supplies. This is to be done partly by educating girls more practically, and partly by public arrangements. There is one thing on which the working classes spend far too little, and on which they will, when they are wiser, spend much more—that is, on good medical attendance, not only on themselves, but on their wives and children. Nothing would more conduce to their happiness than better arrangements for their health. The working man is often tempted to say, "How cheaply can I get medical advice?" One day he will say, either individually or as member of a club, "On what honourable and reasonable terms can I get a good and experienced medical adviser to take a personal interest in the health of myself and family over an extended time?" Professor Levi's figures show that there is nothing in the economic condition of the working classes to justify the low remuneration of medical men in some clubs, and the great extent of gratuitous medical service.

POPLITEAL ANEURYSM SIMULATING SARCOMA.

PROFESSOR SHEPHERD, of McGill University, relates in the current number of the *American Journal of the Medical Sciences* the case of a man aged forty-six, who was treated in 1875 for double popliteal aneurysm by compression. Two years later the small lump which had remained in the right ham began to enlarge and pulsate, and was again "cured by compression." In the summer of 1882 he again noticed a small hard tumour in the right ham, which did not pulsate, but gradually enlarged. When he came under treatment in December, 1883, there was a large indolent ulcer in the lower and outer side of the leg, and a tumour nearly the size of a man's head on the back of the thigh, which was immovable, smooth, inelastic, without pulsation, fluctuation, bruit, or thrill, and which was in no way influenced by compression of the femoral artery above it. Coursing over the

tumour were large veins, but there was no œdema of the leg. The inguinal glands were enlarged. Amputation of the thigh was performed, and on examination of the tumour it proved to be a mass of fibrin, not deposited in laminæ. The mass was solid throughout. At the lower part of the tumour its capsule was found to be continuous with the external coat of the artery, and about this point the clot was in a softer condition than elsewhere. The difficulties of diagnosis presented by this case seem to have been insuperable. Except for the fact that the man was known to have had a popliteal aneurysm which had relapsed, there was nothing to point to the correct diagnosis. From the description of the case there is no doubt that the treatment was the best that could have been suggested. No milder measures offered any prospect of cure; to attempt to excise the aneurysm would have probably led to a fatal result; and considering the presence of the large indolent ulcer of the leg, and that the sciatic nerve was tightly stretched over the tumour and considerably flattened, it is obvious that amputation was called for.

INSURANCE AND CHILD MORTALITY.

A REMARKABLE statement was lately made by Dr. Ritchie of Leek, respecting the rise in infant mortality since the practice of insuring the lives of children in their first year was introduced there. As at first reported, the mortality prior to this period was 15 per 1000, and rose during it to 170. Further evidence has shown that there is a clerical error in these figures, and that the excess in the death-rate consists in the difference between 156 and 186 per 1000. This materially alters the aspect of the case. Still, the excess, though not absolutely so great, is decided, and, inasmuch as it is constant, calls for explanation. How much of it is due to so-called natural causes, such as prevalent disease, to accidents, to local changes affecting public health during the period of operation of the insurance system, and how much, if any, is to be laid directly at the door of the latter? Of course it is impossible for us or anyone to give a ready answer to this question. What is required is a prolonged investigation which will aim at ascertaining the various possible causes of illness and death which might be held accountable, and the various degrees of their action, during, before, and after the time in question. We must probably allow, however, that some such comparison has been drawn before a statement so pointed as Dr. Ritchie's has been publicly made. A medical officer of health is in the best position for knowing the results of all conditions ordinarily affecting health and illness in his district. The institution of a further inquiry is, however, very desirable for many reasons. Without wishing to blacken the reputation of human nature, we cannot but admit that there is ample evidence to show that infant life is less respected than it ought to be. It is a life which is only too easily taken, the means by which this may be criminally accomplished are many, their discovery at times is very difficult, and conviction for crimes of this nature is in many cases impossible. Neglect alone will take this life, errors of judgment in management can be turned into errors of purpose for its extinction. Thus, bread and biscuit have killed many children. They are among the "farm" foods of infancy. It would certainly be most unfair to conclude that the poor are naturally less affectionate towards their children than the wealthy. It is equally beyond question that unnatural parents are found, and not seldom in that class, as in all others. Moreover, poverty with its associations brings temptations and longings which well-conditioned people can hardly estimate. Then we must remember the many children born, one may say, without father or mother in the full sense—the illegitimate class. Charity, public or parental, is not always careful to preserve these amongst us. They become the charge of underpaid nurses, and are too often brought up anyhow. Their living is rather permitted than desired. With these facts before us, the placing of a premium of several pounds on the life of an infant is clearly a measure which, however desirable in suitable cases, requires at least a shrewd supervision in its working in order that it may not become an incentive to crime in the ill-disposed.

HOSPITAL FOR INFECTIOUS DISEASES IN LIVERPOOL.

THE City Council at a recent meeting decided to apply to the Medical Institution for the opinion of the members as to the number of beds which should be provided in the new permanent hospital for infectious diseases. A special meeting of the institution was held on Tuesday, the 13th inst., when a report in substance as follows was adopted:—

"The institution, after a careful consideration of the subject, are of opinion that, if due regard be had to the size of the hospital wards, the necessities of non-epidemic years will be met by the provision of permanent accommodation for 300 patients suffering from infectious diseases other than small-pox. As to epidemic years, they are of opinion that the permanent hospital or hospitals, if it should be decided to build more than one, should be placed on a space of ground sufficiently large to admit of a rapid and economical extension of the accommodation by means of temporary sheds or such other structures as experience has shown to be efficient. With reference to small-pox, they are of opinion that, under rigidly enforced rules as to separate nursing and the visits of patients' friends, permanent provision might be made for forty cases in a building erected on the grounds of the fever hospital, but entirely dissociated from it, without risk either to the inmates of the fever hospital itself or to the inhabitants of the surrounding district. But for epidemic times it would be necessary, in case the tenancy of the Park Hill Estate should at any time be determined, that a large and sufficiently isolated space should be acquired, and that all but the severer cases should be conveyed to wards erected on it, the beds provided near the fever hospital or hospitals being reserved for those patients who should be deemed too ill to bear a more prolonged journey."

THE CULTIVATION OF SUGAR BEETS IN ENGLAND.

FOR many years past experiments have from time to time been made in England and Ireland on the cultivation of the sugar beet. In the present depressed condition of agriculture these experiments are of the highest importance, and we are glad to find that they appear to have been successful. We have received from Messrs. Bolton and Partners (Limited), of Westminster, a proof of the report of Professor Church on the results of the cultivation during the past year. This report, which carries great weight from the known integrity and high scientific fame of its author, represents the prospects of the industry in a very hopeful light. It appears easy with good management to get crops of fourteen tons to the acre of small beets, containing 14 per cent. of sugar. Such crops will, it is said, pay better than wheat, and that an extensive cultivation is possible is proved by the fact that we now pay £10,000,000 a year for foreign sugar. Professor Church believes, indeed, that as much as thirty tons per acre might be obtained in good years by close planting and with due care and sufficient manure. Of course it may be said that the hot summer of 1884 was the cause of the success, but the opinion of Professor Church is quite against this view; he regards the late crops as "by no means offering a series of exceptionally well-grown and rich roots." With the strontia process, which has of late been so largely adopted

in sugar manufacture, the free use of manures is possible, and will of course increase the crops. The report abounds with sound advice as to the management of the land and the crops, and we cannot but hope that the new industry may be a real help to the sore distressed British farmer. Any surplus roots may be used as cattle food, since, although lighter, they possess a higher nutritive value than mangolds.

A NEW PATHOLOGICAL SERIAL.

THE first part of a new publication devoted to pathology, and doubtless intended to be issued at intervals, like the volume which Professor Stricker sends out from Vienna, has just appeared (*Beiträge zur pathologischen Anatomie und Physiologie*, Erstes Heft. Jena: G. Fischer). It is edited by Professor Ziegler and his assistant at Tübingen, Dr. C. Nauwerck. This part opens with some contributions to the pathology of Bright's disease by the last-named writer, the portion of the monograph here published dealing in turn with the pathogenesis of Bright's disease, with Bright's disease in croupous pneumonia, with acute glomerulo-nephritis and acute nephritis in opium poisoning, and is in the main a histological study in which the views of other writers are freely criticised. A paper on the histogenesis of periosteal callus by Dr. E. Krafft follows, and one on the Biology of Mucor Corymbifer, by Armand Hückel. Dr. Mögling contributes the first portion of a monograph on the formation of the Hæmorrhagic Infarction, which is mainly devoted to a historical survey of the question of embolism, preliminary to the relation of the author's own studies on the subject. The appearance of this serial, which occupies ground already filled by Virchow's *Archiv*, shows how fertile is the field of pathological inquiry in Germany, and adds to our regret that as yet no similar publication has appeared in this country.

COCAINE IN DENTAL SURGERY.

WHEN cocaine was first introduced, both dental surgeons and their patients were very sanguine as to its value in reducing the excessive painfulness of operations in dentistry, and they hoped it could be used for allaying the sensitiveness of dentine when the caries was being excavated previous to "filling" the cavity. They also hoped it might be found useful to relieve the pain attending extraction of teeth and roots. The subject was introduced at the December meeting of the Odontological Society by Mr. Oakley Coles and Mr. S. J. Hutchinson; but their experience and that of the members present who joined in the discussion did not seem to point to any tangible results as to the effects of this drug. Most of those present agreed that in the 4 per cent. solution the action was almost inert on dentine, though it would relieve the sensitiveness of an exposed "pulp." Since then various experiments have been made with a 20 per cent. solution and with the hydrochlorate of cocaine in its crystalline form. The latter seems in a certain number of cases to produce a distinct abatement of *pain*, although *sensation* remains. It has been applied for the painless extraction of roots by damping a small piece of amadou, in size less than a pea, then dipping it in the crystals, painting the neck of the tooth and the gum around, and letting the crystals dissolve in the natural secretion, keeping away an excess of saliva with pads of lint or amadou. This has been found in a few minutes to deaden sensation sufficiently for the elevator and forceps to be used without much pain, although the patient was conscious of the sensation of the operation. More experience in the use of the drug, however, is required to warrant the conclusion that this concentrated application can safely be made without causing subsequent inflammation or sloughing. No record of its employment by submucous injection has come under our notice. It is possible that injecting a 4 per cent. solution on each side of the tooth to be extracted may produce sufficient local anæsthesia. This operation, however, has its drawbacks, as the very insertion of the needle would be dreaded almost as much as the extraction itself. In excavating the caries from a very sensitive tooth the 20 per cent. solution has produced very varying results, in some cases allaying the tenderness, in others without effect. It has also been used for capping exposed nerve-pulps, as it is known to be antiseptic as well as anæsthetic. The *Dental Cosmos* for December contains the experiences of one or two well-known operators in America, who had found marked relief to result in very sensitive cavities by the use of cocaine, and they point out that the cavities should be made quite dry, then the cocaine applied for a few minutes and the cavity again dried, when the sensitiveness seemed to be much lessened. It had also been found useful for deadening the excessive sensibility of the contents of root canals when clearing them of the remains of the nerve pulp. One of these gentlemen reports his successes and failures to be about equal. As a general result, from these and other experiments, it may be concluded that cocaine is without doubt of much value in dental surgery, but the complete *rationale* of its most successful use is as yet undecided. Mr. Brunton of Leeds recommends the citrate of cocaine in a pasty condition for allaying the sensitiveness of dentine.

SELOUS v. THE WIMBLEDON AND CROYDON SANITARY AUTHORITIES.

THIS case, in which the plaintiff, as the reversioner of a residence known as Garratt House, claimed damages and an injunction against the Wimbledon urban and the Croydon rural sanitary authorities for proceedings in connexion with their sewage farms, has occupied Mr. Justice Denman for a considerable time. The judge took the case without a jury, and having himself visited the premises in question, he last week delivered judgment. On the plaintiff's property is a piece of water known as the Western Pool, which is connected with the river Wandle. The Wimbledon local board have their sewage farm close by, and a part of it consists of a field known as the Willow-mead, adjoining the Western Pool. The plaintiff complained of nuisance from the sewage farm operations, and also of the eddying back of their sewage effluent into his pool. The Croydon authority, he further complained, discharged some of their effluent directly into the Western Pool, the amount varying, but it carried with it on an average more than a ton of foreign matter a week. A camp shedding had also been erected on the plaintiff's property, to carry an effluent pipe into his pool. Mr. Justice Denman, after bearing testimony to the recent efforts made by the Wimbledon Local Board to carry on their arrangements for sewage disposal in a satisfactory manner, decided that they had no right to erect the camp shedding, and must pay damages and remove it; and that the plaintiff was further entitled to damages for the manner in which the sewage had been disposed of on the Willow-mead and for the contamination of his pool. The nuisance on the latter head was, however, nominal, and the judge stated that if the effluent from the Wimbledon farm was maintained at the standard reached on the day of inspection, the authority would, in his opinion, comply with the order the Court was about to make. As regards Croydon, it was decided that the authority had no right to place the mouth of their effluent pipe in the Western Pool, and the judge further expressed an opinion that the Legislature had not authorised local authorities to carry water upon the premises or land of a private owner. In this case, however and quite apart from any such authorisation, the effluent was so impure that sewage fungus was discharged from the

pipe into the pool, and, unless the arrangements were soon altered, the present damages of £200 would be liable to be increased. The case is one of importance in the interests of the public, for local authorities, having the public rates to fall back upon, are but too apt to interfere in this matter of sewage disposal with private rights; and it is not often that the aggrieved party can afford to command the assistance of a court of law.

THE TRADE IN CHOLERA GERMS.

WE are not surprised to find a lay contemporary "poking fun" at the new trade which has sprung up in bacilli &c. for microscopic purposes. It is necessary that these organisms, which are alleged to be the "germs" of disease, should be brought under the notice of the profession, and the purveyors of "specimens" must of course be the agents in their distribution; but we confess that it can scarcely strike the uninitiated mind as decent, or even safe, to allow the seeds of a dreaded malady to be handed about, with all the risks of breakage and dissemination, and without precaution. The facts that accident is extremely improbable, and that even if these bacilli were introduced into a living organism they would not be likely to propagate the disease after the treatment they have received, are not of a nature to relieve such anxiety as the banter of our contemporary may have awakened. There ought to be an authoritative statement on the subject by those who traffic in these "germs," as well as by scientific investigators who use them for study or experiment.

"SYMPATHY" BETWEEN TWINS.

IF two projectiles of similar construction and properties are thrown from the same gun simultaneously, they are not unlikely to travel in lines closely parallel. We do not speak of "sympathy between" these two objects. The facts that they are themselves alike, and that they have been similarly conditioned, are held to account for the accord they show in behaviour. Doubtless much of the so-called "sympathy" between twins is to be explained on this principle. Every now and again we hear marvellous stories of twins suffering together and dying together. Much of the parallelism is probably made up of incidents "remembered," and which did not strike the narrators until after the climax had been reached in some striking community of action or suffering. When we come to sift the chaff from the wheat in these stories, there is little left which cannot be explained on the grounds of similarity of nature and circumstance.

A PREMIUM ON DISEASE.

THE French Government Commission on Unwholesome Buildings has issued a report concerning the condition of the Rue Ste. Marguérite, where the cholera broke out among the rag-pickers who frequent this neighbourhood. In the forty-seven houses of this street there were forty-five deaths at the last epidemic; but, after all, diphtheria, typhoid, and small-pox are more fatal than the occasional visit of cholera. The death-rate for this quarter of Paris is estimated at 40·2, whilst the average of the city is put down at 28·1, and that of the aristocratic seventh arrondissement at only 16 per 10,000 of the population. The death-rate of the Rue Ste. Marguérite, though inferior in figures to certain English slums, is very high when we consider that there is a far smaller proportion of children among the French rag-pickers. The Commission further states "that the number of conscription is below that of five-sixths of the Paris arrondissements, and that the recruits are notoriously inferior in stature, a fact which proves they are exposed permanently to morbid influences." The remedy suggested will not, however, tend to abolish such nuisances. It is proposed that the proprietors should be expropriated and a large number of the houses pulled down. The latter part of the proposal must be cordially approved; but expropriation would mean the payment of heavy and unmerited compensation to proprietors who, by neglecting their duty, have caused the premature death of a great number of people; it would be placing a premium on unwholesome dwellings. Unscrupulous speculators would court expropriation by converting their property into a centre of disease.

STRICTURE OF THE RECTUM AS A CAUSE OF PROLAPSUS.

IN the January issue of the *Revue de Chirurgie* Dr. Eug. Bœckel relates the cases of three children brought to him for troublesome prolapsus of the rectum, in whom he found the summit of the protrusion to be formed by a narrowing of the intestine. In each case the dilatation of the stricture was followed by a speedy cure of the prolapse. Dr. Bœckel asserts that if looked for it will be found that the majority of cases of prolapsus recti in young children are caused by congenital strictures of the upper extremity of the rectum. He states, also, that the conical shape of the protrusion and the extreme narrowness of the orifice at its end are the diagnostic features of this form of prolapsus. The treatment recommended is the wearing of a tubular pessary to dilate and hold in place the stricture, while allowing flatus and liquid fæcal matter to escape. We are unable to accept altogether these views. If stricture is such a frequent cause of prolapse, it is a remarkable fact that so many cases have been cured by methods of treatment which cannot have removed such a cause, and we are by no means satisfied from the account given that Dr. Bœckel's pessaries actually dilated any stricture in the cases he records. The narrow orifice of the protrusion was probably due to the traction upon the part and to the constriction to which it was exposed in its unnatural position. Further, Dr. Bœckel is certainly in error in attributing a stricture at the junction of the sigmoid flexure and rectum to a defect in the union of the intestinal and anal portions of the alimentary canal. The anal infolding only forms quite the lower extremity of the gut.

THE PIGMENTS OF THE SUPRARENALS.

A VALUABLE and interesting communication was recently made to the Physiological Society by Dr. MacMunn, "On Myohæmatin, an Intrinsic Muscle Pigment of Vertebrates and Invertebrates; on Histohæmatin, and on the Spectrum of the Suprarenal Bodies." Physiologists have accepted Kühne's statement that muscle owes its colour to hæmoglobin, but Dr. McMunn contends that though the greatest number of voluntary muscles do owe their colour to it, yet it is accompanied in most cases and sometimes replaced by myohæmatin, whilst in other cases it entirely replaces myohæmatin. The cardiac muscle of every vertebrate animal examined by Dr. McMunn yields myohæmatin, which gives a very beautifully defined spectrum, totally distinct from any product of decomposition of hæmoglobin—e.g., methæmoglobin, acid, or alkaline hæmatin or hæmatoporphyrin. In order to demonstrate the spectrum of myohæmatin no reagent whatever is required. The spectrum consists of three bands, two of which persist after the bands caused by hæmoglobin have disappeared. The bands have been missed by other observers, simply because the presence of well-marked bands due to oxyhæmoglobin hides those caused by the presence of myohæmatin. The first band of myohæmatin occurs just before D, the next two are narrow, and placed between D and E, and two other faint bands may be present near the violet. Dr. McMunn has found myohæmatin in the cardiac muscle and some voluntary

muscles of many mammals, birds, reptiles, amphibians, and fishes. This colouring matter has also been detected in many invertebrate animals; indeed, it was first discovered in them. The substance is said to have been separated by digesting muscle in a pepsin solution, but it was slightly changed in the process; it was also obtained from the frozen myocardium of the rabbit by pressing out the plasma. Histohæmatin is a name given by the author to a class of pigments of wide distribution in the animal kingdom. Myohæmatin belongs to this class of pigment. The histohæmatins are believed to be respiratory pigments, for they can be oxidised and reduced in the solid organs, where they are found. Their absorption bands occupy almost the same place as those of myohæmatin. In the suprarenal capsules of many mammals the medullary substance gives the spectrum of hæmochromogen, while the cortex shows that of a histohæmatin. Wherever hæmochromogen is found it is probably excretory, and Dr. McMunn has only met with it in the liver and in bile, so that it must be regarded as excretory in the adrenals. It may be that the function of the adrenals is in part to metamorphose effete hæmoglobin or hæmatin into hæmochromogen. Disease of or removal of the organs, as in Tizzoni's experiments (*vide* THE LANCET, vol. ii., 1884, p. 549) prevents the removal of the pigment; hence pigmentation of the skin and mucous membranes sets in. Vulpian has shown that taurocholic acid is present in the medulla of the adrenals, of which the structure is like that of the liver; the presence of large lymphatics, together with the consideration of the facts of structure and of the well-known results of disease of these organs, tends to prove that an active metabolism takes place in them, and Dr. McMunn believes that he is justified in concluding that these organs have a share in the downward metamorphosis of effete colouring matter.

MENSTRUATION IN AN INFANT.

Il Morgagni (10th inst.) relates the case of an infant girl, who, when barely four months old, commenced to menstruate regularly. Dr. V. Derveer, who had ample opportunity of studying the case when the child was two years and seven months old, reports that she then weighed forty pounds. She had the facial expression and physical conformation of a girl from ten to twelve years of age. The mammæ were of the size of small oranges, the mons veneris well developed and covered with hair, the labia majora and other parts of the vulva fairly developed. The child was very intelligent, but of an irritable temperament, which was especially marked at the approach of the catamenial period. These recurred as a rule every four weeks and lasted four or five days, but at one time were interrupted for three months. The child was then exceedingly irritable and had sleepless nights, but perfect health was restored so soon as the menstrual regularity was re-established.

A BREECH-PIN IN THE BRAIN.

AN interesting case of recovery after severe injury to the brain is recorded by Dr. Kemper in the *American Journal of the Medical Sciences* for January, 1885. A youth, eighteen years of age, while out shooting, had his gun burst, and a piece of metal, an inch and a half long and weighing 617 grains, entered his brain through the forehead. The accident happened half a mile from his home, and the lad was alone. He was insensible for a time, but four hours later he walked home unaided, and in possession of all his mental faculties. Next day, twenty-one hours after the injury, Dr. Kemper saw the lad, and found him quite sensible, with a pulse of 64 and a temperature of 104·7°. There was a curved wound an inch and a half long vertically above the right eyebrow, through which the finger passed into the skull and on into the brain, where a hard substance was felt and subsequently withdrawn by forceps, which proved to be the breech-pin of the gun described above. A few small pieces of bone and of a felt hat were afterwards removed. Water-dressings were applied, and the youth made an excellent recovery. The depressed cicatrix pulsates, but is not tender to pressure; vision is perfect, and the only ill-effect observed is that the lad "felt the heat" during the summer.

AN EL DORADO FOR MEDICAL MEN!

WE do not wish to tempt Sir Spencer Wells or any other of our distinguished gynæcologists to leave our shores, but we cannot withhold from our readers some account of a country where the medical and surgical arts seem to be appraised at something more like their proper value than with us. We are borrowing from the letter of a correspondent in the *South American Journal*, giving an account of the general charges for medical service in the Argentine Republic. The charge for a consultation at the doctor's house is 8*s*., for a visit 16*s*., for a confinement £20. For special operations by good men, but not stars of the first magnitude, the following charges are stated to be paid without demur: –

"For extraction of ovarian tumour	£1200
Amputation of arm, principal	600
„ „ two assistants, each ...	400
Delivery with operation	400
Attendance during typhoid fever	200
Visit by a physician for dropsy	50

Consultation fees, £20 and upwards."

Not only is it possible to make money in the Argentine Republic, but it is easy to invest it properly. The climate is of great variety over a territory extending from the tropics to Cape Horn. In order to practise, an examination must be passed and a licence obtained from the Government Medical Board. This examination is conducted in the Spanish language, which must be mastered by the candidate. But this is no great hardship, considering how fine a language it is and how great would be the reward of reading "Don Quixote" in the original—the one book which Sydenham recommended to Sir Richard Blackmore. The correspondent signs himself "Honorarium," and will be glad to answer any inquiries addressed to him through the journal in which he writes.

THE HABITUAL DRUNKARDS ACT.

WE regret to see that Mr. Paget, the stipendiary magistrate for Hammersmith, seems to have raised an unnecessary difficulty in the way of an unfortunate lady, an habitual drunkard, getting into a home registered under the Act for dealing with such cases. Everybody knows the miserable weakness and inadequency of this piece of legislation, the consequence of which is that hundreds of habitual drunkards are going to wreck and ruin, and carrying their families with them. The weakness we refer to is, of course, that part of the Act which requires the consent of the drunkard, who is generally incapable of such an unselfish and enlightened act. But Mr. Paget had not this difficulty to encounter. The lady was quite willing—to her credit be it spoken—and she was most kindly assisted by two clergymen, who took much trouble to get the necessary authorisation and to make all the arrangements. Thereupon Mr. Paget objected to sanction the removal—or, as he saw fit to describe a legal and beneficent proceeding, "the imprisonment"—on the ground that the retreat to which the patient was to be sent was not in the county in which he had jurisdiction. There is nothing, so far as we know, in the Act which requires the consenting magistrate to be in the same county as the retreat; and it is surely intolerable for any magistrate

to raise a prejudice against treatment in a retreat by calling it imprisonment. Mr. Paget's action in this matter requires further attention, and we hope will receive it. Meantime, we are glad to learn that the patient has been safely removed to Colman House Retreat, Worcestershire, the only licensed retreat exclusively for the reception of ladies.

PROSELYTISING IN HOSPITALS.

IT is much to be regretted that those who cherish earnest views on the subject of religion should so generally regard hospitals as fit places for the propagation of their special faiths. We have no desire to make any particular reference in these remarks. Suffice it to say that there is need of greater consideration in many quarters which should be free from censure or even suspicion in this respect. Hospitals and infirmaries are homes of cure for the sick, not places of repentance, retreats for the careless or distressed in mind. It is desirable that chaplains should be appointed to officiate at the institutions, but their ministrations ought to be entirely free from a sectarian character. We do not want Catholicism, either Roman or Anglican, or Protestantism or Evangelicism, or Nonconformity or Calvinism, or any one of the hundred specialties of religious faith and doctrine, forced upon the sick in the hour of their weakness and impressibility. It is strange that those who lay stress on the essential quality of sincerity in matters of religion should desire, or even accept, the sort of "change" wrought by the persuasive influence of chaplains and "sisters" at a time when the subjects of this influence are obviously not in a condition to know their own minds, much less to form persistent judgments. When we hear of patients being "converted" to and inducted into new faiths while in hospital, we scarcely know which most to deprecate—the zeal without discretion of the proselytisers, or the gullability of the proselytes.

REPORT ON SANITARY MEASURES IN INDIA.

THIS report, in which are briefly described all the sanitary measures adopted in India during the year 1882-83, is arranged under seven heads—viz., European army, native army, general population, gaols, vaccination, medical institutions, and sanitation. The statements regarding the health of both European and native trooops are exceedingly satisfactory, and the marked improvement which has taken place is naturally attributed by the Army Sanitary Commission "to the effect of sanitary improvements at military stations, and to generally improved management." Respecting the general population, it is stated that, during the year under review, 4,757,024 persons died in India. The progress recorded from all parts in the adoption of vaccination is most gratifying, and nowhere does there appear to have been offered any persistent opposition on the part of the native population to its performance. The number of deaths from small-pox in Bengal shows a falling off of more than 10,000. In the concluding pages of the report the different measures of sanitation carried out or sanctioned are passed in review, from improvements in Calcutta to works executed in military barracks and cantonments.

MEDICAL EDUCATION IN THE UNITED STATES.

THE *Chicago Morning News*, in commenting on a recent article in our columns on the Mushroom-like Growth of Medical Schools in the United States, does not seriously invalidate our representation, but tries to show that, as regards the State of Illinois, the effect of an Act to regulate the Practice of Medicine has been greatly to reduce the number of unqualified persons in the State. The *Morning News* further admits that in December, 1884, 116 Institutes of all classes in the States were entitled to grant degrees and diplomas. In Illinois, indeed, the State Board now requires all entrants to the profession to pass a preliminary examination; but this only covers the subject of reading and writing, so as to exclude such a gentleman as is described as "A Nachural Practishuner," or that other who had practised ten years under "the supervshen of a pereseptor and attended to ful corses of instructions, at —— colag." Illinois has been followed in this step, we are told, by 102 other Institutions; but the step so modestly described by our contemporary is not a very long one, and leaves much to be desired. He admits that in 1880 there were not half a dozen Colleges in the country which instituted any sort of preliminary examination.

THE LATE SURGEON C. B. LEWIS, ARMY MEDICAL DEPARTMENT.

A BRASS to the memory of this promising young officer has recently been placed in the chapel of the Royal Victoria Hospital at Netley. Surgeon Lewis entered the service about six years since, and died of cholera at El Warden, while serving with the army of occupation in Egypt, on July 30th, 1883, at the early age of twenty-nine. During his student days at King's College, Lewis was universally popular, and was well known as an athlete, having won the Mile Challenge Cup in the United Hospital Athletic Sports for several years in succession. The memorial brass has been erected by several of his brother officers and old friends in both the Indian Medical Service and Army Medical Department, and has been well executed by Messrs. Clayton and Bell of Regent-street.

THE SECOND REPORT OF THE SPECIAL CHOLERA COMMISION IN INDIA.

THE supplement of the official Gazette of India just received contains an important communication from Dr. E. Klein to the Sanitary Commissioner with the Government in India, in continuation of the memorandum published a short time ago by the Special Cholera Commission in India. In the report, which we hope to publish *in extenso* next week, the statement is made that comma bacilli have been found in tanks without any case of cholera having occurred among the large number of people using them.

MICRO-BIOLOGY.

THE last published number of the *Barcelona Review of the Medical Sciences* contains an elaborate article by Dr. Carreras-Solà on the relations of microbes to diseases ("Los Microbios en sus Relaciones con las Enfermedades,") and one by Dr. Ferrano on the parasite of cholera. Both contributions are illustrated by elaborate lithographic plates, in which the bacilli of different diseases are represented with so much distinctness as pictorially to surprise investigators who know how difficult it is to differentiate, under the microscope, between the varieties of pathological microbes.

DIPHTHERIA AT WATFORD.

DIPHTHERIA, which is by no means a common disease in Watford, was exceptionally prevalent at the close of last year, and it appears to have been mainly spread through the agency of elementary school attendance. The disease has since abated. Disinfection of schools during the Christmas holidays has been carried out; and now that the reassembling of children has taken place, it will be well to follow out the principles which have been laid down on this subject by the memorandum as to infectious diseases and school attendance issued by the Local Government Board.

THE CLINICAL SOCIETY.

THROUGH the loss of a portion of the manuscript the annotation headed as above in our last week's issue failed to mention the vote of thanks so warmly accorded to Dr. Sidney Coupland on the proposal of Mr. W. Haward, seconded by Dr. J. Anderson. Mr. R. W. Parker responded for the vote of thanks proposed by Dr. Semon, and Dr. Fowler for that to the other retiring officers of Council.

SMALL-POX HOSPITALS.

THE discussion on the question whether small-pox hospitals are necessarily a source of danger to the surrounding neighbourhood will be continued at the Society of Medical Officers of Health, 1, Adam-street, Adelphi, on Monday, January 26th, at 7.30 P.M.

THE death is announced of Professor Benjamin Silliman, the distinguished American physicist. He was joint editor of the *American Journal of Science* from 1838 to 1854, and since the latter date had been associated with Professor J. D. Dana as editor and proprietor. Deceased was Professor of Medical Chemistry and Toxicology in the University of Louisville, Kentucky, from 1849 to 1854, and in the latter year succeeded his father as Professor of General and Applied Chemistry in Yale College.

DR. G. H. BALLERAY of New Jersey reports a case of strangulated hernia in a man aged eighty, who was suffering from an attack of facial erysipelas. Herniotomy with opening of the sac was performed, and the man recovered, the wound healing well, "the reparative process being apparently unaffected by the existence of the facial erysipelas." The operation was performed with strict Listerian precautions.

MESSRS. BAILLIÈRE, TINDALL, & COX announce the publication of a new periodical devoted exclusively to surgery, called *Annals of Surgery*. It is to be an international monthly review, edited in America by Dr. L. S. Pilcher of Brooklyn, and in this country by Mr. C. B. Keetley. In addition to original memoirs, editorial articles, and reviews, considerable space will be devoted to an Index of Surgical Progress.

IN a lecture delivered on the 16th inst. at the Royal Institution before a crowded audience on the subject of Living Contagia, Professor Tyndall dealt at length with the researches of Pasteur in connexion with the germ theory of disease, and declared that recent discoveries respecting hydrophobia and splenic fever showed that experiments with animals were turned to very profitable account.

M. TOULOUZE describes in the *Union Médicale* some old surgical instruments recently found during some excavations on the site of an old Roman road in the Rue Clovis in Paris. He believes that they date back to the period of Galen. They consist of an epilation forceps, a probe, and an ear-scoop — at least these are the uses for which M. Toulouze regards them as applicable.

SIR WILLIAM MUIR, K.C.S.I., LL.D., D.C.L., was on the 20th inst. unanimously chosen by the curators of the University to succeed Sir Alexander Grant in the Principalship of Edinburgh University.

PROFESSOR A. R. SIMPSON and Dr. BERRY HART have withdrawn from the Gynæcological Society.

THE Abbott-Downing Company, of Concord, make a horse ambulance which is well adapted for the excellent ambulance service of the American cities. It is a four-wheeled conveyance which is fitted up with every requisite and can be confidently recommended to firms and institutions in this country who need such a conveyance.

THE death is announced of Professor Friedrich von Stein, who held the chair of Zoology at Prague for more than thirty years. His chief work, published in 1854, was on the Development of the Infusoria. Professor von Stein was a distinguished pupil of Johannes Müller.

IN consequence of the prevalence of small-pox in Newington, the guardians of the St. Saviour's Union on the 15th inst. issued an order prohibiting the admission of visitors to the inmates of the Newington Infirmary, except in urgent and dangerous cases.

NEWS from the Mediterranean Squadron announces the death in Bighi Hospital, from typhoid fever, of Mr. Anthony Lynch, Surgeon, R.N. It is also stated that the mortality amongst medical men at Malta has lately been very heavy.

THE Local Government Board are stated to be about to hold an inquiry into the management of the small-pox camps and other institutions under the control of the Metropolitan Asylums Board.

MRS. MARSHALL HALL, the widow of the great physiologist, died on the 14th inst. at the house of her nephew, Dr. Marshall Hall Higginbottom, Nottingham, aged eighty-three.

RECENT advices from Alexandria announce that Dr. Sandwith has resigned his post as Director of the Board of Health at Cairo.

WE regret to see the name of Surgeon Magill, M.D., in the list of officers severely wounded at the battle of Abu Klea.

CANTOR LECTURES.

BY G. V. POORE, M.D., F.R.C.P.

ON CLIMATE IN ITS RELATION TO HEALTH.

AT the first lecture on Monday, Jan. 12th, delivered at the Society of Arts, Dr. Poore dealt mainly with those facts in regard to climate which are a necessary preliminary to any adequate discussion of the subject. Commencing with the chemical composition of the air, he pointed out that although its uniformity was not absolute, it was very nearly so — so nearly that it was exceedingly improbable that any variation in the chemical composition of the air could have any effect on the health of localities. He spoke only of the "open air," and left crowded dwellings out of consideration. Thus, the normal amount of oxygen in the air was usually given as 20·96 per cent. by volume, and the extreme figures given by Angus Smith were 20·86 per cent. in the East-end of London, and 21·00 per cent. on the northern heights of London. These variations were very trifling when compared with the variations in the absolute quantity of oxygen taken into the lungs under different conditions of pressure and temperature. Thus, of two men, one breathing air at a temperature of 32° F., and the other breathing air at a temperature of 80°, the former would get 192·6 grains of oxygen per hour more than the latter; and of two men, the one breathing air at sea level and

the other breathing on a mountain 5000 feet high, the former would get 361·88 grains per hour more oxygen than the latter, and yet the man on the mountain would probably be the more robust of the two. In the same way the variations in the amount of carbonic acid were too trifling to affect the health of a community. If oxygen were persistently deficient and carbonic acid persistently in excess, we had to inquire why, and the cause would be found to be due to combustion, respiration, and putrefaction, the last being a great cause of disease. The causes of the varying amounts of moisture in the air were next dealt with, and the causes of its deposition in the form of dew, fog, and rain. The uses of moisture in shielding us from the sun, and in checking radiation and thus preventing sudden alternations of temperature, and the warming effects of rain, were explained, and the conclusion was arrived at that although the moisture in the air affected our sense of well-being and comfort, and more especially of invalids, yet the amount of moisture, be it great or small, had *per se* little or no effect on the health of a community.

In so far as moisture favoured putrefaction, it had a very important indirect influence on health; and when warmth and moisture coincided, putrefaction of all kinds was apt to run riot, and zymotic disease was very prone to spread.

So with regard to temperature. It was an acknowledged fact that the power possessed by the human body of withstanding the extremes of heat and cold was, in so far as climatic temperature is concerned, unlimited. The only trouble due to excess of temperature was sunstroke and heat apoplexy, and even these were often due to errors of hygiene, dress, and diet more than to the heat. As for extremes of cold, ample food and ample clothing were all that was necessary to enable a healthy man to withstand them. The history of the twenty-five men belonging to the *Eira*, who, after ten months spent in a hut on Franz Josef Land, were picked up in robust health, afforded ample proof that food and protection enabled a man to keep well in sixty-five degrees of frost, and that the mere breathing of air having a very low temperature for months together was not harmful even when combined with deprivation of light and a state of crowding in the hut which in this, or still more in warmer latitudes, must have proved fatal to many of them. The wise precautions of Mr. Leigh Smith and Dr. Neale enabled these men to pass through an arctic winter unscathed.

At the second lecture on Monday, Jan. 19th, Dr. Poore began by calling attention to the rude health enjoyed by the crew of the *Eira* in the arctic regions, under conditions of which overcrowding and dirt were the chief characteristics. In answer to the question why conditions were harmless at the Pole which would certainly be harmful or even fatal at the tropics, he offered the explanation that at the Pole putrefactive and allied processes were impossible, owing to the fact that in the cold, dry arctic regions it was impossible for the bacteria, upon which putrefaction depends, to manifest any vitality.

Although he had ventured to assert that the extremes of heat and cold were not necessarily great producers of disease, a glance at one of the diagrams on the wall offered an apparent contradiction to this assertion, for from it they would learn that the deaths from respiratory disease increased in cold weather and the deaths from diarrhœa steadily increased in hot weather. There was a distinction to be drawn between a cause of disease and a cause of death. Cold weather was undoubtedly very fatal to persons with lung disease, disease contracted by overcrowding, intemperance, and filthy surroundings. The starved and the aged were very prone also to die from a congestive pneumonia. During cold weather also overcrowding in dwellings reached its greatest height. Cold was therefore to be considered as very prejudicial to persons with lung disease, but it could only be reckoned as an indirect and secondary cause of those diseases. Again, the heat was not the cause of the diarrhœa. It was only an indirect cause *vid* sour milk, putrid food, rotten fruit and emanations from putrefying sewers into the air or drinking water. A glance at the chief tropical diseases would show how many of them were connected with the putrefaction and decay of organic matter. Malaria, yellow fever, and cholera were all instances of this. Now, putrefactive and allied changes had been shown by Pasteur to be dependent on micro-organisms, which were found in the air, the soil, and the water. The study of these micro-organisms had become a study of prime importance, more especially as not a few of the zymotic diseases had been proved to be closely dependent upon them.

In considering the atmosphere as a cause of disease, nothing was of greater importance than a study of the floating matter in it. This line of research was being methodically carried out in Berlin and Paris, and the facts brought forward that night were mainly those furnished by Dr. Miquel, of the Observatory of Montsouris, in Paris. That solid particles could be carried hundreds of miles by the air was well known, for dust had been known to fall on ships at sea which must have been blown from African deserts 600 or 800 miles away. The labours of Ehrenberg, of Blackley (who directed attention to the large amount of pollen in the air), and of Maddox (who had discovered great varieties of fungoid spores in the air), were alluded to. Experiments conducted by Miquel at Montsouris had shown that in the years 1879-82 there were on an average from twelve to fifteen fungoid spores in each litre of air, and that these spores were more plentiful in hot than in cold weather. In addition to spores and pollen, the other matters found in the air and readily distinguishable by the microscope are mineral particles, particles of clothing, starch grains, and occasionally unicellular plants and ova of infusoria. The researches carried out by Miquel on the numbers of bacteria in the air have been most laborious. His method has been to draw through a large number of tubes of a special pattern and partially filled with sterilised bouillon a measured quantity of air, and to preserve the tubes a sufficient length of time to ascertain whether any bacterial growth had taken place. Thus M. Miquel would distribute 100 litres of air through fifty tubes, and if after due lapse of time ten of these tubes manifested bacterial growth and the remaining forty continued sterile, he would be sure that there were at least ten bacteria in the portion of air examined. This work has been done day after day, and often many times a day, by Miquel and his assistants, and we cannot too highly appreciate their great devotion and enthusiasm. Miquel has found that in 1880 there were on an average 560 bacteria in each cubic metre of air at Montsouris. In 1881 the average was 590, while in 1882 it was only 320. The highest numbers were recorded when the wind was north-east, and before reaching Montsouris had swept over a great part of the city. Ozone had no effect on the number of bacteria. The number is always small during rain, increases as the drying of the soil progresses, and decreases again if the dryness be prolonged beyond a week. In the centre of Paris, Rue de Rivoli, the number of microbes averaged, in 1882-83, 2490 per cubic metre of air, being nearly five times as many as at Montsouris. M. Miquel made experiments in the Alps on air from different altitudes, and he compares his results with the results obtained at the same dates in Paris, July, 1883. At an altitude of from 2000 to 4000 metres there were 0·00 microbes per cubic metre; on the Lake of Thun (560 metres), 0·80 per c.m.; near the Hôtel Bellevue, Thun, 2·50 per c.m.; in a room of the hotel, 60·00 per c.m.; in the park at Montsouris, 760·00 per c.m.; in the Rue de Rivoli, 5500·00 per c.m. The poorness in microbes shown by the mountain air is attributed by Miquel (1) to the lessening of pressure, and the consequent expansion and dilution, as it were, of the air; (2) to the lessened density, decreasing the power of the air to suspend solids; and (3) to the progressive disappearance of productive foci of bacteria. Miquel's researches, carried out at the Hôtel Dieu, and at Notre Dame de la Pitié, showed that in the wards the average for the year was 11,100 bacteria per cubic metre of air. "Taking the whole year through it was found that the increase and decrease of bacteria in the air of hospital wards obeyed laws very different from those observed in the open air. The hospital bacteria, in fact, reached their minimum at a time when the windows could be kept open in June, July, and August, when the average fell to 5500." The maximum of the hospital (28,000) was reached in January in very cold weather, when the number in the air of the street had fallen to 160. "If," says M. Miquel, "hospitals be built in the middle of cities the surrounding quarters must receive microbes, which are possibly not always harmless."

Assuming, as we may certainly assume, that microbes are the actual cause of some zymotic diseases, and that these microbes may be wafted to us through the air as readily as they may travel by other channels, we must still remember that happily something more than the microbe is necessary for the production of the disease, and this something is found in the conditions necessary for its growth. This implies not only moisture and a certain amount of

warmth, but also a soil suitable for the bacteria to grow in. That all plants do not flourish equally well in all soils is well known, and it is also well known that the presence or absence of some minimal ingredient in a soil may make an enormous difference in the resulting crop. This fact is very strikingly shown by Raulin's experiments on the growth of the Aspergillus niger, the mould which grows so luxuriantly on lemons and other acid fruits. M. Raulin grew this fungus in a fluid containing sugar, tartaric acid, &c., which he devised himself, and which he found gave uniform results. Raulin found that the total crop of fungus grown in this fluid in a dish of definite area weighed (when carefully dried) twenty-five grammes. Raulin's liquid contained $\frac{1}{30000}$ part of the metal zinc, and if this were withdrawn the resultant crop fell to 2·5 grammes, or only $\frac{1}{10}$ of what may be considered a full crop. Further, Raulin found that the addition of $\frac{1}{1500000}$ part of nitrate of silver stopped the growth altogether, and that the growth of the aspergillus will not even commence in a silver bowl, so sensitive is the fungus to the action of that metal.

These experiments are most instructive, as showing us what apparently insignificant trifles may cause the growth of an organism to flourish or languish. They make it less difficult for us to frame an hypothesis to explain why certain zymotics seldom occur, and never flourish twice in the same soil; why certain families are more smitten by certain zymotics, such as tubercle and scarlet fever, than others; why in times of epidemic some persons escape; why in the old days of inoculation for the small-pox the inoculated disease was seldom so virulent as the disease "caught" in the ordinary course.

A NEW HOSPITAL IN BRUSSELS.

A NEW hospital at Molenbeck, on the plateau of Koekelbergh, an outlying district of Brussels, has just been opened, and will form an important addition to the medical services of that town. The main entrance faces the rue Vandenbogaerde, and consists of a vast structure reserved as the dwelling of the director, M. Deneus, the pharmacy, the laboratory, &c. A wing of this building is devoted to the store rooms, the reception of out-door patients, bath rooms, and operating amphitheatre. By the side of the latter there is a small room where patients, who cannot support transportation to their ward after operations, may rest and gather strength. The patients, on admission, are compelled to take a bath at once and dress in the hospital uniform. There are eight pavilions for the patients and two of the pavilions have but one floor. They are situated longitudinally with the prevalent winds and are connected by an open passage or gallery. Altogether there are 155 beds; each ward contains sixteen beds, a nurse's room, bath, closets, and one isolation room. The accommodation is divided evenly for men and women. The two pavilions that have but one storey are reserved for infectious cases, and these are divided into twenty-two small rooms, each with only one bed. Large gardens surround the pavilions, and the wash-house, the dead-house, the post-mortem room, disinfecting stove, &c., are as far away as possible. The building is warmed by hot water pipes with two generators of 60 horse power, and it is said that a satisfactory system of ventilation has been established. The land cost £2200, the building £12,000, while a recent lottery produced £520 towards defraying the purchase of the necessary furniture. Considering that there are already several large hospitals in Brussels, and that, after all, the capital of Belgium does not possess 400,000 inhabitants, this new work of charity is highly creditable.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 6209 births and 4127 deaths were registered during the week ending the 17th inst. The deaths showed a decline of 128 from the high number in the previous week, and were equal to an annual rate of 24·2 per 1000 of the estimated population of these towns in the middle of this year, against 25·0 and 24·9 in the preceding two weeks. During the last quarter the death-rate in these towns averaged 21·4 per 1000, against 23·0 and 21·2 in the corresponding periods of 1882 and 1883. The lowest rates in these towns last week were 16·0 in Hull, 19·1 in Brighton, and 19·2 in Derby. The rates in the other towns ranged upwards to 31·3 in Bolton, 31·6 in Wolverhampton, 31·6 in Plymouth, and 32·8 in Cardiff. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 375 and 372 in the previous two weeks, were 370 last week; of these, 108 resulted from whooping-cough, 70 from measles, 59 from scarlet fever, 50 from small-pox, 34 from diphtheria, 28 from "fever" (principally enteric), and 21 from diarrhœa. No death from any of these zymotic diseases was recorded last week in Brighton or in Plymouth, whereas they caused the highest death-rates in Sunderland, Preston, and Cardiff. The greatest mortality from whooping-cough was recorded in Bristol, Wolverhampton, and Preston; from measles in Preston, Sunderland, Leicester, and Cardiff; from scarlet fever in Leeds and Halifax; and from "fever" in Derby. The 34 deaths from diphtheria in the twenty-eight towns included 14 in London, 4 in Portsmouth, 2 in Manchester, and 2 in Salford. Small-pox caused 78 deaths in London and its outer ring of suburban districts, 2 in Liverpool, and 1 in Birmingham. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had been 1079, 1013, and 1001 on the preceding three Saturdays, was 1009 at the end of last week; the admissions, which were 161, 171, and 224 in the previous three weeks, were 216 last week. The Highgate Small-pox Hospital contained 96 patients on Saturday last, against 87 at the end of the previous week; 29 cases were admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 370, 537, and 609 in the preceding three weeks, declined again to 552 last week, but were 53 below the corrected weekly average. The causes of 93, or 2·3 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Brighton, and Leicester, and in four other smaller towns. The largest proportions of uncertified deaths were registered in Sheffield, Oldham, and Halifax.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 30·7 and 30·5 per 1000 in the preceding two weeks, further declined to 29·0 in the week ending the 17th instant, and was 4·8 above the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 18·3 and 21·2 in Perth and Greenock, to 33·4 in Paisley and 34·4 in Glasgow. The 709 deaths in the eight towns showed a decline of 35 from the number in the previous week, and included 30 which were referred to whooping-cough, 20 to measles, 13 to diarrhœa, 12 to "fever," 5 to scarlet fever, 3 to diphtheria, and not one to small-pox; in all, 83 deaths resulted from these principal zymotic diseases, against 110 and 94 in the preceding two weeks. These 83 deaths were equal to an annual rate of 3·4 per 1000, which exceeded by 1·2 the mean rate from the same diseases last week in the twenty-eight English towns. The 30 deaths from whooping-cough corresponded with the number in the previous week, and included 8 both in Dundee and Glasgow, 7 in Leith, and 5 in Edinburgh. The fatal cases of measles, which had been 38 and 26 in the previous two weeks, further declined to 20 last week, of which 14 occurred in Glasgow and 5 in Dundee. The 13 deaths attributed to diarrhœa corresponded with the number in the corresponding week of last year. The 12 deaths referred to "fever" exceeded the numbers returned in the preceding two weeks; they included 7 in Edinburgh and 2 in Glasgow. Three of the 5 deaths from scarlet fever, and all the 3 from diphtheria, were returned in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 203 and 198 in the previous two weeks, were 199 last week, and exceeded by 94 the number returned in the corresponding week of last year. The causes of 105, or nearly 15 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 38·5 and 31·2 per 1000 in the preceding two weeks, was 31·0 in the week ending the 17th inst. During the thirteen

weeks ending the 27th ult. the death-rate in the city averaged 29·4 per 1000, the mean rate during the same period not exceeding 19·8 in London and 19·7 in Edinburgh. The 210 deaths in Dublin last week showed a further decline of 1 from the high numbers in recent weeks, and included 23 which were referred to the principal zymotic diseases, against 24 and 19 in the previous two weeks. Of these 23 deaths, 13 were due to scarlet fever, 4 to "fever" (typhus, enteric, or simple), 3 to whooping-cough, 3 to measles, and not one either to small-pox, diphtheria, or diarrhœa. These deaths were equal to an annual rate of 3·4 per 1000; the rate from these diseases last week being equal to 2·1 in London and 2·5 in Edinburgh. The 13 fatal cases of scarlet fever showed a considerable increase upon recent weekly numbers; while those of "fever," whooping-cough, and measles scarcely differed from the numbers in the previous week. Ten inquest cases and 8 deaths from violence were registered within the city, and 64, or nearly a third of the deaths, were recorded in public institutions. The deaths of elderly persons showed a considerable decline from the number in the previous week. The causes of 27, or nearly 13 per cent., of the deaths in the city last week were not certified.

Correspondence.

"Audi alteram partem."

THE UXBRIDGE TRAGEDY.

To the Editor of THE LANCET.

SIR,—I enclose a full account of the facts bearing upon the medico-legal aspect of the above case.[1] In your editorial note on my last letter you say, "We can only express our regret that Mr. Bowlby should feel himself injured by what he conceives a misrepresentation of his evidence as to facts and opinion." I am obliged, Sir, for such an expression; but you can scarcely expect me to accept it as a sufficient apology for the annotation of which I complain. There can be no doubt this annotation implied that the prisoner was convicted through some gross inaccuracy in the medical evidence. It must be known to you that the public and the daily press have so interpreted it, and that it has been taken as the text for various articles whose chief aim has been to discredit scientific evidence in general. And although your paragraph was vague, and consequently I could not guess at its precise meaning, I would remind you that you made a definite charge against me, and that charge you have neither supported by one word of proof nor have you withdrawn it. I will ask you, then, to state definitely what were "the inferences of the medical witnesses" which "were at variances with similar known facts in other cases on record, *in which a shot has been fired by a suicide between the infliction of a mortal wound even of the heart—and death!*" for I feel I have a right to know in what particular point *material to the issue of the trial* such inferences were in your opinion erroneous. You disclaim my supposition that you hereby assumed it necessary to presuppose the possible self-infliction of other wounds after that of the heart, and say that you "obviously wrote with the purpose of illustrating what may be done after a fatal wound of a vital organ." If, Sir, you only wrote with that intention, will you kindly explain what bearing such illustration has upon the inferences of the medical witnesses? I stated in my last letter that I had allowed of the possible self-infliction of even a third wound in the deceased, in spite of the damage caused by the first two, and I said that your annotation implied the contrary. To this you have not replied. You write that "a wound in the back is peculiarly likely to be self-inflicted if the suicide falls forward or on his side while the arm, still clutching the pistol, is convulsively drawn, stiffened, and by the fall twisted back." That sentence undoubtedly implies that there was an easy and obvious way of accounting for the back wound in the deceased, and is therefore a serious imputation on the capacity and common sense of the medical witnesses. Against the acceptance of such an explanation I would urge first, that, instead of the diseased being found clutching the pistol, the weapon lay by his side; second, that instead of his arm being "convulsively drawn, stiffened, and by the fall twisted back," his right arm was beneath him as he lay on his face, and his left arm was outstretched above his head with the palm downwards on the ground. You will thus see that your suppositions are without a shadow of proof by way of support. It seems to me just about as "probable" that a man should shoot himself in the back after firing a bullet through his heart as that he should place himself in the position you so graphically describe, and until you adduce in evidence some of the numerous cases with which, from the way you write, you no doubt are acquainted, I feel sure you will allow me to differ from you as to the "likelihood" of the act in question.

And, then, I must again remind you of what I wrote in my previous letter. It is not sufficient to account for "a wound in the back." The question is, "Does your theory account for the particular wound found in the back of the deceased"? If not, then it is certainly misleading, for the natural implication is that it does account for it. Can you, and will you, explain how the deceased could himself, with the pistol in his own hand, inflict the wound I described to the jury, a full account of which is in the report which I enclose. You "believe" that one reason why "neither the counsel for the defence nor the jury were able to solve the difficulty" (referring, remember, to the infliction of the back-wound) "was that they were not clear as to the possibilities, probabilities, and certainties of the case in its medical aspect." Here again is another supposition unsupported by a word of proof, and therefore not demanding a reply. Will you then explain away the difficulty by accounting for the wound? You say that your information was derived from "the usually accredited channels," and as you do not deny my suggestion that it came from the daily press, I presume this is the source indicated. I have not altered my opinion that "it is scarcely fair to condemn the medical evidence upon such authority." On the contrary, in my own defence, and in the interests of medical witnesses at large, I beg to protest as strongly as possible against your action as Editor of an important medical paper in this respect. The case was one of importance, you might easily have obtained additional evidence, but instead of this you allowed yourself to be led away by insufficient evidence, and thereby encouraged a foolish outcry against not only myself, but medical witnesses in general. I do not in the least dispute that your "comments were made in the interests of justice;" I feel sure they were, but I believe you have been misled by inaccurate reports, and I feel confident that if you find such to be the case you will correct the error. It is in the same interests of justice that I ask you to publish both this letter and the full account of this case that I enclose; and, finally, I would remind you that I ask for an explanation of but two points—1. In what particular, essential to the result of the trial, were "the inferences of the medical witnesses at variance with similar known facts in other cases on record in which a shot has been fired between the infliction of a fatal wound, even of the heart, and death"? 2. Can you, and will you, explain either how and in what position, by your own theory or by any other, could the deceased himself, with the pistol in either hand, inflict the particular wound in his back which I have described in my report and in my evidence.

I am, Sir, yours truly,

Queen Anne-street, Jan. 6th, 1885. ANTHONY A. BOWLBY.

*** In THE LANCET of Dec. 27th, 1884, p. 1163, we stated "it did not at all follow because a bullet wound was found on the body of the deceased in such a situation that it could not have been self-inflicted, that therefore it proved a criminal act by another person. It might have resulted from accident during a struggle for possession of the revolver, or from justifiable homicide for self-preservation." And yet Mr. Bowlby could gather from another passage bearing on the same question nothing short of an attempt on our part to throw discredit on the medical evidence. Does it not occur to Mr. Bowlby that we have not shown ourselves altogether wanting in fairness, or even courtesy, by publishing his account of the case which occupied nearly *nine* columns of type? And does he fail to recognise the meaning of the following words included in the comment (p. 82) appended to his lengthy report?—"Concerning the bullet

[1] This statement appeared in our issue of the 10th inst.—ED. L.

wounds Mr. Bowlby says that Nos. 1, 2, and 3 were possibly suicidal, and No. 4 was possibly accidental, though it could not have been self-inflicted. We may at once say that we accept this interpretation as correct." Surely he cannot seriously contend that there is vagueness in the paragraph, intentional or otherwise; but be that as it may, we are content to leave the matter to the impartial consideration of our readers. Coming now to the second charge in Mr. Bowlby's indictment against us we are compelled to introduce Mr. Parrott's name, because in our previous notices of "the Uxbridge tragedy" we referred to the medical evidence in general, and not to any particular witness. Moreover, although Mr. Bowlby formally declined to implicate Mr. Parrott in any way, he wrote (p. 78, Jan. 10th, 1885), "Nevertheless, I may say that on almost all the main points we were entirely agreed"; and again at page 40, Jan. 3rd, 1885: "It is scarcely fair to condemn that evidence—given by Mr. Parrott and myself," &c. And, further, since Mr. Parrott has not disclaimed participation in the responsibility attaching to the communications of Mr. Bowlby, which cannot well have escaped his observation, we are the less reluctant to review and compare the testimony of both gentlemen, and in delivering our defence of the assertion at p. 1163, Dec. 27th, 1884, that "the inferences of the medical witnesses were at variance with similar known facts on record," &c. The quotations hereafter following are taken from a copy of the depositions before the magistrates. First, as regards the wound (No. 4 in the depositions, No. 3 in the report in THE LANCET) of the heart, Mr. Parrott stated in his examination-in-chief, "If a man had fired the shot that caused that wound he could not have fired another shot," and "supposing the other wounds to be suicidal, that must have been the last inflicted." In his cross-examination he substantially confirmed the above, for we find him saying, "The wound I saw in the heart of the deceased must have caused *instantaneous death;* by that I mean in a few seconds." Surely these inferences were, as we contended, at variance with similar known facts in other cases on record, in which a shot has been fired between the infliction of a fatal wound, even of the heart, and death. Mr. Bowlby was certainly more guarded than Mr. Parrott, but for all that his evidence, in our opinion, is open to criticism. During his examination-in-chief, it was elicited that "the effect of wound No. 4 (the one in the heart) would be to cause death within a minute or two at the latest, and in my opinion after that wound had been inflicted the deceased *could not* have caused any of the other wounds." Compare this with what Mr. Bowlby writes in THE LANCET, Jan. 10th, 1885, p. 80: "I felt, although highly improbable, it was yet *not impossible* for all three [the wound in the face, and the two in the chest—Ed. L.] to have been self-inflicted." Let it be noted that these statements had exclusive reference to the wounds *quoad* their dangerous nature, and so their bearing on the issue of incapacitation for further suicidal acts, and did not include the subsidiary question as to the distance from the body at which the shots were fired. To return to the depositions, we find Mr. Bowlby repeating or supporting his former evidence:—"I think, taking the three wounds in the front of the body, it would be almost impossible for a man to inflict the third [the one below the clavicle—Ed. L.] after having inflicted either of the other two." Nor was his resolution materially shaken by cross-examination, for he goes on to say:—"If the deceased had then [i.e., after the back wound had been caused by a supposed accident—Ed. L.] taken the pistol, he could not have inflicted the three front wounds; he could have inflicted the one through the cheek, and he could possibly have inflicted *another wound;* it is highly improbable that he could have inflicted the heart wound after he had inflicted the two such severe ones as the other two on the front of the body." If the above references do not represent the evidence of the medical witnesses at the trial—and we maintain that for all practical purposes the magisterial investigation is to be regarded as part of the trial—then we can only say we have been misinformed—misled, it may be. But whilst we admit that Messrs. Bowlby and Parrott acted with a full sense of their responsibility, and with the desire and intention of furthering the administration of justice, we hold that we only exercised a right and discharged a duty when we said, "The inferences of the medical witnesses were at variance with similar known facts in other cases on record, &c."—ED. L.

LUNACY LAW REFORM.

To the Editor of THE LANCET.

SIR, If the Government is really preparing a Lunacy Bill this is no doubt the time for those who have, or imagine they have, ideas on the subject to bring them forward. The public, the lawyers, and the medical profession are all more or less dissatisfied with the present laws, and with many of the prevailing lunacy arrangements; but their discontent is vague, and their ideas as to the proper remedies for the prevailing disorders are, like your own, unformulated and partly contradictory. You, as representing the medical profession, say you are going to reserve your ideas for the present. This, in my humble opinion, is an unwise course to adopt. You have denounced the present lunacy laws unsparingly, and you have not been over-tender in your dealings with the officials who administer them. Now, there are about 500 members of the profession in the three kingdoms engaged wholly, or in great part, in the treatment and inspection of the insane, and this considerable fraction of the medical world look to you for some guidance in regard to this matter. They are immensely interested in the lunacy laws, and they have had much direct experience of their working, but they know that that experience needs correction by comparison with that of the general profession. I may say at once that I believe they feel deeply the apparent want of sympathy with them exhibited by some portions of the medical press. I also believe that they will be greatly disappointed if the arrangements of the future for the treatment of mental disease do not tend to make them more an integral part of the profession than they are at present. They naturally feel that having taken to a very difficult department of the profession, in which their attention is much absorbed by matters that seem non-medical, where their positions are often isolated, and in which they are often largely under the control of practically non-medical Government and local boards, it is a little hard on them to lose the sympathy and support of their profession, when they are conscious that they have assiduously done the professional work assigned them by the law. They think that they know something of what would be for the benefit of the insane in future legislation, but for obvious reasons they do not like to take any initiative in suggesting new laws. I speak for my brethren in England rather than for myself; for here, in Scotland, the position of asylum medical officers is essentially a more medical one than in England: the traditions of their office being more medical; our visiting commissioners being medical men who do not sink their profession in their office; our asylums being almost all public, with medical men on our boards of direction; our practice not being confined to our institutions, but a good deal of it being outside them, where we meet family practitioners and see mental disease in its early stages and in its milder forms. The position of some of us as teachers in medical schools brings us into contact with the fresh inquiring minds of students, too. We are neither tempted here to become purely officials, nor, in order to hoodwink the public, to disguise our officialism under the misleading euphemism of "neurologist."

If I were to summarise my lunacy experience in England and in Scotland, correcting the results somewhat by my observation of the working of the laws regulating the treatment of the insane in Europe and America, I would say that

the following would be improvements in the present English Lunacy Laws:—

1. A provision for the treatment, with a view to recovery, of recent cases of mental disease without any certification or any word of legal "insanity" whatever.

2. Provisions for adopting different modes of interfering with personal liberty on account of mental disease, and placing it under suitable treatment according to the symptoms present in various cases, thereby harmonising the law with the medical facts.

3. A provision that reasonable appeals and complaints on the part of the insane, or those held to be insane, in regard to their liberty, shall be inquired into in a formal and judicial way, sometimes even publicly, under proper conditions, thereby taking the responsibility off relatives, doctors, and asylums.

4. A provision for the classification of patients in asylums according to their mental state, the structure and arrangement of wards intended for the different classes of cases being made conformable to the mental and bodily condition of the patients who are to inhabit them.

5. A provision for the removal from asylums and for suitable guardianship elsewhere of patients who have so changed in mental condition, without having recovered since their admission, that they no longer need asylum care.

6. A provision for the systematic training and education of attendants and nurses on the insane.

7. A provision for the hospital treatment in public institutions of all the middle-class insane who need such treatment.

8. A provision that would lead to the education of all medical students in mental diseases. This, I maintain, is an easy and practicable measure, in spite of assertions to the contrary; and I think our experience in the Edinburgh University has proved it to be so. Apart from the heavy responsibility thrown on medical men in having to treat mental diseases as family doctors, and the serious risk they run in their medico-legal acts *quoad* insanity, I am strongly of opinion that the mental symptoms in ordinary diseases do not always receive the attention they deserve through their not being looked for; or their importance not being recognised, that the initiatory symptoms of mental disease are often overlooked or misunderstood; that the facts of mental heredity as influencing diathesis, disease, crime, character, morals, and social life are not always taken into account as they should be by medical practitioners; and that the whole science of medical psychology is retarded, all this partly resulting from our students not having any education in the derangements of the mental functions of the brain. On the doctrine of chances, if this great subject was brought under the notice of all students more able men would be attracted to its further study and investigation than at present. It is difficult now to attract a sufficient number of such men, and as one cause of this I cannot acquit the discouraging tone of a portion of the medical press. If the mental functions of the brain are the crown of man's life, surely their derangements are worthy to be placed beside the derangements of uterine function in the curriculum of the medical student.

9. A provision that pecuniary advantage to anyone shall be absolutely dissociated from the deprivation of any insane persons liberty.

10. A provision that all visiting government officials for the insane shall be medical men of proved acquaintance with the subject.

11. A provision that for curative establishments a larger staff of medical men shall be employed than is common at present.

12. A provision that all public institutions for the insane shall be allowed to provide out of their funds such arrangements for scientific research as their responsible medical heads shall deem requisite.

13. A provision that all boards of direction of asylums shall include at least two or three medical men, either combined with the ordinary directors or forming a special [illegible] "medical board," with special powers of recommendation and veto.

14. A provision to protect the doctor who does valid and necessary medico-legal acts in regard to insane persons which the law authorises or directs him to do, just as a magistrate is protected in his official acts.

I could assign reasons for each of these suggestions, and refer to the States, where many of them are in successful operation, but this would unduly intrude on your space. These provisions, I think, would be good for the insane and good for the medical profession. There will be others which the public, the relatives of the insane, and the lawyers will insist on as being requisite from their point of view. A perfect Bill will be a happy combination of what is sound in the ideas of all, and will be founded on the experience of the working of past laws, on the most reliable scientific conclusions, on a generous public sentiment towards a helpless class, and on a due respect for personal liberty, with the real welfare of the insane as its keynote throughout.

I am, Sir, yours, &c.,

T. S. CLOUSTON.

The Royal Edinburgh Asylum, Morningside, Edinburgh.

*** Our correspondent has read our leaders on this subject, though all to little purpose if he has yet to learn that we have fully formulated opinions. As a matter of fact, when Dr. Clouston was pouring contempt, not too courteously, on our Commission on lunatic asylums in the *Journal of Mental Science*, we were formulating and propounding a scheme, from which he would seem to have borrowed a few ideas; to this scheme we strictly adhere.—ED. L.

To the Editor of THE LANCET.

SIR,—Among the various suggestions that have been made for the amendment of the lunacy laws there is one which I have not seen alluded to, and which in my opinion would do much to relieve the medical practitioner of his present responsibility in connexion with the duty of giving a certificate of insanity. Out of consideration for your space I will endeavour to give my suggestion as briefly as the subject, a legal one, will admit.

Among the matters provided for in the various Lunacy Acts it is ordered by Sect. 89 of 16 and 17 Vic., cap. 97, that on admission of an insane patient into any asylum or private house a copy of the order and certificates should be at once transmitted to the Commissioners in Lunacy. It is further provided by Sec. 87 of the same Act that if the order or certificates "is or are in any respect incorrect or defective," they may be amended within fourteen days, "provided, nevertheless, that no such amendment shall have any *force* or *effect* unless the same shall receive the sanction of one or more of the Commissioners in Lunacy."

On the approval or sanction of the Commissioners in Lunacy, therefore, the order and certificates *have force and effect*—that is, the amended document is endowed with certain distinct functions. What these are is explained in the next section, Section 88—namely, every person received into any asylum under an order complete in its different parts "may be detained therein until discharged as authorised by this Act," and in case of escape may be recaptured. Such are the powers alluded to as *the force and effect* of an altered or amended document, and surely they must equally belong to a document examined by the Commissioners and not requiring amendment. Again, by Section 99, 8 and 9 Vict., c. 100, it is enacted that every person authorised according to the Act to take charge of a lunatic, and who has received a proper order to do so, shall have power to detain, recapture in case of escape, and in any law proceeding which shall be brought against him for so doing, "the party complained of may plead" the authority of such order in defence, and this shall be a justification for "taking, confining, detaining, or retaking such lunatic or alleged lunatic." It is not distinctly stated, but in my idea it is implied, that the submission of the legal documents to the commissioners, for their official examination and direction for amendments, confers upon such documents an extra validity. It is ordered also by the statute that all orders and certificates relating to patients admitted since the last official visit of the commissioners or visitors shall, together with the licence in case of a private house, be laid before the commissioners, as well as all case books, admission books, &c., which shall be duly signed by them (8 and 9 Vict., cap. 100, sect. 65)—that is, everything relating to the patient, except the certificates themselves, are to be signed.

My proposition is, then, that at each visit of the commissioners or visiting magistrates, each new patient, or patients, received since the last official visit shall be specially examined, and the order and certificates relating to each case, and when found satisfactory shall be *counter-*

signed by them, and the authority of the original documents should then lapse and terminate, and the responsibility for the patient's detention rest upon the authority of the commissioners and visitors alone. This would give the assurance to the public that the patient was rightly detained, if anything will do so; and it would relieve the medical profession of a responsibility never ending according to the present working of the statutes. Everything as to the examination of the patients and signing of all the documents, *except the endorsement of the certificate*, is already provided by the Act, 8 and 9 Vict., cap. 10, sect. 62. The relief to the original certifiers by the corroboration of the legal authorities is all that is new.

I remain, Sir, yours, &c.,

Boreatton-park, Shrewsbury, Jan. 1885. W. H. O. SANKEY.

THE TREATMENT OF FOUL WOUNDS BY HOT AIR.

To the Editor of THE LANCET.

SIR,—The perusal of Mr. Leighton Kesteven's interesting paper on antiseptic steam irrigation of foul wounds induces me to offer you a description of a method of treatment by hot air that for some years I have used with marked success in cases of chronic, indolent, and varicose ulcers, syphilitic or otherwise, which are known to every practitioner, and are a source of annoyance to the patient and his friends from their offensive discharge. I employed a village carpenter to make the box I used. It is constructed of well-seasoned wood, the bottom, or floor, consisting of three layers about an inch apart from one another, the outer one of stout sheet zinc or tin plate, is that against which the flames of the spirit lamps impinge; the middle is of perforated zinc, and above that a wooden floor, also perforated by numerous holes. The apparatus is placed on the bed, and the limb put in it by lifting the two lids, which are perforated by holes for the escape of hot air and vapour; the spirit lamps, two or three in number, are lighted, and the temperature is quickly raised within the box to as great a height as can comfortably be borne by the patient, and maintained for two hours, the process being repeated morning and evening. Sprinkling the inside of the box with an ounce or so of terebene is of value in neutralising the offensive smell from a large ulcer, and also probably contributes to the stimulative effect of the hot air. In syphilitic cases calomel may be vaporised by sprinkling on the zinc floor above the lamps. Before placing the limb in the box I well wash off as much purulent matter as possible with a syringe and a solution of boracic acid. After removal from the box I apply a piece of lint cut to the shape of the wound, but a quarter of an inch smaller, and soaked in a saturated solution of boracic acid, and either no bandage or just enough to keep the lint in place. I need hardly add that the rapidity of healing will be greatly accelerated if the patient will maintain the horizontal position entirely during the treatment; in other words, keep his bed or sofa. I have found large chronic ulcers of many years' standing heal rapidly under this process, and the limb remain sound and useful for years with the help of an elastic stocking or bandage. I think both Mr. Kesteven's experience and my own go to prove that in heat we have a manageable as well as powerful stimulant which is undeservedly neglected in treating the class of cases referred to.—I am, Sir, yours truly,

January, 1885. DOUGLAS W. ESHELBY, M.D., &c.

DEATH DURING THE ADMINISTRATION OF ETHER.

To the Editor of THE LANCET.

SIR,—I am very sorry to add another to the list of deaths during the administration of ether. The facts respecting the case are as follows:—On Wednesday, the 14th inst., at 5 P.M., I administered ether to a man aged sixty-two in the receiving room of the London Hospital. It was for a dislocation of the shoulder a week old; he could bear no manipulation. I used Ormsby's inhaler and had the air-cap open to a small extent throughout the administration. The patient was fully under the influence of the anæsthetic in about the usual time, and the dislocation having been apparently reduced I stopped the administration. As the dresser was proceeding to put the strapping on I found that the reduction was not satisfactory. The man had just partially come round; so, without putting any more ether in, I put the bag again over his face. In about two minutes the reduction was completed (with the heel in the axilla), and I removed the inhaler about a minute afterwards. I observed that the man began to look pale and that his breathing had become very feeble. I ordered brandy, which was given hypodermically over the cardiac region; artificial respiration was at once commenced by one of my resident colleagues, assisted soon after by another, whilst I drew the tongue forwards. The battery was also procured and used. The dusky pallor increased in spite of our efforts, and though we continued artificial respiration for upwards of half an hour we failed to bring him round. It should be stated that at the time of removal of the inhaler on the second occasion I felt no anxiety; it was not till a minute afterwards that I observed the death-like lividity and pallor. On the first occasion there was struggling; on the second none. I had inquired as to his food previously, also as to whether he had any cough or lung trouble, as he was short of breath when I saw him, but he answered in the negative to the latter.

The autopsy was made by Dr. Turner, pathologist to the hospital, and the lungs were found emphysematous and congested. There was bronchitis with a quantity of mucus in the tubes; the lower lobes did not contain much air; at the upper part there was more œdema. Trachea congested, containing frothy secretion. Heart flaccid; right ventricle and auricle occupied by soft coagulum; great increase of fat on surface of same and very little muscular tissue; at apex it had nearly disappeared; slight thickening of valves; left side of heart normal. Pericardium universally adherent. Other organs fairly healthy. Dr. Turner considered that death had been brought about by fatty heart combined with bronchitis and emphysema. The man had about an inch and a half of fat on the abdomen. I heard afterwards that the patient had not been well at home, having fainted not long before coming to the hospital. I was assisted throughout the case by one of my colleagues.

I am, Sir, yours truly,

PROCTOR SELBY HUTCHINSON,

London Hospital, Jan. 19th, 1885. House-Surgeon.

REMARKABLE CASE OF SELF-INFLICTED WOUNDS CAUSING DEATH.

To the Editor of THE LANCET.

SIR,—With reference to your recent remarks on the conviction of Mrs. Gibbons and the medical evidence bearing on it, I beg leave to narrate the following case, which came under my observation.

In the summer of 1875 I was sent for hurriedly to see an officer. I found him lying on a couch with two incised deep wounds on the front of the abdomen, and one similar wound on the back, near the spine. Twenty-six incised wounds were found about the left breast, some of them penetrating the cavity of the thorax and others leading along the ribs; both hands were dreadfully mutilated; and lying close by the officer was a sword covered with blood and bent to an angle of about 45 degrees. He lived for several hours, and told me how he had transfixed himself by placing the hilt of the sword against the wall and then pressing forward on it; but, failing to effect his object, he made a second attempt. This time the blade, impinging on the spine, was bent, so that he had great difficulty in withdrawing it, his hands being cut severely in the effort. As death did not ensue, he then tried to penetrate the heart, but without success. A post-mortem examination verified his statement regarding the transfixion and the effects of the second effort at causing self-destruction.

Had this gentleman been found dead, I think it is extremely problematical whether any jury would have given a verdict of suicide, as such unusual power of self-mutilation is uncommon; and I am disposed to think that medical evidence would probably have tended to the idea that such wounds would not have been self-inflicted.

I am, Sir, your obedient servant,

WM. ALEXANDER, M.D.,

Aldershot, Jan. 1885. Surgeon-Major.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

To the Editor of THE LANCET.

SIR,—At the request of the Council of the Royal Medical and Chirurgical Society, Dr. G. F. B——— has kindly undertaken to edit a catalogue of the Society's large collection of engraved portraits of members of the medical profession. The value of the collection would be much enhanced if members of the profession would present any engraved or lithographed portraits (not photographs) of themselves or others which are not now in it. The resident librarian would have much pleasure in informing intending donors whether any portrait they may desire to present is already in the possession of the Society.—I am, Sir, yours, &c.,

53, Berners-street, Jan. 18th, 1885. BERKELEY HILL, Hon. Sec.

THE M.D. EXAMINATION AT THE LONDON UNIVERSITY.

To the Editor of THE LANCET.

SIR,—In the last number of your journal a gentleman who was rejected in logic and psychology, but who passed in medicine, at the recent examination for the degree of Doctor of Medicine at the London University, complains of having to repass in the subject of medicine should he determine to present himself once more for examination. Surely, Sir, this is an undignified complaint in one who aspires to a good degree. If the examiners found this gentleman well up last December, surely they should find him still better up next December. Are we to consider him "learned in medicine" whose knowledge vanishes within a twelvemonth? I myself was rejected in logic and psychology at the recent examination while passing in medicine, but I hold the degree I covet at too high an estimate to take the schoolboy view of your correspondent. I, for one, have no sympathy with those who would lower the standard of any medical examining body, and certainly not of a university which has done more, I believe, to further medical education than any other institution in the world. If anyone should doubt this remark, I have only to refer him to the Medical Directory, and let him travel through the list of names. In regard to a teaching University in London, I am not surprised at the cry for it, since many of the London hospital schools make no attempt at teaching, at all events at clinical teaching. In spite of the many remarks made to the contrary, I directly contradict the statement that our clinical teaching is unrivalled. I would ask any unbiased person to "walk the London hospitals" in the true sense of the word, and I contend that he will count the clinical teachers of medicine on the fingers of one hand. If then London would draw men away from Edinburgh they must look to their teaching staff. It is simply foolish for us to shut our eyes to the fact that we are in this respect behind Edinburgh. We have in a somewhat cowardly fashion, I think, been railing against the easiness of the Scotch (and among others the Edinburgh) University Examinations, without giving due prominence to the other side of the question. There is another point, I think, which has been overlooked, and it is that, apart from all other considerations, the men of the north of England go to Edinburgh, and other Scotch Universities, from simple nearness, just as the men of the south chiefly go to London. It is only in the nature of things that north Englishmen should tend to go to a near university, whether it be English or Scotch. Trusting, Sir, that my remarks will offend none,

I am, faithfully yours,

January, 1885. M. B.

PARIS.

(From our Paris Correspondent.)

A NEW SOCIETY.

A NEW Society is being formed through the initiative of some of the leading surgeons of Paris, and the committee of organisation is composed as follows:—Professor Trélat, President; Professor Verneuil; Dr. Hurteloup, hospital surgeon; Professor Chauvel, of Val-de-Grâce; Dr. Bouilly, agrégé, hospital surgeon; Dr. Charles Monod, agrégé, hospital surgeon; Dr. S. Pozzi, agrégé, hospital surgeon, secretary of the committee. The Society is to be named the "Congrès Français de Chirurgie" and the statutes begin with the statement that the object of the Society is to establish scientific relations between the national or foreign savants and practitioners who interest themselves in the progress of French surgery. A meeting is to be held annually in Paris during the Easter week, but the period may be altered according to the decision of the Congress. All qualified practitioners are eligible as members, and the subscription for each is twenty francs a year. Each member will be entitled to the volume of the "Comptes Rendus" of the Congress. A donation of 200 frs., paid before Feb. 15th, 1885, will give the member the right to the title of founder. If the amount be paid after that date the subscriber will become permanent member (membre perpétuel), and he will be exempt from further payment or annual subscription. The subjects proposed for the first meeting, which is to be held in Paris during the ensuing Easter week, are:—1. Etiology and pathogeny of surgical affections. It is desired that clinical facts and experiments which may contribute to the determining of the respective rôles of the figured ferments (microbes, &c.) and of the chemical poisons (ptomaines, &c.) in the pathogeny of septicæmia may be brought forward. 2. Indications that may be furnished to surgical practice by the examination of the urine. 3. The best dressings to be employed in military surgery in the field. 4. The treatment of cold abscesses: to distinguish between the treatment of ossifluent cold abscesses and that of cold non-ossifluent abscesses. 5. Operative indications in deep Wounds of the Abdomen. Besides these subjects, chosen by the Committee of Organisation, the following are recommended:—(1) The comparative value of an iliac anus and a lumbar anus in cancer of the rectum; (2) indications for gastrostomy; (3) origin and nature of coxalgia; (4) indications for trephining the skull in traumatic lesions; (5) the treatment of the pedicle in ovariotomy and hysterotomy; (6) the operations on tumours included in the broad ligaments. All subscriptions and communications are to be forwarded to Dr. Pozzi, 10, Place Vendôme, Paris, from whom any further information may be obtained.

SUPPOSED POISONING BY COLCHICIN.

Colchicin, the active principle of the seeds of the colchicum, recently discovered, is a most powerful poison, and has not till now, I believe, been adopted for criminal purposes, although the other preparations of the plant, when given in moderate doses, possess known therapeutic properties of great value. The extreme toxic nature of colchicin has been taken advantage of by a manufacturer of artificial flowers in Paris, who obtained the drug by surreptitious means under the pretence of requiring it for the purposes of his trade, ostensibly for dyeing flowers of a violet hue, but it is supposed that in reality it was for a criminal purpose, as circumstances have occurred which lead to the suspicion that he used it to poison his first wife, who died a short time ago, and who had been buried only a few weeks when he married his present wife, a girl of eighteen. From the smattering of chemistry that the florist had, he hit upon colchicin as being the most convenient for his purpose, as no trace of the presence of the alkaloid was found in the body after death. This circumstance, coupled with the symptoms with which his wife died, excited some suspicion at the time, which has been increased by the fact that the man had, shortly before her death, made two unsuccessful attempts to obtain the alkaloid at chemists' shops; and as the cause of death by the administration of this drug is as yet only an assumption, the body of the supposed victim is to be exhumed and submitted to an examination. I may here note that a chemist, writing on this subject, describes colchicin as a salt crystallised in the form of fine needles, without odour but of a bitter taste. It dissolves in water and in alcohol. One centigramme in solution killed a cat in a few hours. At the autopsies of the animals so treated the stomach and the digestive tube were always found to be excessively inflamed, just as if the parts were burnt. Meanwhile the accused man is under arrest, and the case is being thoroughly investigated.

THE FATE OF LOUISE MICHEL.

Louise Michel, the well-known socialist agitator, who is now in prison, is reported to be in a state of mind bordering

on insanity, which manifests itself by great nervous restlessness, hallucinations, starting in her sleep, and constant terror of being attacked by troops. In fact, her brain is evidently affected, and she is therefore to be transferred to a "maison de santé" to undergo appropriate treatment.

Paris, Jan. 20th.

VIENNA.

(From our own Correspondent.)

THE VIENNA MEDICAL SOCIETIES.

THE scientific activity of the diverse Medical Societies in Vienna, the first rank amongst which must be assigned to the I. a. R. Society of Physicians, has satisfactorily increased in the past year. The Society of Vienna Doctors (Wiener Medizinisches Doctorencollegium) have abandoned their original intention of competing with the I. a. R. Society, and now restrict themselves to reports on the progress in the different theoretical and practical branches of professional education in the place of the former lectures on original researches, a programme which proves acceptable. At the "Section Vienna" of the Union of the Lower Austrian Physicians, also, instructive meetings have of late been held. At one of these meetings Professor Stricker demonstrated his theory of inflammation and the circulation of the blood, by means of excellent microscopic views projected on to a wall of the room by the electric lamp. At the last meeting of this Society Professor Billroth discussed the antiseptics used in his clinics, and expressed the opinion that surgical success depended, not on antiseptics, but solely on the most scrupulous cleanliness.

THE EFFECT OF IODCOLLODIUM.

Strikingly different from the usually quiet sittings of the I. a. R. Society of Physicians was the last one of the past year. Seldom, perhaps never, has a sitting of this Society been the scene of such a passionate debate, and only the tact of the chairman, Professor Billroth, and the admirable moderation of Professor Albert, prevented the occurrence of a scandal. The order of the day was a lecture by Professor Weinlechner on the application of iodcollodium, in which he spoke of the prosecution of the late Dr. Spitzer, at whose trial he acted as expert, and by his evidence principally caused the condemnation of the defendant. Dr. Spitzer ordered a girl to apply iodcollodium (1 to 100) as a remedy for red hands. The girl's mother painted her little finger daily, but at the end of three weeks the finger became gangrenous, and had to be amputated. At the trial of Dr. Spitzer, he was, on the testimony of several physicians, sentenced to pay a large fine, and to forfeit the right of practising his profession. Dr. Spitzer appealed, and the Upper Court ordered that the opinion of the medical professors of the Vienna University should decide the case. Professor Albert, who had to report on it, exonerated the accused from blame, whereupon the Upper Court confirmed his decision and reversed the original verdict; but, meanwhile, Dr. Spitzer, in a fit of despair, had thrown himself into the Danube. In his lecture Professor Weinlechner tried to prove that the painting with iodcollodium of a finger, be it annular or in the form of a glove-stall, must necessarily cause gangrene, and that his evidence involved no injustice against Dr. Spitzer. He stated that he made his experiments with a child's supernumerary finger, which was curved like a hook. Professor Weinlechner alleged that this finger, which he painted twenty-three times with iodcollodium (1 to 100), had become gangrenous, but Professor Albert easily succeeded in removing the coating of iodcollodium which covered the top of the finger, and showed that the digit remained quite intact, being only made brown by the iodcollodium, and that no furrow of demarcation could be detected. Professor Weinlechner was forced to agree that in this instance gangrene had not occurred, but expressed the opinion that there was still a possibility of its occurrence later on. During the debate Professor Weinlechner repeatedly attacked the decision of Professor Albert, for which, pushed hard by his opponent, he afterwards apologised. Professor Albert stated that in the whole of medical literature no warning is to be found against the application of iodcollodium, and that in the case of Dr. Spitzer an injustice had been committed. At the first sitting in the new year Professor Weinlechner showed the preparation of the supernumerary finger, which had, meanwhile, been amputated. The finger, after having been repeatedly painted with iodcollodium, became swollen, bluish-red in colour, and its top gangrenous; the nail fell off and pustules covered it. The Society, however, seemed no longer inclined to debate afresh on this subject. This lamentable affair, which caused the suicide of a colleague, and reflected seriously on the reputation of another, admonishes us to be cautious in applying new medicaments.

COCAINE.

As to cocaine, something of interest can be communicated. Züntz, in Berlin, lays stress on the fact that cocaine is an effective poison, and that from two to four centigrammes of it kill rabbits, and five centigrammes prove mortal to dogs. The Vienna oculists and laryngologists, however, have had many successes in applying it. Professor Störk praises the anæsthetic effect of the cocaine on the pharynx and on the larynx, although he was twice unsuccessful with two individuals who were so excessively irritable that the application of cocaine did not facilitate the introduction of instruments into the larynx. Into the ear of a patient who was dull of hearing, and suffering especially from a humming in the left ear, he dropped a solution of cocaine (20 per cent.). The next day the patient related that several minutes after leaving the hospital he was overtaken by such a swimming in the head that he could not stand upright, and had to be supported to escape falling. Another application of a solution of cocainum muriaticum (2 per cent.) is worth mentioning, owing to its striking success and to the simple manner of the application. An individual who scalded himself with hot water, and had already blisters on the skin, suffered intolerably from the pain caused thereby. After fruitless attempts to afford him relief by the usual means the solution of cocaine was applied, and the pain immediately ceased. Cocaine applied to the eye causes widening of the rima palpebrarum. Dr. Koller attributes this effect to the insensibility of the cornea, whilst Dr. Königstein presumes an irritation of the sympathetic which enters the superior and inferior palpebral muscles. The Vienna dentists, too, apply the cocainum muriaticum. Even a solution of cocaine of 2 per cent. applied to sensible dentine renders it less sensible after one or two minutes. Cocaine mixed with glycerine to the consistence of a paste and then applied to a carious tooth renders it insensible, sometimes in the course of only ten minutes. This proceeding is especially to be recommended in the case of children.

THE BACILLUS OF MALLEUS HUMIDUS.

Schütz and Löffler have proved the existence of this bacillus, which is similar to that found in tubercle but differs from it in possessing a specific tincturing power. Several days afterwards Bouchard in Paris, too, described micro-organisms as the cause of malleus humidus. These micro-organisms were said to be roundish, somewhat elongated formations, cocci, which are constantly in lively movement in the liquor, and finally group themselves in the form of chaplets. These researches were made solely with animals affected with glanders. Several days since a female rag-picker was conveyed to the Vienna Hospital Rudolfsstiftung. On her face and body were pustules somewhat larger than variola pustules, besides nodules in the skin and in the subcutaneous tissue, from which matter oozed. Malleus humidus was diagnosed, and Dr. Weichselbaum found in the matter from the pustules, as well as in the discharge from the nose, in the blood, and in the urine of the patient, the same bacilli as Schütz and Löffler had described. Weichselbaüm tried, with complete success, pure cultures of this bacillus on flesh-peptongelatine, on flesh pepton, agar-agar, and on potatoes. The cultures grow slowly at ordinary temperatures, but very quickly at the temperature of the blood. On sterile potatoes the bacillus forms, first, light-brown, and then dark-brown, colonies. Even the formation of "Sporen" could be remarked; and, finally little wands ("Stäbchen") were seen, which dissolved and resembled cocci grouping together. All inoculations with the latter cultures into rabbits, sea-hogs, sheep, &c., produced malleus humidus. Consequently, Dr. Weichselbaüm is of opinion that these bacilli are those of malleus humidus. As to the micro-organisms of Bouchard, he points out that the French inquirer employed broth for his cultures and doubtless made his inoculations with polluted material. Professor Csokor, of the Vienna hospital for animals, lecturing on the 9th inst. on Glanders and on Tubercul

Consumption of Horses, referred to these researches. As to the bacillus, he said he was not in a position to agree entirely with Schütz's statements. He did not find any specific quality in Schütz's bacillus. That it forms "Sporen" is not surprising, as all bacilli which multiply according to the leptothrix form do so. If all error is to be excluded, the researches must be made when the object is still fresh or mixed with glycerine, or with magdala-red, nor must it have been heated or dried previously.

Vienna, Jan. 12th, 1885.

Obituary.

EVAN BUCHANAN BAXTER, M.D. LOND., F.R.C.P.

EVAN BUCHANAN BAXTER was born in 1844 at St. Petersburg, where his father, James Baxter, had resided for some years as a high official in the Education Department of the Russian Government Service. His father, a personal friend of Christopher North, was descended from an old Scotch Presbyterian family. In early manhood he had removed to Russia, and there married a Miss Ross, the daughter of a Scotch merchant who had settled in St. Petersburg, and of this marriage a daughter, who died in infancy, and Dr. E. B. Baxter were the only children. His mother died whilst he was still very young. His father also directed the English school at St. Petersburg during his residence there, and here Evan began his education. Soon afterwards, on being appointed Government Inspector of Schools in the province of Podolsk, Russian Poland, his father took up his residence at Kaminetz, where Evan was brought up and educated until the age of sixteen under the care of his parent and an old French tutor. To this early training, so different from that of an English public school-boy, many of the characteristic elements in his thoughts and actions must be ascribed. In October, 1861, he came to England, and entered the General Literature and Science Department of King's College. At that time he was a good English, German, French, and Russian scholar, and had read and appreciated most of the best literature in those languages, and had also a good knowledge of many of the Latin classics. He was then quite unacquainted with Greek. A friend writes, "He and the late Professor Clifford joined about the same time as myself, and both showed themselves distinctly superior to the rest of us." This was in one of the most flourishing periods in the history of the General Literature Department of King's College. In 1862, having made rapid progress in Greek history and literature, he obtained an open scholarship in classics at Lincoln College, Oxford, and stayed there for three terms. His college tutor was the present Professor Nettleship; and his intimacy with his tutor's brothers and family remained close and cordial until his death. His great ambition then was to become a classical scholar and Fellow, for which his linguistic accomplishments singularly well fitted him. His university career, however, was interrupted by the prolonged illness and the death of his father. He returned to Russia to nurse and attend him. On coming back he felt that he could not resume his place in College for his scholarship had lapsed in his absence—even if his views had not undergone very material changes in the interval.

Before leaving England, and whilst in Russia, he had studied deeply philosophical literature and the doctrines of the Positive school; and this, with other circumstances, determined him not to return to Oxford. "The only profession," he said, that attracted me was that of medicine, holding out as it did an opportunity for the study of physical science and a hope of comparative intellectual freedom." And so in October, 1864, he entered the Medical Department of King's College, and obtained the first Warneford Scholarship on his entrance. In 1865 he was elected a junior scholar with the late Professor A. H. Garrod and Professor Curnow, and in 1869 gained the first Warneford Prize. Whilst in the Medical Department, in 1865, he was awarded the Dasent Prize (open to the whole College, for an essay on some historical or literary subject which should be distinguished by accuracy of composition and purity of style, and usually won by students in general literature). The subject for the essay was "The Minor Poems of Milton." In 1868 he was appointed assistant house-physician to King's College Hospital, and 1868-69 he filled the office of house-physician. In 1870 and 1871 he became Sambrooke Medical Registrar to King's College Hospital; and the conscientious exactitude with which he performed his duties was blended with such unobtrusive kindness in unofficially teaching his juniors that he is most gratefully held in remembrance by them as an example of what a typical senior student may do in such a position. It was at this time that he began to be appreciated as not only a man of the first intellectual calibre, but also as a great teacher and an extraordinarily careful clinical observer.

In 1865 he matriculated in honours at the University of London; in 1866 and 1867 he passed the Preliminary Scientific and First M.B. Examinations; and in 1869 graduated M.B., obtaining the Scholarship and Gold Medal in Medicine and the Gold Medal in Midwifery. In the next year, at the examination for the M.D. degree, he was marked with a star as worthy of the Gold Medal for General Proficiency.

In 1871 Dr. Baxter was appointed Medical Tutor at King's College, and he held this post until 1874, when he was chosen as the successor to Professor Garrod in the chair of Materia Medica and Therapeutics, and as an assistant physician to King's College Hospital, and these offices he held until a month or two before his death. In 1872 he became a Member of the Royal College of Physicians, and in 1877 was elected a Fellow. (He had been elected an Honorary Fellow of King's College two years previously.) He was subsequently appointed an Examiner in Materia Medica and Therapeutics, and he also filled for five years the corresponding office in the University of London. Whilst still tutor to King's College he was elected on the medical staff of the Evelina Hospital for Sick Children on its foundation, and he worked diligently but unostentatiously at the diseases of children for the next nine or ten years, first in the out-patient rooms and then in the wards. In the intervals between his medical classes he translated Rindfleisch's "Pathological Histology" for the New Sydenham Society, edited the fourth edition of Garrod's "Essentials of Materia Medica," and made some valuable experiments with the "Cinchona Alkaloids on Bacteria and Colourless Blood-Corpuscles," which were published in the *Practitioner* in 1873. His accurate knowledge of technical pathology and his choice incisive English enabled him not only to give a faithful translation of Rindfleisch's work, but to present English readers with a more readable book than the original, and marked by an elegance of style such as is rarely met with in a translation of a German scientific work. In his edition of Garrod's "Materia Medica" he preserved every characteristic which has made this text-book so popular, and he added to it many notes on physiological therapeutics, so that for accuracy and conciseness it still stands pre-eminent. Subsequent researches have scarcely modified any of Dr. Baxter's careful statements. His experiments on bacteria and the colourless blood-corpuscles show his excellence as a microscopical observer, and were remarkable for their originality, precision, and completeness, and for the painstaking labour which they must have involved. In consequence of these researches he was asked by the Medical Officer of the Privy Council to carry out a series of inquiries, on the same lines as the preceding, into the value of disinfectants, and his results were embodied in the Report for 1875. In a review of his paper in this journal on April 1st, 1876, it is remarked, "Dr. Baxter has been enabled to arrive at definite quantitative results as to their efficacy against the different poisons, and thus to supply us with most important experimental data on which to found our disinfectant operations."

In the next year he wrote an article in the *British and Foreign Medico-Chirurgical Review* on the vaso-motor nervous system, which showed a complete mastery of the history and position of the subject at that time. In it he pointed out how far our hypotheses were from including all the facts in this branch of physiology, and how great must be our caution before we invoke its aid in explaining our daily clinical and pathological phenomena, and the modes of operation of our therapeutical agents. His large and accurate knowledge of skin diseases, derived from many years' work at the Blackfriars Hospital, at first under the instruction of Mr. Jonathan Hutchinson, is demonstrated in the paper on "General Exfoliative Dermatitis," which he contributed to the *British Medical Journal* in 1879. His lesser writings include a series of physiological notes with which he supplied the *Academy* for many years, and these are remarkable for their condensation and the clearness with which difficult and complex questions are placed before the general reader.

He also reviewed some biographical works for the same journal. In March, 1880, in conjunction with Dr. Willcocks, then medical registrar to King's College Hospital, he published a series of observations on the number of red corpuscles in the blood, and their chromometric value in health, acute febrile diseases, chronic diseases, and in those pathological conditions in which the blood is either the primary seat of the morbid process, or, at any rate, the theatre of its most conspicuous manifestations. Here, again, the charm of precision and of an exact quantitative procedure is well shown. A short note in *Brain* of January, 1884, welcoming the appearance of a Russian review devoted entirely to Neurology, was his latest literary work. In 1874 he married a lady who had been a nursing sister in the Franco-German war and in King's College Hospital, who survives to mourn her sad loss.

In 1881 Dr. Baxter was appointed Physician to the Royal Free Hospital, and the charge of instructing the lady pupils in clinical medicine was placed in his hands. He performed the duties most devotedly, fully believing that our profession should be open to both sexes, and the ladies could scarcely have had another physician as a teacher who would have so well combined courtesy and gentlemanly feeling with the knowledge of a thorough all-round clinical physician and the skill of a practised teacher.

Dr. Baxter attended most assiduously to his duties at the Council of the Pathological Society, at the Medical Board of King's College, and at Committees on Therapeutics at the Royal College of Physicians; but he was an infrequent visitor at the general meetings of our Medical Societies. The principal occasion on which he took an active part in the proceedings was in the debate on Rickets, at the Pathological Society in 1880. We may recall his appearance as a speaker unknown to a large number of his audience. A tall, delicate gentleman, of somewhat fragile physique, with a slight but perceptible stoop, well-proportioned and well-poised head, with dark hair turning grey, falling straight and smooth, and somewhat thinly scattered. His forehead was high and square, and clearly betokened a markedly intellectual and thoughtful mind; while the delivery of his well-balanced sentences accentuated the impression that a speaker above the ordinary was engaging the attention of his audience. His deep-set, penetrating, bluish-grey eyes, hidden by spectacles, his long aquiline nose, delicately shaped ears, small nervous lips, and finely cut chin, with a small moustache and whiskers, and an elongated squarely-cut beard tinged with grey, gave a characteristic Oriental rather than English cast to his appearance. His profile, especially when lit up by a smile, was strikingly handsome. He had fine hands, with long tapering fingers and filbert nails, and small feet. His presence was altogether most striking, and can hardly be fairly depicted to those to whom he was personally unknown. At that meeting he gave proofs, with his accustomed precision, that starch-feeding in 92 per cent. of the cases observed by him at the Evelina Hospital had preceded rickets, but he also pointed out the objections against the hypothesis that this was its only cause. The rigorous deductions that he drew from all his observations, and the cautions that he enforced against their absolute adoption, cannot be better shown than in this address.

We would supplement this description of how he appeared to his medical contemporaries by noticing some characteristics well known to all who were his personal friends. In investigating a clinical case, Dr. Baxter was most methodical: he first heard the personal history, inquired into the family history of the patient, and afterwards made a thorough physical examination. It was only then that he came to a conclusion as to the diagnosis, and he pursued the same method however trivial the case might seem to be. He was as minute and thorough in laying down the plan of treatment, and he insisted on every detail which he ordered being systematically followed. After he had examined a patient, he became dogmatic as to the nature of the disease, and the requisite regimen and diet which would cure it or alleviate its symptoms, and it was remarkable to see how implicitly his patients carried out his wishes and how thoroughly they believed in his prescience and judgment. The method which he adopted for ascertaining the nature of the affections for which his private patients consulted him was carried by him into hospital practice. Here, also, his examination was most thorough and his directions for treatment most precise, and it is especially in this particular that all who began to investigate and treat diseases under his supervision at King's College and the Royal Free Hospitals will have to recall his memory with lively feelings of gratitude. He exhaustively examined every case under his care. In addition to being a well-trained general physician, he was a well-versed specialist in cutaneous and nervous diseases, and could use the ophthalmoscope and laryngoscope with easy familiarity, whilst his knowledge of therapeutics and physiology was almost unique. As a lecturer, we need only say that students often attended his lectures on Materia Medica twice, and even thrice, so great was the attaction of his style, and so clear was his exposition of the many details embraced in his course of lectures.

His personal gifts were so numerous, his courtesy so like a remanet from a former generation, his humour so marked and yet so grave, that all who came within the boundaries of his charmed circle distinctly felt better men from being influenced thereby. A physician after the type of Graves and Trousseau; a *littérateur*, whose exquisite and well-balanced periods were chosen from an accurate knowledge of Dante, Goethe and Schiller, Turgénieff, Voltaire, Corneille and Racine, Chaucer, Spenser, Milton and Addison, besides the most important Latin and Greek classics and the best modern English writers; a scientist, with accurate information as to the history of modern medicine; and a man, modest and retiring, ever giving place to others, and whose acquaintance was the joy of a select number of friends,—such is a bald estimate of the man who has just passed away.

The history of his illness is briefly as follows:—He was always delicate, and early in his English life suffered from bronchitis; his digestive powers were feeble, and for many years he had suffered occasionally from attacks of intestinal colic, which increased in frequency before his fatal illness. In February, 1883, he felt weak and out of sorts, and unable to do his work as well as formerly, and towards the end of that month he was laid up with right pleurisy, with some effusion, from which he slowly recovered and was able, but with difficulty, to lecture in the summer session of 1883; in September the intestinal trouble became rather urgent and continued so throughout his life. In January, 1884, an attack of left pleurisy set in, but he again lectured throughout the summer session. In the autumn there were signs of breaking down at the apices of the lungs, and these were soon followed by albuminuria. Œdema of the legs was noticed in November, and late in December diarrhœa, almost uncontrollable, left him but little remaining strength. On the 12th inst. attacks of dyspnœa began, suggesting cardiac thrombosis, and these continued until his death, early on the 14th. He was quite conscious until a few minutes before his decease.

In conclusion, the first element of his character and the mainspring of his life and actions cannot be better expressed than in a quotation from the letter of an old friend. "I never knew him hint, or say, or suggest the slightest toleration of anything but what was honest, honourable, and just. He was without exception the *most accurate* man I ever met. I never knew him state anything as a fact which was not the fact and capable of verification. He was never inexact or exaggerated." His views on medical questions are clearly stated in an address to the King's College Medical Society in 1870 on Medicine and the Allied Sciences. "The advancement of medicine at the present day depends mainly on *scientific investigation*—on investigation conducted according to the received methods of biology; *the perfecting of the individual practitioner* in clinical study. With the latter, science has little or nothing to do; with the former, its connexion is most intimate." His elegance of style, precision in the choice of words, and wide culture may be gathered from the concluding sentences of that address: "To nearly all of us it is an educational instrument in the widest sense—our only chance of culture. To nearly all of us, medicine is not only an occupation, but a life. And in the recognition of this, that our occupation and our life are one, lies at once the acknowledgment of our shortcomings, and a ground of hope for further action. Stronger motives than those of mere ambition or curiosity stimulate us to exertions which, but for them, would seem too hard. The mastery over the past is of no avail, save as it gives us a key to the future. We should be like those early voyagers who, starting from their well-known home in some northern island, were drawn ever onward by the vision of some mythic El Dorado or Fountain of Perpetual Youth. This, indeed, they never reached; but

in their passage through warmer seas, into the atmosphere of the unknown, they were not left without reward, for every morning brought with it new horizons; every night, new stars." J. C.

H. T. LANCHESTER, M.D. LOND., F.R.C.S. ENG.

IT is with feelings of painful regret that we record the death on the 8th inst., from acute pneumonia, of Dr. Lanchester of Croydon, at the age of forty-six. Although comparatively young, he had attained a position that it is given to but few to reach even at the end of a long career, and his premature decease is justly regarded in Croydon and its neighbourhood as a public calamity.

Born in 1838 at Yoxford, in Suffolk, where his father, who survives him, was then in practice as a surgeon, he was educated at the North Walsham Grammar School, and afterwards apprenticed to a leading general practitioner at Banbury. In 1858 he entered as a student at St. Bartholomew's Hospital, and had for his senior teachers Sir George Burrows, Sir William Lawrence, Sir James Paget, Dr. Baly, and Dr. Kirkes. Regarded as one of the ablest men of his year, he was much noticed by the different members of the staff, especially by Burrows and Baly. In the wards of these physicians he worked assiduously, and in intimate association with, as fellow-students, several members of the present staff of the hospital, besides many others, amongst whom may be particularly mentioned Dr. Horace Jeaffreson of Wandsworth, and Mr. Edwin M. James of Melbourne. On leaving St. Bartholomew's he was appointed resident medical officer at the Victoria-park Hospital, where he remained for nearly three years. While he was working here with the late Dr. Peacock and with Sir Risdon Bennett his mind was strongly directed towards the study of diseases of the heart and lungs, in which in after years he gained so wide a reputation. Having taken the degree of Doctor of Medicine at the University of London and the Fellowship of the College of Surgeons, he went, on the special recommendation of Sir James Paget, to Croydon as assistant to Dr. Carpenter and Mr. Whitling. Though still very young and holding a subordinate position, he quickly made his mark, for he was able, shrewd, clear-headed, active, full of tact and sound judgment, and of indomitable perseverance. Socially, he became very popular, and widely known as a man of large views and general culture, while many were attracted by his knowledge of and taste for literature and art, by the charm of his manner, his absolute integrity of thought and act, his keen sense of humour, and his power of turning an argument by some story or anecdote well chosen and admirably told. It was soon found that his services were indispensable, and he joined Dr. Carpenter and Mr. Whitling as their junior partner. In 1872 he married the only daughter of Mr. Page of Lincoln: she is now left with five children to mourn their loss. As time went on Dr. Lanchester's position at Croydon grew year by year more prominent. He was elected surgeon to the Croydon Hospital, and became connected with many charitable and other institutions of that town, and surgeon to the Second Surrey Volunteer Corps. He took a leading part in the affairs of the south-eastern branch of the British Medical Association, and for several years acted as honorary secretary, the duties of which office he performed with such ability that on his retirement he was presented, at Reigate, with a very handsome testimonial. Many will remember the happily-turned speech which Sir George Burrows delivered on this occasion. In 1878 he was elected President of the branch, and amply justified the anticipations which had been formed on all sides of his fitness for the appointment. Dr. Lanchester was also a member of Council of the Medical Benevolent College at Epsom, and chairman of the new Alfred Wing Committee of the Croydon Hospital.

While never assuming or accepting the position of a public man, he yet found time to take part in a variety of good public works. A Liberal in politics, he became vice-president of the Croydon Liberal Association, and in 1874 he was elected to a seat on the School Board, of which, with a temporary break in 1877, he had ever since been a member. At the last election in 1883 he was returned at the head of the poll, and was soon afterwards made vice-chairman of the Board and chairman of the Finance Committee. In this latter office he rapidly gained a high reputation as a financial authority. His fatal illness appeared to take its origin in a chill caught at a meeting of the committee of the Whitgift Foundation, of which he was a governor.

It will be seen from this rapid and imperfect sketch how great an amount of work Dr. Lanchester contrived to accomplish. Never robust in health, it was a matter of surprise to all who knew him that, surrounded on every side by constant claims upon his time, he was able not only to discharge the duties of a busy practitioner, who always made his patients, whether rich or poor, his first care, and to keep himself well abreast with the progress of medicine, but also to perform punctually and without confusion or omission the duties of a variety of public appointments. Yet he did so; and that with a steadiness of purpose which made everyone respect and value his opinion, and with a spontaneous courtesy and light-hearted and humorous good-nature which won the regard and affection of all with whom he was brought in contact. Probably no man ever left behind him a more unanimous opinion of his worth. With intellectual endowments that placed him on an equality with the ablest minds in the wide circle in which he moved; with a kindness and warmth of heart the presence of which caused jealousy and rivalry to be disarmed and forgotten; with an unchallenged reputation for honourable feeling, rectitude, and candour; and with a plainly indicated aversion, not to say impatient contempt, for all that was unfair or disingenuous, it is no mere posthumous flattery to say that his was a rare and lofty character. It was not in his nature to do a questionable act or to follow a questionable course. His name is one that will long be held in honour.

During his last illness, which was of less than a week's duration, Dr. Lanchester was attended by Dr. Andrew of St. Bartholomew's Hospital, Mr. Whitling, Dr. Horace Jeaffreson, Dr. Duncan, Dr. Richardson, and Dr. Oscar Clark. It was unanimously agreed to accord him a public funeral, which took place on the 12th inst., and which was attended by the mayor (Mr. J. Cooper), the deputy-mayor, and other officials of the Corporation; by deputations from the Croydon General Hospital, the Literary Institution, and other public bodies; by a detachment of the Volunteer Corps, by a very large concourse of the principal inhabitants, by his late partner, Mr. Whitling, and by numerous professional and other friends, many of whom had come from a long distance in order to be present.

THE SERVICES.

WAR OFFICE.—Medical Staff: Brigade Surgeon William Cathcart Boyd is granted retired pay, with the honorary rank of Deputy Surgeon-General; Surgeon-Major Richard William Forsayeth is granted retired pay, with the honorary rank of Brigade Surgeon; Surgeon-Major Robert Hyde is granted retired pay, with the honorary rank of Brigade Surgeon.

ADMIRALTY.—The following appointments have been made:—Staff Surgeon Isaac H. Anderson, to the *Wild Swan;* Surgeon John Dowson, to the *Briton;* and Surgeon Evan St. M. Nepean, to the *Revenge.*

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following candidates passed the Primary Examination in Anatomy and Physiology for the diploma of Member at a meeting of the Board of Examiners on the 8th inst.:—

ANATOMY AND PHYSIOLOGY.—John F. Blurton, Frank Hues, and C. Herbert Harris, Birmingham; Edgar A. Field, Wm. E. Porter, and Walter W. Chamberlain, Edinburgh; Frederick W. Burnett, Louis Demetriadi, H. Newman Pullan, and Benjamin Wainman, Leeds; John Garth, Liverpool; John Blacklock, Joseph A. Jenkinson, and Richard Bilsborrow, Manchester; W. Drewett Arnison, Newcastle-upon-Tyne; Dominick A. D'Monte, Bombay and Edinburgh; Bertal H. Scott, Toronto; David Roxburgh, Glasgow; H. Leeds Harrison and Matthew H. Spencer, Cambridge; W. Gabriel Rockwood, Madras.

ANATOMY ONLY.—Norman Davis and Isaac G. Modlin, Newcastle-upon-Tyne; H. Harlow Sales, Leeds; H. Foreman Cartmel, Manchester.

PHYSIOLOGY ONLY.—T. Wilford Scott, Cambridge; James E. Brown Toronto; Jasper J. Garmany, New York.

(Candidates referred for three months, 5; six months, 3.)

Passed on the 9th inst.:—

ANATOMY AND PHYSIOLOGY. — H. Edward Gough, Paul de Cressé Potter, E. Meyer de Jong, and George W. Dowling, Manchester; Chas. J. Acton, G. Lewis Travis, and T. Makins Draper, Liverpool; A. Spiers Alexander and Leonard Williams, Glasgow; E. Brereton Hill, Cambridge and St. Thomas's Hospital; Preston King, Arthur H. Williams, and E. Mellor Light, Cambridge; G. R. Scott Banbury and Francis F. Jones, Bristol; A. Owen Davies, Edinburgh; Oliver Norris and F. P. Roesch James, Leeds; W. H. Helm, Leeds and Edinburgh.

ANATOMY ONLY.—A. Seymour Taylor, Newcastle-upon-Tyne; J. Ellison Finnie, Liverpool; S. H. H. Dowse, Dublin; P. Allison Linnell, Manchester; Herbert Clapham, Sheffield.

PHYSIOLOGY ONLY. — W. Mitchell Branson, Sheffield.

(Candidates referred for three months, 9; six months, 2.)

Passed on the 12th inst.:—

ANATOMY AND PHYSIOLOGY. — F. Mark Davies, Madras; F. Abraham Le Mesurier and J. Borrill Close, St. Bartholomew's; Upendra K. Dutt, St. Mary's; J. Kingham Reeves, Guy's; Charles E. Dawson and W. Brakenridge Pettitt, Leeds; Charles T. Samman and Morgan J. Rees, London Hospital; A. Knowles Ludlam, Manchester; A. Hugh Benson and S. Butler Day, Bristol; Ernest T. Habjam, Edgar H. Lingwood, and W. H. Compton, Charing-cross; J. Lea Henstock and J. Cobden Williams, Liverpool; Herbert W. Maclure, Cambridge; Frederick W. Hildyard, St. George's; W. C. Brown, Newcastle-upon-Tyne.

ANATOMY ONLY. — Charles H. Smale, Manchester; Albert Norman, Guy's; George Dunn, Bristol and St. Bartholomew's; Phillip J. Le Riche, University College; Wm. H. Hillyer, St. George's.

PHYSIOLOGY ONLY. —John H. Lister, Leeds; Edmund Cairtley, Cambridge.

(Candidates referred for three months, 5; six months, 3.)

Passed on the 13th inst.:—

ANATOMY AND PHYSIOLOGY. — W. Henry Blake, University College; W. Harmsworth Savory, H. Pywell Daniell, F. Augustus Watkins, and Brereton S. G. Nightingall, St. Bartholomew's; Henry Saunders, John Hewan, and W. Lloyd Mathias, St. Thomas's; Edwin H. Blake, J. Joseph Lewington, Geo. H. Francis, and Alban H. Moxon, London Hospital; W. Arnison Slater and A. Zell C. Cressy, Guy's; W. Grant Reily, Middlesex; Thos. A. Grieves, St. Mary's; Edward Cooper, Charing-cross; W. Arthur Griffiths, Westminster.

ANATOMY ONLY.—F. Jesser Wadham, St. George's; Sidney E. Rossiter, P. Vernon Dodd, Geo. R. Saunders, and Ernest Loveday, St. Bartholomew's; H. Ferrers Knyvett, Walter E. Kelbe, Courtney J. Fuller, and A. R. Field Evershed, Guy's; L. N. Hoysted, Charing-cross.

PHYSIOLOGY ONLY.—H. W. Rogers, London Hospital; Alfred Bowles, University College.

(Candidates referred for three months, 4; six months, 2.)

Passed on the 14th inst.:—

ANATOMY AND PHYSIOLOGY.—H. Augustus Edmonds, G. J. Padbury, and F. W. A. Bryden, Guy's; John Hill, W. Francis Read, J. Aloysius Feeny, C. Harvey Lewis, Sampson Low, J. E. A. G. Becker, and A. John Cromwell, St. Bartholomew's; Edwin Cooke, Reginald T. H. Bodilly, Evan J. Neville, and Absolom George, King's College; Ernest H. Crisp, St. Thomas's; A. Clifford Domford, London Hospital; G. H. Biden and E. Irving Day, Charing-cross; E. Llewellyn Williams, University College; William Challenor, Middlesex.

ANATOMY ONLY. — George C. Peachey, M. E. H. Wale, and G. W. B. Daniell, St. George's; Frank Gilpin and Arthur F. Tyrrell, Middlesex; James Bampfylde, Guy's; William Jones, University College.

PHYSIOLOGY ONLY. — Astley C. Roberts, Guy's; John Bate, London Hospital.

(Candidates referred for three months, 5; six months, 2.)

Passed on the 15th inst.: —

ANATOMY AND PHYSIOLOGY. — John Nixon and W. Gratwicke Heasman, St. Bartholomew's; Timothy J. Head, George W. Sequeira, Benjamin H. E. M'Crea, and A. G. Bateman Lory, London Hospital; Llewellyn Harris-Liston, P. Dansey Addis, and A. Pedro de Carvalho, University College; Robley H. J. Browne, Guy's; Benjamin Badcock, Charing-cross and Sheffield.

ANATOMY ONLY.—George Pender-Smith, Guy's; Frank Elias, University College; Lawrence Franklin, St. George's; T. Warne Sargent, London Hospital; Cecil R. Harper and J. D. Cree, Middlesex.

PHYSIOLOGY ONLY. — R. Wright and G. Gavin Morrice, St. Bartholomew's; J. Perceval Westrup, King's College; R. Conrad Fraser, Guy's; David C. Dunstan, London Hospital; Alfred Purvis, Charing-cross.

(Candidates referred for three months, 10; six months, 2.)

Passed on the 16th inst.:—

ANATOMY AND PHYSIOLOGY.—C. Ernest Thomas and Harry Baldwin, Middlesex; Henry J. Marston and Frederick H. Bence, London Hospital; G. Sidney Green, St. Bartholomew's; Arthur Shillitoe, C. Herbert Sharp, T. A. Burnard Cooke, and John W. Roberts, Guy's; Hubert C. Phillips, St. Mary's; Frederick W. Davidson, Frank W. Croft, and Edward O. Cox, Westminster; Ibar MacCarthy, St. George's; T. A. Barrett Plowman, C. Mortimer Lewis, and Philip H. Whiston, St. Thomas's; H. Havilland Roe and William Case, King's College; Henry F. Cleveland and George H. Jauffret, University College; Sampson G. V. Harris, Charing-cross.

ANATOMY ONLY.—G. Irvine MacMunn, Westminster; Edgar Gregson, St. Bartholomew's; George H. Metcalfe and George A. Slack, Guy's; Frederick C. Angear, Charing-cross.

PHYSIOLOGY ONLY.—Alfred R. Nicholls, Middlesex.

(Candidates referred for three months, 9; six months, 2.)

The following candidates passed the Second Examination under the Combined Examining Board for England on the 8th, 9th, and 15th inst.:—

George Belben Flux,
Herbert Shipton,
Charles Henry Pilliner,
} King's College.

(One candidate was referred for three months.)

The Library of the College will be closed on Monday, the 26th, and Tuesday, the 27th inst., at four o'clock, for the purposes of the Pass Examination for the diploma of Member.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 15th inst.:—

Crosbyy, Robert, Newcastle-on-Tyne College of Medicine.
Dimmock, Augustus Frederick, King's College.
Failes, Frederick George, St. Bartholomew's Hospital.
Glinn, Cornelius Frederic, St. George's Hospital.
Hutton, John Stuart, St. Thomas's Hospital.
Vernon, John James Dean, Guy's Hospital.

The following gentleman also on the same day passed the Primary Professional Examination:—

Alexander James Adie, Charing-cross Hospital.

The following candidates passed the Preliminary Examination in Arts on the 8th, 9th, and 10th inst.:—

SECOND DIVISION.

*Balding, Edmund.	Norton, Everitt Edward.
Bale, Rosa Elizabeth.	*Nourse, Stuart C.M.
Bowd, John William.	O'Sullivan, Carroll.
Dalby, Herbert Ernest.	Raynes, Sidney Herbert.
Daly, Charles William.	Roper, Arthur Leonard.
Green, Arthur Robert.	Smith, Alfred.
Hawke, Edward D. H.	*Smith, Stanley John.
Heywood, Tomás.	Spilsbury, Francis Hands.
Ireland-Smith, Normand.	*Walter, Richard A.
Jackson, John.	*Watson, Luther.
*James, John Morris.	Webb, Frank.
*Jobbins, Edwin.	*Williams, John Bayley.
Knight, Brodnax.	Wilmot, Hugh Begbie.
Litchfield, Ernest R.	*Witham, Ernest Wells.

* Passed also in Elementary Mechanics.

Passed in Elementary Mechanics alone:—

Newington, John. | Wood, Thomas Jason.

Passed in Greek alone:—

Wright, Richard Searle.

DR. J. RANDLE BUCK of Sidbury, Worcester, has been elected a member of the examining staff of the St. John Ambulance Association.

THOMAS HAYES, M.R.C.S., of Rathkeale House, has been placed on the Commission of the Peace for the County Limerick.

MR. J. C. CLARKE, M.P. for Abingdon, has offered to build, at his own expense, a cottage hospital for the borough, at a cost of about £1000.

Two of the daughters of the King and Queen of Sweden have, it is stated, been dangerously ill from the effects of poisonous wall-papers.

A MEETING of workmen's representatives for the purpose of extending the Hospital Saturday movement among the working classes was held in Liverpool on the 19th inst.

WE regret to hear that Mr. Robert De'Ath, coroner for the borough of Buckingham and Winslow district, has recently met with an accident by being thrown out of his gig.

A SCHEME for the establishment of a Foundling Hospital for Liverpool has received a considerable amount of support, and an appeal for subscriptions and donations has been issued.

MR. CHARLES W. GLASSINGTON, M.R.C.S. and L.D.S. Ed., has been elected President of the Students' Society of the National Dental Hospital, in place of Mr. H. G. Read, L.D.S. Eng., who has resigned.

THE plans for the new chemical laboratory at Cambridge have been approved by the syndicate. The building will accommodate 175 students working at one time, and the total cost of the building and fittings is estimated at £30,700.

PRESENTATION.—On Monday, Jan. 12th, at Newton Heath, the Committee of Dawson-street Dispensary, Manchester, presented Dr. C. McDonnell with a gold watch on the occasion of his transfer to Newton Heath, after being junior medical officer of the dispensary for two years.

SIR P. DUN'S HOSPITAL, DUBLIN.—An arrangement has been made by the provost and senior Fellows of Trinity College to pay an annual sum of £50 as a subscription to this hospital, on the condition that students of the College suffering from fever shall be admitted to the pay wards without charge.

A CONCERT was given in the Sheldonian Theatre at Oxford on Tuesday last, in aid of the funds required to complete the purchase of the Nurses' Home in Oxford, which has been established in memory of the wife of Sir Henry Acland, the Regius Professor of Medicine. Princess Christian took part in two pianoforte duets.

CANTOR LECTURES.—Dr. Poore's third and final lecture, to be given at the Society of Arts on Monday, the 26th inst., at 8 P.M., will be on "Soil as a Climatic Factor: the Peculiarities of Mountain Climates, the Application of Modern Views to some Old Facts, and the Practical Use to be made of them in lessening some of the Dangers of Tropical Climates."

THE Council of the Charity Organisation Society, at a recent meeting, considered the subject of supplying dinners to poor children in the public schools on a self-supporting basis. The opinion was expressed that free dinners should not be entirely discontinued, but the consideration of the subject was adjourned before a definite resolution was arrived at.

DUBLIN HOSPITAL SUNDAY FUND.—The total collections for 1884 produced a sum amounting to £4399 0*s.* 11*d.*, which includes not only the collections taken up in the various churches, but also special donations, and the proceeds of a football match, the latter contributing a sum of £54 14*s.* to the fund. As compared with the previous year an increase is shown of £186 4*s.* 5*d.*

FIRE AT AN AMERICAN ASYLUM.—On the 18th inst. the infirmary of the Illinois Hospital for the Insane at Khankakee caught fire, the flames originating in the furnace room. The weather was cold, the thermometer registering 12° below zero. The building was totally destroyed. Of the forty-five patients in the wards at the time seventeen were burnt to death, the remainder being with difficulty rescued.

ACADEMY OF MEDICINE IN IRELAND.—At a special general meeting of the Academy, held on the 17th inst., the following members were elected Honorary Fellows: Sir James Paget, Theodor Billroth, Prof. Virchow, Prof. Pasteur, Prof. Charcot, Dr. Austin Flint, Dr. Keith, Prof. Schroeder, Prof. Kölliker, and Sir Joseph Lister. At the same meeting the salary of the general secretary was fixed at £100 a year.

THE METROPOLITAN FREE HOSPITAL.—Building operations have been commenced upon the site which has been purchased by the committee of this institution in De Beauvoir Town, Kingsland, and which covers an area of 66,000 feet. The out-patients' department will, it is expected, be complete and ready for use by the end of March, while the whole building is to be finished by the end of the present year.

ANOTHER SCOTCH PROSECUTION UNDER THE DENTISTS ACT.—The same person who was convicted before the Sheriff of Edinburgh a short time ago, and fined £5 for falsely calling himself a dentist without being registered or qualified, has again been prosecuted and fined £20 for the same offence. It transpired during the trial that a separate fine may be claimed for each offence against the Act, and each repetition of an advertisement which is a false declaration is an offence.

MANCHESTER MEDICAL SOCIETY.—The following is the list of office bearers elected for 1885:—President: Mr. Walter Whitehead. Vice-Presidents: John Augustus Ball, M.B.; Charles Edward Glascott, M.D.; James Hardie, M.D.; Herbert Smith Renshaw, M.D. Treasurer: David Little, M.D. Secretary: Frederick Armitage Southam, M.B. Other Members of Committee: Charles James Cullingworth, M.D.; James Dreschfeld, M.D.; Abraham Matthewson Edge, M.D.; Richard Dacre Fox; Thomas Jones, M.B.; Siegmund Moritz, M.D.; James Ross, M.D.; Thomas Starkey Smith, M.B.; Arthur Edwin Sutcliffe; George Thomson, M.D.; Morrison Watson, M.D., F.R.S.; William Yeats, M.D.

BRITISH MEDICAL BENEVOLENT FUND.—The annual general meeting of subscribers to this Fund was held on Jan. 15th, at the house of the treasurer, Dr. Broadbent, when Dr. G. C. Jonson, chairman of committee, occupied the chair, in the unavoidable absence of the President, Sir George Burrows. From the annual report of the committee for the past year it appeared that the donations during 1884 have amounted to £722 18*s.* 6*d.*, subscriptions to £1307 3*s.* 9*d.*, a total of £2030 2*s.* 3*d.*, the increase in the amount of subscriptions being a noticeable and gratifying fact. The disbursements during the year had been—in grants, £1892 10*s.*; in annuities, £1107 10*s.*; in all, £3000; and the entire expense of collecting and distributing this large sum, over £5000, has been £152, about 3 per cent. The number of cases relieved during 1884 in the grant department was 168; and the committee felt that the amounts given by them to really needy and deserving applicants were, from want of funds, sadly less than the merits of the cases deserve. Seven fresh annuitants were elected; but there remain upon the list of eligible candidates no less than thirty-eight persons, all over sixty years of age, not one enjoying an income of £10, and mostly past work and practically penniless. Mr. Thomas Smith joined the committee; and Mr. France and Professor Macleod of Glasgow were elected vice-presidents.

WALLASEY MEDICAL CHARITIES.—On the 15th inst. a meeting of the subscribers and friends of the Wallasey Cottage Hospital, the Wallasey Dispensary, and the Seacombe Cottage Hospital was held to consider the best method of increasing hospital accommodation in the parish. Approval was, after a lengthy discussion, expressed of the scheme for building a new and larger cottage hospital at Wallasey, and also of the proposal to add to the cottage hospital at Seacombe, and to improve the arrangements at the dispensary.

EDINBURGH ROYAL INFIRMARY.—A meeting of the contributors to this institution was held on the 19th inst. for the purpose of receiving the report by a committee of the subscribers on the annual statement by the managers. The report, which was unanimously adopted, expressed satisfaction at the continued and increasing efficiency of the hospital during the past year, and urged the settlement of the question of providing special accommodation for fever patients by the Town Council, under the Public Health Act.

KING'S COLLEGE.—On the 21st inst. the twenty-fifth annual dinner of the past and present students of this institution was held in the College dining hall. In the unavoidable absence of the Lord Chancellor, Archdeacon Farrar presided, and among others present were General Sir Richard Wilbraham, K.C.B., General Sir J. A. Lefroy, K.C.M.G., Archdeacon Watkins, Dr. Priestley, Mr. T. M. Goodeve, Mr. Edward Clarke, Q.C., M.P., Professor Leone Levi, and a large number of associates and students of every department of the College.

NORTH-WESTERN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—At a meeting of this Society on the 8th instant, Dr. Hope, assistant medical officer of health for Liverpool, read a paper on Infantile Diarrhœa, in which he gave it as his opinion that the disease was due in the majority of cases rather to the absence of cleanly habits among the poor than to seasonal influences. He concluded by suggesting that a society which exists at Liverpool for the prevention of cruelty to children should supplement the labours of another institution in Liverpool which secures the attention of a midwife for poor women confined at their own homes, by introducing an efficient staff of trained nurses, whose duty it should be to visit periodically the young infants from the time the services of the midwife were discontinued. The paper was followed by a discussion, in which several members of the Association took part.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—The following members were elected as officers and councillors for the year 1885 on the 12th inst.:—President: Mr. C. Spence Bate, F.R.S. (Plymouth). Vice-Presidents: Messrs. T. Charters White, George Gregson, Henry Sewill, J. T. Browne-Mason (Exeter), Richard White (Norwich), Andrew Wilson (Edinburgh). Treasurer: Mr. James Parkinson. Librarian: Mr. Felix Weiss. Curator: Mr. S. J. Hutchinson. Editor of the Transactions: Mr. J. Oakley Coles. Hon. Secretaries: Messrs. David Hepburn (Council), Robert Woodhouse (Society), Storer Bennett. Councillors: Messrs. F. Canton, Alex. Cartwright, Chas. S. Tomes, Wm. St. George Elliott, Augustus Winterbottom, Samuel Cartwright, A. Morton Smale, J. Howard Mummery, Arthur S. Underwood, J. F. Cole (Ipswich), G. C. McAdam (Hereford), W. E. Harding (Shrewsbury), Robert Reid (Edinburgh), J. R. Brownlie (Glasgow), J. H. Whatford (Eastbourne).

VICTORIA UNIVERSITY.—At a meeting of the Court of the University on Wednesday certain additions were made to the regulations affecting the time of admission of matriculated students to the Preliminary Examination in Science and to the First and Second M.B. respectively.

OXFORD UNIVERSITY.—The next examination for a vacant Radcliffe Travelling Fellowship will commence in the University Museum on Monday, February 9th, at 10 A.M. Candidates are requested to send in their names to the "Radcliffe Examiners, Radcliffe Library, Museum," on or before the last day of January.

THE CONTAGIOUS DISEASES ACT IN QUEENSLAND.—On November 21st the Queensland Legislative Assembly, after an animated debate, by the casting vote of the Speaker declared its disapproval of the compulsory examination of women under the Contagious Diseases Act. At a meeting of the Assembly, however, on Nov. 25th, a grant of money for the purpose of carrying the Act into effect was passed, the Colonial Secretary stating that he did not consider that the resolution which was carried on the casting vote of the Speaker should be regarded as an instruction to the Government to discontinue the operation of the Act.

PROPOSED NEW HOSPITAL AT HARROGATE. — The committee of the proposed new Bath Hospital have taken in hand a project for the erection of a new building, in place of the present dilapidated and badly constructed hospital, for the reception of 100 patients, estimated at a cost of £15,000, towards which amount certain sums have been already promised. The governors will be asked at the annual meeting to empower the committee to carry the project into effect, but no building will be commenced until about £10,000 has been promised. The sum is certainly a large one, but it is not too much for such a famous health resort as Harrogate, which has risen so immensely in public favour within the last few years.

MANCHESTER MEDICAL SOCIETY.—At the recently held annual meeting of this Society it was stated that the number of members now on the roll is 240, being ten more than last year. The library has been increased during the year by 302 volumes, and it now contains 28,118 volumes besides a number of unbound pamphlets. The statement of the treasurer (Dr. Little) showed that the income of the Society —including a balance at the commencement of the year of £144, members' subscriptions, £350, and a contribution from Owens College of £100—amounted to £629. The expenditure showed that £118 had been paid to the trustees, and that, after all necessary expenses had been defrayed, there remained a balance in hand of £139. After the adoption of the report, certain alterations of the rules were agreed to, and Mr. Walter Whitehead was chosen president for the ensuing year.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

ANDERSON, JOSEPH, M.B., C.M.Aber., has been appointed Junior House-Surgeon to the Preston and County of Lancaster Royal Infirmary, Preston, vice F. D. Irvin, M.B.Lond., M.R.C.S., resigned.

CURTIS, ALBERT, M.R.C.S., L.S.A.Lond., has been reappointed Medical Officer of Health for the Staines Urban Sanitary District.

DIGHTON, A. ADAIR, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Resident Surgeon at the Branch Dispensary, Cheltenham.

FISHER, T. CARSON, A.B., M.D. Trin. Coll. Dub., has been appointed Consulting Physician to the Miller Memorial Hospital, Greenwich.

GENGE, RICHARD E., M.R.C.S., L.R.C.P., L.M., has been appointed Resident Obstetric Assistant to the Westminster Hospital.

HEATH, CHARLES J., M.R.C.S., L.S.A.Lond., has been appointed Senior House-Surgeon to the Preston and County of Lancaster Royal Infirmary, Preston, vice G. M. King, L.R.C.P.Ed., L.R.C.S.I., resigned.

JAGO, CHARLES SPRAGUE, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Somersham District of St. Ives Union, vice Grove.

LEIGH, WILLIAM WATKIN, L.R.C.P.Ed., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer and Public Vaccinator for the Gellyger Lower District of the Merthyr Tydfil Union, vice J. Leigh, deceased.

MCMURRAY, WAHAT, M.D., C.M.Q.U.I., has been appointed Medical Officer to the Walgett Hospital, New South Wales.

MATHESON, H. A. RIGBY, L.R.C.P.Ed., L.F.P.S.Glas., has been appointed House-Surgeon to the Launceston General Hospital, Tasmania, vice Thompson, resigned.

ORWIN, A. W., M.D., has been appointed Physician to the Guildhall School of Music.

POLLARD, FREDERICK, M.D.Lond., has been appointed Medical Officer and Public Vaccinator for the Chulmleigh District of the South Molton Union, vice T. Daly, resigned.

PRINGLE, J. J., M.B.Edin., M.R.C.P., has been appointed Assistant-Physician to the Middlesex Hospital.

SWAIN, JAMES, M.R.C.S., has been appointed Senior House-Physician to the Westminster Hospital.

WALFORD, WALTER G., M.R.C.S., L.R.C.P.Lond., M.D.Dur., has been appointed Surgeon to the St. John's-wood and Portland-town Provident Dispensary.

WEAVER, W. G., M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon to the Westminster Hospital.

WILDE, R. P., L.R.C.P.Ed., has been appointed Assistant House-Surgeon to the North Dispensary, Liverpool.

WILLS, W. A., M.R.C.S., has been appointed Junior House-Physician to the Westminster Hospital.

YOUNG, Mr. W. C., has been reappointed Public Analyst for the Whitechapel Board of Works District.

Births, Marriages, and Deaths.

BIRTHS.

CAMERON.—On the 18th inst., at "Lochiel," Harlesden, N.W., the wife of Charles H. H. Cameron, L.R.C.P.Lond., M.R.C.S.Eng., of a son.

COLMER.—On the 6th inst., at South-street House, Yeovil, the wife of P. S. H. Colmer, M.D., of a son (stillborn).

ROBERTSON.—On the 19th inst., at the Grand Avenue Mansions, West Brighton, the wife of Dr. Lockhart Robertson, F.R.C.P., of a son.

MARRIAGES.

CHAVASSE—HYLAND.—On the 22nd inst., at St. Saviour's Church, Camberwell, by the Rev. F. J. Chavasse, M.A., Rector of St. Peter-le-Bailey, Oxford, the Rev. L. T. Chavasse, M.A., Vicar of the Parish (brothers of the bridegroom), and the Rev. Percival E. Wilson, M.A., All Saints' Rectory, Birmingham, Thomas Frederick Chavasse, M.D., of Birmingham, and Barnet-green, Worcestershire, to Frances Hannah, only daughter of the late Arthur Hyland, Esq., J.P., of The Linthurst-hill, near Bromsgrove.

GILL—SARGENT.—On the 14th inst., at St. John's, Brixton, by the Rev. J. B. Patrick, Fitz-Henry Gill, of Tavistock, to Caroline Pearce, only daughter of D. W. Sargent, M.R.C.S., L.S.A.Lond., 364, Brixton-road. No cards.

IRVINE—HUGGINS.—On the 15th inst., at St. Thomas's Church, Portman square, by the Rev. F. Alexander Ormsby, M.A., Robert James Irvine, M.S., M.B., only son of Robert Irvine, Deputy Inspector-General R.N., to Helena Jane, widow of the late Wm. Farquhar Huggins, of Limpsfield.

ROSSER—CRICKMAY.—On the 15th inst., at St. Jude's Church, South Kensington, by the Rev. R. W. Forrest, D.D., Vicar, Walter Rosser, M.D., of Wellesley Villas, Croydon, to Edith Maud, youngest daughter of George R. Crickmay, F.R.I.B.A., 62, Nevern-square, South Kensington.

WILKINSON—BOND.—On the 13th Nov., at St. Mary's, Preston, Melbourne, William Cleland Wilkinson, B.A., M.B., B.Ch. T.C.D., eldest son of William Wilkinson, Beresford-road, Birkenhead, to Louisa Anne, only daughter of R. M. Bond, of Preston, Melbourne, formerly of Benambra, New South Wales.

DEATHS.

CAMERON.—On the 28th inst., at 316, Kennington-park-road, S.E., of phthisis, John Cameron, L.R.C.P., aged 32.

DAVIES.—On the 15th inst., at Plymouth, Elijah Knox Davies, M.R.C.S.E., late District Surgeon of Hanover, South Africa, aged 36.

HALL.—On the 14th inst., at Hampden-street, Nottingham, Charlotte, widow of the late Marshall Hall, M.D., F.R.S., aged 83.

MCCOSH.—On the 16th inst., at Bury-street, St. James's, John McCosh, M.D., late Bengal Army, aged 80.

MOORE.—On the 6th ult., at North-terrace, Adelaide, South Australia, Robert Waters Moore, M.R.C.S., F.R.S., President of the Medical Board of South Australia, and formerly Colonial Surgeon of the Province, aged 65.

NOBLE.—On the 12th inst., at his residence, Oxford-road, Manchester, Daniel Noble, M.D., aged 75.

PLAYNE.—On the 15th inst., at his residence, New Malden, Surrey, George Playne, M.D., aged 82.

PUCKLE.—On the 14th inst., George Puckle, M.D., formerly of Denmark-hill, eldest son of the late George Puckle, Esq., of De Crespigny Park, Surrey, aged 53.

RANDALL.—On the 15th inst., at Lansdowne-road, Croydon, Alfred Mayor Randall, M.R.C.S., L.S.A.Lond., in his 85th year.

TUCKER.—On the 13th inst., at Bournemouth, St. George Wade Tucker, M.D., of H.M.'s Indian Medical Service, aged 65.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, London.

How to Prolong Life. By Chas. W. De Lacy Evans. M.R.C.S. Second Edition. pp. 190.

BELL & BRADFUTE, Edinburgh.

An Introduction to the Study of the Diseases of the Nervous System. By T. Grainger Stewart, M.D. pp. 257, Illustrated.

CARSWELL & Co., Toronto and Edinburgh.

The Law and Medical Men. By R. V. Rogers, jun., Barrister-at-Law. pp. 214.

CASSELL & Co., London.

The Year-book of Treatment for 1884. A Critical Review for Practitioners of Medicine and Surgery. By various Contributors. pp. 316.

CHURCHILL, J. & A., London.

The Student's Guide to the Diseases of Children. By J. F. Goodhart, M.D., F.R.C.P. pp. 648.

Practical Anatomy: a Manual of Dissections. By Christopher Heath, F.R.C.S. Sixth Edition, Revised by R. J. Godlee, M.S.Lond., F.R.C.S. pp. 567, with 24 Coloured Plates and 274 Wood Engravings.

CLOWES, W., & SONS.

Health Exhibition Literature. Conference on Education, Vols. XIII., XIV., XV., and XVI. Sections A to D.

COLLINS, Philadelphia.

Transactions of the Medical Society of the State of Pennsylvania. Vol. XVI. pp. 622.

CROSBY, LOCKWOOD, & Co., London.

London and Provincial Water-supplies. By A. Silverthorne, Assoc. M. Inst. C.E. pp. 142.

FISCHER, G., Jena.

Beitrage zur Pathologischen Anatomie und Physiologie. Herausgegeben von Dr. Ernst Zeigler in Verbendung mit Dr. C. Nauwerck. Erstes Heft. S. 174.

HOUGHTON, MIFLIN, & Co., Boston.

In War Time. By S. Weir Mitchell, M.D. pp. 123.

HOLLSTON & SONS, London.

What to do with our Girls; or, Employments for Women. By A. T. Vanderbilt. pp. 176.

LONGMANS, GREEN, & Co., London.

A Dictionary of Medicine. By various Writers. Edited by Richard Quain, M.D., F.R.S. New Issue, in Six Monthly Divisions. Division I. pp. 391.

MACMILLAN & Co., London.

The International Encyclopædia of Surgery. Edited by John Ashhurst, jun., M.D. In 6 vols. Vol. V. pp. 1207, Illustrated with Chromo-lithographs and Woodcuts.

BAKER, H. W., Springfield, Illinois.

Official Register of Physicians and Midwives Practising in Illinois. pp. 324.

SIMPKIN, MARSHALL, & Co., London.

Crown, Bar, and Bridge-work: New Methods of Permanently Adjusting Artificial Teeth Without Plates. By Isidore E. Clifford and R. E. Clifford. pp. 26, Illustrated.

The School Test Types; by Priestley Smith; published by the Midland Educational Company, Birmingham and Leicester.—The Sunday at Home, Leisure Hour, Boy's Own Paper, Girl's Own Paper, for January. 1885.—The Sanitary and London Medical Records Diary, 1885.—Das Sauerstoff-Bedürfniss des Organismus; von Prof. Dr. P. Ehrlich. (Herschwald, Berlin.)—Index Medicus, Vol. VI., No. 11.—Memoria sulla Cura dell' Ectropio Infiammatorio; Memoria sull' Estrazione Lineare Inferiore; pel Dott. R. Castorani.—State Measures for the direct Prevention of Poverty, War, and Pestilence; by a Doctor of Medicine. (Truelove.)—Studies from the Biological Laboratory of the Johns Hopkins University, Vol. III., No. 2. (Murray, Baltimore.)—Sul Trapiantamento del Musculo; pel Dr. E. Salvia.—On Alcohol in Asylums chiefly as a Beverage; The Insane in Canada; by Dr. D. Hack Tuke. (Wolff, Lewes.)—On Nitrification; by Robt. Warington.—The Care of Infants; by Sophia Jex-Blake, M.D.—The Siege of London.—Conspectus of the Medical Colleges of America; compiled by the Illinois State Board of Health.—The Life Almanack and Diary published by the Briton Life Association, 1885.—Tenth Annual Edition of the Classified Directory to the Metropolitan Charities for 1885; by W. F. Howe. (Longmans.)—New Illustrated Catalogue of Memorial Brasses &c.; issued by Thos. Pratt and Sons, Covent-Garden.—Index Medicus, Vol. VI., No. 12.—Eighth International Medical Congress; by Dr. D. Bryson Delawarr. (New York.)—Milk as a Manufactured Article; by F. T. Bond, M.D.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, January 22nd, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Jan. 16	30·05	E.	37	35	...	40	35	·05	Overcast
,, 17	29·98	S.E.	37	36	...	39	34	·04	Overcast
,, 18	30·11	E.	38	37	...	39	34	...	Overcast
,, 19	30·27	E.	38	36	...	39	36	...	Overcast
,, 20	30·09	E.	34	33	...	37	33	...	Foggy
,, 21	29·97	E.	28	...	...	33	26	...	Overcast
,, 22	30·01	S.E.	31	...	...	34	25	...	Overcast

Medical Diary for the ensuing Week.

Monday, January 26.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. each day, and at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—7.30 P.M. Discussion (continued): Are Small-pox Hospitals necessarily (*per se*) a Source of Danger to the Surrounding Population?

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND COMMERCE.—8 P.M. Dr. G. V. Poore: The Chief Sources of Atmospheric Impurities, both Inorganic and Organic; Climatic Diseases and Climatic Health Resorts (Cantor Lecture).

MEDICAL SOCIETY OF LONDON.—Mr. Bowreman Jessett: Cancer of the Tongue; its Etiology, and an Inquiry into the Different Methods adopted for its Removal.—Mr. William Rose: A Case of Simple Depressed Fracture of the Skull; Trephining; Recovery.—Dr. Beevor will show a Case of Paralysis Agitans without Shaking.

Tuesday, January 27.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 P.M., and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M., and on Fridays at 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Moseley: Colonial Animals.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Mr. W. B. Dalby: Cases in which Perforation of the Mastoid Cells is necessary.—Mr. Barwell: Case of Simultaneous Distal Ligature of the Carotid and Subclavian Arteries for High Innominate Aneurysm.

Wednesday, January 28.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour. Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

HUNTERIAN SOCIETY.—7.15 P.M. Council.—8 P.M. Dr. Robert J. Lee: The Clinical Study of Infantile Syphilis.

Thursday, January 29.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Dewar: The New Chemistry.

THE PARKES MUSEUM OF HYGIENE.—8 P.M. Mr. James Cantlie: Degeneration amongst Londoners.

Friday, January 30.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—9 P.M. Prof. Pauer: Works of Living Composers for the Pianoforte.

Saturday, January 31.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Dr. Waldstein: Greek Sculpture.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

MEDICAL PRACTITIONERS AND REGISTRARS.

P. F. M.—The conduct of the Registrar, as reported in our correspondent's letter, displays an ignorance of his official instructions which is the more incomprehensible since he has held his appointment for twenty-five years. Each form for medical certificate of the cause of death bears on its face the words "Should the medical attendant not feel justified in taking upon himself the responsibility of certifying the fact of death, he may here insert the words 'as I am informed.'" It seems almost incredible that a registrar of twenty-five years' standing should be ignorant of this instruction, more especially as registrars are strictly enjoined to ascertain all the facts relating to a deceased person (including the date of death), except the cause of death, from the legal "informant," who is alone responsible for the accuracy of such information, and who signs the entry in the death register. We urge our correspondent, in the interest alike of the public, the profession, and the Registrar-General, to report the circumstances fully and precisely to that official, at the General Register Office, Somerset House.

PRURITUS VULVÆ.

M.D. asks for suggestions as to the best treatment of pruritus vulvæ, as he has a very obstinate case, which has hitherto resisted the usual local applications—nitrate of silver, soothing lotions, &c.

Vista.—No.

CAFFEINE.

To the Editor of THE LANCET.

SIR,—I shall be glad if you can find space for a few lines to draw attention to this valuable heart-tonic, which, though known and favourably spoken of by Continental physicians for twenty years, seems to have been comparatively little used in this country until very recently. My attention has been drawn to its use by the report of a clinical lecture by Dr. Dujardin-Beaumetz, Physician to the Hôpital Cochin, Paris, in which after summarising the various opinions which have been given as to its value and mode of action, he promises the students that they will have the opportunity of seeing "veritable resurrections effected in our service by this marvellous therapeutic agent," and recommends that large doses, even amounting to as much as two grammes (or half a drachm) a day, should be given in order to obtain the full benefit from its use.

Having at the time three cases under my care in which cardiac debility was a very marked symptom, in two of the cases as the result of a recent attack of rheumatic fever, in the third as the result of a long residence in India with continual ill-health while there, I determined to try caffeine, and have been much pleased with the result. In all three cases the improvement has been most marked, the heart's action being steadied and strengthened, and the vascular tension augmented. In one case a decided diuretic action was noted, and the only ill effect in any case was that on one occasion, a two-grain dose being taken as late as 8 P.M., the patient was kept awake till 3 A.M., apparently by the action of the medicine. I have not found it necessary to give larger doses than two grains three or four times a day, dissolved in water and flavoured with tincture of orange or gentian.—Your obedient servant,

Dulwich, Jan. 15th, 1885. H. NELSON HARDY.

J. H. Davies, M.B.—We apprehend that the certificate of such a midwife would be quite sufficient.

Mr. C. E. Steele (Liverpool).—The matter has, we think, been sufficiently discussed.

BRITISH MEDICAL BENEVOLENT FUND.

To the Editor of THE LANCET.

SIR,—I have great pleasure in informing you that a vote of thanks for the services you have rendered to the Fund was unanimously passed at the annual meeting of the subscribers, held yesterday.

I am, Sir, yours faithfully,

Clifton-gardens, W., Jan. 16th, 1885. EDWARD EAST, Hon. Sec.

PROMOTION IN THE INDIAN MEDICAL SERVICE.

Observer, writing from India on the above subject, says:—

"Great injustice has been done by the system of allowing the local governments of the different provinces to nominate their own surgeon-generals. These appointments are not mere local or provincial posts, but form part of the administrative appointments retained for the Indian Medical Service at the reorganisation in 1880. They carry with them the military rank, as well as pension, of deputy surgeon-general, and ought therefore to belong to the whole service, and not to any local section of it. But this is not the only power of interfering with promotion exercised by the local governments, for they are also allowed to select their own sanitary commissioners. Now, these, on attaining twenty-six years' service, are at once raised to the rank of deputy surgeon-general, and in this way the sanitary commissioners of the North-West Provinces, the Punjaub, and Bengal have lately, one after another, superseded all their seniors. There are only twelve appointments in the service which carry with them the military rank, pay, and pension of deputy surgeon-general, and half of these are practically in the gift of the local governments. Failure to obtain these appointments means to the men passed over not only a stigma on their reputation and a loss of rank and pay, but likewise earlier compulsory retirement, and a loss for the rest of their lives of the extra pension of £250 a year. Is it wonderful that under such circumstances deep discontentment should prevail in the service, especially among the senior men, when it is seen that however faithfully men may have served the Government for the best part of their lives, and however distinguished their war services may have been, their just claims to promotion may be put aside and over-ridden by the power thus placed in the hands of the local governments?"

Dr. Walter Sumpter.—Thanks; but the lines are unsuitable for our columns.

SPURIOUS VACCINATION.

To the Editor of THE LANCET.

SIR,—At a time when small-pox prevails to a considerable extent, it may not be inopportune to consider one possible cause, among the many, why vaccination does not afford us even greater protection than is actually the case. It seems agreed by those who have had the greatest practical experience of the subject, that spurious vaccination gives little or no protection against subsequent attacks of small-pox. Now, in any given case where vaccination has been performed, either the vaccination may not "take" at all, or active local results may be obtained, and these again may be either normal or spurious. In ordinary cases, so long as sufficiently active local manifestations have been secured, the operator is satisfied the vaccination has "taken," and there is an end of the matter. The utmost attainable protection against small-pox is supposed to have been obtained. But, in fact, whether this is so or not depends entirely on the character of the local phenomena. Normal vaccine vesicles running the normal course indicate the utmost possible protection; but if the phenomena are those of spurious vaccination, probably no protection has been obtained at all.

The appearances by which we may recognise spurious vaccination are: 1. Papules or vesicles appear, but die away without undergoing the normal development, leaving by the eighth day a scale, or perhaps a scab. 2. Vesicles may appear, irregular in form, being pointed instead of flat and depressed, and irregular in contents, these being opaque and yellow, instead of clear and colourless. They are attended early by an areola, which is irregular in distribution and disappears before the eighth day. 3. Vesicles arise, at first to all appearance normal, but burst before the eighth day, leaving a scab or a suppurating sore. Now, in several of these cases scars will obviously result; so that at a period remote from that of the vaccination mere inspection will not be sufficient to enable us to conclude that the patient has been efficiently vaccinated. The scars observed in any particular case may have been the result of a spurious, non-protective vaccination. Therefore it is of the greatest importance to observe at the time when the local phenomena are in progress whether we have to do with a normal or a spurious vaccination, since it is then, and only then, that we can form any satisfactory opinion as to whether real protection has been secured or not; and in every case of spurious vaccination the operation should be repeated with a fresh supply of lymph at the earliest opportunity till normal phenomena are obtained.—I am, Sir, yours obediently,

Gower-street, W., January, 1885. A. H. N. LEWERS, M.B.Lond.

*** Mr. Lewers' letter contains much that is deserving attention, inasmuch as it states with truth that all vaccination is not equally protective, and that the course of development of the vaccine vesicle is an important element in relation to the amount and duration of protection. We cannot altogether agree with Mr. Lewers that the cicatrix affords no evidence of the amount of protection. The evidence obtained from small-pox hospitals proves that where the cicatrices are foveated a subsequent attack of small-pox is likely to be less severe than when foveation is not present; and this is easily understood when we consider the changes which take place in the skin during the development of the normal vesicle on the one hand, and the advanced vesicle on the other.—ED. L.

Dr. Albury.—The medical officers of the army are permitted to attend private patients so long as this does not interfere with the efficient discharge of their duties.

NEWSPAPER MEDICAL DISCUSSIONS IN BIRMINGHAM.

WE regret to see delicate questions of medical science made the subject of letters in the newspapers of Birmingham. Henceforth, when any medical man begins a controversy on strictly medical subjects in a newspaper, he should remain unnoticed and unanswered by any other medical man. The subject of unseemly discussion in Birmingham was the use of Chian turpentine in cancer. This is eminently the kind of question which has no business to be discussed in a newspaper

Messrs. Essinger and Neuburger.—We are glad that our correspondents are so well pleased with the present demand for "Wood Wool;" but we fail to see that they have advanced anything to lead us to modify our opinion.

BARBED WIRE FENCES.

To the Editor of THE LANCET.

SIR,—I am sorry to see that an attempt is being made to introduce the use of barbed wire as a fencing into England, and sincerely hope that the press generally will follow your lead in protesting most strongly against the use of such a diabolical invention. I have sufficient confidence in the humanity of my countrymen to feel convinced that anyone who had seen as much of "the working of it" as I have, during my residence in Kansas, where it is very largely used, would upon no account allow a yard of it to be erected upon their property.

Within the past few months I have heard of numerous instances in which horses have been more or less injured by coming in contact with what you most aptly call "such a *chevaux de frise*." Three of these so-called accidents having occurred within a mile of my house, I am enabled to give the results. In the first case the horse was so badly injured that after lingering for a few weeks, doubtless in great agony, it had to be shot, because, as the owner informed me, "it got down, and we couldn't get it up again." In another case the victim was so severely gashed that when I last saw it, some six weeks subsequent to the accident, it presented a shocking appearance, and the chances seemed strongly in favour of a friendly bullet being ultimately necessary. In the third instance two men who had been engaged in tinning a neighbour's roof drove into a fence on their way home in the dark. Having a powerful pair of cutting pliers with them, they were fortunately enabled to sever the wire and set the horse free, but not until he had been considerably cut about, and had kicked the harness off, and the buggy to pieces.

The popularity of barbed wire appears to be already on the wane in this country; it most certainly is in this section, and in one State, Vermont, a law has lately been passed prohibiting the use of it.

My anxiety lest when I return to the "Old Country" I should find it defaced by such a brutal, unsportsmanlike, and therefore, I think I may safely say, un-English system of fencing must be my apology for troubling you with this letter.—I am, Sir, yours truly,

W. V. VERNON CHAPMAN.

Fairlight, Walton, Harvey County, Kansas, U.S.A., Dec. 23rd, 1884.

H. T.—This new chinolin compound has been described by Knorr of Erlangen in the article by Filehne in the Zeitsch. für Klin. Med., Band. vii., Heft. 6, 1884; Berlin. Klin. Woch., No. 20, 1884; Deutsch. Med. Woch., No. 24, 1884.

AMENORRHŒA TREATED BY PERMANGANATE OF POTASH.

To the Editor of THE LANCET.

SIR,—The following case, which recently occurred in my practice, may prove of some interest to the readers of THE LANCET, as it goes towards confirming the high opinion that Dr. Thomas Sanctuary holds of the permanganate treatment in the above disease.

I was consulted about Miss W——, aged sixteen years, in November, 1884. The history was that she menstruated for the first time in June, 1884, and again in September. At the time I saw her in November she was both nervous and rather anæmic, suffering from frontal headache and a dull pain in the lumbar region. I ordered her sulphate of iron and aloes and other tonic treatment, and an anodyne liniment, which she continued using for more than a month. Under this treatment her general health improved very much, but there was not the least sign of a return of the catamenia. Her mother being most anxious about the case, I thought it advisable to try Ringer's treatment. I procured some pearl-coated pills from Messrs. Richardson and Co., Leicester, England, a grain of permanganate of potash in each pill, made up with "kolin to prevent oxidation," one pill to be taken three times a day with meals. After nine pills had been used the catamenia returned; so that nine of these brought a result in three days that ordinary treatment failed to do in four weeks.—I am, Sir, yours faithfully,

CHARLES F. MURRAY, M.D.

Ashfield, Beau Parc, Co. Meath, Jan. 14th, 1885.

"FOUR TWIN BIRTHS IN SUCCESSION."

To the Editor of THE LANCET.

SIR,—From the register of baptisms in the parish of Lesmahagow, Lanarkshire, I am enabled to supply a second example of four twin births occurring in succession. This was in the family of James Hamilton, farmer, Southfield Farm, Lesmahagow, and Isabel Lawson, his spouse. The births, five of them twins out of a total of eight, were in order as follows:—1726, March 23rd, twins, boy and girl; 1728, Feb. 28th, girl; 1730, March 29th, boy; 1732, twins, boy and girl; 1734, Oct. 6th, twins, boy and girl; 1736, Sept. 5th, twin boys; 1739, Aug. 26th, twins, boy and girl; 1741, Oct. 31st, girl.—I am, Sir, yours truly,

Lesmahagow, N.B., Jan. 10th, 1885. J. B. DALZELL.

ANOTHER "CURIOUS MEDICAL ACTION."

OUR contemporary the *Islington Gazette* reports another case in which a patient sought to evade full payment of a medical bill by setting off the opinion of one medical man against that of another. The judge very properly declined to decide between two different medical versions of a sore throat, which, strumous in the first instance, as Mr. Berry said, might too easily, in the unhealthy state of some of the northern districts, become diphtheritic in the second, as Mr. Dunstan alleged. Judgment was given for the plaintiff, Mr. Berry.

H. D. F. will find in our current number an article setting forth our views on the subject.

"THE MEDICAL DIRECTORY FOR 1885 AND THE NORTH-WEST LONDON HOSPITAL."

To the Editor of THE LANCET.

SIR,—The letter of Mr. Craske, one of the secretaries of the North-West London Hospital, requires some little correction, which, with your permission, in my capacity as governor, I will now proceed to give.

In the first place, the statement that Sir A. Clark and Mr. Heath resigned "out of deference to the united request of the late staff" is an error. No united request was ever made to these gentlemen. This I have on the highest authority. It is true that they attended a meeting of the late staff, when the information by which (being busy men) they were rushed into rejoining was set right and discussed; and it was as the result of this meeting, "and owing to the questions discussed thereat," to use the language of Sir Andrew Clark, with which Mr. Craske must have been familiar, that these gentlemen, for the second time in the course of a few months, deemed it their duty to sever their connexion with the North-West London Hospital.

Secondly, the secretary informs the public that the resignation took place too late to admit of his communicating with the Medical Directory. Had he taken this course of his own initiation, instead of awaiting a process of extraction, his explanation would have been more satisfactory. The secretary says that I could have obtained information privately from himself, and would have best shown my goodwill towards the hospital had I done so. It is, however, because I feel strongly that hospitals should court, rather than fight shy of, publicity, even to the minutest details of their management, that I thought it my duty to communicate with your journal, as the recognised leader amongst medical publications. Mercy, for which the secretary asks, is no doubt a gentle virtue, and should be remembered especially in our private relations; yet we must not forget that in all questions between charitable institutions and the public who support them, the motto "Fiat justitia ruat cœlum" is a safer guide.

I am, Sir, your obedient servant,

A GOVERNOR OF THE NORTH-WEST LONDON HOSPITAL.

Jan. 19th, 1885.

ON THE RESULT OF EXTENSION AFTER TENOTOMY.

To the Editor of THE LANCET.

SIR,—May I ask those of your readers interested in orthopædic surgery whether it is an established fact, as generally stated, that after tenotomy the extension made use of in the after-treatment actually stretches the newly-formed tendon between the cut ends, say, like a piece of india-rubber?

I have recently operated on two cases of wryneck, one being a severe case with 2½ in. shortening on the affected side. My after-treatment in these cases was at first by elastic extension with a Martin's bandage; but finding this rather irksome, I commenced manual extension, with a very good result. One thing struck me, that on forcibly extending the divided tendon a distinct "give," accompanied by a "snap," was the result. I found that the upper end of the new tendon and the lower end of the old were separated abruptly for about an eighth of an inch; the nail and part of the tip of the index finger could be inserted into this sulcus; there was evidently no new material between the old and the new tendon. After a lapse of about twenty-four hours this sulcus was filled up with inflammatory lymph ("tendon callus," if we may so term it), which projected lump-like above the level of the old tendon; this after a time smoothed down to the normal tendon level.

Does not this show that whether mechanical and slow, or manual and quick, extension is used, the newly formed tendon is not stretched, but rather that the extension used opens up a fresh area of sheath, from which the new tendon is regenerated? If this separation is great, non-union is the result, the blood-supply being unequal to the demand of tendon-formative material.—I am, Sir, yours faithfully,

T. HENDERSON POUNDS, F.R.C.S. Eng.

Snodland, Rochester, Jan. 14th, 1885.

"THE PHYSIOLOGY OF THE FEET."

To the Editor of THE LANCET.

SIR,—I have already (THE LANCET, June to August, 1884) occupied in discussing this subject too much, I fear, of your space. But I would remark on Mr. Neve's letter that he admits the advantage in descending a hill of projecting the feet, so that the toes or front part first touch the ground. This in ascending a hill is obviously necessary. It would seem to be, at least, curious if it be best also when walking on a level surface to bring the heel first to the ground, as stated of the natives of Kashmir. Accepting the fact, we are still at liberty to prefer the Arab or the North American Indian as the model for that which should be.

I am, Sir, yours truly,

Gloucester, Jan. 17th, 1885. T. S. ELLIS.

"THE YEAR-BOOK OF TREATMENT."

WE are asked to state that the first edition of "The Year-book of Treatment," a critical review for practitioners of medicine and surgery, which was published last week by Messrs. Cassell, has already been exhausted, and a second edition is now in the press.

Dr. T. Dobson.—The most recent official report on the subject is the Report of a Committee appointed by the President of the Local Government Board to inquire into the several modes of treating Town Sewage, issued as a Bluebook in 1876; the committee consisted of Mr. Clare Sewell Read and Sir Robert Rawlinson, C.E., C.B. See also Mr. Henry Robinson's small work on "Sewage Disposal," published by Messrs. E. and F. N. Spon, 46, Charing-cross, 1880.

C. O. H.—We think that the coroner should have summoned the medical man who first saw the child. Our correspondent should complain to the coroner.

HEART INJURIES.

To the Editor of THE LANCET.

SIR,—The following case may be interesting to some of your readers, in connexion with recent discussions relative to gunshot injuries of the heart.

Last September I determined, opportunity permitting, to try to solve the question as to what caused the peculiar flight and death of birds known as "towerers," notably partridges. Amongst the cases examined one was of especial interest with reference to injuries of the heart. In this case the pericardium was lacerated, and on looking at the surface of the heart some portions of feather were seen entering its substance near its base; on opening the ventricle, in addition to some feather being seen, there was a No. 6 shot plainly visible on its inner surface. This bird, after receiving the injury, continued flying as if nothing had happened for about a hundred yards, when suddenly it flew upwards in an almost vertical direction to a considerable height, then fell like a stone to the ground, and when picked up was quite dead. Now, although the time that elapsed between the injury and death of the bird was of only very short duration, still, I think, most people will admit that the injury was a very severe one, and shows that in birds prolonged muscular exertion can take place even after severe injuries to such an important organ as the heart.—Yours faithfully,

Stanley Hospital, Jan. 16th, 1885. J. F. H. OWEN, M.R.C.S., &c.

Anxious Inquirer.—The question has been answered many times in our columns. See THE LANCET for July 14th, 1883.

Dr. R. Pringle.—Next week.

ERRATA.—In the report of the remarks of Dr. Wilson Fox at the meeting of the Clinical Society last week, page 108, line 34 of the first column, the words "the late" should have been omitted. The oversight arose in substituting in the proof the name of Dr. Burney Yeo for that of Dr. Mahomed.—In the letter of "C. L." on the "English Conjoint Board," published in our last issue, fourth and fifth lines, for "next year" read *this year*.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Ernest White, Burley; Dr. Wigglesby, Ashton; Mr. Corbishley, Macclesfield; Mr. F. N. Barrett, New York; Mr. Bellamy, London; Dr. Clifford, London; Capt. Marshall Hall; Dr. W. Sumpter, Clay-next-Sea; Dr. Oswald Lane, Northampton; Mr. C. Stein, Leith; Mr. Lawson Tait, Birmingham; Dr. Jas. Niven, Manchester; Dr. Jas. Weir, Louisville; Dr. Cullimore, London; Mr. Luis Jackson, Chicago; Dr. Purcell, London; Mr. F. H. Davies, London; Mr. Berkeley Hill, London; Mr. R. W. Parker, London; Mr. Higgens, London; Mr. A. De St. Dalmas, Leicester; Mr. McArthur, Glasgow; Dr. Strahan, Berry Wood; Mr. Rushton Parker, London; Mr. Weddell, Stamford; Mr. C. E. Adams, Norwood; Mr. A. Baines, London; Dr. Watson, New York; Professor Buchanan, Glasgow; Mr. C. Steele, Liverpool; Mr. T. S. Ellis, Gloucester; Dr. Albury, Nassau; Dr. Clouston, Edinburgh; Dr. W. H. O. Sankey, Boreatton Park; Mr. P. S. Hutchinson, London; Mr. C. S. Jeaffreson, Newcastle-on-Tyne; Dr. Lucas, Brighton; Herr Julius Wolff, Darmstadt; Dr. David Donald, London; Mr. R. Woodhouse, London; Mr. Nelson Hardy, Dulwich; Mr. S. L. Wallace; Mr. E. East, London; Mr. Scratchley, London; Mr. C. W. Mortimer, Washington; Dr. Jas. Gairdner, Coldwells; Dr. Suckling, Birmingham; Mr. J. F. Owen, Liverpool; Messrs. Reynolds and Branson, Leeds; Mr. A. P. Peter, Holsworthy; Dr. Dickson, Huddersfield; Mr. Armstrong, Manchester; Mr. Boyveau, Paris; Mrs. Whitehead, Broadstairs; Mr. Davis; Messrs. Norman and Sawyer, Cheltenham; Mrs. Mitford, London; Mr. Goodman, Smeaton; Dr. Tilt, Hastings; Messrs. Smith and Son, Birmingham; Mr. Hakeman, London; Mr. Bowen, Birmingham; Mr. Ricker, St. Petersburg; Messrs. Macmillan and Co., Cambridge; Messrs. Tanner and Co., Tottenham; Messrs. Wiedenmann and Co., London; Mr. Nathaniel, Ramoad, India; Messrs. Cassell and Co., London; Messrs. Wright and Co., London; Dr. Davies, London; Mr. E. Bell, London; Mr. Butt, Leicester; Mr. Fuge, Taunton; Mr. Spencer, Basford; Messrs. Fry and Son, London; Mr. Evans, Stroud; Messrs. Slinger and Son, York; Mr. Cooke, London; Mr. Sprake, Brighton; Dr. Squire, London; Mr. Giles, Vienna; Mr. Treves, London; Mr. Cox, London; Mr. Brown, Westgate-on-Sea; Mr. Crisford, London; Mr. Underwood, Little Hempstead; Mrs. Warton, Halifax; Mr. Reily, Newcastle-on-Tyne; Mr. Shirtliff, Kingston-on-Thames; Mr. Newham, London; Mrs. Letts, Spilsby; Dr. Mygind, Copenhagen; Mr. Hicks, Coventry; Mr. Millar, London; Mr. Elliott, Carlisle; Dr. Seaton, Sunbury; Mr. Barrow, Notts; Mr. Larmuth; Mrs. Pratt, Cardiff; Dr. Thomas Savage, Birmingham; Prof. McCall Anderson, Glasgow; M.D.; M.D., F.R.C.S.Edin.; M.B.; A Governor of the North-West London Hospital; Southey; Doctor, Lincoln; Surgeon, Notts; Vista; Anxious Inquirer; Sympathy; C. O'H.; Another Governor; H.W.; X.Y.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Brittain, Bridgend; Mr. Mathin, London; Mrs. James, St. John's-wood; Messrs. Mackay and Co., Edinburgh; Messrs. Maclachlan and Co., Edinburgh; Mr. Miller; Dr. Leeson, Brighton; Messrs. Read and Co., Bristol; Mr. Burnett, Motram; Mr. Chadwick, Bath; Dr. March, Rochdale; Mr. Bilney, Yoxford; Dr. Bastaple, Blackburn; Dr. Dale, Colwyn Bay; Dr. Gibbens, New South Wales; Mrs. Hey, Bournemouth; Mr. Wray, Highgate; Dr. Cameron; Mr. Hughes, Pwllheli; Dr. Colmer, Yeovil; Mr. Johnston, Orrell; Mr. Fitzgerald, Queenstown; Miss Middleton, Loughborough; Mr. Macmillan, Blackheath; Dr. Jennings, Colwell; Mr. Wilkinson, Sheffield; Dr. Greenway, West Derby; Mr. Bowes, Devizes; Mr. Davis, Brighton; Mr. Goodman, Northallerton; Mr. Anderson, Kirkwall; Dr. Andrew, Shrewsbury; Mr. Walker, Aberdeen; Messrs. Maclehose and Sons, Glasgow; Mr. Parsons, Hastings; Mr. MacDonald, Millwall; Mr. Chapman, Clapham; Mr. Donald, Streatham; Dr. Orr, Canning-town; Mr. Betts, Lincoln; Dr. McLintock; Mr. Hammett, Taunton; Miss De Luttichau, Holloway; Miss Evans, Brecon; Messrs. Loeflund and Co., London; Medicus, Oldham; T., Croydon G. M., Maidstone; Medicus, Liverpool; R. S.; Dr. H., Margate; Medicus, Ludlow; Atropia; X. X. X. Edinburgh; A. B., Leeds; Matron, Bristol General Hospital; J. V., Govan; T. W. L. B., Great Yarmouth; A. B. C., Edinburgh; Malins, Macclesfield; Medicus, Guildford; Surgeon; Medicus, Bow; Medicus, Notts; Fideliter, Clacton-on-Sea; A. L.; C. J.; Medicus, Liverpool; H., Hornsey; Celsus; Scott.

Church of England Temperance Chronicle, Newcastle Weekly Chronicle, New York Daily Tribune, Queensland Parliamentary Debates, Brisbane Daily Observer, &c., have been received.

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Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

Clinical Lectures ON SCLERODERMA.

By H. RADCLIFFE CROCKER, M.D., M.R.C.P.,
PHYSICIAN TO THE SKIN DEPARTMENT OF UNIVERSITY COLLEGE HOSPITAL, PHYSICIAN TO THE EAST LONDON HOSPITAL FOR CHILDREN.

LECTURE I.

DIFFUSE SYMMETRICAL SCLERODERMA.

GENTLEMEN,—The first known case of this remarkable disease came under the care of Dr. Curcio[1] in 1752, and is quoted by Willan[2] as an example of ichthyosis cornea. Lorry also probably alludes to this disease in his "Tractatus de Morbis Cutaneis," in 1777; and isolated cases were recorded from time to time; but it was not until Thirial's paper appeared in 1845, describing two cases under the name of "sclérème des adultes," that the disease began to be generally recognised. It is of such rarity that only about a hundred and twenty cases of this form are on record; we are therefore exceptionally fortunate in being able to study it with four cases before us. The disease is of interest not simply on account of its rarity, but also from the insidious manner in which it attacks its victims, its strikingly peculiar features, and the permanent crippling that too often ensues. Among the many names that have been given to it, "sclerema" and "scleroderma adultorum" have shown their fitness, to some extent, by their survival, both expressing the same idea of "hardness" of the skin, which is the most conspicuous symptom; and the specific name of "adultorum" was given to distinguish it from a totally different affection, universally known as "sclerema neonatorum." But scleroderma is by no means unknown among children, and it would simplify matters to drop the specific title and use "scleroderma" only for the disease before us, as Kaposi suggests, and keep "sclerema" for the infantile affection. At the same time you must bear in mind that the disease often affects the deeper structures as well as the skin. Scleroderma varies a great deal in its extent and distribution, and three varieties or types may be distinguished which it is desirable for the sake of clearness of description to consider separately. These varieties are: (1) Diffuse symmetrical scleroderma; (2) circumscribed, usually unsymmetrical, scleroderma, or morphœa, as it is more frequently called; (3) diffuse unsymmetrical or mixed scleroderma. It is with the first variety that we have to do to-day; and it presents itself under two aspects—an infiltrated or, as it is less correctly called, a hypertrophic, and a shrunken or atrophic, form,—I will introduce the cases to your notice in the order of their severity.

The first case is that of a man aged forty-eight, and, as so often happens with rare and chronic cases, he has been in other hands before he came to me, Dr. Samuel West having shown him at the Clinical Society in January, 1883.[3] As we see him now, more than two years since the disease began and one year since he came under our notice, we find so much improvement that to the eye there seems nothing wrong. It is only on pinching up the skin in the nape of the neck and down the back and sides that we find it still stiff, difficult to raise up, and harder than normal; and where the finger is drawn along the skin with pressure there is still produced a broad white line with pink borders, to which the normal colour is only slowly restored. Even now he cannot raise his hands above his head without feeling that the skin of the legs is pulled upon; but this is nothing in comparison to what it used to be, and far different from the time when his mouth was pulled open when he put his head back. He states that since the commencement of his complaint his skin has felt worse on some days than others, and after drinking a glass of beer his skin always feels tighter, probably by causing some flatulent distension. The points I wish you to observe are the exactly symmetrical distribution of the disease affecting the upper limbs, the hands escaping, and the greater part of the trunk, with no sensible line of demarcation separating the diseased from the healthy skin; that at first the skin looked and felt distended, obliterating the natural wrinkles and lines, but rendering it rigid and hard as a frozen corpse; and the surface was paler than natural, especially if stretched, with some pink mottling. His previous history informs us that he is a publican, and, like most of his class, a sinner in regard to alcohol, and has had frequent attacks of gout; but with this exception his previous health has been good. He had not been exposed to cold, and there was nothing to suggest the nature of the exciting influence, though gout was probably a predisposing cause, and the onset and course of the disease were very slow and insidious, so that it took six or eight months to reach its acme. The decline of the affection has likewise been extremely gradual, but on the whole so continuous that we have every reason to anticipate a perfect recovery in due time. We will now pass on to Case 2.

Jane R——, aged sixty-seven, a laundress, came into the hospital as an out-patient during the vacation and was seen for me by Dr. Penrose. She was admitted on Oct. 23rd, 1884. She has never been laid up, even for a day; has had eight children, all but two of whom have died young, but there is no evidence of syphilis. Last Christmas she noticed that her shoulders were stiff in the joints, then the elbows, and afterwards the fingers were affected. About Easter the skin began to get stiff over the chest, then over the back of the neck, then the sides, and gradually the joints became less movable, and she had to leave her work on June 1st. Two months later the skin of the wrist became stiff, the stiffness spreading up to the elbows, then to the arms and over the deltoid to the shoulder, rendering all the joints in its course immovable. It next appeared on the left side of the face, and to a less degree upon the right side, so that she could scarcely open her mouth. The chin was also stiff, but not her lips, nor any part inside her mouth; the forehead was affected in a moderate degree. The skin of the insteps and toe-joints was stiff, but no other part of the feet and legs. She used to have pains in her joints both before and after the stiffness set in, and a great deal of itching of the affected parts at night, but no burning or tingling. In every other respect she feels quite well. On admission she was noted to be a healthy-looking, fairly well-nourished woman. The lungs, heart, and kidneys showed nothing abnormal, the bowels were regular, and the appetite good. But the disease, which had not reached its full development apparently when Dr. Penrose first saw her, is now rapidly clearing up; there is some difficulty in pinching up the skin of the epigastrium; there is slight hardness over the ribs on each side, more on the right than the left side; but the rest of the trunk below the third rib is quite free, although a short time back it extended below the level of the last rib. There was never any sharp line of demarcation where the disease ceased. Above the third rib to the clavicle the skin is of a creamy-white colour, very smooth and shining; the margin is not even, but fairly well-defined from the skin below it, which looks well, and the skin of the neck above is deeply pigmented of a dirty-brown colour. This smooth shining condition extends over the shoulder-joint, and below it for about two inches into the supra-clavicular fossa and outer side of the supra-spinous fossa, joining the deep-brown skin of the exposed part of the neck, and the forearms, as well as the neck, are much pigmented, mottled here and there with lighter shades. The skin is fairly movable in these parts but thicker when pinched up. All these changes are much more marked on the right side than on the left, where below the clavicle the skin is almost normal to the touch, except where there are some old cicatrices from burns; over the shoulder it is very smooth, white, and shining, and there is a pink mottling in the supra-clavicular region. This discoloured skin is not, however, in the parchment-like condition called morphœa, but is an error of pigmentation, with sclerosis of the deep parts. The skin of the arms is very firm to the touch, but not nearly so hard as it has been; less at the back than the front, and it is slightly whiter and smoother than the healthy skin; in some parts on extending the limb, the skin becomes paler and more resisting. The flexure of the elbow is free from the disease. On the forearms the flexor surface is less affected than the extensor in the upper part, but at the wrist the skin all round is very hard, and there is little flexion or rotation possible. The backs of the hands are the worst of any part now; the skin is as hard as wood, and scarcely movable, but

[1] Philosophical Transactions, vol. xlviii.
[2] Cutaneous Diseases, 1808, p. 208.
[3] His then condition is described in the Society's Transactions, vol. xv.; it is therefore not repeated here.

can just be pinched up; the surface is also mottled with dark-brown pigment as far as the knuckles, over which the skin is white; flexion of the fingers is prevented, but they do not look altered, though all except the little finger feel quite hard up to the end. The left limb has the same areas affected, but to a somewhat less degree. The dorsum of the feet and toes is quite hard up to the ankle in front, and on the inner side there is a band of hardness up the lower third of the leg. The skin over the dorsum is quite adherent to the subjacent tissues, and cannot be pinched up. The soles are free, but the right palm is rather harder than the left, which is scarcely at all affected. There are no patches or subcutaneous tubercles anywhere. Since admission the patient has been having Turkish baths three times a week, with general tonics and good feeding, which she much required, having been on very short commons for some weeks. Now there is still further improvement; the skin on the arms and upper part of the chest is much more supple, and more easily pinched up. In the last two baths the patient has perspired over the chest for the first time since she has been treated; the chest is better than the arms, which have not begun to perspire yet. There has been slight pain in the phalangeal joints for the last week. The legs are still hard, but pigmentation is diminished, and they sweat slightly; this is true also of the dorsum of the left foot, but not of the right. The hands are beginning to perspire in the bath.

These two cases are good examples of the so-called hypertrophic scleroderma, though, as I have said, it is really a condition of infiltration at first—hyperplasia of the connective tissue occurring subsequently, rather than hypertrophy; but the point I wish to impress upon you, and which the term hypertrophy was intended to convey, is that at this stage there is an increase of volume in the skin contents, so that the skin is over-distended and stretched, giving rise to the hardness and immobility to which I have already drawn attention, and sharply contrasting with the atrophic or diminished volume stage, of which I shall presently speak in describing the two other cases. Still, the infiltration in these cases is not simply serous, as there is no pitting even with the firmest pressure. You observe that in both patients there was marked symmetry in the distribution of the disease, though at the same time there was unequal intensity on the two sides; that the arms and upper portion of the body were the parts chiefly affected. This is the rule, for though the legs are not unfrequently involved as well, as in the second case, I do not remember any instance of this diffuse symmetrical form in which the lower half of the body was affected and the upper part free. In neither case was the line of termination of the disease a defined one, but it gradually shaded off into the healthy skin; this also is the rule unless the surface is affected, as in the case I shall show you presently. Notice also what comparatively little change there is in the skin covering to the eye alone, the slight alterations that have been described all pointing to a condition of ischæmia of the skin—incomplete in the male patient, in whom its presence was indicated by pink mottling and slow return of colour when the blood had been pressed out by the finger, a condition present in a less degree in the woman also. In a more advanced stage we see it manifested in other ways by a permanent collateral dilatation of the capillaries, in tufts or striæ, which is very marked in some instances, by the abnormal pallor or by pigmentation, which may be in spots, streaks, or diffused over a wide area, from pale-fawn to a deep-brown tint. This, too, will account for the diminution or absence of sweat and sebaceous secretion which is observable in these patients, and the diminished temperature of the surface at the commencement. These two patients, being on the road to recovery, do not exhibit the typical "frozen corpse" condition of the early stage, with the distended skin and stony hardness; the surface is cooler than usual, though it is never absolutely cold; still, from the condition before you to this is but a step which your imagination can easily take.

There are two other points to which I would call attention. First, the age of the female patient, sixty-seven. This is far beyond what is usual; most cases occur between twenty and fifty, and I do not remember reading of any case so old as this. The second point is the slow and insidious development of the disease, in the man so gradual and unaccompanied by other symptoms that he scarcely knew when it commenced; but this mode of onset is by no means always what occurs. In 1878 a girl, aged thirteen, was admitted into the East London Hospital under my colleague, Dr. Eustace Smith, who was kind enough afterwards to place her at my disposal. A fortnight before admission the patient, who was an inmate of an orphanage, complained of pain in her arms, for which a liniment was rubbed in, and it was then noticed that the skin was hard, and by the time she came into the hospital the whole surface of the body, except the eyelids, palms, and soles, was involved, together with the mucous membrane of the right cheek. Eczema all over the head had existed for three weeks, and was not altered by the supervention of the scleroderma. Her temperature was 101°, pulse 116, and a systolic murmur was audible at the apex. For three months her temperature ranged from as low as 97° up to 105° on several occasions, these high temperatures corresponding to attacks of pericarditis, of which she had several. Improvement in the induration, which was not preceded by œdema, set in within a week, and in three weeks some pitting could be produced in the face.[4] The induration steadily diminished, but it was nearly a year before it quite disappeared. This, then, is a great contrast in some respects to the other cases. The rapid onset, universal distribution, and speedy improvement are not common features; her age, too, is noteworthy, though there are now a considerable number of children's cases on record, the youngest being that of Dr. Norman Moore,[5] a boy aged two and a half, and one by Cruse[6] aged two. You noticed that the mucous membrane of the cheek was involved; this, too, has been observed in other cases, not only in the cheek, but in the tongue, soft palate, larynx, pharynx, œsophagus, and vagina. Finally, the presence of endocarditis and pericarditis without the articular manifestations of rheumatic fever, unless the pains in the arms at the commencement be taken in this sense, is very interesting, to which I shall recur further on. There is, however, a darker side to the picture I have endeavoured to draw of this disease, and we must now turn to it. These two women will furnish us with the materials for its delineation, and, taken with the others, they will make the description of the diffuse symmetrical form of this remarkable affection nearly complete.

CASE 3. Jane E——, aged thirty-nine, dressmaker, married, was much exposed to draughts in her occupation, and had very little exercise. Her father is alive, aged seventy; her mother died insane, at sixty years of age; and one of her brothers, five of whom grew up, died of rheumatic fever and heart disease, and one of diabetes; four brothers and her one sister are well. The patient had measles and erysipelas in infancy, a skin eruption in the flexures of the elbows when ten years old, and muscular rheumatism when twenty-one years old; there is no history of syphilis. Up to April, 1881, the patient was in excellent health, but during that month she began to suffer from pain in the elbows and hands. These pains continued, and in June of that year dropsy appeared in the feet and legs, and also to a less degree in the hands but not in the eyelids. The patient felt very weak and languid, and the urine was high-coloured, but not diminished in quantity. The dropsy lasted all the summer, and gradually merged into the present condition, which was fully developed by about the end of November; and from that time she states that there has been no material change in her condition, except that she has gradually lost flesh. Six months ago she had what she calls gout in her left foot. It came on suddenly in the night, and the inner side and dorsum were swollen and painful. It became worse for a day or two, and then gradually disappeared. The patient attended the London Hospital, under Dr Stephen Mackenzie, for twelve months, and was galvanised without benefit. Six months ago Dr. Corner, to whom I am indebted for the case, forcibly extended her fingers; this also proved useless. The patient is a short, rather thin, but healthy-looking woman; her lungs, heart, and urine are healthy, and the only defect lies in the skin and subjacent parts of the extremities. The small size of the forearms and hands will at once strike you; they might well belong to a child of twelve, the fingers are bent, the ring and little finger more than the others. The proximal phalanges of the first two are only a little flexed, but the second phalanges are bent at a right angle, and the terminal phalanges are slightly bent in the first and second fingers, much more so in the ring and little finger, and the proximal phalanges in these are also bent; the terminal phalanx of

[4] The case is published in detail in the Clinical Society's Transactions, vol. xii. [5] St. Bartholomew's Hospital Reports, 1873.
[6] Quoted by Kaposi, Hautkrankheiten, 1883, p. 558.

the thumb, on the contrary, is over-extended, so that the back of the thumb is concave. All the joints of the hand and wrist are nearly immovable. The skin of the forearm and the back of the hand is of a yellowish-white tint, mottled with a few dilated tufts and striæ of dilated vessels, the surface is perfectly smooth, dry, devoid of hairs, except over the first phalanges, cooler than natural, has a wooden hardness, and is closely adherent to the subjacent tissues, so that it is absolutely impossible to pick it up, and near the wrist it appears to adhere to the bones without any intervening tissue, and is everywhere tightly stretched over the contents; in short, the limb looks and almost feels as if it were an old ivory carving, while to the patient the limbs feel as if they were in a case. The palm, however, is scarcely affected, and feels rather moist, but the subcutaneous tissues are hard. The whole of the extensor surface of the forearms is implicated, except an area over the tip of the olecranon, about an inch and a half in diameter. On the flexor aspect the disease extends up to the junction of the upper fourth with the lower three-fourths, where it terminates abruptly to the eye, but under the finger it can be felt extending more than an inch further subcutaneously; an oval area of nearly four inches over the flexors has escaped the induration, and bulges above the depressed ivory-looking skin. This and the free area over the olecranon allow free flexion of the elbow-joints, and there is slight power of pronation, but she cannot extend her elbow beyond an angle of 60°. Above the elbow the induration extends over the lower third of the limb posteriorly, but the skin is healthy in front, over an area equal to about a third of the circumference of the limb, and the edges, especially on the inner side, have an irregular but well-defined outline, and the induration becomes more and more superficial; so that although it is of the same ivory hue, the skin can be readily pinched up, feeling rather like parchment, as it is not at all adherent; in short, the skin alone is here implicated, for about an inch beyond the healthy skin. The two limbs are exactly symmetrically affected, but the left side is slightly harder than the right. On the lower limbs, beginning at the root of the toes, the induration extends all over the dorsum of the foot and extensor aspect of the leg as far as the knee, where it misses the skin over the patella, and then implicates the lower two-thirds of the thigh, but more superficially on the flexor aspect, the hardness begins just above the heel and implicates the leg nearly as far as the knee, and the thigh in its lower two-thirds; but the flexure of the knee is quite free, and so are the toes and sole. The movement of the toes is only slightly impaired, but the ankle is almost fixed, the knee, however, is quite free in all its movements. The symmetry of distribution is as exact for the two lower limbs as it is for the two upper, and the whole condition is almost exactly the counterpart of that of the arms and hands. It is most marked round the ankles and lower parts of the legs, and is very slight and superficial in the thighs. The surface is pale mottled or fawn-coloured in some places and rose-coloured in others, from the presence of dilated capillaries. The skin is quite smooth now, like the arms, since she has had the Turkish baths and shampooing, but when I first saw her the arms were rather rough from dryness of the cuticle, and on the lower parts of the legs there was a condition approaching ichthyosis. The rest of the skin is quite free from induration, but in the nape of the neck three or four subcutaneous firm nodules ranging from the size of a pea to a small bean are to be felt, and she says that in the early period of the disease there were a great number of them. None of these nodules are to be felt elsewhere.

(To be concluded.)

THE CITY DISPENSARY.—The annual meeting of the supporters of this institution was held on the 21st inst., when the ninety-sixth annual report of the committee was read. The number of patients on the books at the beginning of last year was 1107, and during the year there had been admitted 15,157, making a total of 16,264 patients treated during the twelve months. The income amounted to £2129 and the expenditure to £1436, leaving a balance of £693 in the treasurer's hands, against £822 at the end of the preceding year. After the transaction of some routine business, it was unanimously resolved that an honorarium of fifty guineas be given to each of the medical officers connected with the institution, in consideration of their valuable services during the past year.

ON

SOME COMPLICATIONS OF TRACHEOTOMY, WITH ILLUSTRATIVE CASES.

BY ROBERT WILLIAM PARKER, M.R.C.S.,
SURGEON TO THE EAST LONDON HOSPITAL FOR CHILDREN.

(Continued from p. 152.)

2. *Chronic Laryngeal Catarrh.*—In children, the chronic conditions which may demand tracheotomy are: (*a*) chronic laryngitis, and (*b*) warty laryngitis (papilloma). From a consideration of the pathological anatomy of these conditions it will at once be evident that obstruction to the breathing may sooner or later come on, and how and why a little fresh catarrh or the occurrence of an exanthem or of whooping-cough may suddenly render these conditions of very serious import, and introduce an element of danger which will be great in proportion to the youth of the patient.

(*a*) *Chronic laryngitis* is usually secondary to an acute attack; and when it attacks the larynx, in a majority of instances it is by direct extension from the pharynx, or it depends on some constitutional peculiarity. Chronic catarrh leads to enlargement of the racemose glands and to general thickening of the mucous membrane and submucous tissue; the calibre of the larynx and trachea is thus narrowed; moreover, there is increased secretion of mucus, which is very tenacious, hard, and difficult to cough up. Owing to their small size in early life, stridor and dyspnœa quickly supervene on the slightest exacerbation of the conditions—such as that produced by simple catarrh, for instance. In other cases the onset of dyspnœa is very gradual; it is at first most obvious during the night when the child is asleep, and little by little as it progresses sleep becomes much disturbed. The stridor then becomes audible during the day-time, and is worse after crying or emotion of any kind. On examining the chest, the soft parts will now be found to sink in with respiration, and in children old enough to talk an alteration in the tone of the voice will become noticeable. Gradually the breathing becomes more and more laboured, and the voice, which is hoarse from the first, is finally suppressed. The following is a typical case.

CASE 3. *Chronic Laryngitis; no obvious Cause; urgent Dyspnœa; Tracheotomy; Difficulty in removing Tube; Recovery.*—C. B——, a little boy, aged four years, was re-admitted into the hospital on account of an increasing dyspnœa. He had already been under observation a few weeks previously for the same condition, for which he had been successfully treated with iodide and bromide of potassium, and local astringents. The condition had come on so gradually that the exact date of its first onset could not be fixed. At first it was chiefly noticed at night; then became evident during the day; there had, however, been slight exacerbations from time to time whenever the boy cried or caught cold; his voice had been hoarse for some time past. At the time of his readmission his symptoms were almost urgent; his pharynx on examination was swollen and congested; the epiglottis also appeared thickened; the voice was hoarse and half suppressed, and he spoke with great effort. He was immediately placed in a croup bed, and sedatives were added to the warm moistened air he was made to breathe; after a while he improved slightly. His dyspnœa was always worse at night; for two or three nights after his admission, between 11 P.M. and 2 or 3 A.M., the breathing was so laboured that tracheotomy seemed unavoidable. However, towards morning, the violence of the attack passed off, and he slept in comparative ease. Matters continued like this for a week, and as there was no permanent improvement in his condition, tracheotomy was performed. Subsequently he did well; his anxious, careworn expression gradually wore off, he slept soundly, his appetite and spirits and strength returned. I need not detail all that transpired within the next three months, during which he had to wear his tube. We tried his breathing power on several occasions, but he could not get on for very long without his tube. The boy was of a highly nervous temperament, and he greatly dreaded its removal. A subterfuge was finally adopted; a window was cut in the tube just at the angle, and the external orifice was corked; this obliged the boy to breathe through the glottis, while

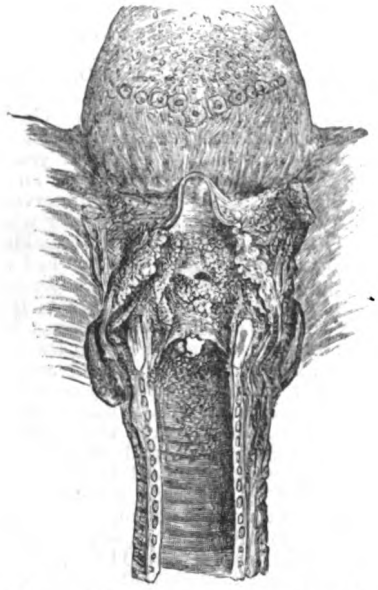
the presence of the tube in the trachea lessened his nervous agitation. To this he gradually accustomed himself, and little by little also he learned to sleep with the tube corked. Meanwhile his throat was sprayed with astringent applications, and the sub-inflammatory condition at last subsided; the boy also grew considerably. Finally, after many failures, we succeeded in removing the cannula; but his inspiration continued noisy for many months, though it had ceased to be laboured. His general treatment consisted in a liberal diet, with cod-liver oil and steel wine.

In many similar cases which I have seen at various times the nocturnal exacerbation of symptoms has occurred; the crisis is reached between two and three o'clock in the morning; the difficulty then appears to have expended itself, and comparative ease and quietness follow.

(*b*) *Warty Laryngitis* (*Papilloma*).—Dr. M. Mackenzie, in his work on the Larynx, p. 300, says, "Chronic congestion of the laryngeal mucous membrane is, far above all other causes, the most important etiological feature in the production of simple morbid growths in the larynx." In the following two cases there was no very manifest cause, but the social surroundings of the patients were just such as would favour the onset of chronic catarrh in children with a predisposition thereto. I am inclined to attribute greater weight to personal predisposition than to chronic congestion, which is itself a morbid condition. Among poor children chronic laryngeal catarrh (chronic congestion) is common, while warty laryngitis is very uncommon. Warty laryngitis is occasionally congenital; I have myself seen one or two instances in the bodies of children who have died of other complaints, and before the local condition had had time to manifest itself.

CASE 4. *Laryngeal Catarrh; increasing Dispnœa; Tracheotomy; Warts seen on Vocal Cords through Tracheal Wound; perfect Relief by Operation; Pneumonia three months later; Death; Autopsy.*—W. C——, aged twelve months, was a small, careworn-looking child when he first came under observation. The mother's account was that

FIG. 3.

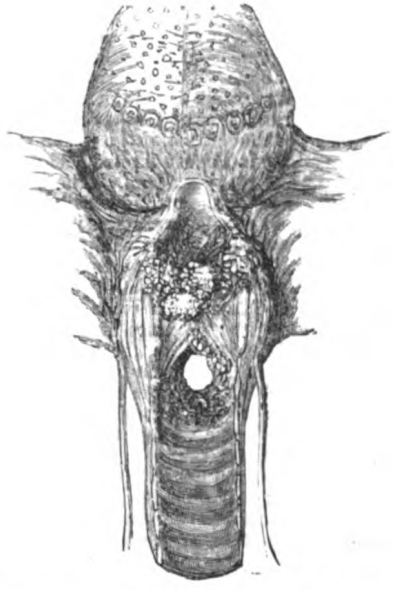


the disease began nine months previously, when the child was between three and four months old; she thought he had caught cold. This was followed by wheezing. Six months ago (at Christmas time) the child lost his voice, his cough became croupy, and he began to breathe with stridor. This stridor gradually became more marked, and during the last four months it had been so bad during the night that the child had only been able to sleep for very short periods during the whole of this time. There was no history of phthisis nor anything reliable of syphilis. When first seen he was greatly emaciated and looked exhausted. The child seemed drowsy and tried to sleep, but the difficulty of breathing roused him at once. The breathing was very laboured and stridulous, the cry almost inaudible. With each inspiration there was recession of the epigastrium and of the episternal region; expiration was comparatively easy. The fauces were congested; the tonsils also, but not enlarged. The skin was of a livid pallor. The child was put into the croup-bed, and steam, with creasote vapour, was turned in. There was no amelioration; on the contrary, at five o'clock in the morning, the breathing having become exceedingly laboured, tracheotomy was performed. The relief was immediate and complete. On examining the trachea through the wound, held open by double blunt hooks, a crop of sessile warts could be distinctly seen on and about the vocal cords. A cannula was then put in, and the child returned to bed, when he slept soundly for some hours. Within a few days general improvement set in. He could now sleep well, and he now took food with relish; the wound in the neck healed well, save a channel for the tube, which we did not even try to remove under the circumstances. For two months the child throve; then he got pneumonia and died rapidly.

In this case the history pointed clearly to a chronic condition, and all doubt as to its real nature was set at rest by the examination of the larynx at the time of the operation. The child was so young and so small that the question of thyrotomy was only entertained to be discarded, for apart from the serious nature of the operation, the scattered sessile condition of the growths would have added materially to the difficulties of the operation. The condition of the larynx, as found after death, is depicted in Fig. 3. Microscopically these warts were found to consist of delicate nucleated fibrous tissue. Our attention was chiefly directed to the general health, which had suffered very much from want of sleep. We were especially careful to provide him with a well-fitting tube. This was changed from time to time, sometimes a long tube, sometimes a shorter one, being used. As will be seen, there was no ulceration from the tube below, but above a quantity of granulation tissue had formed itself into something like a membranous diaphragm which easily broke down when touched.

Another case of papilloma of the larynx came under my

FIG. 4.



observation quite recently. The history of the case differs considerably from the last; the child was older, but the exact nature of the obstruction was not made out until after death.

CASE 5. *Chronic Laryngitis; progressive Stridor; Dyspnœa; Tracheotomy; Measles three months later; Death; Autopsy: Papilloma of Larynx.*—Annie D——, aged three years and a quarter, was admitted into the East London Hospital for Children in November, 1882, under the care of my colleague, Dr. Donkin, with a history "that she was well one day and her voice gone the next." The condition of the voice was slowly getting worse week by week, but she was not ill in herself. On admission, the breathing was stridulous and the voice hoarse; there was recession of the soft parts of the anterior part of the chest. The tonsils were very large;

they almost met in the middle line. The diagnosis was chronic catarrhal pharyngo-laryngitis. Every kind of treatment, both local and constitutional, was tried for some weeks without any good effect; her voice gradually became weaker, and her dyspnœa more severe. During an attack of pneumonia, from which she suffered in the following February, her dyspnœa became so urgent that Mr. Battams, the resident medical officer, had to perform tracheotomy. She went on well and seemed relieved of all her dyspnœa, but the voice in no way improved. Many attempts to remove the tube were made, but were unavailing. In process of time she was got up and allowed to play about the ward, and in suitable weather she went out into the garden. In May she caught measles, which was then epidemic in the neighbourhood, on which broncho-pneumonia again supervened, and she died on May 26th, still wearing her tracheotomy tube. The autopsy revealed extensive pneumonia, and the condition of the larynx is depicted in Fig. 4.

It will be seen that there are two large cauliflower-like warts on the left vocal cord, with a crop of smaller warts on the right cord, and scattered about the larynx generally. There were some small flabby granulations around the inner orifice of the tracheotomy wound, but no ulceration in the trachea.

In this case a correct diagnosis would have been of interest, and possibly of service, but the history was insufficient for the purpose; the condition of the tonsils and pharynx generally precluded the use of the laryngoscope, even had the age of the patient not done so to any but such skilled laryngoscopists as Mackenzie or Semon. But a diagnosis might probably have been made from the tracheal wound at the time of the operation had the attempt been made. It is even possible that the warts might have been snipped off; at any rate, the larger warts, which were more or less pedunculated, could have been removed without much difficulty. It is of course doubtful whether the smallest ones could have been removed, but it is equally doubtful whether they were present at the time the tracheotomy was done. I am inclined to think that they may have grown subsequently in response to a long-continued irritation of a mucous membrane with warty proclivities. Such cases, when they can be diagnosed, should be taken in hand at once. Nothing is gained by waiting: the warts spread, they grow larger, and every subsequent operative interference beyond the first one adds to the dangers and uncertainties of the case. If the diagnosis of warts in such a case as the foregoing can be made with certainty, an attempt to remove them one way or another should be made. Since writing this, a case has come under my care in which I have performed thyrotomy, and removed an immense crop of warts filling the interior of the larynx. The child has done well; she is still under care.

(To be concluded.)

SMALL-POX HOSPITALS AND CAMPS.

By R. PRINGLE, M.D.,
LATE OF THE SANITARY DEPARTMENT H.M. BENGAL ARMY.

As there appears to be a very great variety of opinion about the effects of small-pox hospitals and camps on the health of the residents in their vicinity, and in consequence of this on the value of the property adjacent, it may be useful to draw attention to that which, as far as my perusal of the evidence in the Darenth small-pox hospital case, and the letters in the papers regarding the small-pox hospital at Hampstead, and its effects on the neighbourhood, enable me to judge, does not seem to have had that importance attached to it which a thirty years' practical experience of the subject in India would lead me to expect it should claim. I allude to the infection spread by means of the small-pox crusts or scabs. To those who have not seen inoculation as practised from time immemorial in one of its Himalayan homes—viz., the independent native state of Tirri Gharwál—the recognised value of small-pox crusts, not only in producing the disease by inoculation, but in conveying the virus, or infecting matter, from the plains of Hindostan to the Himalayas would be almost incredible, and the way in which the small-pox matter in these crusts retains its vitality, notwithstanding its unprotected exposure to the heat of the tropical sun in June, and the want of either care or method in conveying it during a journey it may be of weeks, in my opinion shows most clearly the very important part these crusts play in the propagation and dissemination of small-pox.

I have no wish here to forestall a paper on the subject of inoculation which I hope to be able to read in May before the Society of Arts, on "The Ancient and Modern Methods of Treating Epidemics of Small-pox in India." Suffice it to say, that it is only the dried matter, as contained in the small-pox scab, which the Himalayan inoculators have used from time immemorial to inoculate with in the following manner. This small-pox scab is powdered down and mixed with a kind of treacle and flour, and applied externally on a surface denuded of skin by means of scratches made by sharp needles embedded in wax, fastened together by blue thread, while, if the supply of this compound is sufficient, a certain quantity is also given internally in the form of pills. When practising vaccination and introducing the prophylactic twenty years ago into these homes of hereditary inoculation, for similarity of operation, with, I need hardly add, the exception of the internal administration, I used vaccine lymph, or matter in the dried state, and then undoubtedly learnt by analogy the very important part these small-pox crusts must play in diffusing the infection of small-pox. To those who have closely studied the subject the very construction of the crust or scab in small-pox seems intended for its diffusion, like the small seeds surrounded by a light tissue substance, which aids greatly in their dissemination by means of the wind alone, and thus the very opening and shutting of a door in a small-pox hospital may blow away a certain number of small-pox crusts into corners and places where they may entirely escape observation, the dried lymph of which may be in a very small quantity, while the surrounding thin tissue of skin may be so considerable as, as in the case of the seed, to enable it under certain conditions almost to float in the air. All that is now necessary is moisture to induce this lymph to germinate, and this is readily obtained in the fluid exuding either from an abraded surface or when taken into the system and meeting with the moisture covering the various suitable internal mucous membranes of the body. This clear dried-up lymph readily powders under friction in a pestle and mortar, and so fine is the powder that it cannot be done with safety except by the aid of water or in a room free from draughts. I have put this to the test of practice in my numerous attempts to inoculate cows and calves by means of fluid lymph and the dried small-pox crusts, in the hope of producing artificial vaccinia, an account of some of which trials can be found in THE LANCET of Jan. 28th, 1882, and June 3rd, 1882.

Now, small-pox crusts are very different from the generality of vaccine crusts, being much smaller and lighter, and, notwithstanding every possible precaution, who is to limit the distance to which some of these crusts may be carried by the wind alone? and when once crushed, even by the foot, who is to tell where this fine powder may not find ground suitable for germinating in? for we must remember the smallest quantity of this powder is quite as active as the clearest and freshest lymph under certain conditions, the chief of which is moisture. As previously noted, no ordinary heat, such as exposure to the unprotected sun's rays in India, destroys the vitality of the germs in this small-pox virus; but excess of moisture in a tropical climate decomposes it to such an extent as to make it innocuous. This can be illustrated by the following, a fact I pointed out some years ago, and recorded in my official reports—viz., that a deficient rainy season in India produced an early and extensive recrudescence of the annual small-pox appearance, by withholding the extra moisture which by decomposition destroys to a very great extent the virus thrown broadcast over the country in the form of these small-pox crusts. Thus, for instance, after an unusually deficient rainy season in India small-pox often becomes epidemic in November, instead of dying out in September, not to be sufficiently revitalised till May. With vaccine lymph the case is different; the heat to which a postal letter-bag is subjected in transit in the plains of India, or when lying on the road-side, from March to October every year, will destroy the activity of the vaccine lymph, unless specially protected by cotton-wool in wooden, not tin, boxes, and despatched in the evening. Now, what are called cycles of small-pox epidemics may thus be traced to the dryness of the season, and the present increase of small-pox in London may be due to this circumstance—viz., the limited rainfall of 1884.

As regards the various stages of small-pox in their relation to infection and contagion, my practical experience has satisfied me that to the fourth complete day, or when the character of the disease is clearly defined, the case is innocuous; and that under any condition, there is only infection in its strict meaning, either when the small-pox virus is in the clear moist state, as seen in the vesicle, or else in the dry state, as seen in the crust or scab. In the former it is at once admitted into the system by means of its own moisture; in the latter it requires moisture from without, and a certain amount of friction to reduce it to powder; or, in other words, the really dangerous period to the public health is in the scabbing stage; the vesicular stage, or that when the contents of the eruption are clear, is after the fourth or fifth day of the eruption, a period no doubt of infection and contagion, but then only within the immediate proximity of the patient, and under peculiar conditions. Till the eruption of small-pox contains a fluid capable of extraction by puncture, and of imparting the disease when inserted by inoculation, it is surely unreasonable to suppose that without this extraction any substance can be evolved from the eruption which could produce and spread the disease by either contagion or infection. Now, the earliest period at which fluid is capable of extraction from the eruption is never met with, even in India, before the complete fourth day; therefore the case till then is innocuous.

As regards the activity of the matter in scabs, according to my experience vaccine operations performed with the clear dried lymph, or matter in the centre of selected vaccine crusts, are as successful as those performed with the clearest vaccine lymph of the sixth or seventh day; but I need hardly state that, except in the instance given, when introducing the prophylactic I would never think of using the virus in a crust when that from a good vesicle was obtainable. As regards small-pox virus, however (if I except the heat generated in a disinfector), the only condition in which its vitality or activity is destroyed is, as pointed out, in the case of an excess of moisture, which appears to effect this result by decomposition; virus, however, naturally stored in the scab, and hid away in a dust heap secure from this moisture, will keep active for months, even in India; but then, in an ordinary rainy season, this protection from rain can only be secured by a limited number of scabs, so to speak; and the resulting sources of contagion being thus very limited, the spread of the disease is equally gradual, until a few cases occur, when the contagion and infection increase in a proportion out of all comparison with any other known similar disease, and this rarely occurs till May or June. In an unusually dry season, however, an increased number of these scabs having escaped this process of decomposition when the weather becomes sufficiently dry to favour their powdering, as it does in October, they become powdered, and the infection and contagion are at once lighted up; and what is termed a cold weather epidemic of small-pox is witnessed, or one that reaches its height in December instead of June. I enter into these details as they are the result of twenty years' practical experience and observation of a country larger than Great Britain, with a population of ten millions, and they may perhaps throw some light on the causes of the late epidemics of small-pox in London.

In 1883 some small-pox crusts, which got mixed with the sugar swept up from the floor of a native sugar factory, and carried by hill men from the plains of Hindoostan to close under the snowy range of the Himalayas, were the cause of an outbreak of small-pox in one of my vaccine lymph nurseries, among the children kept for collecting vaccine lymph for originating vaccine operations in the plains. Vaccination soon stamped this out, as every unvaccinated child was vaccinated, and neither revaccination nor a small-pox hospital were thought of. So satisfied am I upon this point, after having seen the rapidity with which an epidemic of small-pox reaches an alarming height, that I should unhesitatingly state that the worst method of meeting or treating an epidemic of small-pox (except under the condition I give hereafter) is to establish large hospitals or camps anywhere near crowded localities, and the more open and exposed the sites the more chance of the disease spreading. There is only one way to meet and defeat a small-pox epidemic—i.e., by careful and systematic vaccination; and here I speak not from theory, but from repeated practice, and the facts are public property, and can be referred to at any time in the records of the Agra and Meerut divisions of the North-West Provinces during the past twenty years. By careful and systematic vaccination I mean a system of vaccination so universal as to nearly reach the birth-rate, and so careful as to require no revaccination. If small-pox appears among a community reported to be thus protected by vaccination, the fault will be found to lie either in the veracity of the returns or the quality of the vaccine operation. Here again I speak from facts, not theories. In the district of Jalaon in the North-West Provinces, with a population of 380,000, the recorded number of vaccine operations over a series of years sufficiently nearly reached the birth-rate to expect an immunity from small-pox, and yet the disease could not be said to be expelled from this district, as there were yearly many deaths from small-pox. When this district came under my supervision, I at once felt assured that this was due to one of these two causes, judging from the experience of the Dehra Dun district, with a population of 150,000 (and the Military and Civil Sanatoria of Mussoorie, Landour, and Chuckrata in the Himalayan portion of it), where not a single death from small-pox had been recorded for years, and if the disease subsequent to this time appeared at all, it was confined to isolated unvaccinated cases. A careful and impartial inquiry into the system of vaccination in the Jalaon district exposed a system of vaccination on paper to an almost incredible extent, and the exposure in this led to inquiries in other districts in the North-West Provinces and Oudh, when in the second circle, with a population of 17,000,000, a system was laid bare which the Government of India described as a "wholesale fabrication of returns," sufficiently accounting for the terrible mortality from small-pox witnessed in 1882-83. I will, however, do the Government of India the justice to state that, though at first this "vaccination on paper" led to the unusual and rapid promotion of those responsible for it, yet on all the facts becoming known the retirement of the officers concerned alone prevented further proceedings being taken.

Let me illustrate the difference between "vaccination on paper" and vaccination on the arm in the district of Muttra in the North-West Provinces. From 1859 to 1861 vaccine operations by thousands were recorded in the published returns of this district, but, notwithstanding this, in the end of 1863 small-pox in the city of Muttra alone, with a population of 44,000, carried off in two months 3500 children. This fact the recording officer assured me of. In the cold weather of 1882-83, a period of most unusual small-pox prevalence, not one fatal case of small-pox occurred in this city; but here for twenty years I have been practising vaccination without either revaccination or small-pox hospitals. It is in no spirit of self-laudation I make this comparison, but simply to point out the worthlessness of vaccine returns which exhibit results which facts fail to support. I do not for a moment question the veracity of the returns in London, for instance, as likely to show a cause for the present epidemic of small-pox among a population the birth-rate of which is sufficiently protected by recorded vaccination to warrant the expectation that small-pox will be excluded, but, judging by analogy, I cannot help questioning the quality of the vaccination, as I must state that I have seen in a small-pox hospital in London what I have never seen in my circle in the North-West Provinces in India, with its ten millions, during the past twenty years—viz., a hospital of upwards of sixty beds filled with cases of severe attacks of small-pox in many instances following vaccination, which I should most certainly have credited with an immunity from small-pox equal, if judged by the vaccine mark, to that which has carried me safely through small-pox epidemics such as one knows nothing of in this country. Here, in my opinion, lies the whole point at issue. How is this possible? and how is this seen in London with, after all, really its limited area of infection and contagion, when compared with my circle, and where for the last twenty years I have never revaccinated a single native, and discouraged the practice among my two hundred subordinates? Nor need this discouragement be wondered at, for, independent of my not understanding the reason professionally for the operation, in most of the localities in my circle not half the birth-rate was reached by a primary vaccine operation; it seemed to me, therefore, a positive waste of time, lymph, and money, and an inducement to false returns, which the inquiry alluded to fully proved, to go over the work of previous years. My facts relating to this immunity are drawn from what I may term isolated areas of protection surrounded by small-pox contagion

and infection, such as it is impossible to convey any idea of.

It is not the object of this paper to discuss in detail the system of vaccination I adopted, but merely to draw attention to the effects of small-pox hospitals on the health of the locality. The only conditions under which I should consider the collection of cases of small-pox into a hospital justifiable are those met with in localities where vaccination from climatic reasons is not practicable at the time, and with the following instance I will close:—

In 1863, while in medical charge of a battery of Royal Horse Artillery at Morar Gwalior, some cases of small-pox were reported soon after the arrival of the camp of the second Captain of the battery, who had joined from Saugor. I obtained permission to treat these cases in an isolated locality, and collected all I could hear of and had them brought to this hospital tent. They were all admitted before any infection or contagion could be developed (as noted before) by them, either in the localities in which they occurred or those through which they passed to the hospital. The cases (seven in all) were gathered from every quarter of the cantonments, and not another case occurred. The outbreak was thus effectually checked; and, as if to show the success of this mode of treating, and I may add defeating, the disease, the next year these precautions were neglected, and there was not a regiment in the cantonment which did not suffer from small-pox more or less; while numbers of camp followers and residents in the regimental bazaar, on the appearance of the disease, left the cantonments and passed into the native State of Gwalior. The Government, to whom my report was submitted, evidently approved of it, as my suggestions embodied in that report were copied almost *verbatim* into the Government Orders, and are now the standing orders on the subject of the treatment of cholera, small-pox, and similar epidemics. I trust I may not be thought to write too confidently on the subject of vaccination, but after seeing the tests my work of twenty years has successfully stood, and knowing as I do that every successful case of vaccination in a native village has to stand annually an amount of small-pox contagion and infection, which it is difficult to understand in this country, I feel I should be wanting in my duty as a medical officer if I failed to bring this prominently before the public. I am aware that small-pox hospitals are looked upon as a nuisance and tolerated as unwelcome necessities; but with the greatest deference I cannot help viewing them as the worst method of treating a small-pox epidemic, and if they are not necessary in large cities like Meerut and Muttra in India, or districts like the Dehra Dun, it is certainly worth while inquiring into the circumstances which make them necessary in London.

Blackheath, S.E.

ON THE

TREATMENT OF ADHESIONS OF THE IRIS TO THE CORNEA.

BY GEORGE E. WALKER, F.R.C.S.,

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THIS is a subject to which I have given a good deal of attention for many years; and as I have come to look on nearly all cases, even of the most extensive adhesions, if only there be any anterior chamber at all, as susceptible of successful treatment, I venture to offer a few instances of the worst sort for consideration. It is notorious that a very small adhesion of the iris to the cornea renders the eye useless—that is, of course, if the other eye be sound; but if, as occurs in many cases, the other eye be destroyed, the eye is so impaired as to render its possessor a fit inmate of a blind asylum. Yet when the other eye is sound it may be so irritated by the damaged eye as to be rendered of much less use than it ought to be, as in the case of a boy whose education was stopped because whenever he attempted to read, the damaged eye, which had a small pointed synechia very near the centre of the cornea, began to ache and to water, in which action it was speedily joined by its fellow. The division of this adhesion relieved him of all his distress at once. But where it does not cause such active distress as this its influence is bad enough. In a case of similar adhesion occurring in a young man, who had probably passed through such a probation in his childhood, after the division of the synechia, he said, "Before I could only see shadows; now I can see as well as with the other eye." I have at present under my care at the Blind School a young man of about twenty who has one eye totally destroyed, but the other has merely a pointed synechia near the centre of the cornea; the sight is so impaired as to render him incapable of getting his living as a sighted person. I have been unable to induce him to let me relieve him of his embarrassment.

I have selected the following two cases because they appeared to offer the most formidable difficulties in the way of relief:—

A young lady, Miss M——, aged eighteen, came to me on February 16th, 1884. She had extreme divergence of the right eye, and about half the iris was attached to a vertical scar a quarter of an inch long on the inner side of the cornea at about one-eighth of an inch from the edge. She could make out 30 Snellen by putting the letters close to the eye. As her health was not quite satisfactory I postponed the operation till April 3rd, when I thrust a narrow knife through the outer edge of the cornea at the horizontal meridian, getting the point as far under the lower edge of the synechia as I thought I should be able to cut; I then used the knife lever-wise, cutting upwards. In this case I used eserine several times before operating, so that the iris was completely taut, and after the operation atropine with great frequency. Next day, when the pupil was dilated, it was found that a very considerable portion had been freed by the incision, and the pupil was much larger. There was little reaction, and on the 17th I attacked the upper part of the adhesion in a similar way, this time, of course, cutting downwards, with a still further gain of pupil. There was after this also little reaction. The pupil dilated now, so that one could see that the lens was absorbed, leaving the capsule fairly transparent, with the exception of a white bar of opaque membrane running almost vertically across the pupil. On May 7th I performed a larger operation to sever the iris running between the scar and the inner edge of the cornea. This was obviously a matter of greater difficulty than that of severing the upper and lower part of the iris, for the latter could be put upon the stretch either by eserine or atropine; indeed, when unaffected by drugs it was on the stretch, therefore separable with comparative ease, whereas that going from the inner edge of the ciliary region to the vertical scar was slack and incapable of being stretched. I used eserine, but I think it did not help at all. On this occasion I operated differently. I fixed the eye at the inner horizontal meridian, and thrust the knife through the cornea at the lower point of the vertical meridian, then, passing the knife between the scar and the inner edge of the cornea and using it lever-wise, stretched the iris without cutting it, until the point of the knife almost touched the outer edge of the cornea. It was astonishing to see the iris, which seemed to be so narrow, stretch completely across the eye, as a thin bluish veil. When the point of the knife had arrived at the end of this great traverse, I was aware of the iris snapping, but as the aqueous escaped at the same time as I was engaged in getting the knife out of the eye without doing any damage, I did not see how much I had cut; but Mr. Moir, who assisted me, said that there was a great triangular pupil formed. The anterior chamber at once filled with blood, so that it was impossible afterwards to see how much had been accomplished. Of course such an extensive interference with the ciliary region as was involved in the dragging of the inner quarter of the iris across the eye was followed by a serious reaction; yet two leeches in the evening stopped it, and with the aid of mercurial inunction the pain ceased, and the blood was absorbed; whilst in two or three days after the operation it was seen that the whole of the adhesion except a small band at the upper end of the scar was severed. For some time there was no red reflex, so that it was impossible to see what had taken place behind the iris; but the media gradually cleared, and then it was seen that there was a delicate veil-like opacity floating just behind the scar. On May 28th she made out Snellen 15, and later 8. But as my patient has not got central fixation, it is to be feared that the improvement to be expected is rather in the appearance of the eye than its use. It is obvious that had the synechia been divided soon after the injury the eye would have been as useful as a lensless eye can be.

Now, this case of peripheral synechia is one of the most difficult to treat when left alone for a long time. The iris is

not on the stretch, but, on the contrary, is folded on itself. It atrophies, for it is never used; whereas the iris when attached to a wound near the centre of the cornea is always on the stretch. But attacked early, these peripheral adhesions are by no means difficult to treat, as will be seen by the following case.

A. B——, aged forty-two, was struck on the eye by a piece of metal, which produced a wound of the cornea, beginning at the outer edge at a point midway between the horizontal and upper extremity of the vertical meridian and extending vertically downwards below the horizontal. In this the iris was engaged. I tried to thrust this back by pressing it through the wound with the back of a knife, but in vain; so waiting a few days, I operated as I did in the case of Miss M——, thrusting the knife from below, insinuating it between the wound and the outer edge of the cornea, and then pressing the iris towards the centre. The iris was disengaged from the wound without being cut; the lips of the wound closed without escape of aqueous; and, with the exception to be noted, all soon became well. The exception was this: I found, a few days after the operation, that although all the pupillary edge of the iris was free from the wound, a little of the outer part of the iris was engaged in the upper end of it. However, the man found his eye quite free from trouble; he apparently did not share my anxiety to polish the matter *ad unguem*, for a hint at further interference was followed by his ceasing to attend. This "stroking out" of the iris without cutting seems to be a very valuable addition to our therapeutics, but its applicability is limited. I tried it soon after in a case which I shall next describe; but the eye was not stiff enough, for the attempt simply caused it to "buckle."

A boy, aged twelve, came with a wound of the cornea and sclera extending from a little outside the centre of the cornea in the horizontal meridian to a point about a line from the edge of opaque tissue. The iris was engaged in the whole length of the wound, and the lens was also cut. After the failure of the attempt I waited until the eye became firmer, when I operated as in the case of Miss M——. The attachment was so tough that nine operations were required for the complete severance of it. But the result well warranted the procedure, for every particle of iris was separated from the scar. As I have mentioned above, I tried to stroke out the iris, but there was not sufficient stiffness in the eye to afford counter-resistance. I now come to the last of the cases, one of which, I think, deserves to wind up the series.

A young gentleman, aged nine years, was brought to me by his mother on Feb. 18th, 1884. She stated that three years before he had accidentally been stabbed in the eye with a pen. I found a starred scar in nearly the centre of the cornea, to which all the iris, except enough at the lower and inner part to form a pupil, after free use of atropine, as large as a pin prick. The upper and inner quadrant of the edge of the cornea was so flattened by the piece of the imprisoned iris that at first sight the eye seemed hopeless. But I found after a prolonged examination that he managed with much oscillation of the eye and movement of the paper to make out No. 200 of Snellen, and I therefore decided to attempt to save the eye instead of advising its excision, as at first I was inclined to do. On the 23rd, assisted by Mr. A. Moir, after using atropine freely, I chloroformed the patient deeply, and then fixing the eye at the upper and outer part, thrust through the cornea at its outer edge, a little below the horizontal meridian, a narrow knife, fresh from the cutler, between the iris and the cornea, until the point was well beyond the inner edge of the adhesion; then by raising the handle and using the knife lever-wise depressed the blade against the tightened iris. To my delight the whole of the iris, except a minute bit at the lower and and outer part, which indeed could not be influenced by the knife in this position, gave way. Atropine was freely used afterwards. The eye gave little trouble, although the boy suffered a good deal from the effects of the chloroform. This was due to his digestion being deranged, but the treatment to which he was subjected for this enabled him to bear three subsequent chloroformings without any trouble. He had now, instead of a pinhole pupil, a good sized one, and on March 6th, with a $2\frac{1}{2}$ + he made out a few of the letters in 20 Snellen. By this time we could see that the lens had been wounded, as indeed we had inferred. He was then sent home. On March 21st he read 15 Snellen, and on that day I divided the remaining bit of iris, using the knife as before, excepting that the eye was fixed below, and the knife made to cut upwards. The pupil further dilated, and the reaction was so small that he was able to go home on the 27th. On April 17th he could spell 1·5 Snellen. I now could get a thorough examination of the pupil, when I found this condition:—After the first cut the inner central part of the iris had fallen on, and adhered to, the capsule of the lens; but that the upper was free. From the outer edge a filament of brown tissue extended to the scar. How this came about I cannot be certain; but I imagine the aqueous escaped, after the last operation, during retching, and that the edge of the iris became attached to the scar for a short time, and then receded as the aqueous was restored, leaving the spider-like thread of uveal exudation. I wished at the next operation to divide this, and to cut the capsule; but the knife was bad, and let out the aqueous as soon as I used it lever-wise. However, I found that I had divided the filament, and although I had not cut the capsule, I had disturbed it so as to let the pupil dilate considerably. On the 22nd his vision was $\frac{1}{18}$, and on the 29th $\frac{1}{24}$. On May 14th I made an incision in the capsule, and got a good-sized pupil, the operation causing no shock to the eye; on the 19th his vision was $\frac{1}{6}$ m., and Jaeger 1, and on the 24th $\frac{1}{5}$ m. Of course this case is exceptional, and one must expect few of such brilliancy. I think, however, I have shown that it is possible to give relief in a class of disease the formidable nature of which was well summed up by an ophthalmologist of the very highest repute on the Continent, who in reply to my telling him that I was in the habit of dividing anterior synechiæ, said, "You had better leave them alone; you will do more harm than good."

Finally, in performing these operations it is necessary to bear in mind these two axioms: first, you must make your corneal puncture at such a point as will afford the greatest sweep of the knife; and, second, that you should so manage the heel of the knife as to cause no loss of aqueous until the adhesion is severed. It is not always easy to decide beforehand whether a myotic or mydriatic should be used. One would think that for a central adhesion a mydriatic would be always the best, but in one case I failed twice to cut a central adhesion under the influence of atropine; whereas in a third attempt under eserine it gave way at once. Another point: the knife ought to be fresh from the cutler. I seldom attempt more than two or three such operations with one knife, which of course afterwards will do quite well for operations of inferior delicacy.

Liverpool.

CHRONIC CARDIAC ANEURYSM.

A CASE OF ANEURYSM OF THE WALL OF THE LEFT VENTRICLE AND OF THE MITRAL VALVE IN THE SAME SUBJECT.

BY HENRY HANDFORD, M.D.

I MET with the following case in the post-mortem room of the General Hospital, Nottingham, in July, 1883. The patient had been admitted a few weeks previously under the care of Dr. Brookhouse. He was an iron moulder by trade, and had led a "roaming wild kind of life." There was no distinct history of syphilis or of rheumatism. He was thirty-six years of age, and was not aware that he was in any way ill till about a year ago. He had only been unable to work for about ten weeks. He had great dyspnœa, and œdema of both legs and of the scrotum, which latter was twice tapped with Southey's trocars and about twenty fluid ounces removed on each occasion. He had a systolic mitral murmur and a double aortic one. The diastolic aortic murmur was conducted best down the sternum and to the left, but was not heard at the apex. He complained occasionally of præcordial pain, but not very specially. He was only passing sixteen ounces of urine daily on admission, but the amount gradually increased up to forty-six ounces. He seemed to be improving considerably, but died suddenly in the night of July 2nd, 1883.

Necropsy, twelve hours after death.—Rigor mortis slight. Head, neck, and shoulders very livid. The pericardium contained about four ounces of clear straw-coloured fluid. There was a milk spot about the size of a shilling on the anterior surface of the right ventricle. Fibrinous, partially decolourised coagula were found in the cavity of the right ventricle and in the pulmonary artery. The clot in the pulmonary artery was not adherent to the walls of the artery.

There was a very small coagulum entangled in the mitral valve. The aortic valves were incompetent. The weight of the heart after it had been opened and its cavities thoroughly washed was twenty-eight ounces. The aorta was dilated and atheromatous, one or two patches becoming calcareous. The latter change was evidently only just commencing. The left anterior segment of the aortic valve was much thickened and indurated. The other two segments were not much altered. Between the left anterior and the posterior segments of the aortic valve, just at the base of aortic segment of the mitral valve, was a rounded opening, with a sharp fibrous margin, about the size of a fourpenny piece. It led into a cavity as large as a small walnut, which projected into the left auricle. The cavity was not lined with fibrin, and its walls consisted of fibrous tissue about one-twentieth of an inch thick. Between the right anterior and the posterior segments of the aortic valve was a circular patch the size of a sixpence, where the endocardium was softened and yellow; this also had a sharp fibrous margin, and was very slightly depressed. This was more evident on passing the finger over it, when the depression and the yielding nature of the patch, with its sharply defined margin, readily suggested a commencing aneurysm similar to the one on the other side. At the left border of the left (posterior or inferior) segment of the mitral valve was the opening of another cavity, very slightly smaller than the first, and also projecting into the left auricle. It had a prolongation into the left ventricle between the cusps of the mitral valve, and this prolongation had ruptured, and had a small, smooth opening at the extremity. It seemed to be an aneurysm of the posterior segment of the mitral valve, which had projected in two directions—both into the left auricle and into the left ventricle,—and the latter portion had given way. The aneurysm of the wall of the left ventricle, which I have already described, and which projected into the left auricle, was not ruptured, neither had the portion of the aneurysm of the mitral valve which projected into the auricle ruptured. Thus, there were two sharply circumscribed, rounded and tuberculated swellings projecting into and partially filling the cavity of the left auricle. The endocardial lining of the left ventricle and of the left auricle was much thickened, that of the right ventricle only very slightly so. The fossa ovalis was very deep, and a very oblique opening existed into the left auricle, through which a probe could be passed. The right ventricle was much dilated and hypertrophied. The columnæ carneæ were very numerous and prominent, and the heart muscle between the reticulations had in many places almost disappeared. At the apex of the right ventricle the cardiac wall was barely one-twelfth of an inch thick, and consisted of thickened pericardium and fibrous tissue lined by the endocardium, with scarcely a trace of muscular structure left. The columnæ carneæ in the left ventricle were unusually numerous, and many of them were reduced to mere fibrous cords. There was one two inches and a half long, attached at both ends and free in the middle, passing from the upper part of the anterior wall of the left ventricle towards the apex, and as thin in most of its course as a thread of ordinary sewing cotton, but still quite firm. Another, somewhat like it, was an inch and a half long. Both of these were on the anterior wall (septum) of the ventricle, near the commencement of the aorta, and in a part otherwise quite smooth and free from columnæ carneæ. The left auricle was considerably hypertrophied and dilated, as was also the left ventricle. The tricuspid valve was normal, but the auriculo-ventricular opening was dilated. The pulmonary valves were normal. The lungs were congested, and in a state of brown induration. The liver weighed seventy-two ounces, and was markedly in a condition of cyanotic atrophy. The gall-bladder was small, and nearly empty. The spleen was very firm, much indurated, and weighed nine and a half ounces. The kidneys were very hard and firm, the capsules very slightly adherent; surface pretty smooth. On section they were seen to be much congested. The cortex was not diminished in extent. The pyramids were very dark. The left kidney weighed eight and a half ounces, the right eight ounces.

Remarks.—The condition of the aortic valve was a satisfactory confirmation of the observation of the direction of propagation of the diastolic aortic murmur, according to the views expressed by Dr. B. Foster in his "Lectures and Essays on Clinical Medicine," page 127—viz., that an aortic diastolic murmur, propagated to the heart apex usually means incompetency of the posterior (or mitral) aortic segment; and that an aortic diastolic murmur propagated down the sternum towards the ensiform cartilage indicates incompetency of either the left coronary or the right coronary segment, by which the regurgitated current is thrown more upon the septum of the ventricles. The systolic mitral murmur is sufficiently explained by the aneurysm of the posterior segment of the valve, but more especially by the projection between the cusps of the valve of the prolongation of the aneurysm as described above, so preventing the valves closing properly and rendering them incompetent. It is doubtful whether the aneurysm of the wall of the left ventricle gave rise to any murmur, and if it did what its rhythm was. There was no murmur detected during life which could not be accounted for by the condition of the valves found post mortem. I should expect the aneurysm of the wall of the left ventricle to be filled during the ventricular systole and emptied during the auricular systole, because it projected into the left auricle, and would be compressed when the auricular walls contracted; in which case two murmurs might be produced—the one, occurring on the filling of the aneurysm, would be lost in the aortic systolic murmur, and the other, occurring on the emptying of the aneurysm, would be auricular systolic in rhythm; but no such murmur was detected during life. The aneurysm of the mitral valve, as it had ruptured at one part, would allow a free reflux of blood through it into the left auricle during the ventricular systole, and would, no doubt, give rise to a murmur which would form part of the mitral systolic murmur heard during life.

Nottingham.

THE FROG'S BLADDER AS AN OBJECT FOR THE STUDY OF THE EMIGRATION OF WHITE BLOOD CELLS.

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THE vigorous remonstrance of Mr. T. Wharton Jones, in a recent number of THE LANCET, against the belief in so well-established a phenomenon as the emigration of the white blood cells through the walls of the capillaries and small veins would seem almost comical to those accustomed to observe and demonstrate it were it not for the evident earnestness and sincerity of the writer. It is not the purpose of this short article to add more testimony as to the occurrence of emigration, since the negative results of a single observer cannot be considered as seriously militating against the actuality of a phenomenon attested to by hundreds of trained workers, who have carefully followed every stage of the process under the greatest variety of conditions. The writer wishes simply to direct attention anew to the bladder of the frog as an object in which every phase of emigration may be followed with an ease and certainty which do not belong to either of the more commonly employed objects namely, the web, tongue, or mesentery, although it may be readily enough seen upon these. The writer's attention was called to the advantages of the frog's bladder for such purposes several years ago by Prof. Julius Arnold of Heidleberg, by whom it was employed for some of his interesting and most important studies on the phenomena of inflammation.

The abdomen of a frog, which has received the minimal dose of curare requisite to secure immobility, is opened by a lateral incision through the abdominal parietes, a little posterior to the axillary line and extending from the inguinal fold up about half way to the axilla. A glass cannula, bent at about one centimetre from the tip to an angle of less than 45°, is connected by a small rubber tube with a Mariotte pressure bottle containing ¾ per cent. salt solution. The tube and cannula being filled with the salt solution, the tip of the cannula is introduced into the anus, carried into the cloaca, and then directed forward into the bladder. In this position it is held by a thread passed through the skin behind the anus and tied around a constriction in the shank of the cannula. The animal being placed on its back upon any frog-plate suitable for irrigation (one of the forms devised by Thoma and modified by Arnold for this purpose is most

convenient), the salt solution is allowed to run in the bladder from the pressure bottle until the former is partially distended and pouches out at the side through the abdominal opening. The bladder being a bilobed organ, it is well to lay a small weight on the abdomen over the lobe which is not pouched out, in order that the salt solution may collect chiefly in the exposed lobe. By careful manipulation serious disturbances of the circulation may be almost entirely avoided. The bladder may be covered, and its superior surface slightly flattened by a thin cover-glass, beneath which a constant stream of salt solution may be carried through a fine pointed cannula connected with a second pressure bottle. Thus the exceedingly thin wall of the bladder, containing an abundance of venous and capillary bloodvessels, and bathed without and within by salt solution, may be brought into view with high power lenses (inversion lenses are readily applied), and with no intervening tissue except the endothelium to interfere with the clearness of vision. Every detail of the process of emigration can here be seen with exquisite distinctness, and, moreover, which for demonstrative purposes is of great importance, emigration commences almost immediately upon the exposure of the organ, often within thirty minutes, and usually proceeds with a vigour and rapidity which are surprising to those who have been accustomed to work with the mesentery, tongue, or web.

Almost the sole drawback to the use of this organ for such studies is the slow movements which it is liable to make owing to the contraction of smooth muscle fibres in its walls. But if the animal be kept well under the influence of curare by sufficiently frequent very small doses of the drug, and if the bladder be kept well distended and the animal covered with moistened blotting-paper, this movement may be so far reduced as to permit of a continuous observation of any selected point for hours. For purposes of instruction, the bladder possesses another important advantage, in that after the inflammatory phenomena have been sufficiently observed the animal may be killed, and the entire body, with the bladder distended to the same degree as when under observation, may be placed in Müller's fluid or diluted osmic acid, and every cell and tissue element hardened *in situ*. It is possible in this way not only to follow every phase of the process of emigration in a particular white blood cell or in a number of these, but also by carefully mapping out the topography of the place under observation to find in the preserved and stained organ from which, after hardening, the portion under observation in the living condition has been cut, the particular cells whose evolutions have been followed during life. Under these more favourable conditions their minute structure may be compared with that of their fellows which still remain within the vessels or sticking in the walls, and also with the nuclei of the walls of the vessels themselves, from which they differ so materially in structure that the two could hardly be mistaken for one another by a competent microscopist. It appears to the writer that in the prevailing *furor* for bacterial investigations, the study of the phenomena of animal cell life is in danger of being neglected; and it is rather in the hope of contributing to the ease and certainty with which these studies may be pursued, than with the purpose of overcoming scepticism as to the actuality of the emigration of the white blood cells, that the above details are formulated.

New York.

VAGINAL EXTIRPATION OF THE UTERUS, TOGETHER WITH RIGHT OVARY, FOR MALIGNANT DISEASE.

SUCCESSFUL CASE.

BY F. A. PURCELL, M.D., M.CH.,
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MRS. M. A. G——, aged forty, was admitted into the Cancer Hospital on September 15th, 1884. A strong, well-nourished woman, with no family history of cancer, married, and the mother of five children, the youngest four years old. Her illness commenced four or five months since; three months ago she had a small mass the size of the little finger removed from the os by Dr. Archer. She complained of pain at the bottom of the stomach, with difficulty in walking, and suffered from severe losses. The vagina was found occupied by a papillomatous growth attached to the os and left vaginal wall, being excessively vascular; on the slightest digital examination free hæmorrhage ensued. On September 23rd the patient was placed on the operating table, anæsthetised by Mr. Bailey, her legs fixed in the lithotomy position with Clover's crutch, the wire of the galvanic écraseur was manipulated around the base of the tumour, fixed, the connexions completed, and the growth removed without loss of blood. The tumour was about the size of a cricket-ball. Not feeling satisfied that all the disease was removed, for while examining the charred portion my fingers passed through the left wall of the vagina, I decided that the only chance for the patient being freed of the disease was to extirpate the whole organ. With the consent of my colleagues, therefore, I at once proceeded to do so. Withdrawing the hand, the parts were well syringed out with carbolic lotion (1 in 40) and all other antiseptic precautions taken. I now reinserted the hand, and passed it through the rent, pushing the anterior vaginal fornix, and with it the bladder and its peritoneal duplicature, upwards off the fundus of the uterus; gradually the fingers got over the fundus and by a little manipulation it was turned over anteriorly and brought comparatively easily downwards, the round ligament of the left side sufficiently stretched downwards and brought into position so as to pass a double thread around; both were tied, and the stump was clamped with two of Wells's forceps; the parts were cut between with scissors; the left ovary and some pale-yellow omental fat pressed into view. The ovary, appearing healthy, was pushed back, and a carbolised sponge with string attached was passed up to prevent further protrusion. Still drawing down the fundus, the right ovary then presented in a cystic condition, being about the size of a hen's egg; this, tapped and gently drawn down, was followed by its Fallopian tube, along which were seen several smaller cysts. The round ligament now held the uterus; this was tied, the stump clamped and tied, as was done on the other. The uterus and its appendages were held by the walls of the vagina. This I peeled down, and fixing the galvanic wire around severed and released the whole. Free bleeding from several of the posterior vaginal vessels, one very large, gave trouble. The parts were pressed into view by my assistant passing his two fingers into the rectum and everting the posterior vaginal wall. The large vessel was with some difficulty seized with a pair of torsion forceps; four in all had to be applied to completely control the hæmorrhage; these were allowed to remain on. The stumps of the round ligaments were cautiously unclamped, the sponges removed, a glass drainage-tube inserted, a self-retaining catheter passed into the bladder (the parts around the drainage-tube and the four forceps were plugged with iodoform absorbent wool tampons), the crutch removed, the patient's knees tied together, one grain of morphia administered hypodermically, and, after an operation lasting one hour and a half, the patient returned to bed in the general ward. The peritoneal torn edges were not brought together; all antiseptic precautions were taken excepting the spray; the uterus was removed with the peritoneum intact over its fundus; the ureters and trigone of the bladder were uninjured; all disease of the walls of the vagina was as far as possible scraped down.

The abridged record of treatment is as follows: Two ice-bags were kept continuously applied to the abdomen until the fourteenth day after the operation, to which may be fairly attributed the localising of the peritonitis; ice and brandy, followed by Brand's essence of beef (jelly), were given by the mouth; nutrient enemata were administered continuously every four hours for seven days; a quarter of a grain of opium was given in pill every three hours until the seventeenth day; the four Wells's forceps applied to restrain the hæmorrhage were gently slipped off thirty-six hours after the operation; no secondary bleeding ensued; the vagina was assiduously syringed out with warm carbolic (1 in 40) lotion three times a day, and at each dressing the parts were plugged around the glass drainage-tube with some eight iodoform wool tampons, at the same time the parts were freely dusted with iodoform; the drainage-tube was removed on the tenth day. The bowels were first moved with some difficulty by giving compound rhubarb pills and two castor-oil enemata on the evening of the thirteenth day. This caused the only rise of temperature (100·2°) that took place after the first five days from the operation. The temperature on the day after the operation rose to 101·4° at noon, falling on the third day to 99°, and varied from 100° to 98·6° until the sixth day, when it dropped to normal, at which it remained, except when the aperient enema was given which caused

the sudden rise to 100·2°, to as suddenly drop to normal. The catheter was removed altogether on the morning of the sixth day, when the urine was drawn off until the fourteenth day. For some little time she experienced vesical irritation, but this passed away. Her legs, which were kept well bent by having two pillows tied behind the knees, were allowed down on the fourteenth day; now considered gradually convalescing. The patient was allowed up on the twenty-fifth day after the operation. She ate well; all stimulants discontinued since the fifteenth day She looked well. On examining the parts the vagina was found quite healthy and smooth; no indication of any growth; the finger passed into a cul-de-sac, where a transverse slit was felt, being the position of the os, with no special contraction of parts; no pain; no discharge; little bladder irritation, only after micturition; bowels regular; appetite good; thoroughly convalescent.

Discharged from hospital on Nov. 4th, forty-second day after operation. She was anxious to leave several days before I gave consent, as I wished my colleagues to examine her.

I cannot omit to mention the great skill and attention bestowed on this patient by Mr. Briscoe, our house-surgeon, whose lot it was to have the care of the two vaginal hysterectomy cases operated on by Dr. Wm. A. Duncan, and the second brought to a successful issue; I cannot too highly praise the nurses who were in charge. To my colleagues and to Mr. Jessett I tender my thanks for their kind assistance at the operation.

In the present state of abdominal surgery it is difficult to say what are its limits; but it is one thing to determine what is possible and another what is advisable. To the German surgeons belong whatever credit is due for the modern revival of vaginal hysterectomy; their results were known to be much ahead of those obtained in this country, where they had been bad; their mortality may be put down at 28 to 32 per cent. We may, it is hoped, regard the vaginal extirpation of the cancerous uterus as an eminently rational one in an affection so surely fatal when left to itself as carcinoma, claiming for it no more nor less than what is to be expected from excision of the tongue or rectum, or amputation of the breast. Abdominal hysterectomy is a very fatal procedure; its mortality has been 68 per cent. (Hegar and Kaltenbach), and the death-rate does not appear to be diminishing by increased experience; vaginal hysterectomy, on the other hand, yields more promising results, and is progressively improving in its death-rate, and should be persevered in with the hope that it will ultimately become a far more successful measure than it has proved to be up to the present date.

As no closure of the peritoneum was undertaken in my case, we must presume that a limiting membrane is thrown out by the plastic peritonitis excited by the operation. The bladder falling back on to the posterior wall of the vagina and rectum closes in the depending aperture formed by the removal of the uterus and its right ovary, which was cystic, and its Fallopian tube. In the case of cancer of the cervix uteri the frequency of the disease makes the question of treatment one of ever-persistent importance; the disease is manifestly localised, and not general in many cases, and a hope of cure is not to be denied. Practice seems to have separated itself into two widely divergent lines. On the one hand, to treat the disease by extirpation of the whole organ, or by the supravaginal excision; and, on the other hand, to remove the disease only in those cases in which a protuberant mass presents itself namely, the partial operation on the cervix, with the addition of the application of chloride of zinc, potassa fusa, bromine, or the actual cautery. This latter practice implies the abandonment of "some" women whom a more hopeful view might have helped to cure, and very many of whom might have been relieved, not reckoning of course the immediate risks of the operation. Herein lie the vital importance and necessity of seeing and operating upon cases in their initial stages, if women are to be relieved from misery and suffering and death. Of the final results of the vaginal operation our information is scanty and requires a more rigid following up of each case. Freedom from recurrence may be placed at an average of fourteen months. The prognosis will no doubt improve, especially if the operation be performed early and radically; even if a recurrence take place, the patient suffers little towards the end of her life comparatively, for the disease generally does not recur on the cicatrix in the vaginal fornix. It spreads upwards on to the pelvic cellular tissue, and the patient is saved from hæmorrhage and ulceration.

N.B.—The specimen was shown on Wednesday evening, 14th inst., at the Obstetrical Society of London.

Manchester-square, W.

NOTE ON THE

ACTION OF PARALDEHYDE, THE NEW HYPNOTIC.

BY S. A. K. STRAHAN, M.D.,
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PARALDEHYDE, which was first used as a therapeutic agent by Dr. Cervello, of Palermo, some eighteen months ago, has not received in this country the attention it deserves. As a sleep-producer it stands in the same rank with chloral; while in anything like moderate doses it approaches in safety that safest of all sedatives, bromide of potassium. I have employed it over 150 times in about twenty-five cases, and have found but two patients who did not respond to medium doses of the drug. One of these was suffering from acute mania, and the other from severe facial neuralgia. I have given it in mania, acute and chronic, melancholia, dementia, the various stages of general paralysis, during those periods of restlessness and sleeplessness so often met with in idiots and imbeciles, and in simple insomnia, and have found it almost invariably a certain somniferent. Paraldehyde acts more quickly than chloral. When a dose is taken a feeling of warmth, a kind of grateful glow, is experienced, and the patient is often asleep within ten or fifteen minutes. When it does not produce sleep it does not excite, but rather tends to soothe and calm an excited or depressed patient.

The sleep induced by paraldehyde is, I think, a nearer approach to natural sleep than that obtained by the administration of any other drug. It is light, apparently dreamless, and certainly refreshing; the patient can at any time be awakened by a loud word or a gentle shake, and when so aroused does not display any alarm or confusion of ideas, and if left alone at once falls to sleep again. During this sleep the breathing is somewhat slower and deeper than in the waking hours, while the pulse becomes slightly less rapid, and possibly stronger. The temperature (surface) is not changed, the flow of urine is increased, and the skin is not affected. No headache or other unpleasant symptom is experienced on waking, and the appetite is not injured even by the daily exhibition of the drug for considerable periods—in one of my cases for over three weeks.

The dose is from thirty to ninety minims, but more than sixty drops is seldom required to induce sleep; and this, or even a smaller dose repeated within an hour, is much more effective than a single large dose. The paraldehyde is best given as its first adminstrators recommend—that is, with a bitter tincture in sweetened water. It has a pungent taste, but a drachm when combined with fifteen drops of tincture of orange and an ounce or more of water sweetened with syrup makes a not unpleasant draught, never in my experience causing nausea or vomiting. The drug is given off principally or wholly by the lungs, and may easily be detected in the breath for ten, twelve, or more hours.

To sum up now all that can be said in favour of this drug. It is an equally sure hypnotic with chloral, it does not in any case produce excitement before sleep, it leaves no headache nor other unpleasant symptom on awaking, and it does not affect the appetite. These are all matters of not slight importance, but there is one advantage which this drug possesses over chloral which at once gives it a place among our most useful hypnotics, and that is the absence of any depressing or paralysing action on the heart. This absence of action upon the cardiac centre permits of its being given with perfect safety to general paralytics and others to whom chloral would only be given with the greatest caution and with constant anxiety as to the result of even small doses. The new drug may not take the place of chloral in everyday prescribing, but it must supplant it in those, unhappily numerous, cases in which the action of the sedative upon the heart is to be feared and yet where sleep is often so much to be desired.

Paraldehyde may yet be found to be possessed of other

useful properties. I have given it in a few cases of facial neuralgia. In two cases it acted like a charm, while in all the others its effect was *nil*. I have also found it useful in a case of "nervous headache."

Northampton.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.* lib. iv. Proœmium.

KING'S COLLEGE HOSPITAL.

SIMPLE DEPRESSED FRACTURE OF SKULL; TREPHINING; RECOVERY.

(Under the care of Mr. WILLIAM ROSE.)

FOR the following notes we are indebted to Mr. Penny, house-surgeon. (This case was brought under the notice of the Fellows of the Medical Society, Jan. 26th, 1885.)

H. C——, aged thirty-three, was brought to the hospital at 12.15 A.M. on Nov. 25th, having fallen down a flight of stone stairs. He was insensible; respiration stertorous; pulse very feeble; pupils equally dilated and reacting to light; he had passed urine and fæces in his trousers; there was no evidence of his being in liquor. There was a depressed fracture of the skull, which could clearly be felt, although the scalp was not wounded, one inch and a quarter to the left of the median line, and close to the left occipito-parietal suture. When put to bed, he lay perfectly motionless for about three-quarters of an hour, after which he began to moan and move his limbs slightly, commencing with his arms, his right leg being the last to move. There was no bleeding from the ears, nose, or mouth. A large hæmatoma rapidly developed under the scalp at the seat of injury. He was seen at 1.30 A.M. by Mr. William Rose, who decided to cut down upon the fracture, the patient being still unconscious, and the history of the accident and the abruptly defined nature of the fracture pointing probably to splintering of the inner table. The patient was placed under chloroform in the theatre, and under the carbolic spray an incision about two and a half inches long was made over the most depressed part, and another at right angles, to give additional room to work the trephine, which was then applied close to the edge of the sound bone. The pericranium was carefully detached and turned aside. There appeared to be one long fissured fracture running antero-posteriorly, with two others radiating off at right angles, comprising between them the portion of depressed bone, which, as far as could be ascertained, might have measured a square inch. The diameter of the trephine used was three-quarters of an inch. On removing the semicircular portion of bone, the elevator was inserted, and the bone, which was depressed about the thickness of the skull, was elevated. Two small spicula of the inner table were found loose and removed. As far as could be seen, the dura mater was intact. The wound was then carefully examined for other loose fragments, and none being found, the bleeding points were secured by catgut ligature, the wound united with carbolised silk sutures, a small drainage-tube inserted through the thickness of the scalp only, and dressed with protective and carbolised gauze. The patient vomited freely during the operation, and afterwards became very restless. An ice-bag was applied to the head outside the dressing, and hot-water bottles to the feet. At 3.50 A.M., however, he was sleeping quietly. Respiration 20; pulse 96; temperature 99°; feet warm. At 10.30 A.M. he could be roused to answer questions, but occasionally gave wrong answers. He kept fairly quiet if not touched, but objected to be moved, especially to having a catheter passed; twenty-four ounces of urine were drawn off. 2.30 P.M.: Complained of frontal headache; no pain at back of head; wound dressed; a good deal of bloody discharge; wound looks well. Temperature 99°; pulse 120. Five grains of calomel were ordered. 6 P.M.: Gave so much trouble, and excited himself so much when urine was drawn off, that chloroform was administered for the purpose.

Nov. 26th.—Very restless at night; says the pain is not at back, but in the front of head. Takes about forty ounces of fluid in twenty-four hours. Evening temperature 99·4°; pulse 108. Ordered five grains of calomel and fifteen grains of powdered jalap. He is much more sensible and intelligent, though he sometimes attempts to pull off his dressings and gives wrong answers to questions.

27th.—Bowels opened freely, and passed urine for the first time since the operation. Expresses himself as much better and in less pain. Wound dressed; very slight discharge; drainage-tube left out. In the evening complained of pain over the right parietal bone; very thirsty, and has taken five pints of fluid in twenty-four hours. Still restless if disturbed.

28th.—Slept well; not so restless, and is quite sensible; answers questions well. In the evening the pain over the right parietal bone was worse. Three pints and a half of fluid taken in twenty-four hours. Temperature 98·2°; pulse 68. Ordered five grains of calomel and fifteen grains of powdered jalap.

29th.—Very restless, with severe pain all over back of the head; cannot bear the least noise, movement, or bright light. Pupils still equal and react to light. Isolated and room darkened.

30th.—Wound dressed; healed, except track of drainage-tube. Stitches removed. Ordered two grains of calomel every six hours. Much easier after dressing. Temperature 97·2°; pulse 68. Feels hungry. Allowed a little toast and tea.

Dec. 2nd.—Wound dressed; still a small speck not healed. Can hear very well with both ears. Has rather a vague idea of time (in a darkened room). Can remember nothing about the accident. Temperature 98·2°; pulse 70.

4th.—Slept well. Much more cheerful and pain in the head almost gone. Noise irritates him much less. Allowed a little fish, which he enjoyed.

5th.—Noise does not irritate him. No pain in head. Asked to see a newspaper.

6th.—Taken back to general ward. Enjoys the company.

11th.—Wound quite healed. Some tenderness over scar.

13th.—Allowed to read, which causes no headache. No tenderness. Wishes to go home.

15th.—Discharged on the twentieth day from admission. Total number of dressings, six.

HOSPITAL FOR WOMEN, NOTTINGHAM.

CASES UNDER THE CARE OF DR. GEORGE ELDER.

THE first and second are cases of obstruction of the lower bowel, in the one case by syphilitic stricture, in the other by pressure around the rectum, diminishing its calibre. Both patients did well after the operation of colotomy, and each enjoys a prospect of a greatly prolonged life. In the third case Dr. Elder successfully removed part of the scapula for sarcomatous tumour growing from the bone. The operation, as is usual, was protracted, and there was considerable hæmorrhage. Two months later there was no evidence of recurrence.

CASE 1.—*Syphilitic Stricture and Ulceration of the Rectum; Colotomy; Recovery.*—Mrs. R——, aged fifty years, was admitted into hospital on July 10th, 1883. In addition to a history of syphilis acquired some years ago and neglected, there were evidences of it in the legs in the shape of the remains of rupial ulcerations and tibial nodes. No trouble in defecating was noticed till three years before admission, and this has increasingly become worse; until now the habitual use of aperients is required; but on account of the pain it entails, the patient dreads a movement of the bowels. Of late there has been an almost constant tenesmus and oozing of liquid fæces and muco-pus, and the excrement is formless. As a consequence of the exhausting nature of the discharges, the pain and the interference with nutrition, patient's general health has become very much impaired. On examination it was found that in addition to some degree of ulceration there existed a tight cicatricial contraction of the lumen of the bowel an inch above the anus. Left colotomy (loin) was performed on July 11th. There was no difficulty about the operation, but the progress towards recovery was retarded, first, by suppuration in the track of two of the sutures (carbolised silk); secondly, by formation of pus amongst the connective tissue at the sides of the bowel. Yet, notwithstanding these drawbacks, the patient went out on August 3rd much relieved and benefited by the operation. For some months she appeared amongst the out-patients, seemingly in perfect

health, rid of her former pains and complaining only of the discomfort which an artificial anus entails.

CASE 2. *Extra-peritoneal Hæmatocele; Rectal Constriction; Colotomy; Recovery.*—Mrs. R——, aged twenty-four years, was admitted into hospital on June 5th, 1884. The history of the case runs shortly as follows. Married three years and a half; her health, which had previously been very good, began to decline six months afterwards. There was no evidence of hereditary taint or of acquired syphilis, but her weight from nearly 10 st. had been reduced to between 5 st. and 6 st. when she first came under notice; in fact, she was merely a bony framework covered with skin, and with strength hardly sufficient to get about. It was not until almost directly after the instrumental delivery of her only child at term (which survived but thirteen hours) in July, 1883, that trouble was felt in having a proper evacuation. The motions became suddenly like those of a child, and have remained so since. There is no clear history of acute pelvic inflammation at this or any other time. For a fortnight after delivery she kept her bed, then, after sitting up for a day or two, she had a "stoppage," which compelled her again to lay up for two weeks longer. Since then, with the exception of entire rest being necessitated by another similar attack, she has got about as well as it was possible for a woman to do who was rapidly losing flesh and strength and plagued by the non-control of liquid fæces. At different times she has had, and mostly of late, rather profuse discharges of matter and blood; but there is nothing to show that any collection of pus has ever been discharged by the bowel. There never has been much pain, but the digestive functions have suffered considerably. Up till six weeks since the menstrual function had been normal. On examination under ether there was felt reaching from a short distance within the anus a long, cone-like stricture, of which the upper margin could just be touched by the tip of the finger. The mucous membrane was unbroken. Per vaginam there was discovered a firm, lobulated tumour, bulging into and implicating the recto-vaginal connective tissue. On the anterior aspect of this swelling the uterus was fixed, and it was traced up to the left iliac fossa. On June 7th colotomy in the left loin was performed. An interrupted recovery took place, and she was discharged on the 25th of the same month.

Remarks.—In vol. i. of THE LANCET for 1883 I recorded seven cases of colotomy, amongst which only one was unfavourable, and this was solely due to the late period at which consent was given to the operation. Of the two cases now given there is nothing special to mark in the first, unless it be the immediate relief obtained, and the probable prolongation of life secured by the colotomy. With regard to the second, it is instructive from an etiological standpoint. The suddenness of its onset, the absence of a history of any pelvic inflammation, and to some extent the character of the superficies of the tumefaction, point to a hæmatoma in the connective tissue of the left broad ligament and contiguous parts, as the probable causes of the intestinal obstruction. The use of forceps makes the probability also greater. Some years ago I saw a case of rectal stricture complicated by recto-uterine fistula, produced by parametritis, following an abortion. In this case colotomy was declined.

CASE 3. *Sarcoma of the Scapula; Excision of the Tumour and portion of Bone involved in the Growth; Recovery with a useful Arm.*—Mrs. B——, aged twenty-three years, was admitted on Sept. 27th, 1882. Her mother died at thirty-seven years, of "internal tumours," but in other respects the family history was good. Her own health had been fair until twelve months before, when she noticed a small growth in the posterior part of the left axilla. This continued to grow rapidly and caused great pain, especially down the inner side of the arm. So intense had the pain become on movement that she had for some time prior to admission ceased to use the left arm. Although she said her general health had not failed, yet she had an unhealthy appearance, which might in some measure be due to her confinement seven weeks before. The tumour occupied the greater part of the infra-spinous space, and was evidently firmly attached to the bone. It somewhat encroached upon the ventral surface. The integument covering it was healthy. The tumour was smooth-surfaced and not particularly tender. On Oct. 1st Dr. Elder made a T-shaped incision over the body of bone, and found, on reflecting the flaps, that by excising it from just beneath the spinous process the tumour with its connexions would be embraced. A considerable quantity of blood was lost in doing this, and time. After all hæmorrhage had been arrested and the parts brought together, a boro-glyceride dressing was applied. The wound was rather slow in healing, doubtless due to her enfeebled condition, and when she returned to her home in the country on Nov. 4th part of it still required dressing. In the summer of 1883, at the local meeting of the British Medical Association, she was shown to the members, possessed of a very useful arm; in fact, seemingly not much the worse for her loss. Dr. Truman examined the tumour microscopically, and found it held together by a slender framework of connective tissue. (*a*) Round cells, with one large or two smaller nuclei; (*b*) unipolar nucleated cells; (*c*) free nuclei, and (*d*) large pigmented cells at regular and frequent intervals.

SHEFFIELD GENERAL INFIRMARY.

CONGENITAL MALFORMATION OF THE LARGE INTESTINE; LITTRÉ'S OPERATION; AUTOPSY; REMARKS.

(Under the care of Mr. CHAS. ATKIN, F.R.C.S., House-Surgeon.)

CONGENITAL absence of the large intestine is very rare, and we would draw attention to the interesting case recorded by Mr. Atkin. Operations in cases of malformation of the large bowel usually afford only temporary relief, the malformation being one amongst other evidences of immaturity, and the cause of the symptoms of obstruction being overlooked until the child is exhausted by vomiting, pain, rupture of the intestine, or the onset of peritonitis. Nevertheless, it is necessary to do what is possible, and the operation selected by Mr. Atkin—Littré's operation in the left loin—is that generally selected by the surgeon when it is not possible to relieve the patient by perineal incision.

A male infant, two days old, was brought to the infirmary not having passed any motion since its birth. On examination, a small depression was found at the usual situation of the anus, but it would not admit even a small probe. The abdomen was distended, hot, and redder than normal. In Mr. Favell's absence from town, Mr. Atkin explored the ischio-rectal region, but failed to meet with any bowel, so an oblique incision was made above and parallel to Poupart's ligament on the left side. Not finding the colon, a piece of small intestine which presented itself at the wound was stitched and opened in the usual manner. Meconium and flatus came freely from the wound. The child was evidently eased and took some milk with a few drops of brandy without vomiting; after a quiet night, during which the temperature was never elevated, it began to sink, and died during the evening of the following day.

At the autopsy the whole colon and rectum were found to be rudimentary, being about the diameter of an ordinary quill; at first sight the tube seemed to be a solid cord, and it was not till after removal of the whole alimentary canal that it was found that firm meconium could be pressed along with the aid of considerable force. The cæcum and vermiform appendix were differentiated from the main canal, but corresponded in degree of development to it. The narrowest part of the canal was four inches above the cæcum, being only one-sixteenth of an inch in diameter, and admitting only the point of a fine probe. An inch and a half above this was the place where the bowel was opened; the edges were found glued to the abdominal wall by adhesive lymph, with no extravasation into the cavity. There were no other deviations from the normal, no umbilical hernia, and no remains of the vitello-intestinal duct.

Remarks.—Though several instances of imperforation of the small intestine have been recorded with a normal colon and rectum, yet cases of such extensive malformation are surely uncommon. The parts seemed to have remained as they are in the early embryo, when, on the whole, the calibre of the large intestine is less than that of the small, and yet the arrest cannot have been very early, because the formation of the cæcum, which is supposed to take place about the third month, was well advanced. That Littré's incision seems the one by which the bowel is more readily reached is easily seen, and Amussat's operation would certainly have failed in this case, and necessitated a further exploration in the groin. Strange to say, another child was brought in the same evening, aged three days; similar measures were adopted, and it lived and throve for twelve days, then gradually it began to fade, and died at the end of the fortnight. In this case the rectum ended half way down on the back of the bladder, the sigmoid flexure was found to have

been opened, completely emptying the colon above, whilst below the rectum was immensely dilated with indurated meconium, forming a firm mass which filled the false pelvis and compressed the bladder. Probably this, by deranging digestion, caused the death of the child, as the artificial anus was perfect, patent, and without any signs of peritonitis. How to avoid such a condition is very difficult, but no doubt, if suspected, the best plan would be to insinuate a bent probe through the opening down the rectum and endeavour to make a perineal opening; but it would have failed in this case, for two reasons—first, it would have required more force than one would think justifiable to have pushed a probe through such solid material; and, secondly, the bowel ended too high up, quite out of reach. In a third infant with congenital malformation, under the care of Mr. A. Jackson (to whom and Mr. Favell I am indebted for the privilege of publishing these cases), the anus was normal, the imperforation being above; the child was only brought to the infirmary on the fifth day, the deficiency not having been found out till the night before. Such cases more than hint the necessity of examining newly-born infants suffering from constipation with a probe.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Perforation of the Mastoid Cells.—Simultaneous Double Distal Ligature for Innominate Aneurysm.

AN ordinary meeting of this Society was held on Tuesday last, Dr. George Johnson, F.R.S., President, in the chair.

Mr. DALBY read a paper on cases in which Perforation of the Mastoid Cells is necessary. The paper does not include the ordinary cases, where, after inflammation of the middle ear, the usual signs of abscess in the mastoid process with softening of the external plate of bone are present, as they are often met with, especially in children, and treated by a free opening. In some of the cases in this paper the external plate of bone was healthy, and yet there was pus in the mastoid cells. In others, although the external plate of bone was diseased, the matter took a circuitous route under the scalp, at one time into the temporal region, at another into the occipital region and along the muscles of the neck. Although in some cases the indications for perforating the mastoid cells included continuous pain in the mastoid region, œdema on deep and continued pressure, pain increased by the recumbent position, a high temperature and severe rigors, as already detailed in the contribution on "Diseases of the Mastoid Bone" (Transactions, vol. lxii.), cases of pus in the mastoid cells and healthy external plate of bone are now related from which one or more of these symptoms were absent. Although the external osseous plate is found to be healthy, the perforation should still be made if the constitutional symptoms point to the presence of pus within the bone. The operation is performed with a drill, which is provided with a stop to enable the precise depth of the perforation to be determined; thus, all risk of penetrating too deeply is avoided, and the operation is free from danger. Six cases were selected, each of which illustrated some point of importance. In one case the patient was comatose, but afterwards recovered. In two others the inflammatory process was prolonged for many months before the evidence of the presence of pus was conclusive. In another symptoms of infantile paralysis were present, and disappeared after perforation of the cells had given exit to pus. In another the pus not only passed forward under the temporal muscle, but towards the occiput under the splenius capitis and complexus muscles, and down the neck to a level with the thyroid cartilage. In conclusion, the author expresses his belief that perforation of the mastoid cells is more urgently and frequently required than the literature of the subject would lead one to infer.—The PRESIDENT said that he had seen many cases of fatal disease of the brain caused by disease of the internal ear, which might possibly have been prevented by the apparently trivial operation advocated by Mr. Dalby.—Mr. URBAN PRITCHARD said that the commonest cases were those in which the pus was superficial to the mastoid cells. Suppurative disease of the mastoid cells may exist, and not even œdema or any sign, with the exception of tenderness on percussion need be present to indicate the presence of the disease. The operation was a simple one. Wounding of the lateral sinus was possible if care were not taken. In one case he had opened the mastoid cells and found them empty, even though marked symptoms, like unilateral flushings with epileptiform fits, were present; strange to say, the fits and other symptoms subsided after the apparently unsuccessful operation.—Mr. W. HAWARD said that if the records of a hospital were searched, evidence would be found of the frequency with which large numbers of cases are admitted on account of convulsions, coma, delirium, and affections of the pyæmic class, proving rapidly fatal, and due to suppuration of the mastoid cells. It was very important to recognise the symptoms which call for the operation. Some surgeons have urged that a route already exists by which matter can make an exit, but the communication between the tympanum and the mastoid cells was very small, and, as a matter of fact, the pus does not escape in the fashion supposed. The tendency of pus to burrow in many directions was also another reason for surgical interference and the establishment of a direct opening into the mastoid cells.—Mr. HOWARD MARSH, in his experience at the Hospital for Sick Children, could bear testimony to the statements of Mr. Dalby and Mr. Haward. He related two cases in which the patients were insensible, and which made good recoveries after the operation of opening the mastoid cells had been performed. The danger of wounding the venous sinuses was a real one, and he remembered to have had to use great care in trephining for depressed fracture of the skull: in one case the longitudinal sinus, and in another the lateral sinus, had to be carefully avoided.—Mr. DALBY, in reply, said that the mastoid cells did not always communicate sufficiently freely to allow of free drainage when one of their number was fully opened. In America the use of the chisel and hammer had recently been advocated, but this would be an outrageous procedure.

Mr. RICHARD BARWELL read a paper on a case of Simultaneous Double Distal Ligature of the Carotid and Subclavian Arteries for high Innominate Aneurysm. The patient, a female aged forty-eight, was admitted into the Charing-cross Hospital on February 16th, 1884. She was thin, pale, and anæmic. Her health had been uninterruptedly good until eighteen months ago, when she had a fall, without immediate ill effects. A year ago she noticed a sense of throbbing at the upper part of the right side of the chest, and very soon afterwards neurotic pains and loss of power in the right arm. On admission the right half of the sternum, the two upper costal cartilages, with their interspaces, were protruding and pulsatile. In the outer half of the episternal notch, and behind the inner head of the right sterno-mastoid muscle, was a pulsatile tumour, which involved the carotid artery. The voice was very low and toneless. Very little air entered the lungs. The apex beat of the heart was not displaced. The right radial pulse was very small, and ceased altogether four days after admission, when no pulse could be felt throughout the arm nor at the third part of the subclavian artery. During the next twelve days the patient became more feeble, less air entered the chest, and the line of dulness rose higher. On February 28th Mr. Barwell tied the carotid, and as the immediate effect of ligaturing this vessel was an increased pulsation of the sac, he tied the third part of the subclavian also, lest the obstruction should yield and the aneurysm again increase outward. The patient, though weak and disturbed by some intestinal troubles, went on well until March 28th, when recurrence of pulsation in the cervical part of the tumour took place; this continued for seventeen days, when it diminished and soon ceased altogether, and definitive consolidation followed. On May 6th she left the hospital. On June 4th she showed herself at the institution; there was no enlargement at the upper part of the chest nor any tumour to be felt in the neck. Over the site of the late aneurysm the percussion note was clear, and the respiratory murmur was distinct. No pulse could be felt in any branch of the right carotid and subclavian arteries. Mr. Barwell believed the symptoms clearly indicated a high innominate aneurysm involving both the artery and its bifurcation, because pain in the right arm was a very early symptom. It was probable that the disease first began in the subclavian branch, and that the subsequent affection of the inner side of the innominate compressed the subclavian and that portion of the sac arising from the subclavian artery. Anatomical reasons were given for this

view, and attention was directed to the absence of tumour at the clavicular part of the sterno-mastoid muscle. In his remarks the author dwelt upon the spontaneous cessation of the pulse in the right arm, and stated the means he had taken to ascertain whether cerebral injury would follow ligature of the carotid artery in this case. No cerebral symptoms were caused by the deligation, although probably no blood found its way directly to the right side of the brain. He also drew attention to the return of the lungs to the normal state. Questions were propounded as to the mode in which soft clots in aneurysmal sacs were disposed of when recurrence of pulsation occurs. This case was the sixth instance of double distal deligation that Mr. Barwell had brought before the Society. Of these five had been successful, the one narrated to the date of last seeing the patient (August, 1884) perfectly so. He said Mr. Mitchell Banks had brought from Liverpool a specimen of ligature of the innominate artery.—The PRESIDENT inquired as to the causation of the aphonia. He said the loud ringing brassy cough which so frequently accompanied aneurysm of the aorta was almost sufficient for the diagnosis of the disease.—Mr. MITCHELL BANKS had performed the operation of simultaneous double distal ligature on a soldier for innominate aneurysm rising high in the neck. He ligatured both the carotid and subclavian vessels with kangaroo tendon ligatures. The patient did well till the thirteenth day, when there appeared a fulness and swelling, which steadily increased, and was found to be due to extensive effusion of blood. Death followed in about a month, and then it was found that the aneurysm had been nearly occluded by laminated clot. The subclavian artery at the point of ligature was completely destroyed, and this explained the concealed hæmorrhage. The question must still be considered open as to what was the best material for ligaturing the great vessels. Kangaroo tendon, which was first used by Girdlestone, seems to be absorbed too readily; he had not yet used ligatures made from the aorta of the ox. Nearly all the cases of ligature of the large arteries about the region in question died from secondary hæmorrhage, and a most serious question was the material to be used as a ligature.—Mr. TIMOTHY HOLMES said that he had been, and still remains, at issue with Mr. Barwell as to the best method of treatment. He believed that the best method was not simultaneous ligature of the carotid and subclavian arteries, but ligature of the carotid artery alone, and, if necessary, subsequent ligature of the subclavian artery. The most successful case on record was the old one of Evans, performed in 1828, in which the patient lived for nearly forty years after the ligature of the carotid artery, and then died from some unknown cause. This case was strikingly like that described by Mr. Barwell. Occasionally a similar result followed ligature of the left carotid for aneurysm lower down; in one such case of aneurysm of the transverse part of the arch of the aorta in a young woman an excellent result followed. The first case reported in Mr. Bellamy's pamphlet had undergone very definite improvement after the application of the ligature to the carotid artery, and the reason for the subsequent ligature of the subclavian artery in this case was not evident. The lives of these patients were precarious, and it was important to recognise that ligature of the subclavian added greatly to the risk of a fatal result. Where the stress of the aneurysm fell chiefly on the subclavian part of the sac, it might be proper to deligate that vessel first, but as a rule ligature of the carotid artery produced more effect, for it gave off no such considerable branches as does the subclavian in the first two parts of the course. Ligature of the carotid artery completely arrested the current of blood. He considered the ox-aorta ligature a very much better ligature than catgut prepared in any way; the kangaroo tendon also formed an admirable ligature, and the failures with it were probably owing to not pulling the ligatures sufficiently tight.—Mr. HOWARD MARSH congratulated Mr. Barwell on the success of his remarkable group of cases. He thought the discussion of the treatment of aortic and of innominate aneurysms ought to be kept apart. In Mr. Barwell's present case it should be borne in mind that the pulsation of the subclavian artery had ceased before the ligature was applied to that vessel. He considered that closure of the carotid and subclavian arteries at the same time was really not often effected; in another alleged case, for instance, the carotid was all but occluded at the time of the operation. It should be remembered that rapid dilatation of the arch of the aorta followed ligature of the subclavian artery. He agreed with most of Mr. Holmes' remarks on the value of ligature of the carotid alone. In one case Mr. Barwell had ligatured the carotid so loosely that the lumen of the vessel was still patent, and the first and second parts of the subclavian were still open. Reference was made to one of Mr. Heath's cases in which the aneurysm affected the ascending part of the arch of the aorta, and which was greatly benefited by distal ligature of the carotid artery. He considered that the way in which these operations take effect in different cases was not sufficiently recognised. With regard to the kangaroo ligature, he had reason to be satisfied with it on the whole, though in the hands of Mr. Willett and of himself the ligature had broken on more than one occasion. In the sixty-sixth volume of the Royal Medical and Chirurgical Transactions an account of a case operated on by him is recorded.—Mr. SPENCER WATSON had used kangaroo tendon and ox-aorta ligatures, and did not think it necessary to cut through the inner and middle coats of the artery, but merely to bring the sides into apposition.—Mr. BARWELL, in reply, reviewed the cases which Mr. Banks and Mr. Heath had recorded. The weakly state of the patients would rather make one perform the double ligature at one operation than expose the patient to the risks of a second operation later on. Were it not for the danger of the operation, he would rather ligature the first part of the artery, in order to cut off as much blood as possible from the aneurysm.

CLINICAL SOCIETY OF LONDON.

Hemianæsthesia from Congenital Brain Disease.—Scrofulous Gland Disease with Phthisis.—Stricture of the Œsophagus and a new Method of using the Œsophageal Catheter.

AN ordinary meeting of this Society was held on January 23rd, Mr. Arthur E. Durham, F.R.C.S., Vice-President, in the chair.

Dr. ALTHAUS read the particulars of a case of Hemianæsthesia from Congenital Brain Disease. The patient was a girl aged eleven, who was admitted into the hospital for epileptiform seizures, and what had been called paralysis of the left side. There was no inherited neurotic tendency, but she had been delivered with instruments. On examining the side which had been believed to be paralysed, Dr. Althaus found that there was no paralysis of motion anywhere, but complete hemianæsthesia from the vertex down to the toes. Sensibility was unduly keen on the right side, and the line of demarcation between the sensitive and anæsthetic zone was sharply defined. In order to show that she felt nothing in the left hand, the patient herself bit and scratched it, ran a pin right into the flesh of the hand and forearm, and said she had never felt anything there as long as she could remember. All the various forms of sensation—viz., of contact, pain, temperature, and pressure—were completely lost; and the anæsthesia affected likewise the mucous membranes of the eyes, nose, and mouth. The superficial reflexes were lost, while the deep or tendon reflexes could be elicited. The left pupil was insensible to the influence of light. There was also hemianæsthesia of all the nerves of special sense; ophthalmoscopic examination of the fundus of the eye showed the optic disc to be of a pearly white lustre, and the calibre of vessels small. The patient was blind, deaf, and deprived of smell and taste on the left side. There was also ischæmia, as punctures did not bleed. Some ataxy of movement existed in the left hand. Dr. Althaus diagnosed hæmorrhage in the posterior third of the posterior segment of the white internal capsule in the right hemisphere, affecting only the paths of sensation, but not the pyramidal strands which conduct the power of motion, and are situated more anteriorly in the capsule. He thought the hæmorrhage to be due to delayed birth and instrumental delivery. It would be an absurdity to assume the existence of hysterical hemianæsthesia in a newly born infant, nor could the idea of a tumour be entertained, as the degree of the affection had never varied throughout life. The hemianæsthesia in this case yielded completely to a single application of electricity, by the proceeding known as faradisation of the skin; and Dr. Althaus explained this surprisingly rapid result by assuming that the clot of blood, which was the primary cause of the affection, had been absorbed soon after birth, but had left a condition of functional paralysis in the part originally affected. The suitable stimulus of electricity then overcame the impediment which

had so long existed in the conduction of sensitive impressions to those cortical centres by which they are appreciated.—Dr. ANGEL MONEY inquired as to the causation of the atrophy of the left optic nerve which apparently existed. In all the cases of congenital brain disease on which he had made an autopsy the lesion was chiefly situate in the cerebral cortex. He also pointed out that epileptic seizures were present in Dr. Althaus's case.—Dr. DAVID B. LEES asked what the evidence was that the condition dated from birth.—Dr. ADENEY asked whether the condition of the optic nerve after the restoration of sight and other senses had been observed.—Dr. ALTHAUS, in reply, said that there was not actual atrophy of the optic nerve, but as much change as might be accounted for by disuse. There had been no re-examination after recovery, as the patient left the hospital suddenly. The father had always noticed a difference between the state of the two sides of the body. It was possible that the epileptic seizures were due to "some squeezing" of the cortex, though he did not think the hemianæsthesia was due to lesion of the cortical substance.

Mr. FREDERICK TREVES read a paper on a case of Scrofulous Gland Disease with Phthisis. A female patient, aged seventeen, presented a number of scrofulous glands in the neck and axillæ. These swellings had appeared two years previously, and were advancing in spite of all treatment. The lungs were sound. The more prominent glands were evacuated by means of thermo-cautery and scraping, and may be considered to have been cured. In six months the remaining glands were treated in the same way and did well. Two months after the second operation the patient was attacked with pleurisy, internal evidences of phthisis appeared, and the patient died six months after the last surgical procedure. The case raises the very important questions as to how far surgical interference is justifiable in scrofulous gland disease, and to what extent such interference may be conducive to phthisis. In spite of the issue in the present case, Mr. Treves argued in favour of operation in properly selected cases. The cases must be carefully chosen. In many instances judicious operations have entirely cured cases that had resisted treatment for years. He quoted the statistics of the hospital at Beck-sur-Mer, where all scrofulous gland affections are treated by surgical means, and where the results have been most encouraging. Mr. Treves, in conclusion, reviewed the various operative measures adopted in the treatment of these cases.—Dr. BURNEY YEO inquired whether the bacillus of tubercle had been discovered in the contents of the scrofulous glands which Mr. Treves had removed. In the discussion in France surgeons were at variance on the nature of the morbid process in scrofulous glands.—Mr. R. J. GODLEE did not feel sure that scrofulous diseases were so very uncommon in connexion with phthisis. During the past few weeks he had seen at the Brompton Hospital two cases of hip-joint disease, three cases of spinal caries, one of sacro-iliac disease, several cases of fistula, one of caries of the sternum, another of disease of the shoulder-joint, and many cases of scrofulous testicle. With regard to the treatment, he considered that blistering was a useful method for subduing strumous glands if the original source of irritation have been removed. If the diseased glands were not firmly adherent he would advise removal with the knife. If the glands were firmly adherent, the method of scraping out the cheesy matter with the sharp spoon would be best. He confessed that he did not see what advantage there was in using the thermo-cautery.—Dr. J. GREY GLOVER inquired whether Mr. Godlee had seen strumous testicle without any disease of the chest. This was answered in the affirmative.—Mr. CHARTERS J. SYMONDS said that at the discussion on the subject of removal of scrofulous joints in cases of phthisis it was allowed that the patients generally improved after removal of the arthritic mischief; so that he considered it would be valuable to remove strumous glands even if the patient had slight affection of the lungs.—Dr. EWART was not sure that scraping the glands was a process at all analogous to the proceedings of nature. In ordinary disorganisation of the glands the lymphatics were closed by a natural pathological process, whereas by scraping paths by which infection could take place might be left open. Removal of the entire gland seemed to him to be the best method of treatment; for if a small portion be left, multiplication of any of the micro-organisms present might take place with possible evil consequences.—Mr. S. PAGET related the following case, which illustrated the process of nature in subduing disease. The patient, when first seen, had scrofulous disease of the right epididymis, with some affection of the apex of the right lung. He went away to the seaside, and returned with the whole of the body of the testicle involved and fungating; later on the whole of this mass sloughed entirely away into the bed, where it was found one morning. At a future date the left epididymis became affected, and he was again sent to the seaside. On his return the phthisis had not advanced, but the body of the left testicle was affected, and with discharging sinuses. There was nothing in the anatomical arrangement of the lymphatics which could account for the supervention of disease in the left testicle when the right was affected. Mr. BARWELL said that the distinction between strumous glands and tubercular glands ought to be borne in mind. He should have thought, in opposition to Mr. Treves, that if the knife were not available when the disease was so extensive, neither would the thermo-cautery be able to reach the furthest limits of the disease. Leaving the capsule of the gland after scraping had not commended itself to him as a good method of treatment.—Mr. TREVES said that in his opinion all strumous glands were tubercular. There were several stages or degrees of tubercular affections of the glands. The first might be spoken of as a low form of chronic inflammation; in the second stage large cells, which Rindfleisch had regarded as special, and giant cells were to be seen; later still the primitive tubercle of Küster and others made its appearance; and, finally, we may meet with pertectly typical miliary tubercle in strumous glands. In many cases no proper bacilli were found. But he considered that in all such glands the process involved was the same; no doubt there might be a relation, difficult to interpret, between the inflammatory process and tubercular disease. He had employed the statistics of the Scrofula Hospital to determine the frequency with which strumous affections were associated with phthisis. He had seen a great deal of harm come of using local irritation, as by iodine, for the treatment of strumous glands. It was under the influence of irritation that glands enlarged in the first instance, and further irritation would increase the mischief. In cases of enlarged glands at the nape of the neck counter-irritation might be useful; but where the application of an irritant did good, the lymphatics going from the irritated part did not go to the affected gland. He had used the cautery to puncture the skin, and would employ it in all cases, for it prevented that undermining of the skin which gave rise to the thin purple integument which was so difficult to heal. The risk of opening the gland was very much diminished when the thermo-cautery was used, and this treatment left a carbonised tunnel leading into the gland, and thereby prevented undermining of the tissues. Moreover, no drainage-tube would be required; and in his experience there was much less scarring than after the use of the knife. In cases of joint disease the patient was confined to bed, and the suffering from pain and suppuration was out of all proportion to that which accompanied a strumous gland. He thought Dr. Ewart's suggestion a valuable one, and yet in those instances where the glands had exceedingly thick capsules the spoon might be freely used without much danger of opening up paths for infection. He had been misunderstood by Mr. Barwell, for he certainly would not attack a gland unless the whole disease could be removed. There were degrees of surgical procedure, the most severe being excision, then came scraping, and last, the thermo-cautery. In his hands scraping had proved very effective, and Mr. Teale of Leeds had had similar success. Any kind of treatment would be useless unless the neck were kept at rest.

Mr. CHARTERS J. SYMONDS read an account of a case of Malignant Stricture of the Œsophagus to illustrate the use of a new form of permanent œsophageal catheter. The patient, a man aged forty, who was exhibited wearing one of the tubes, gave a history of seven weeks' dysphagia before coming under treatment on June 23rd, 1884. At that time he was unable to swallow, and it was impossible to pass a bougie. He, however, on the day of admission managed to swallow some milk, and in a few days took fluids freely. The first tube was passed on July 15th. This was the usual long œsophageal catheter, and projected from the mouth. It proved a source of great irritation, and had to be removed in thirty-six hours. The long tube induced much laryngeal irritation, and by plugging the stricture prevented the descent of the saliva, and gave rise to constant expectoration. The tube brought before the Society by Mr. Symonds was designed to remove these inconveniences while retaining the advantages of the method

of treating œsophageal stricture by permanently wearing a tube. The gum-elastic tube is about six inches long; one end expands into a funnel having an outside diameter of one-half to three-quarters of an inch; the other has the same construction as an ordinary catheter. The tube is passed through the stricture, the funnel resting on its upper face, thus preventing the further descent of the tube. For removing it a piece of strong silk is attached, carried out of the mouth, looped over, and fastened behind the ear. The patient had worn the catheter since July 15th. It has been changed at various intervals—at first of a week, and later on of a fortnight and three weeks. No difficulty was experienced in removing the tube, nor did the patient suffer any inconvenience from its presence. The man can swallow fluids freely, and has gained in weight. The advantages claimed for this form of tube are that, while maintaining a passage into the stomach, it does not interfere with deglutition, produces no irritation, is not unsightly, and, moreover, retains to the patient the pleasures of taste. The man is able to move about with comfort, and, except for the silk passing out of his mouth, is not aware of the presence of the tube. It was suggested that if the cases of this disease were taken earlier a large tube might be employed, and the patients kept in comparative comfort, while at the same time the number of cases necessitating gastrostomy would be greatly diminished. It was the desire to avoid this operation, often so unsatisfactory, that led to the construction of the tube. (These tubes are made by Messrs. Down, of St. Thomas's-street, S.E.)—Mr. DURHAM considered that the instruments were of great value, though whether they would be applicable for strictures just below the larynx, would have to be determined by future experience. — Mr. BERRY asked what was the smallest size of catheter employed. If tubes having a terminal aperture at each end were used, they might be passed over the catgut guide, which could be got through the tightest stricture. He had employed, and would recommend the use of, a soft flexible tube, which, however, could not be passed alone unless the stricture were a very slight one. The flexible tube had the advantage that it could be used for some time without causing any irritation of the larynx. An account of the three cases to which he referred would be found in the St. Bartholomew's Hospital Reports for 1884.—Mr. SYMONDS, in reply, said that the largest catheter he had used was No. 10, English. His tube might be adapted for strictures as high as the level of the cricoid cartilage.

The following living specimens were shown:—Dr. W. B. Hadden: Choreiform Movements, probably dating from birth, in a female child aged twelve. Mr. Ballance and Dr. Hadden: A case of Enlargement of Hands and Feet, with Œdema of the Face.

MEDICAL SOCIETY OF LONDON.

Trephining for Depressed Fracture.—Statistics of Cancer of the Tongue.

AN ordinary meeting of this Society was held on Monday last, Mr. Arthur E. Durham, President, in the chair.

Mr. W. ROSE read a paper on a case of Trephining for Depressed Fracture, which is fully detailed in the "Mirror of Hospital Practice," p. 202.—The PRESIDENT congratulated Mr. Rose on so successful an operation.

Mr. F. BOWREMAN JESSETT read a paper on Cancer of the Tongue, with especial reference to the frequency with which the disease attacks this organ, its etiology and treatment. Of 2227 cases seen at the Cancer Hospital, the tongue was the seat of the disease in 190 cases, or about 8·5 per cent. Statistics collected by Sir James Paget, Mr. Sibley, von Winiwarter, and Mr. Barker were given and compared, and there was a general agreement in the results arrived at. Mr. Barker's statistics showed a higher percentage of cases of cancer of the tongue (16·3 per cent.), and this high rate might have been due to the large number of Welsh miners admitted to the University College Hospital. There was no organ in the body which is subjected to such rough treatment as the tongue, and this fact, combined with the surroundings of the organ, affords some explanation of the frequency with which cancer occurs in the tongue. Phthisis, syphilis, and hereditary tendencies were classed as the constitutional causes of cancer of the tongue. He believed that tubercular ulcers were disposed to become cancerous. He thought no one would deny the difficulty that frequently existed in diagnosing between tubercular, syphilitic, and cancerous ulcers of the tongue. He strongly advised excision of the tongue if treatment for a fortnight effected no benefit. With regard to the relation of cancer with ichthyosis, Mr. Morris had so thoroughly worked out this point that he should not treat further of it. Age had considerable influence on the development of the disease. The average age in the statistics he had collected was fifty-two, the youngest patient was thirty-two, and the oldest seventy-nine. Treatment was next considered, and as the disease was regarded as not purely local, he believed that some day a remedy for cancer would be found. Early removal of the nodule was strongly insisted upon, and the incisions should go wide of the disease. Division of the gustatory nerve and ligature of the lingual artery were of value in extreme cases. The various operations which had been practised for removal of the tongue, or a portion of it, were briefly reviewed. The operation for removal of the whole tongue was at least two hundred years old. Mr. Barker had found that in only 17 out of 170 cases had the patient been free from disease at the end of a year; in 639 cases operated on the death-rate was 20·7 per cent. An examination of all the published cases which were available had led him to the conclusion that no one operation yielded the best result in all cases. The death-rate after operations with the écraseur was 8·5 per cent., whereas that after the operation by scissors was 31 per cent. The écraseur was most suitable when the anterior part of the tongue was the seat of the disease, and the knife or scissors was the best when the diseased area was small. The difficulty of removing the whole of the growth when large by the écraseur was referred to, and a preference for the operation by ligature of the lingual artery and removal with the scissors was expressed. On the whole, however, the statistics spoke strongly in favour of operation with the écraseur. Dr. PURCELL said that he had operated on six cases with one death. The electric light in his hands had not proved very successful, as the light went out at the critical moment in the fatal case. He believed that a preliminary ligature of the lingual arteries was absolutely necessary.—Mr. FREDERICK TREVES thought that more might be said in favour of Billroth's operation of removal with the scissors preceded by deligation of the lingual arteries. The difference between the effects of the écraseur and the scissors was the contrast between a lacerated and an incised wound, and the contused state left after the action of the écraseur was necessarily followed by some sloughing. Salivation probably had a good deal to do with the foulness of the discharge from the mouth; he therefore recommended the excision of a short portion of the gustatory nerve. With the necessary precautions, he thought that Billroth's operation was the one which could be carried out with scientific deliberation and care. He could not agree with Mr. Whitehead's practice of not ligaturing the lingual arteries.—Dr. H. SNOW thought that the galvanic écraseur gave the best results; and secondary hæmorrhage was very rare after its occurrence.—Mr. BARWELL looked upon the scissors as a form of écraseur. It was very difficult to get at the whole of the diseased tissues when they were situate far back. He then described the operation which he had devised, and which allowed of the removal of the tongue as far back as the base of the epiglottis. The wound is made just above the hyoid bone, and through this opening the wire used in cutting is introduced.—Mr. WALSHAM asked whether, in his experience, Mr. Jessett had ever known a tuberculous ulcer become cancerous. Tuberculous ulcers are rare, and he had seen but six cases in eighteen years. He looked upon the écraseur as the most favourable method of removing the tongue.—Mr. WALTER PYE asked whether we were on the same ground when different speakers spoke of the wire and the galvanic écraseur. Scissors, properly used, were cutting instruments, and left clean cut surfaces.—Mr. JESSETT briefly replied, and considered that the wire was preferable to the galvanic écraseur.

OBSTETRICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Wednesday, Jan. 14th, Dr. Henry Gervis, President, in the chair.

The following specimens were shown:—Dr. Edis: Uterus removed by Vagina on account of Cancer. Dr. A. Routh: Phosphatic Calculus removed by Urethra. Dr. Heywood Smith: Electrical Speculum. Dr. Handfield Jones, jun.: Fibroid Uterus removed by Porro's Operation. Dr. Purcell:

Cancerous Uterus removed by Vagina. Dr. Godson: Cancerous Cervix removed by Operation, and Microscopical Sections.

Dr. W. A. DUNCAN read a paper on the Extirpation of the Uterus. The author, having had two cases of vaginal extirpation, proposes to give details of them, and then to discuss the whole subject of extirpation in its various aspects. Case 1: The patient, aged thirty-seven, married, one child eleven years old, was admitted to the Royal Hospital for Women and Children on Dec. 11th, 1883, with a slight attack of pelvic cellulitis. When seen a few days previously, there was found a small growth of epithelioma on the portio vaginalis near the os uteri, and only involving the anterior tip of the cervix. The attack of cellulitis passed away gradually, and on Jan. 22nd, 1884, extirpation was performed per vaginam according to Schroeder's method; great difficulty was experienced in ligating the broad ligaments, which were shortened from the inflammatory thickening left; the double drainage-tube was inserted, and iodoform plugs in the vagina. The patient made an uninterrupted recovery, and was discharged cured on the thirty-ninth day, with an arched cicatrix in the vagina, but no induration whatever. She was readmitted on June 14th (five months after operation) with cough, pain over the lower ribs on the right side, night sweats, and pyrexia. On the 25th an indurated mass was felt on vaginal examination above its roof; pelvic glands enlarged. The patient continued in much the same state, with intermitting pyrexia, the temperature remaining, as a rule, between 100° and 105°; she was discharged, at her own request, on July 16th, and died at home on November 1st. Case 2: Mrs. P——, aged fifty-four, admitted on Feb. 4th, 1884, with ulcerating epithelium of cervix. Married thirty-two years, eight children. Quite well from menopause (ten years ago) until eight months before admission, when hæmorrhage followed coitus. Vaginal extirpation on Feb. 26th, as in Case 1. Collapse set in as soon as the peritoneal cavity was opened, and death took place twelve hours after operation. The author having discussed the advantages and disadvantages of the abdominal and vaginal methods, gave statistics of all the cases he could find, showing that after 137 abdominal extirpations there were 38 recoveries and 99 deaths, being a death-rate of 72 per cent.; whilst after 276 vaginal extirpations there were 197 recoveries and 79 deaths, being a death-rate of 28·6 per cent. The details of the after-treatment were then discussed, the author being of opinion that there was no necessity either to sew up the wound in the vagina, to put in a drainage-tube, or to plug the vagina; but he insisted on the importance of the free use of iodoform locally, of the upright posture for the first ten days, and of the free administration of opium. He next reviewed the various malignant and non-malignant diseases for which the operation has been done, and was of opinion that in none of the latter was it ever justifiable; that in sarcoma and carcinoma of the body of the womb and mucous membrane of the cervical canal it was indicated; whereas in cancer of the portio vaginalis, for which it has frequently been performed, the death-rate is four times greater than after supra-vaginal amputation of the cervix, and the ultimate results are almost precisely alike (32 per cent. being free from recurrence [two years later). Hence in these cases he argues that we are not justified in performing it.—The PRESIDENT expressed the thanks of the Society to Dr. Duncan for his paper, and for his kindness in having tables of the cases quoted printed for the use of Fellows. He indicated as lines for discussion personal experiences of the operation and the pathology of the disease as bearing on the justifiability of the operation.— Dr. BRAXTON HICKS offered a word of caution in regard to accepting the evidence of the curette in cases occurring in the child-bearing period of life, since the mucous membrane of the uterus under the influence of pregnancy and other stimulants presents an appearance much like that of malignant disease. Again, sarcomatous polypi, which may return, and ultimately cease, cannot be distinguished by the microscope from truly malignant growths—Dr. JOHN WILLIAMS thought our knowledge of the operation was sufficient to enable us to form a judgment, at least as regards the vaginal and abdominal methods. The abdominal method is far the more fatal (72 per cent.), and is as likely to be followed by recurrence as the other; it has therefore practically been discarded. After the vaginal method the mortality is from 25 to 34 per cent.; the author estimated it at 28 per cent., which is a little above the mortality of ovariotomy for many years after it had become a recognised operation, and this mortality might be considerably reduced. But the two operations are very different. If the patient recovers from ovariotomy, she is restored to health and strength, and so remains. After extirpation of the uterus for cancer, however, the disease recurs in a large number of cases within six months, while very few remain free after two years, and only one has remained free for five years. Again, most of these cases are those of cancer of the cervix, and not of the body, and supra-vaginal amputation gives better results than extirpation. This clearly limits the operation to cancer of the body. The diagnosis of this, however, presents difficulties. Dr. Williams has done the operation four times, and the only patient who recovered from it died a month later of fæcal fistula high up in the small intestine. The patient had been examined under ether, and the uterus was found freely movable, very slightly enlarged, and no growth could be discovered in the pelvis, nor any adhesions between the uterus and surrounding organs; but at the operation a soft adhesion was found between the fundus and a coil of intestine. The disease had passed through the uterine wall to the small intestine, and three or four days after the operation liquid fæces passed by the vagina. Here the most careful examination failed to discover the extension of the disease beyond the uterus. Again, before a just opinion of extirpation can be formed the course and history of cancer of the body must be better known. This disease is far commoner than was formerly supposed, and its course is longer than was believed. In the early stages of cancer the pain is not severe, but becomes so after the disease has invaded the deeper tissues. Now, when recurrence takes place after operation the disease is placed at an enormous advantage; it recurs at the edge of the cicatrix, and at once attacks the deeper tissues, being associated with the severe suffering of an advanced stage of cancer. This means that after the operation the patient has a few weeks or months of comfort and supposed freedom from disease; and then the disease returns and occupies the position it would have occupied, after months of comparatively little suffering, had it followed its course unmolested, for the tissues through which it would have had to make its way had been removed by the surgeon's knife.—Mr. THORNTON expressed his agreement with the conclusions of Dr. W. Duncan, and also with the remarks of Dr. Williams. He was not an opponent of operations for cancer; in the case of the breast it is possible to remove the whole disease and all suspicious glands. The surroundings of the uterus, however, were very favourable for the spread of cancer beyond the possibility of complete removal. He thought the attack of cellulitis in Dr. Duncan's case was very likely due to displacement of cancerous elements during examination, and might account for the rapid recurrence after an apparently successful operation. Here he must express his dissent from the author; he believed the practice of curetting cancer of the uterus to be very dangerous and apt to spread the disease. He had thought that the one possible indication for the operation was severe pain, but after Dr. Williams's remarks he was inclined to alter his opinion. Cancer of the body is slow in growth, and he thought it was rarely painful as long as it was confined to the body. The fetor of the discharge might be controlled by insufflation of iodoform. In cancer of the cervix extirpation was inferior to amputation of the cervix and the application of chloride of zinc. He preferred this method to all others on account of the power which chloride of zinc appeared to possess of following up the cancer elements and destroying them. Dr. W. Duncan had omitted one point—namely, the necessarily imperfect removal of the tube by the vaginal method. As they are part of the uterus, any operation which leaves them behind must be imperfect. This condemns the vaginal method as completely as the frightful mortality of the abdominal method condemns that operation.—Mr. DORAN believed that there were anatomical reasons against the extirpation of the cancerous uterus. Mierzewsky and Lebec had shown that in the connective tissue between the body of the uterus and the peritoneum there is a dense network of lymphatics, whilst two wider lymphatic plexuses form a collar round the uterine and vaginal portions of the cervix. The lowest of these communicates freely with the vaginal lymphatics. All these networks form and empty themselves into two or three large trunks running to the obturator gland, passing along the lower border of the broad ligament. He had felt this gland soon enlarged in cases of cancer of the cervix,

though not with the stony hardness like that of cancerous axillary glands, except in advanced cases, where the uterus was already fixed and deeply ulcerated. This disposition of the lymphatics favoured the spread of cancerous elements, and the whole of the broad ligaments could not be removed.—Dr. PLAYFAIR agreed with the conclusions expressed in the paper. In the most common form of cancer in which extirpation was most likely to be of value the diagnosis was uncertain till it was too late to operate. Apart from epithelioma, cancer of the cervix was always obscure till fixation occurred, which distinguished it from hyperplasia, &c. The progress of the disease is sometimes surprisingly rapid. In one case seen with Mr. Thornton one week sufficed to fix a perfectly mobile uterus and to veto the operation. Even in cancer of the body alone he was doubtful if extirpation is justifiable. He then related a case in which he had suggested extirpation three years ago, and the patient is still alive in comparative comfort, the bleeding having been controlled by insufflation of iodoform and tannin. In epithelioma of the cervix, removal of the diseased tissue and the application of chloride of zinc is the best procedure. He related a case in which the patient remained in comparative comfort four years after this operation, though the disease had recurred. He related a case in which, though the case was well adapted for extirpation, he had advised Sims's operation. The patient went to Sir Spencer Wells, who had, at her request, extirpated her uterus. The disease recurred within a year, and she died. He had no doubt Sir Spencer Wells would acknowledge, in the light of recent experience, that if the patient had been let alone or Sims's operation done, her expectancy of life would have been as good, to say nothing of the risks of the operation.

On the motion of Sir SPENCER WELLS the discussion was adjourned to the next ordinary meeting in March.

ACADEMY OF MEDICINE IN IRELAND.

A MEETING of the Surgical Section was held on Dec. 12th, the President, Dr. Bennett, in the chair.

Mr. THOMSON read a paper on three cases of Ovariotomy which had all been successful. They were performed in the presence of visitors and the students of the hospital, as were all the cases operated on by his colleagues. Listerian precautions were used; the pedicle in each case was ligatured and dropped into the pelvis, and no drainage was considered necessary. The author discussed the opinion expressed by Mr. Lawson Tait that "no surgeon engaged in constant attendance on the promiscuous cases admitted to a general hospital should perform such an operation as ovariotomy," and maintained the right of the general surgeon to operate in abdominal cases. He held that such an opinion was an absurdity, as it really meant that no surgeon should amputate a limb, the wound being more likely to suffer from infection than the peritoneum. An uncomplicated case of ovariotomy he regarded as one of the easiest operations in surgery. Dr. ATTHILL said the intra-uterine disposal of the pedicle was that almost universally adopted. Success depended on careful attention to details, by which, whether the operation was performed by a specialist like himself or by a general surgeon like Mr. Thomson, the result would be as good as was obtained in London or elsewhere. The first question of importance was as to the size of the tumour before commencing to operate. As the result of his experience, success was greater with a small than with a large tumour, and therefore he advocated early operative treatment. Another point of importance was the size of the incision; Mr. Lawson Tait advocated an exceedingly small incision. Sir Spencer Wells and others, one of fair size. Having operated fifty times himself, he was decidedly in favour of a fairly large incision, but not larger than was absolutely essential to ascertain if anything were wrong. He objected to new sponges as being hard to free from sand, and on that account he used the same set of sponges, twelve in number, again and again, first boiling them in 1 in 1000 solution of corrosive sublimate, and keeping them in carbolic lotion. In a certain proportion of cases drainage was an advantage, and if used carefully there would be no bad result. While in favour of antiseptic precautions, he objected to the use of the spray as producing cold in the abdomen.—Dr. FRAZER recommended liquid sulphuric acid for the purification of sponges.—Mr. H. G. CROLY advocated ovariotomy by the general surgeon as one of the most simple operations in the whole range of surgery, and one, too, that ought to be performed not only in the presence of visitors but of students, as he did not approve of letting students fancy there was some mystery in it.—Dr. STOKES concurred with Mr. Thomson in the justifiability of the general surgeon undertaking ovariotomy. Of his last eight cases six consecutive ones were successful. In all his cases he had made a free incision and used the spray, but he took the precaution of warming the carbolic solution. In the unsuccessful cases he employed drainage; but in the successful he laid it aside, and he believed the time was not far distant when drainage would be given up, not only in ovariotomy, but in most other surgical operations. Let precautions be taken, as Esmarch indicated, by securing every bleeding vessel and by sufficient pressure to render the wound dry; let what had been happily termed "the toilet of the peritoneum" be properly carried out, and drainage would become unnecessary. In his own cases what was called uterine epistaxis had been a source of anxiety. He asked whether or not that form of hæmorrhage occurred in Mr. Thomson's cases, and his opinion as to the desirability of checking it.—Dr. BARTON said Sir Spencer Wells informed him that he used the Listerian method of dressing, which, while he could not say it made much difference in the result, made a very great difference in his own feeling of confidence. He did not allow the spray to play on the open peritoneum, as harm was sometimes done by reducing the temperature.—Dr. ROBERT MCDONNELL said Sir Spencer Wells informed him that there was no fever accompanying the operation when he used antiseptic precautions, and therefore he adhered to the antiseptic method.—Dr. NEVILLE argued that specialists had the advantage of knowing better than the general surgeon how to treat contingencies, apart from the question of diagnosis. Epistaxis was common, and in his opinion did not much affect the result.—Mr. KENDAL FRANKS said though the development of ovariotomy was due to specialists, that was no argument why the general surgeon should not perform it. No hard-and-fast rule could be made as to drainage.—Dr. HENRY showed that where there was a large amount of broken-down adhesions the drainage-tube was useful, it being impossible to tell how much the abdomen would take up.—Mr. THOMSON, in reply, was glad Dr. Atthill concurred with him in the desirability of removing small tumours as soon as diagnosed. Abdominal section was practically without risk. It was most important that the sponges should be clean, and hence he used new ones, which he had put through a solution of hydrochloric acid for twenty-four hours to get rid of the particles of sand, and threshed and steeped again in water. In his cases he used the spray, but in the last he did not bring it directly over the wound. Epistaxis occurred in the last case, but as the patient had menstruated a week before the operation, he regarded the epistaxis as an irregular return of it, and in three days it passed off in the usual way. He testified to the success which attended Mr. Stokes' cases under the same circumstances noticed in his paper. He was in favour of the operation being performed in the presence of students as well as of visitors, but he preferred its being done in the ward rather than in the theatre, to prevent risk of contamination. While he did not say drainage should be done away with, it ought to be diminished, the presence of the tube itself giving rise to irritation and consequent effusion into the peritoneal cavity, which would countervail the advantages.

CAMBRIDGE MEDICAL SOCIETY.

AT a meeting of this Society, held on December 5th, 1884, Mr. J. Carter, F.R.C.S., President, in the chair,

Mr. BALDING (Royston) exhibited a specimen of Dislocation of Hip, with dissection of part, which he said was interesting as showing the parts involved in a simple dislocation of the hip, death having taken place from other causes forty-eight hours after reduction. It was removed by Dr. Archer from a boy thirteen years of age, who was admitted to the Royston Hospital on October 3rd, 1884, having been, as he said, just thrown from a cart by the horse running away. The patient was unable to walk in consequence of some injury about the right hip, and as he lay in bed the leg appeared much shortened and the right thigh lay across the lower part of that of the opposite side, there was marked prominence in the right gluteal region,

and it was thought that the head of the bone could be felt on the dorsum of the ilium; any attempt to move the limb produced intense pain in the hip and thigh. Under the influence of chloroform reduction was soon effected by manipulation. The effects of the chloroform soon passed off, notwithstanding the unfavourable head symptoms, but signs of compression with complete insensibility and convulsions gradually supervened, and death occurred on October 5th. At the post-mortem examination a fracture was found extending through the base of the skull, and effusion of blood within the cranium sufficient to account for death.—Dr. ANNINGSON had examined the specimen, and found much extravasated blood beneath the glutei muscles and amongst the nerves and vessels, which rendered dissection difficult. The gemellus inferior was torn from its attachment to the tuber ischii; the obturator internus and quadratus femoris were lacerated, and the obturator externus was much bruised near its attachment to the ilium. On cutting through the quadratus a valvular rent in the back and under part of the capsular ligament about an inch and a quarter long was found. The round ligament was torn through obliquely, the tear commencing close to the head of the femur.

Mr. WHERRY showed a patient suffering from Myopia caused by an orbital growth. He was first seen in July last with a right eyeball protruding and rotated outwards. On deep pressure in the upper orbit a fulness can be felt at the upper and inner aspect. The history was of double vision and of pain in the right temporal region during more than two years. He used to suffer also from severe attacks of pain in the body and limbs like "neuralgia all over" and sometimes "sciatica." He was troubled with habitual constipation and bleeding piles. The pain in the head increased so much that he was driven by sleeplessness to seek advice at the hospital. He never had any venereal attack; is fifty-three years old; has been married twenty-four years. Wife alive, aged forty-two; has had fifteen children, five are living, ten dead; of these, three died young of phthisis, two died in infancy, and five consecutively were still-born. There is no error of refraction of the left eye, which is moderately presbyopic, S=$\frac{2}{24}$. In the right protruded eye S=$\frac{2}{60}$, with 3 D., S=$\frac{2}{24}$ nearly. There is a rather blurred margin to the nerve entrance in this eye, as if from optic neuritis; and it presents a marked contrast to the other nerve entrance, which is clear and definite. He has a crossed diplopia; the image belonging to the left eye is higher up and tilted. On Dec. 5th, after the application of a 4 per cent. solution of muriate of cocaine, a puncture was made into the orbital swelling with a large grooved needle, and nothing came away but a little blood; the patient stated that he suffered very little pain from the operation. The treatment has been the internal use of iodide of potassium and perchloride of mercury; and although there is no apparent change in the deformity during the past four months, yet there has been no pain whatever, and the sight of the eye has also improved; but the most interesting point in the case appears to be the myopia, which seems to have been produced by the pressure, perhaps both extra-ocular and intra-ocular, though there has never been any tension.

Mr. DEIGHTON read notes of a case of Adenoid Growths of the Naso-Pharynx. C. L——, aged five years and a half, a delicate-looking little girl, born in the West Indies, of English parents, came to England three years ago, where she had measles very badly, and suffered from a profuse purulent discharge from her nose, but did not have any ear complications; since then she has suffered more or less from stuffiness of the nose, which has increased of late, until now she is quite unable to blow her nose, always sleeps with the mouth open, snores, and even in the day-time continually has her mouth open and breathes noisily. Of late she has been getting somewhat deaf. On examination of the anterior nares the mucous membrane of the inferior turbinated bones was not hypertrophied or unnatural in colour. The tonsils were only slightly enlarged. Rhinoscopy was impracticable, but on examining the vault of the pharynx a large mass of post-nasal growths, which bled very readily, was detected by the finger. These were removed by Lowenberg's forceps. In order to re-establish respiration through the nose, the mother was told to check the child whenever she was seen to be breathing with the mouth open, and a chin rest with tapes to tie over the head was ordered to be worn during sleep. This treatment was entirely successful.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

AT the meeting on December 4th, Mr. W. A. Garrard, President, in the chair,

Mr. S. SNELL introduced (by card) two female patients, one with Exophthalmic Goitre (monocular), and the other with Congenital Palsy of the Third Nerve.

Mr. WRENCH exhibited twelve Pure Cultivations of Bacilli prepared by Mr. Watson Cheyne, F.R.C.S., Director of the Biological Laboratory, International Health Exhibition, and described the mode of cultivation and the proof that a given organism is the cause of a disease.

Mr. SIMEON SNELL demonstrated the effects, on a youth, of Cocaine as a Local Anæsthetic when dropped into the eye. Mr. Snell referred to a number of operations in which he had made use of it. These included, among others, two cataract extractions, two cases of needling for opaque capsule, three squints, tarsal cysts, pterygrium, including several others, and cases also of removal of foreign bodies from the cornea; two iridectomies, one being for glaucoma. He believed the drug to be of great service, and it would in many instances obviate the necessity for chloroform or ether. The mydriatic effects were mentioned, and its use in aural surgery—for example, polypi—as well as in general surgery was alluded to. Mr. C. Atkin, Mr. Pye Smith, and Dr. Hannan made observations.

Mr. ARTHUR JACKSON exhibited a Cystic Sarcoma of the Tibia. The whole thickness of the tibia in its lower third was eaten away, only a thickened membrane being left in front. The patient, a man, had been knocked on the shin nineteen months previously. He had been under treatment twelve months ago, and suffered severe pain, especially at night. Later on he was under hydropathic treatment, and he had always been a vegetarian. On September 5th last he was admitted into the infirmary, and on the 6th the limb was amputated at the lower third of the thigh. Mr. Jackson referred to vegetarian diet as not being good for reparative processes; the stump was going to the bad until the patient consented to take some meat.

Mr. ATKIN read the notes of a case of Congenital Coccygeal Tumour, occurring in the practice of Mr. Arthur Jackson at the infirmary. It sprang from the right side of the sacrum and coccyx, the bone being on the left deficient. Double talipes equino-varus was also present. Microscopical sections were shown of the growth, when it was seen to be of a very mixed character; fatty, fibrous, and cartilaginous elements were seen, as were well-marked ducts lined with columnar-shaped epithelium. Cysts were also present, interspersed amongst the fibrous tissue, containing a semi-opaque yellowish granular material. Mr. Atkin made remarks on the different descriptions that have been given as to the pathology of these tumours, and laid stress on the total absence of anything that might be considered sarcomatous.

Mr. LONGBOTTOM showed a specimen of Stricture of the Pylorus. The patient, a man aged sixty-five, had only complained of indisposition for two months before death, then he suffered from dyspeptic symptoms, and vomited large quantities of sour fluid containing sarcinæ, which resisted all treatment. At the post-mortem the stomach was found enormously distended and attached to many surrounding organs, including the spleen, a hard rounded mass occupying the pylorus; the growth was well defined, not extending to the duodenum; the other organs were healthy. Mr. Longbottom remarked on the question of operation in such cases.

Mr. LONGBOTTOM also showed a Scirrhous Enlargement of the Left Lobe of the Liver from a man aged fifty-one. He had complained of pain in the right side for twelve months. An enlargement, the size of a hen's egg, was noticed three months ago; it did not occasion much pain. When seen seven weeks before death a considerable nodular swelling occupied much of the abdomen. At the post-mortem examination the left lobe of the liver was found enormously enlarged, extending to four inches beyond the ensiform appendix on the left side, attached to the diaphragm and abdominal walls in front; the growth weighed ten pounds and a half.

Dr. CLEAVER read a paper on Infantile Diarrhœa; and after rapidly reviewing the different forms of diarrhœa and the treatment to be adopted, and pointing out the danger of medical men attempting to treat diseases of

diarrhœa alike without sufficiently inquiring into the cause and origin of each case, he proceeded at greater length to review the form known as summer diarrhœa. After considerable experience at the Children's Hospital and in private practice he had come to the conclusion that this particular form of diarrhœa was, in a great measure, due to temperature and feeding, and particularly was this the case if cow's milk had been the means of nourishing the child. He invariably changed the diet to Swiss condensed milk, and with the happiest results, never having had occasion to regret in a single instance the substitution of Swiss milk for cow's milk.—In the subsequent discussion the following gentlemen took part: the President, Dr. Dyson, Mr. Reckless, Dr. Lyth, and Mr. Jackson.—Dr. Cleaver replied.

Reviews and Notices of Books.

The Origin of Cultivated Plants. By A. DE CANDOLLE. London: Kegan Paul and Co. 1884.—This little volume is a valuable contribution to the knowledge of the subject, being the embodiment of the most painstaking antiquarian and scholarly research, and the result of scientific acumen applied to the misleading statements of writers in times when botany had not yet developed into a science. It is one of a number of valuable works forming an international scientific series, and the world-wide reputation of its author is sufficient guarantee of the position which the book will occupy in botanical literature. The original work was published in French in 1882, and was an amplification of a chapter on the subject in the author's work on Geographical Botany published in 1855. Every effort has evidently been made by the author to keep pace with the rapid increase of information derived, during recent years, from the exploration of ancient tombs, and with the reports published concerning the cultivation of species recently introduced into plantations, and in general the efforts have been crowned with complete success. How difficult this is to attain is shown by the fact that coca leaves are not mentioned as being cultivated in India and Ceylon, although the shrub has been grown there within the last year or two, whence the London market will doubtless be supplied before long; as well as by the fact that the tree yielding cassia bark is spoken of as an uncultivated species, whereas Mr. C. Ford published about a year ago the fact that it is regularly cultivated in China. It is also somewhat disappointing to find nothing about the history of the cultivation of cinchona. Indeed, there is evidence that the work might be considerably extended in relation to plants that have been brought under cultivation within the last century, and of others which, like the kola nut, are now growing in other countries, where they have been carried by negro slaves in years gone by. Two hundred and forty-nine cultivated plants are, however, treated of, and all, except the lentil and chick-pea, are traced back to their origin, these two having apparently become extinct in the wild state; while wheat, maize, the broad bean, and safflower seem to be in course of extinction as wild plants. Several medicinal plants formerly, or even now cultivated, are included in the number above mentioned; and some interesting facts may be gleaned from their history; thus, the castor-oil plant is stated to derive its name from having been confounded by the Spaniards and Portuguese in Jamaica with the "agno casto" (*Vitex Agnus-castus*), the word "casto" being altered by the English traders into "castor." In a future edition, which will doubtless be soon required, the word "carthamine" might be advantageously replaced by the English name, "safflower;" and in the statement that the leaves of the *Ilex paraguayensis* contains a principle "analogous" to that of tea, the word "identical" would more correctly represent the fact. Nevertheless, it is a work which should find a place in the library of every botanist, and is indispensable to every student of economic botany.

The New Chemistry. By JOSIAH PARSONS COOKE, LL.D., Erving Professor of Chemistry and Mineralogy in Harvard University. Eighth Edition, Remodelled and Enlarged. International Scientific Series. London: Kegan Paul, Trench, and Co.—The eighth edition of a book on pure chemistry, even although remodelled and enlarged, calls for little remark. The fifteen lectures reproduced in its pages are excellent examples of popular science, by no means frivolous, requiring, indeed, careful study, and yet intelligible to the untrained student. Thermo-chemistry, the practical value of which is daily growing, is fairly well noticed, but the important discrepancies of Berthelot and Thomsen in this field of discovery are passed over, no doubt for want of space. We observe with regret that, after all that has been published on the subject, the periodic law is ascribed to Mendeljeff instead of to Newlands, who was its actual discoverer. However, so well-written and lucid a book deserves its popularity.

The Asclepiad, No. 5, Vol. II.—The January number of this journal contains four chief articles, dealing with widely different subjects, and afford an excellent illustration of the versatility of Dr. Richardson's literary powers. There is also an important contribution, which is well illustrated, entitled "Further Researches on Euthanasia for the Lower Creation." The biographical and critical essay on Benjamin Rush—the American Sydenham, as Isaac Lettsom styled him—is certainly interesting, and the portrait which illustrates it is on the same high scale as those which have heretofore adorned the *Asclepiad*. The Opuscula Practica, which form a standing order in this quarterly, are sure to be welcomed as "mites in science," containing useful practical notes. A few points in the properties of ethyl and methyl bromides, and methyl iodide are given in the current number.

Health Lectures for the People. Delivered in Manchester, 1882-3-4. Sixth and Seventh Series, pp. 143 and 148. Manchester: Heywood. 1884.—The sixth series of lectures appears to be a reprint of those published in 1882, which were noticed in THE LANCET at the time of publication. The seventh series consists of the lectures on what the committee under whose auspices they were delivered call "Sanitary Biology." They may be described as a course of popular lectures on physiology. We have considerable doubts whether they are well adapted for the classes for whom instruction is intended on the subject of promoting and maintaining their health as individuals and that of their families; but from this we must except the lecture by Mr. Brooke on washing and bathing, and that by Dr. Simpson on sleep and rest. The remarks in the latter upon the injurious effect of home lessons at night for next day's school are especially deserving of consideration.

A Dictionary of Medicine, including General Pathology, General Therapeutics, Hygiene, and the Diseases peculiar to Women and Children. By Various Writers. Edited by RICHARD QUAIN, M.D., F.R.S. New Issue in Six Monthly Divisions. Price 5s. each. Division I. London: Longmans, Green, and Co. 1885.—This Dictionary of Medicine is so well known that it is only needful to notice the fact of its issue in parts. It will, no doubt, be a convenience to many practitioners to take in the work in this form and subsequently bind it. There are no alterations in the text or general style of the work; it is simply a reissue in parts.

Reports of the Meetings of the Scientific Association, recently held in Montreal and Philadelphia, as given in "Science," Aug. 29th to Oct. 3rd, 1884. Published by the Science Company, Cambridge, Mass.—This journal, which has now reached the close of the fourth year of its issue, resembles the English journal *Nature* in the number, variety, and interest of the communications which appear in its columns. The numbers forwarded to us contain full

accounts of the various addresses and proceedings in sections of the meeting of the Scientific Association that met in America in the summer and autumn of the present year. Many of them are well worthy of careful perusal and consideration.

Official Year-book of the Scientific and Learned Societies of Great Britain and Ireland. London: Charles Griffin and Co. 1884.—This work, prepared to meet a want long felt by scientific workers generally of a representative book containing an account of the many scientific bodies engaged in active work throughout the kingdom, is compiled from official sources. The aims and objects of each Society are given, with the number of members, and the conditions under which its work is prosecuted. The first issue now offered to the public consists of fifteen divisions, fourteen of which relate to British societies, and contain an account of over 500 which are actually engaged in original research; while in the fifteenth is given a list of over 1400 scientific bodies prosecuting inquiry throughout the world. The volume will prove useful to those for whom it is intended, and we are glad to learn that it is intended to publish it annually.

A Dictionary of National Biography. Edited by LESLIE STEPHEN. London: Smith, Elder, & Co. 1885.—We have received the first volume of this work, which concludes with an account of Queen Anne. The notices given of each individual are full and clear, and, as far as we are able to ascertain, accurate. The work, when complete, will form a valuable addition to the library of every student of the past

CANTOR LECTURES.

By G. V. POORE, M.D., F.R.C.P.

ON CLIMATE IN ITS RELATION TO HEALTH.

AT the third lecture on Monday, Dr. Poore began by stating that the number of microbes found by Miquel in the air, varying from zero on the Alps to 28,000 per cubic metre in hospital wards, seemed to show that the number was proportionate to density of population, for density of population meant an aggregation of productive foci of microbes. The breath of even healthy persons often contained microbes, and the moisture in the breath, if collected, was putrescible, and when condensed upon the walls of an apartment or elsewhere, doubtless formed productive foci for micro-organisms. In hospital wards, which were occupied for twenty-four hours, and were never empty for months together, and in which productive foci were furnished by diseased lungs, diseased bodies, wounds, and collections of expectorated and other excreta, and where the temperature was high and uniform, it was no wonder that the microbes in the air became excessive. It was important to bear in mind the fact that productive foci might exist outside the body, and that all collections of putrescible matter were possible sources of danger. The indictments against sewers and cesspools, which were both productive foci, and often contained specific poisons, were too numerous to require more than an allusion. They were often direct causes of disease, and they acted most powerfully in an indirect manner by encouraging overcrowding, and the building of houses with no outlet except into the sewer. This is a most important consideration, because overcrowding probably took the first place among causes of high mortality.

Attention was next directed to some diseases which were certainly caused by floating matter in the air; and in the first place Blackley's interesting experiments were dealt with, whereby he demonstrated that his own sufferings from "hay fever" were distinctly caused by the pollen in the air. That fungoid spores in the air might work incalculable mischief was illustrated by reference to the potato disease, and the strong evidence which there was to show that when the disease first broke out in this country in 1844 the spores of the Peronospora Infestans were air-borne and travelled from Belgium to the Isle of Wight, and thence by the Midlands to Scotland, infecting the whole of the potatoes in the country in the course of a few days.

In suddenness of onset and extent of the area invaded epidemic influenza could not but remind us of the potato disease. That influenza was caused by an aerial poison all the facts of the epidemics seemed to show; and Sir Thomas Watson, writing in 1837, regards rather with favour than otherwise the idea that the disease might be due to multiplying organisms of a vegetable or animal nature carried hither and thither by the atmosphere. There is certainly more to be said in favour of such a theory now; and when the next epidemic of influenza occurs, Miquel and other workers in the same line may possibly settle the question.

Phthisis had lately been moved from the class of local maladies and classed with infective diseases; and the influence of the bacillus tuberculosis, which had been discovered by Koch, was now very generally accepted. Many of the facts which we have all along recognised with regard to phthisis seem strongly to support the idea of its being an infective disease. Among these facts may be mentioned the following:

1. The tendency of a local deposit of tubercle to infect the whole body and run an acute course which is sometimes strikingly like that of other infective disorders.

2. The true infectiveness of phthisis is difficult to prove: (*a*) because the onset is usually very insidious; and (*b*) because the disease is so extremely common that it is always impossible to exclude infection in any case. The fact that overcrowding is of all causes the most potent in determining phthisis is a strong argument that it is often caught by inhaling infective matter in overcrowded and ill-ventilated rooms and workshops.

3. The fact that the disease, once started, is very prone to progress in spite of removal of the cause is very suggestive of an infective process, as against the traumatic action of chemical or mechanical impurities in the air. The undoubted heredity of phthisis should be no stumbling-block to the acceptance of phthisis as an infective disorder. Supposing that the infective particle passed from parent to child in utero, there was nothing strange in that. Again, Raulin's experiment showed how the presence or absence of some minimal ingredient in the cultivating medium might cause an organism to flourish or languish, and what we call a family predisposition might very well mean that the blood and tissues of certain individuals are peculiarly well suited for the growth of the bacillus tuberculosis. Again, the inheritance of a long narrow chest probably involves a feeble coughing power for expelling catarrhal products. These products would be very prone to lodge at the apex, where the lung is without thoracic support, and there form a nidus for the growth of the bacillus.

The commonly accepted facts with regard to phthisis thus seem to be singularly in harmony with the infective theory of its causation. The fact discovered by Dr. George Buchanan that phthisis diminished in a district after effective sewerage had been carried out is as easy to explain on an infective theory as on any other. Sewerage works would remove a certain number of bacilli from the neighbourhood of our homes, and, by drying the sewage-sodden soil and making cesspools unnecessary, would deprive the bacilli of some circumstances favourable, if not for their growth, at least for their vitality. Phthisis does not by any means stand alone as an infective disease which is intensified by filth in the neighbourhood of our dwellings.

Soil as a climatic factor was next considered, and the circumstances which give rise to malaria were discussed. A review of the peculiarities of mountain climates was next entered upon, and it was strongly urged that these health-resorts would soon lose their reputation if the authorities allowed houses to be packed together without sufficient curtilage, and without regard to sanitary considerations, and if phthisical patients were to be crowded into barrack-like hotels to spend about twenty out of the twenty-four hours. Such a proceeding, in view of the infective nature of phthisis, seems to be of all things the most undesirable. Phthisis was in no sense a disease dependent on climate, except in so far as in damp cold climates like our own people were too prone to crowd together in dwellings and to neglect to provide any adequate ventilation.

In conclusion, Dr. Poore stated that he had endeavoured to show that many so-called climatic diseases were in reality diseases due to our own negligence. If the study of hygiene had been productive of good at home, it had no less removed much of the terror which tropical climates formerly inspired. The truth of this was shown in a very striking manner by the returns of sickness and mortality among British troops both at home and abroad, proving how death and disease had steadily diminished as our knowledge of sanitation increased.

THE LANCET.

LONDON: SATURDAY, JANUARY 31, 1885.

IT was hardly to be expected that the debate which has recently occupied three meetings of the Royal Medical and Chirurgical Society should have been limited to the mere question of fact as to the presence of KOCH'S bacillus in phthisical lesions, and the relative preponderance of the bacilli at various stages of the phthisical process. So far as this—the actual subject of the very important paper contributed by Dr. KIDD—was concerned, the opinions of those competent to speak from personal knowledge were in the main concordant with KOCH'S results. It is perhaps rather surprising that no further divergences on such points were forthcoming than those expressed by Sir A. CLARK, Dr. T. ACLAND, and Mr. MACNAMARA; for, as Dr. WILSON FOX suggestively reminded the Society, the detection of this bacillus depends upon its behaviour with certain aniline dyes; and, as Dr. KIDD and others pointed out, it is present often in very minute numbers. In a matter so wholly dependent upon the use of special technical methods, there is greater room for discrepancy than in matters of macroscopical observation; and it seems to us that in such a question as this a negative fact is of less importance than usual, especially when the positive facts are so numerous and harmonious. We may take it, then, as established that in the lesions of the phthisical there are to be found, in varying quantity, the bacilli discovered by KOCH in tubercular products. Here, then, we have valuable aid on a diagnostic point, by seeking for these micro-organisms in the expectoration. This was early illustrated in many quarters after the knowledge of KOCH'S discovery became general; and we may recall the case related by Dr. WHIPHAM at the Medical Society, where a doubtful diagnosis of tuberculosis was rendered more certain (and as it proved correctly so) by the detection of the bacillus in the sputum. It is not often that a resort to this additional aid in diagnosis is called for, since clinically the signs and symptoms of phthisis are characteristic enough. There is, however, one class of cases in which it may be serviceable—viz., where signs of consolidation persist at a lung apex, following an acute attack diagnosed as pneumonia. The knowledge that the process, although it may be arrested, that has gone on in that lung is of the same essential nature as that which in another subject may spread and destroy, would put the physician on the guard for further manifestations of the diathesis so revealed. Here we are confronted with the questions raised by Dr. GREEN, which touch the gist of the whole matter: Do we know any apex consolidations which are not tubercular; and, if they do not soften, what test of their tubercular character have we? Or may they, at first simple, become tubercular? And if the bacillus is not detected in such cases, is it justifiable to assume that they are not tubercular? Replies to these questions are not forthcoming with our present knowledge. All we can surmise is, in the absence of the organisms, that such cases are either to be placed in the category of arrested tubercle or that it is possible for a simple inflammatory or pneumonic change in the lung which remains unresolved to become a nidus for the bacillus. Speculation may beat in vain around such questions as these; we do not possess the key to their solution, and must trust to the accumulation of well-considered facts to bear us to the right solution. The valuable addition made by Dr. FOWLER from his experiences in the post-mortem room was helpful as showing how frequently phthisical lesions remain arrested. "What proof is there that these obsolete semi-cretified fibroid masses are the relics of a local tuberculosis?" ask the sceptics. "The proofs derived from analogy," reply the observers; and to this may be added the testimony of M. DÉJERINE, who has detected the bacillus in the softer caseous outer zones of such products, and who has convinced himself of the common tubercular origin of all (or nearly all) the calcified nodules in the lung, which are amongst the most common of any pathological change whatsoever. Both Dr. WILSON FOX and Dr. MOXON pointed out that under certain conditions of the process it was not to be expected that the agent which is assumed to initiate it should still be present; and it does seem to us by far the best way to explain all the facts, clinical as well as pathological, besides having the merit of simplicity, to believe in the arrest of a tuberculous process and the possible immunity from auto-infection owing to the changes that have occurred around the primary local focus. This doctrine harmonises well with the facts, spoken to on all sides, as to the relative prognostic significance of an abundance or paucity of bacilli in the sputa.

How, then, does the acceptance of this doctrine affect the whole question of the nature of phthisis? It implies that it is an affection which cannot be initiated spontaneously, but it by no means disregards the idea that for its origin, and even more for its extension, other factors than the introduction of a poison from without are essential. There must be a vulnerability of the organism, a disposition to undergo the phthisical changes; and not only a general vulnerability such as may be supposed to be derived from inheritance, but often a local vulnerability determining the appearance of the tubercular lesion in this or that region. We fully concur with Dr. GREEN that the discovery of the bacillus in no respect alters the opinion which pathologists had arrived at regarding the infective character of tuberculosis. Ought we now—with KOCH—to admit this morbid condition into the category of contagious disease? On this question the data are strikingly insufficient; for although logically there seems to be no escape from the view that tubercle may be transmitted by inhalation and by food, we are surrounded by a host of other considerations which must first be explained away before that view can be finally accepted. Here, again, the subject of predisposition comes to the front; and if measures of prophylaxis are to be taken at all, it must be in respect to such individuals in whom the predisposition exists. We deprecate as emphatically as does Dr. WILSON FOX even the suggestion of treating the unhappy victims of consumption as if they were dangerous to the health of the community. It would be lamentable indeed if science should thus come to override sympathy. There is not proof

that phthisis is in any degree at all directly communicable; and the fact of the great prevalence of the disease, instead of confirming this doctrine, rather militates against it; for who then would be free from a contagion so universally disseminated?

. Lastly, the methods whereby the specific nature of the tubercular bacillus has been demonstrated, although apparently open to the trenchant criticism bestowed on them by Dr. CREIGHTON, are precisely those which have been pursued with respect to other diseases that are infective and inoculable. The debate was enriched by the demonstration given by Mr. WATSON CHEYNE, and we may well leave the explanation of these methods in his hands. The real question of a tubercular virus, and its infectivity remains, however, untouched, whether the bacillus be the specific virus or not. At any rate we are glad that this debate has taken place. It contained very much more than the subjects we have glanced at; but the general tendency was towards a far greater definiteness and clearness of view concerning tubercle than would have been possible not many years ago. We may be far from the truth yet, and it may be that ideas will vary in the future as much as they have in the past, but when the history of fact and opinion on this subject is reviewed by the light of present knowledge, it becomes evident that, far off from it as we may be still, a distinct advance towards the truth was made by KOCH'S discovery three years ago.

A VERY interesting paper was read at the second general meeting of the Hospitals Association on Jan. 21st, by Mr. C. J. RADLEY, on the "Best Plan for establishing Provident Dispensaries in due relation to Hospitals." One of the interesting points in this paper was the frank admission of the practical failure of the Metropolitan Provident Medical Association. This Association never deserved to succeed, and for two reasons. First, it proposed a very cheap medical service for anybody who liked to apply, without discrimination or inquiry as to means. Secondly, it spent much of its energy in wooing the Friendly Societies, trying to induce them to enter wholesale into its scheme, which would have involved the extensive dislocation of many creditable existing arrangements and relations between clubs and their medical advisers. To cater for the Friendly Societies, as we have always pointed out, was to take coals to Newcastle; and to propose indiscriminate admission of every class to the advantages of cheap terms of medical attendance—terms only proper in the case of those of straitened means—was an obvious and unpardonable injury to the medical profession.

Another point of interest in Mr. RADLEY'S paper is his clear perception of the objections to tampering with the purely charitable character of hospitals by a semi-commercial system of charging out-patients. He thinks such a system would tend to increase the numbers applying, that it can only with difficulty be applied in institutions essentially charitable, and that if applied it could not be expected that those now giving their professional skill would refrain from claiming some share of the revenue. Here, again, we rejoice to see the growing perception of views which we have persistently held. Our hospitals must not become open shops for the cheap sale of medicines and of medical advice. Anything more degrading to our hospitals or more disastrous to the medical profession we can scarcely imagine. It is necessary to speak plainly on this point, for the Metropolitan Counties Branch of the British Medical Association is organising an attempt to elicit the support of the profession in London to a system of payment by out-patients. True, in the report of the subcommittee, the principle is advocated in a very guarded manner: "A small payment should be exacted *for medicines*, not for *medical advice*." This is a fine distinction, and one which will not be made by persons who use hospitals. If any person is to go to a hospital on condition of paying a small sum for medicines, and to be free of the risk of being charged with abusing a charity, woe to the large section of the medical profession who live, and live most creditably, by hard and zealous work among the humble but honest sections of the community, of whom it may be said, as of ROBERT LEVETT:

> "The modest wants of every day
> The toil of every day supplied."

There is reason to believe that the profession is quite alive to the tendency of this system, and that the answer to the questions of the Metropolitan Branch will be clear and unequivocally adverse to the views of the subcommittee.

We are now brought to Mr. RADLEY'S suggestions for remedying acknowledged evils in the uses of our medical charities. Leaving Friendly Societies to themselves, he advocates the formation of a chain of local medical centres throughout the metropolis for the treatment of those unable to pay ordinary fees on some special terms within their means. Each of these centres should have an inexpensive establishment for the dispensing of drugs, receipt of payments, work of registration, &c.; the medical staff to fix the hours for being seen at their own houses. On these local centres, which are supposed to be worked by honorary lay secretaries, would devolve the work of recommending out-patients to hospitals, and Mr. RADLEY would demand of the hospitals to refuse admission to all not so recommended. He would also provide for the small class who might not be able to afford to pay for anything, and yet whom it would be harsh to refer to the parish. His views in the abstract are excellent; but has he rightly gauged the army of honorary secretaries that would be needed, not only with good intentions, but with administrative faculty of a somewhat rare kind? We readily recognise the clearness with which he sees the evils of the existing system, and the scarcely less evils of rival schemes by somewhat careless reformers; but we see little hope of a "chain of metropolitan dispensaries" such as he proposes. We would gladly see some great restriction of the out-patient system; but to open the hospitals on a system of small payments is to demoralise the poor, to wrong the charitable, and to try to destroy the wholesome system by which the humblest working man, if honest, may have the careful attention of a private practitioner.

DR. EDUARDO SALVIA has recently published at Naples a memoir embodying experimental researches on muscle grafting. He recalls that GLUCK was the first to prove experimentally, that muscular tissue detached from a living animal has the power, when introduced into the tissues of another animal, of contracting organic adhesions and continuing to live. He observed that by adopting certain

precautions, chiefly of antisepsis, pieces of muscle, without tendon, might be transplanted in rabbits and hares, and remain in the part grafted as true muscular tissue. If, however, the graft excited inflammatory reaction of some intensity, the histological characters of the engrafted tissue underwent fibrous metamorphosis. In 1882 Dr. HELFERICH, director of the surgical clinique in the University of Munich, sought to put to practical use the knowledge so far acquired by experiments in muscle grafting. His clinical note, published in the *Archiv für Klinische Chirurgie* (Berlin, 1882, p. 562), embodies notes of a case worthy of reproduction. In removing a sarcoma from the front of the right arm of a lady aged thirty-eight, Dr. HELFERICH had been compelled to excise a considerable part of the biceps, which had become infiltrated with the pathological product. Nearly the whole of the upper half of the biceps was removed; only a small bundle of muscular fibres as thick as a slate-pencil being left, on the outer side, continuous with the tendon. The resulting space was exactly filled with a piece of muscle, weighing three ounces and two drachms, detached from the thigh of a healthy dog just at the moment of grafting. Care was taken to ensure accurate adaptation of the muscular surfaces, without bagging; and the grafted muscle was secured to the remaining portion of the biceps with thirty points of catgut suture. Some counter openings were made in the skin for drainage, the external wound sutured, and a Listerian dressing applied. The arm, bent at an acute angle, was fixed to the thorax. The operation was performed with strict regard to antiseptic rules, but without spray. The process of recovery was uneventful. The first dressing was only on the ninth day. In consequence of detachment of some of the sutures, the lower angle of the wound gaped somewhat; and through it issued a necrotised fasciculus of the engrafted muscle, when a carbolised solution was injected through the drainage-tube. The piece of separated muscle was as long as the canine portion inserted, and about one-eighth its depth. On the eighteenth day a piece of skin as large as a shilling sloughed at the point of issue of the mortified muscular fasciculus. A month later, the patient had completely recovered; but the limb was somewhat œdematous. After employing for two months constant and induced currents of electricity, the right biceps muscle regained its normal electro-motor power, alike on the right side, where a part of the original muscle remained, and on the inner side, corresponding to the engrafted muscle. The patient could move the forearm with power, and without the slightest pain, alike in pronation and supination. Dr. SALVIA'S experimental researches were instituted with a view to ascertain if it be possible to transplant muscles between animals differing in species, food, and habits. After a number of failures, he succeeded, under strict antiseptic precautions, in engrafting into the thigh of a dog a portion of the rectus femoris of a rabbit. So perfectly did the transplantation succeed, that no trace of it could be discovered by the naked eye or the microscope, when the dog's thigh was dissected three months later. Reviewing all the steps of his research, Dr. SALVIA has felt justified in formulating the following propositions. First, it is possible to transplant a piece of the muscular tissue of an animal amongst the cut muscular fibres of another animal, although the two may be of different species. Secondly, the piece of transplanted muscle may become thoroughly united with the muscle into which it is grafted, without exciting suppurative or specific inflammation. For the attainment of this result, it is necessary that the piece of transplanted muscle should completely fill the space resulting from the retraction of the ends in the excised muscle. It is equally necessary that the operation be carried out with the strictest antiseptic precautions. Thirdly, the union, between the fibres of the transplanted muscle and those of the animal grafted, takes place by new formation of young muscular fibres; these become immediately continuous with the fibres of the animal and of the graft, without leaving any trace of the primary point of separation.. Fourthly, the grafted muscular fibres gradually lose their distinctive anatomical characters, acquiring those of the animal's fibres in which they live; no difference between them can, after a certain time, be detected by the most careful microscopical examination. Fifthly, the function of the muscle after the graft is perfectly restored, and that comparatively quickly, without the slightest indication of weakness or torpor.

THERE seems no doubt about the fact that we are committed to a much more democratic form of Government than any of which we have had experience hitherto in this country. This is not a party question. Whether it be a subject for credit or for reproach to our leading statesmen is a matter on which our readers will be divided in opinion. But it is important to notice that, as we have already pointed out, the change is one consented to and arranged by a new operation in legislation—viz., a consultation of leading statesmen on both sides. It is not yet definitely ascertained whether Mr. GLADSTONE or Lord SALISBURY got most of his own way in the details, or which party will gain most by the result. It is certain, however, that both were consenting parties to the new democratic constitution of England, and that that constitution is as good as settled. Sensible men of all classes will do well, therefore, to accept the fact and to make the best of it. The medical profession ought not to suffer by the change. Ours is the profession of the future. In its object it is thoroughly human and Christian. Its services are quite as indispensable to the poor as to the rich. It is brought into almost domestic relations with every class of the community. The poor, who do not know the luxury of having a lawyer, and who too often look suspiciously on the minister of religion, eagerly invoke medical aid in the great emergencies of life. The progress of events only enlarges the sphere of its influence and multiplies the occasions for its being consulted. Hitherto the practitioner has been looked to only to cure disease; now he is expected to undertake its prevention. It can scarcely be that the profession, which has so much to do with the people, should suffer by constitutional changes which give the people more power. It will not suffer if it act wisely and honestly with the people. On the contrary, it may attain to new political influence for its own good as well as that of the State. Some objector may possibly refuse to be comforted. He will think of all the natural and inherited stupidity of "HODGE," and of the almost parallel intellect of the lower section of the working classes

in towns, and despondingly refuse to take any pains to conciliate or to educate either of them. It is against this mood that, in the interest of the profession, as in that of the nation, we write. We are well aware that popular constituencies, even now, on great medical questions display very defective intelligence. It is still more sad that learned university professors, in the capacity of candidates for Parliamentary election, should pander to such a state of mind, or rather such an absence of mind. Nevertheless, we, as the popular profession, superintending birth and postponing death, must patiently deal with the democracy till it has undergone that process which Lord BEACONSFIELD himself had to apply to the aristocracy. We must educate. We must give it time. "HODGE" may be in a great fog about vaccination. By the way, "HODGE" in this respect would compare favourably with some of his urban brethren. But we must work for the clearance of the fog both in town and country, and it is certain that, with a little patient reasoning on the part of his friendly doctor, "HODGE" will perceive the bearing of vaccination and many other medical questions as quickly as many of his betters. The masses who are to be enfranchised are also to be educated, not at the Board School, but by their more fortunate fellow-citizens, and we are hopeful of the result. The poor of England are good-natured, easily led, and well aware of the fact that for guidance in political matters they must look to those who know better than they. It will be the fault of the educated and the well-to-do if they do not lead them much as heretofore. It will be a fault of temper, not to say of contempt. But of all men the members of our profession must be on their guard against such an error, and must "gently lead" those who are to be called upon to discharge functions for which they are little prepared, and to express opinions on questions with which they are little familiar.

Annotations.

"Ne quid nimis."

THE EMPEROR OF GERMANY AND SIR JOSEPH LISTER, BART.

THE last honour to Sir Joseph Lister is a very notable one. The Emperor of Germany has conferred on him the "Ordre pour le Mérite" for Science and Arts. Not only is Sir Joseph Lister to be congratulated on this act of the venerable and most illustrious Emperor, but the profession of the United Kingdom will recognise in the act a generous recognition of the claims of British medical science, which it is only fair to say is not new on the part of Germany. The discoverer of vaccination has been more honoured in Germany than in his own country, in accordance with the Scripture that "cannot be broken." The quiet revolution in surgery, involving the practical abolition of pyæmia, hospital erysipelas and gangrene, and an infinite diminution in the calamities of surgery, which we owe to Sir Joseph Lister, more than to any other single man, is a service to mankind not quite on the same scale as the discovery of vaccination, but of very far-reaching consequence. Through the slightly discordant notes of diplomacy it is refreshing to notice the harmony of international grace in the higher regions of science and of humanity. The profession will not fail to notice that the Emperor has found leisure for this act at a time when he has been himself in suffering, from which it is gratifying to know that he is recovering; and they will not think the less of it that it contrasts painfully with the niggard recognition of medicine by our own State.

CANON LEFROY ON THE LUNACY LAWS.

AT Liverpool, on a recent occasion, when preaching for the hospital, Canon Lefroy was good enough to give expression to his views on the subject of certifying lunatics. He recognises the difficult position of medical men, admits the force of the reasons which are rapidly inducing physicians, surgeons, and apothecaries to decline to sign certificates, and he avows that in his opinion "they will be very unwise if they do." Canon Lefroy's suggestion of a scheme to bridge over the time until the Lunacy Laws shall be altered—a totally indefinable period, be it remembered—is that local Health Committees shall appoint specialists to examine and certify, indemnifying them against actions for carelessness. We have nothing to say as to the practical working of this arrangement. Our immediate concern is to express entire appreciation of and sympathy with the views set forth by this eminent and eloquent churchman. We, too, think medical men will be very unwise if they do sign lunacy certificates. By all means let us agree to refuse the performance of this most onerous service. It is one for which medical men receive scant thanks from anybody; and it is one in the doing of which they incur most formidable risks. After recent experience it must be plain to every member of the profession that to sign a certificate is to do an act which may, after long years of forgetfulness, suddenly rise up against the practitioner, involving him in heavy loss, ignominious bullying in a witness-box, and, perhaps, draw down reproach and discredit on his name and pain and penalty on his family. Let us, one and all, stoutly and finally refuse to sign lunacy certificates, and then the law will have to be altered. It would be wrong, socially and morally, to refuse our help to the sick and sorrowing; but in this matter of signing certificates we do no wrong to anyone by refusal. Certifying is not a medical function: it is not helpful to the insane, nor is it a service to society. By continuing to certify, we are simply playing into the hands of those who desire to perpetuate a state of the law which is detrimental to the best interests of the community, and which is adverse to the sufferers from mental disease, and insulting and injurious to the profession we represent and to which we belong. This is our advice, and we hope to see it generally accepted and acted upon by the many, as it is already by the few. As the law now stands, the effect of refusal will not be to prevent, or throw obstacles in the way of, the proper treatment of lunatics, but simply to compel their being placed under treatment at home by *general* practitioners, where and by whom we believe they will be most promptly and successfully treated, until such time as they can, if needful—which it will *not* be in the great majority of instances,—be judged insane after a legal inquiry before a Master in Lunacy.

OVER-PRESSURE IN ELEMENTARY SCHOOLS.

THE January number of the *Westminster Review* contains an interesting article on this subject, in which the recent controversy, arising out of Dr. Crichton Browne's report and the official rejoinder, is ably and, on the whole, fairly criticised. Our contemporary does not approve Dr. Crichton Browne's recommendations; and he is not in favour of aid to feed the children of the poor, or of medical inspection. Meanwhile, he does approve the appointment of a *Royal* Commission of Inquiry, and affirms that such an inquiry, after all that has been said and done in the matter, is absolutely indispensable. There we entirely agree with him.

GENERAL STEWART'S WOUND.

THE news that the gallant General who has won such great distinction by his rapid march across the desert and his brilliant victories over the Arabs has himself sustained a severe wound has been received with great grief on all sides. At present the information as to the nature of the wound is most meagre. It is only known that it is a bullet wound in the abdomen, and that the latest report is to the effect that he is doing well. Bullet wounds of the abdomen are necessarily very dangerous; even when not perforating the peritoneal cavity, they may be attended with contusion of the viscera, and be followed by burrowing suppuration, with all the risks of septic infection and secondary peritonitis. If perforating, the primary danger is from hæmorrhage; and as the latest news is favourable, we may believe that this danger is passed. Should none of the hollow viscera be wounded, the result of the injury will chiefly depend upon whether the wound is kept free from all septic changes. On the other hand, a lesion of a hollow viscus is nearly certain to lead to escape of its contents and fatal peritonitis. In addition to these dangers, the case of President Garfield reminds us that around a retained bullet slow ulcerative changes may be set up, which may lead to the most serious consequences. It is of hopeful import that the second and latest report speaks of some improvement; and it is very fortunate that the gallant patient has been removed on board one of the Nile steamers, where he will be in much more favourable conditions for recovery than in the desert. We shall anxiously await the reports during the next few days. Each day passed safely improves the chances of recovery in geometrical proportion, for it is immediately after the injury that the most serious complications—hæmorrhage, foul gastric and urinary extravasation, and septic inflammation and absorption—are most likely to occur.

MEASLES IN CARDIFF.

ONE of the most interesting and important problems awaiting the solution of scientific sanitarians is the discovery of the laws which govern the variable fatality of outbreaks of epidemic disease. How far does the fatal incidence of such diseases depend upon what, for want of a better term, may be called the sanitary condition of the population attacked, and how far upon varying types of the disease itself? From this point of view the present remarkably fatal epidemic of measles in Cardiff has more than a local interest. No death from this disease occurred in Cardiff during 1884 until the last week of September, when one fatal case was recorded, and five more were registered in the fourth week of October, when the epidemic assumed fatal proportions. Ninety-six deaths from this cause occurred between the middle of October and the close of the year, and fifty-three more during the first three weeks of this year. Thus no fewer than 150 deaths have resulted from measles in Cardiff, practically within three months. With a view to estimate the present sanitary condition of Cardiff, the following figures may be noted. The recorded death-rate in the borough during last year was equal to 24·2 per 1000 of the estimated population, which, if corrected for difference of age and sex proportions in order to compare with the rate in England and Wales, becomes 26·2. The death-rate from the principal zymotic diseases was equal to 4·7; this excess was partly due to the mortality from measles before referred to, partly to the fatal prevalence of scarlet fever during the greater part of the year, and partly to the high rate of infant mortality from infantile summer diarrhœa. These facts point undeniably to unsatisfactory sanitary conditions, but scarcely account fully for the exceptional rate of mortality now prevailing in the town mainly due to the measles epidemic.

UNWHOLESOME MEAT.

A FEW days since, at the Hammersmith Police-court, Mr. Paget heard a summons, taken out at the instance of the Fulham Board of Works, against a butcher for exposing for sale five flanks of beef which were alleged to be unfit for human food. Dr. Collier, the medical officer of health, who was corroborated in his evidence by Dr. Alderson, deposed to having examined the meat. He found it in a state of decomposition and exhaling an offensive odour. In his opinion, the animals had not bled at the time of death. For the defence Dr. Kelly stated that the meat was as sound as any he had ever seen. It had bled, and was well fed. Meat suddenly thawed had a soft, flabby appearance. Unable to reconcile the conflicting views of the doctors, Mr. Paget had to decide the case on his own judgment as to the value of the medical evidence on the two sides. Eventually he imposed a fine of £10. We are not in a position to say whether the conviction was equitable, as that would necessarily presuppose a knowledge of all the facts. At the same time, we maintain the magistrate exercised a wise discretion in giving preference to the story told by the prosecution. On the face of it, it was somewhat improbable that good wholesome meat could be bought at the low price of 4½*d.* per lb. It is much to be regretted there was such a want of agreement as to whether the appearance of the meat was simply due to a sudden fall of temperature or to putrefactive changes in the carcases of animals that had died from disease. No doubt the colouring matter of muscular fibre is liable to be set free and diffused by marked and rapid alterations in temperature, but the consequent staining of the fat never reaches the extent found in meat decomposed and full of blood. We are further at a loss to understand why the question of putrefaction was contested; surely it required no special scientific knowledge to enable one to solve the problem. If, as Dr. Collier testified, foul gases were evolved, there ought to have been an end to the controversy. Notice of appeal against the magistrate's decision has been given.

MISMANAGEMENT OF CONTAGIOUS DISEASE.

A SINGULAR incident occurred in Lambeth a few days ago. A married man, a lodger, was attacked with small-pox and removed to a hospital. His wife, who remained in their apartment, refused to have it disinfected, and was unable to pay the rent due by her. A broker was called in, the lodger's property removed, and the room disinfected. The evicted woman meanwhile had, by the advice of the broker, who was not informed of the facts of the case, applied at the workhouse for maintenance for herself and children. The parish authorities, in their turn, on learning the character of the husband's illness, sent back the whole family with their belongings to the now freshly purified house. It would not be easy to find a more complicated example of bungling from the want of a little ordinary care and patience. The primary error, of course, was the woman's in refusing to allow disinfection. Possibly the omission to include herself and her possessions in the general cleansing which was afterwards accomplished was her fault also. The householder, on his side, neglected to inform the broker—who, for aught he knew, was susceptible to the disease—of the fact that small-pox had been in the house. The parish officials appear to have been misled rather than careless, though a closer inquiry would no doubt have guided them to more judicious measures than those which they adopted. The whole trouble and risk would have been avoided had the householder exercised his authority and judgment by insisting on the purification of his room and its tenants as paramount to the question of rent for the time being, and had then if necessary, but not till then, resorted to the broker. It seems strange that no mention is made of

any injunctions to this effect on the part of the medical officer who sanctioned the removal of the patient to hospital. Such a case as this, if officially notified, should have been attended with other results.

FILIPPO PACINI.

AMONGST the anatomists of this century few have established a clearer title to lasting fame than did the discoverer of the Pacinian corpuscles. One of his attached pupils, Dr. Aurelio Bianchi, has just published in *La Medicina Contemporanea* a life sketch of the distinguished histologist, with the welcome promise of a complete biography, based on original documents. Filippo Pacini was born on May 25th, 1812, at Pistoja, a town of about 12,000 inhabitants, eighteen miles from Florence. He was one of a numerous and poor family, and was destined by his parents for the Church. But he soon exhibited a strong liking and aptitude for the natural sciences, and worked indefatigably in the dissecting-room and in the hospital. Pistoja could not then boast of a microscope; and Pacini constructed one, with a wooden tube and a system of lenses of his own arrangement. Examining the tissues with this rude instrument, he discovered the structure of the corpuscles with which his name is identified. He soon received an appointment to teach microscopy in the University of Pisa, and later on in the school of Florence; but while foreigners were profuse in his praise, the majority of his countrymen appear to have done him scant justice. It was only in 1862, when the celebrated physicist Matteucci became Minister of Public Instruction, that Pacini was supplied with microscopes and teaching apparatus, for which he had hitherto applied to the authorities in vain. His reseaches on the minute structures of the retina and on the electric organ of the torpedo are well known; and we recently gave an illustrated abstract of the researches on cholera, in which the Italian delineated vibrios closely resembling, if not identical with, the comma bacilli of Koch. Pacini died at Florence on July 9th, 1883, according to his biographer, surrounded by only a very few devoted friends, and harassed by the envy of many detractors. This is a charge which we hope may not be sustained by the evidence of the promised complete biography. It is pleasant to recall that Pacini had one great enjoyment in his beautifully situated laboratory and study. They looked on to a lovely little garden at the rear of the great Florence Hospital, a place where a worker imbued with the true philosophical spirit might treat present envy with indifference, while calmly waiting the unerring judgment which impartial time awards to intrinsic merit.

TOO READY TO ATTACH BLAME.

IN last week's issue of a Society journal there is a paragraph professing to describe how the authorities of the Middlesex Hospital manage "not to save life." And as the writer evidently misunderstands completely the real duties of a hospital and its relations to the public, it is well to call attention to it. It appears that a girl took a poisonous dose of oil of almonds at a perfumery establishment in Oxford-street. Emetics were given, and a doctor, who was called in, wished to use a stomach-pump. He accordingly sent to borrow one from Middlesex Hospital, and was met with a refusal, "as they did not lend out stomach-pumps." On this flimsy pretext a charge is brought in the journal referred to against the hospital of want of humanity. The smallest knowledge of the position in which our hospitals stand to the public would show any impartial person that they could not for a moment undertake to lend any medical or surgical necessaries of which doctors outside may be in want. We need not point out that, if the above charge be just, it would apply as fairly to a refusal to lend other surgical instruments, drugs, and apparatus of all kinds, and then why not nurses, food, beds, linen? The proper thing to have done in this case was for the attending doctor to have himself provided the suitable means of treatment, or, in default of that, to have sent the patient to the hospital, where it is well understood that all appliances needed for emergencies are immediately at hand. To lend a stomach-pump or any other piece of apparatus might lead to its absence just when required in the hospital, and possibly to its loss altogether. We regret that our contemporary should have made such an obviously unjust criticism upon an institution so well deserving of public confidence and support as the Middlesex Hospital.

HEMIANÆSTHESIA FROM CONGENITAL BRAIN DISEASE.

THE only justification for the title of the paper read at the last meeting of the Clinical Society by Dr. Althaus, an abstract of which will be found elsewhere, appears to us to be on the principle implied in the expression *lucus a non lucendo*. The evidence so pertinently demanded by Dr. Lees of the congenital date of the affection was, in our opinion, not forthcoming; and the questions of Dr. Angel Money and Dr. Adeney implied doubt of the view taken by Dr. Althaus. If the conclusions arrived at by the author of the paper be well founded, we should have in the application of the electric battery a ready means of curing, at all events, *some* of the results of organic disease of the brain, and presumably of other parts of the nervous system. One of the conclusions arrived at by the author was to the effect that a profound loss of all sensation, general and special, was due to the effects of a blood-clot long since absorbed from the region occupied by the posterior third of the posterior segment of the internal capsule of one cerebral hemisphere in a girl aged eleven years. The more we think of the facts of the case the more we are driven to the inference that the case was one of functional, not to say hysterical, hemianæsthesia, the temporary, if not permanent, cure of which is readily explicable by the employment of the electric brush. It is probably true that such an affection is not really of congenital origin, though there is certainly nothing in the age of the child which would preclude the possibility of the occurrence of such functional nervous phenomena.

"VENTILATION ABOLISHED ALTOGETHER."

MR. BARON HUDDLESTON is trying a great sanitary experiment at the Royal Courts of Justice. It is one which will interest everybody, and we hope to be duly informed of the results obtained; indeed, we shall look for information with considerable impatience. The late Lord Derby is reported to have said in reference to some wine recommended to him as a preventive against the gout, that he preferred that disease to the beverage that promised immunity. Mr. Baron Huddleston prefers to be unventilated rather than have cool air blown on him from every quarter under pretence of purifying the chamber in which he is doomed to sit. The engineer is enjoined, on peril of contempt of Court, not to ventilate Mr. Baron Huddleston's court any more. It will be curious to note whether the strictly local death-rate of that particular Court rises or falls. We should like to receive a weekly bulletin of health and mortality, countersigned by the judge himself. Will he oblige us? The stagnant atmosphere of this individual chamber might also be turned to useful account as the raw material out of which to manufacture a vast marketable supply of specimens of mephitic vapour. We trust the analytical chemists and physicists will not allow it to remain unutilised. It is a pity the idea is not to be carried a little further, and that a portion of the Royal Courts of Justice cannot be freed from the nuisance of drains, artificial water-supply, artificial lighting appliances, and so on. It might even be interesting

to put the hands of the clock back in other senses, to try the effect of reversion to an earlier developmental type, so that the pristine glories and conveniences of a previous age could be studied in their entirety side by side with the so-called "advantages" of modern applied science. We fear the idea is not altogether original. At the Health Exhibition insanitary houses were exhibited for comparison with the sanitary buildings and appliances which the public were to be incited to emulate. In olden times wise men made their slaves drink to excess as a warning to their sons. It has however, been left to Mr. Baron Huddleston to exhibit a court of law in the Royal Courts of Justice in which "ventilation is to be altogether abolished."

"HOW TO REDUCE WEIGHT."

DO not try it. The *Field* is anxious to induce hunting men to adopt measures to reduce their weight for the saddle. This is our advice on the subject: Rest assured no measure will suffice which is not injurious to health. One man will put on weight with very little food, while another will undermine his stability by a reduction which appears moderate. The simple but golden rule is to eat *slowly* and masticate the food taken thoroughly, so that there may be time for the organism to make known its satisfaction with the supply placed at its disposal before the stomach is overloaded. The mistake made by hunting men and others, who, to use a common expression, "are as hungry as hunters," is that of coming home exhausted and eating ravenously. By this haste no time is allowed for the organic needs of the eater to cry, "Hold—enough!" It is like emptying a whole scuttleful of coal on the fire when it is only in need of a few dexterously placed lumps. The digestive organs being in fairly good working order, the repletion is not resented as it would be by a weakly "dyspeptic," and muscle and fat are laid on in excess. If we only ate more deliberately we should find half our accustomed quantity of food sufficient to satisfy the most eager cravings of hunger. What we call "appetite" is a most misleading sensation. It is only remotely related to the actual demands of the organism. Let hunting men, and men of all classes who lead healthy active lives, resolve to eat and drink *slowly*. With this single precaution they will soon find that the tendency to "weight" diminishes, while the appetite being disciplined unconsciously by the formation of the habit, it will be needless, as it is useless, to live by rule as regards the nature or quality of the food taken.

ENTERIC FEVER IN ABERDEEN.

DR. SIMPSON, medical officer of health, has prepared a special report on an outbreak of enteric fever attacking sixty-five persons in fifty-six families in the city of Aberdeen. Some few were, perhaps, not concerned with the special outbreak—two, indeed, were imported cases,—but at least forty-three are set down to the same cause. Drainage and water being obviously excluded, milk infection was found to be the only explanation, but it is a curious circumstance that the outbreak involved more than one dairy. At one of these dairies a young woman, who had up to one or two days previously been serving milk which was sent into Aberdeen, was found ill of the disease. As regards two other dairies that are in question, no such distinct source of specific infection was discovered; but assuming the possibility of an importation of the infection or of its retention about the premises, the sanitary circumstances of the dairies were such as to favour the contamination of the milk. Thus, at one large cesspools of foul stuff were found lying stagnant within two feet of the dairy window. The case is in some respects not quite so clear as regards the two latter dairies as it is with regard to the first one named, but milk appears to have been the only thing that those attacked had in common. At the first dairy it is stated that no fault lay with the dairyman, and until Dr. Simpson investigated the case the patient discovered there was not supposed to have fever. Dr. Simpson rightly adds that it is a good thing for those who use milk to have it thoroughly boiled.

SKILLED OPINION.

OUR generally sagacious contemporary, the *Globe*, has somewhat muddled the argument it would fain advance against our view of the competency, or rather the incompetency, of magistrates to diagnose mental disease. It is contended that, as doctors differ, experts, not in physic, but in the law of evidence, must be called in to decide between them. This is amusing in itself as an independent proposition, but it is more amusing still when it comes to be applied to the case in point. A magistrate before whom a lunatic is brought to be certified is not in a position to apply the law of evidence, because there is only one witness before him—namely, the single medical man, or rather the single medical certificate. Apparently, our contemporary is not aware that when there are two experts engaged and two certificates the case cannot come before a magistrate at all. Whenever an alleged lunatic is brought before a justice of the peace, it is for this dignitary to form an independent opinion as to his sanity or insanity. It is wholly and solely because there is no second medical certificate—as in the case of a pauper—that the magistrate—or clergyman, if there be no magistrate at hand—is asked to act. When there are two certificates magistrates cannot legally interpose. Surely this ought to be known.

THE METROPOLITAN HOSPITAL SUNDAY FUND.

A MEETING of the Council of the Metropolitan Hospital Sunday Fund was held on the 23rd inst. at the Mansion House, Sir Sydney Waterlow, Bart., M.P., in the chair, for the purpose of electing committees and officers for next year. The members of the General Purposes Committee were re-elected, with the exception of the late Bishop Claughton, the name of the Rev. Dr. Allon being added. The members of the Committee of Distribution were also re-elected, with the exception that Mr. F. H. Norman, banker, was substituted for the late Mr. Jervoise. Sir E. H. Currie and Mr. R. B. Martin were reappointed hon. secretaries, and Mr. H. N. Custance was re-elected secretary. A resolution, moved by the chairman and seconded by Sir W. McArthur, M.P., that the Council record on its minutes the deep sense of regret they felt at the loss sustained in the death of the Bishop of London, was unanimously agreed to, after which, there being no further business to transact, the meeting separated.

CHOLERA ON THE BOLAN ROUTE.

WE learn from the Calcutta *Englishman* that a serious outbreak of cholera occurred shortly before the mail left amongst the men of the North Staffordshire Regiment on their way down the Bolan Pass. The two wings of this regiment started from Quettah on the 3rd and 4th inst., and, marching by single stages, they reached the foot of the pass on the 10th and 11th inst. respectively. The troops are said to have been "seasoned" men who had returned from the Zhob Expedition. The extremes of temperature are not great at the stage they reached. The foot of the pass is not, we should think, a favourable spot for cholera, the ground being dry and rocky, and the air blown from the mountain wilderness is pure and bracing; also, the water of the river here is quite pure to outward appearances. It is at this spot that cholera showed itself first. Ten cases occurred in one wing alone, and in all twenty-three ter-

minated fatally. Shortly after, we understand, a portion of the regiment, consisting of 400, was send to Landi, in Lower Sind. After this judicious and well-timed step had been taken no fresh case occurred among this body of men. The attack on the whole was of a virulent type. A part of the regiment, some 200, was still encamped at a place called Rindli; their tents were pitched close to the river and at a distance of two miles from the railway station. This regiment had suffered a good deal from the climate and surroundings of Quettah, which are by no means congenial to health.

RHEUMATIC GLOSSITIS.

AN alleged case of rheumatic glossitis is recorded by Dr. Carvallo in *La Cronica Médica*. The patient was a man aged forty, who one day found that his tongue began to enlarge and that articulation was difficult. The swelling increased so much that the tongue was no longer confined in the limits of the mouth. There was much difficulty in breathing; the lips were blue; the pulse was small; salivation was incessant; deglutition was painful; speech was impossible, and at times attacks of suffocation threatened dissolution. Leeches were applied to the angles of the lower jaw. Dr. Carvallo remembered to have read in M. Jaccoud's "Traité de Pathologie Interne" that Lawrence had written of the occurrence of glossitis as a consequence of rheumatism. The patient admitted that he had had rheumatism, and that he even then had rheumatic pains about the shoulders. An infusion of jaborandi was prescribed, and afterwards a draught containing salicylate of soda. The next day the tongue had diminished greatly in size, and had returned to the buccal cavity. The suggestion that such cases of swelling of the tongue may depend on a rheumatic agency is perhaps valuable; the proof that the case mentioned was of rheumatic nature cannot be said to have been given.

UNUSUAL ACCIDENTS TO ACROBATS.

THE present pantomime season has been marked by more than the usual number of accidents to the performers. Both the clown and the harlequin, aged respectively thirty-five and forty-two, in connexion with one pantomime have had the misfortune to rupture the tendo Achillis. In the former the tendon itself gave way, and in the latter the muscle near to the tendon. Both were making unusual exertion in attempting a jump; and in the case of the harlequin, the injury was possibly aided by striking the back of the leg against a bar, just as he started forward for the spring. At another theatre a still more uncommon accident happened to a girl aged twenty, while dancing in the ballet. In springing forward from the right foot, she felt it twist outwards, and heard a snap, experiencing pain in the outer side of the foot. She was obliged to leave the stage, and on examination it was found that she had fractured the fifth metatarsal bone of the right foot near the distal end.

THE INJURED POLICEMEN.

ON inquiry at Westminster Hospital, we find that the policemen who were injured by the dynamite explosion in Westminster Hall on Saturday last are progressing most favourably. Cole, the man who was carrying the packet just before its explosion, was the more seriously injured, having sustained a fracture of four ribs on the left side, caused by falling in the hole made by the explosion, the other constable, Cox, falling on him. The latter was suffering from slight concussion of the brain and had a contusion under the right eye. He was not long unconscious, and on recovering he manifested considerable mental excitement. Both the patients are still deaf, but the deafness is less marked than it was.

ISOLATION ARRANGEMENTS FOR FAREHAM.

THE Fareham rural sanitary authority have decided to abandon their scheme for erecting a hospital for the isolation of infectious diseases, and the *Hampshire Post* publishes a letter from a correspondent who tenders the newspaper his thanks for having in time given publicity to so ridiculous a scheme, one which would, in his judgment, have affixed a stigma and disgrace upon the town as a hotbed of disease. The ignorance displayed in this letter is great, and if some day Fareham is publicly known as a place to which the "disgrace" attaches of having within it an epidemic, which could easily have been checked at the onset had provision been made beforehand whereby a few first attacks of such disease could at once have been isolated, the writer of the letter in question and his sympathisers may perhaps regret that they expressed opinions so hasty and so foolish. In many a place similar action has come to be regretted.

TANK-WATER AND CHOLERA.

THE memorandum concerning the tank at Calcutta, given by the Cholera Commission in their second report (*vide* p. 221), is directed mainly to the confutation of an inference drawn by Dr. Koch respecting the connexion between an outbreak of cholera amongst the dwellers in the vicinity of a tank and the presence of comma bacilli in the water. Dr. Klein has confirmed the statement as to the presence of the comma bacillus in the water not only of this tank, but in that of two others. In not one instance was cholera then present amongst the two hundred families living around the tank; but in the case of one tank cholera occurred in three houses situated at some distance. When the whole report is published a reply of Dr. Koch to such statements as these will doubtless be made; meanwhile it is interesting to know that Dr. Klein thoroughly recognises the special peculiarities shown by the comma bacillus in cultures, but does not think that these suffice to distinguish it from putrefactive bacteria.

COCAINE IN RECTAL SURGERY.

ON January 27th, at the West London Hospital, Mr. Swinford Edwards ligatured six large hæmorrhoids in a woman aged fifty. As she was the subject of aortic disease, it was decided not to administer an anæsthetic. One minim of a 4 per cent. solution of cocaine was therefore injected into each pile at the muco-cutaneous junction, after which the entire surface of the mucous membrane at the lower part of the rectum was painted over with a like solution. The operation, which lasted twelve minutes, was almost painless, the patient only slightly feeling the last incision. Twenty-five minims of the solution of cocaine were used in all.

THE CHAIR OF PATHOLOGY AT LEIPSIC.

PROFESSOR BIRCH-HIRSCHFELD of Dresden has been nominated to the Chair of Pathological Anatomy at Leipsic, vacant by the death of the late Professor Cohnheim. The new professor is perhaps best known for his exhaustive text-book on Pathological Anatomy, of which the second edition is now appearing. He has done much original work in bacteriological subjects. He is not therefore likely to pursue the physiological line of inquiry so much advanced by the late illustrious teacher.

SCIENCE AT TURIN.

IT has been determined to spend the very liberal sum of £120,000 in creating new scientific buildings in connexion with the University of Turin. Half that sum will be provided by the Provincial and Communal Councils of the City, and the other half by the Government, with the sanction of the Italian Parliament.

THE PATHOLOGY OF CHEYNE-STOKES' BREATHING.

SOME histological alterations in the bulb and pneumogastric nerves, to which changes he attributes the phenomena of Cheyne-Stokes' respiration, have been recently discovered by Tizzoni. This mode of respiratory rhythm consists in the presence of a prolonged pause followed by respiratory movements, at first slow and superficial, but gradually rising in frequency and increasing in depth, again slowly to decrease. So much misunderstanding has arisen on the subject of what is and what is not meant by this named mode of respiratory rhythm that Tizzoni has done well to state precisely what it is that he meant. In one of his cases there was organic heart disease, and the respiratory phenomena lasted forty days. At the autopsy chronic inflammatory changes were found ascending the vagi, with blood extravasation into the lymphatic spaces of the perineurium and endoneurium. On the left side only the peripheral portion of the nerve was affected, whilst the right nerve was altered along the whole of its course, even to its origin. In the bulb the changes existed in the form of small foci, and were also more marked on the right side. The point where the alterations were most prominent was beneath the ependyma over the longitudinal furrow of the calamus scriptorius. In a second case, which was one of uræmia, the phenomena were observed for several days. The vagi were normal, but the superior half of the medulla oblongata presented lesions similar to those just described, though less pronounced and symmetrical.

THE *Sanitary Journal* of Ottawa contains, in the second number of the seventh volume, an abstract of a very interesting paper read before the American Medical Association, by Dr. Karl von Klein, on Jewish Hygiene. He shows at length how largely the Talmud is pervaded with regulations having a distinct sanitary bearing, and that, mixed up with the many childish, fabulous, and irreverent things which are included in the code, there still remains that which forms the basis of many of our most modern sanitary measures. Whether the regulations relate to cleanliness, morality, preparation of food, or otherwise, many of them are pregnant with hints which deserve to be far better known than they are.

IN consequence of the prevalence of small-pox in and about London, visiting at the Surrey County Asylum, Brookwood, has been prohibited until further notice, and the medical superintendent has deemed it necessary, as a precautionary measure, to have the patients and staff revaccinated. A difficulty being found in procuring a ready and sufficient supply of lymph, the public vaccinator for the district, Mr. T. Cawley Eager, of Woking, on being consulted in the matter, kindly offered to perform the vaccination with the assistance of the medical officers of the asylum. The result has been excellent; nearly 1200 persons were revaccinated, and about 80 per cent. of the cases have proved successful.

THE Executive Council of the Irish Medical Association have forwarded to the Secretary of State for the Home Department a memorial praying for a further inquiry into the case of David Bradley, who was recently convicted at Leicester of criminally assaulting a female patient. The memorialists express the opinion that the evidence of the prosecutrix respecting the circumstances of place, time, and position under which the offence is alleged to have been committed is altogether incredible, and that such evidence is rather contradicted than corroborated by the testimony of other witnesses produced.

DR. ENSOR, district surgeon at Port Elizabeth, in a letter to the *Port Elizabeth Telegraph*, relates a case of alcoholic poisoning successfully treated by the subcutaneous injection of one-fifth of a grain of apomorphia, which he states is interesting as an instance of life saved by the prompt administration of a new remedy for narcotic poisoning, especially when insensibility is too complete for the administration of an antidote by the usual route.

IN the action brought by the Earl of Jersey against a publican named Woodward and the Uxbridge Union Rural Sanitary Authority in respect of a nuisance caused by the pollution of the Osterley stream, Mr. Justice Kay, on the 26th inst., granted a perpetual injunction against the sanitary authority, ordering them to pay to the plaintiff his costs of the action, and dismissed with costs the case against the defendant Woodward.

IT is stated that the Local Government Board have appointed Dr. Davies, one of their medical inspectors, to visit all the towns on the south-east coast, for the purpose of holding inquiries into the sanitary arrangements of each place, and especially as to the means at command for preventing the spread of infectious diseases.

SECOND REPORT OF THE SPECIAL CHOLERA COMMISSION IN INDIA.

THE Supplement to the official *Gazette of India* contains the following documents in continuation of the memorandum published a short time ago by the Special Cholera Commission in India:—

From Surgeon-General J. M. Cuningham, M.D., Sanitary Commissioner with the Government of India, to the Secretary to the Government of India, Home Department. (Dated Calcutta, Dec. 9th, 1884.)

In continuation of my letter of the 27th ult., I have the honour to submit, for the information of the Government, the accompanying communication from Dr. Klein, and to suggest that it also may be published in the Supplement to the *Gazette of India* for general information.

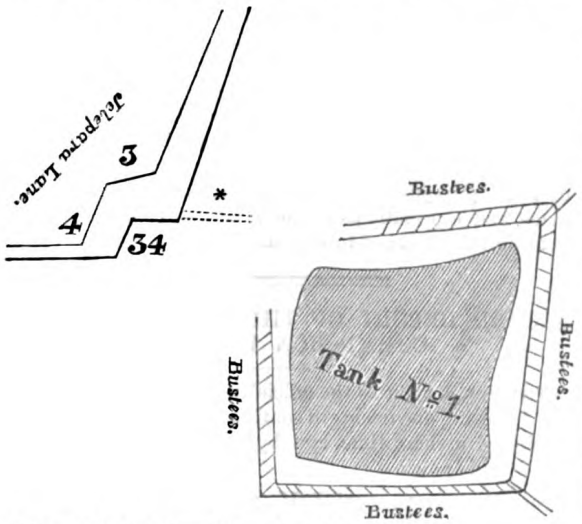
The fact that comma bacilli have been found in tanks without any case of cholera having occurred among the large number of people using them is an observation of much interest and importance in regard to the relation of comma bacilli to cholera. The observation has a special interest and importance, moreover, from the circumstance that one of the tanks in question is the *same tank* as that in which Dr. Koch found comma bacilli, and so hastily concluded that the outbreak of cholera which took place about that time among persons using this tank had been caused by the comma bacilli it contained.

From Dr. E. Klein, to the Sanitary Commissioner with the Government of India. (Dated Calcutta, Dec 3rd, 1884.)

In addition to the short memorandum signed by myself and Dr. Gibbes, which we had the honour to submit to you some days ago, I append here some interesting notes with regard to the relation of comma bacilli in tank water to cholera in Calcutta, which were collected in conjunction with Dr. D. D. Cunningham.

An outbreak of cholera occurred between Nov. 14th and 16th in three houses in Jelepara-lane in Calcutta. The houses are marked in the subjoined plan as No. 34, No. 3, and No. 4. In No. 34 occurred three, in No. 3 two, and in No. 4 three cases. Those of No. 34 were the first. The only condition common to all these houses is this, that in front of them is an opening of the sewer passing under the street. A passage marked * on the plan leads at some distance to a large tank, No. 1, around which is a number of bustees. The people of these bustees use, as is generally the case, this tank for all kinds of purposes, cesspools, washing of clothes, utensils, and drinking. The above three houses, Nos. 3, 4, and 34 of Jelepara-lane, are inhabited by well-to-do people, and they have in their houses a good and pure water-supply of their

own, and their inhabitants never come near the tank at all. The water of this tank is very dirty, and contains undoubted comma bacilli, exactly like those found in choleraic evacuations. Although a large number of the natives living in the bustees surrounding this tank constantly use and drink this water, no case of cholera has occurred amongst them. As you are aware from Dr. Koch's official reports to his Government, this gentleman visited during his stay in Calcutta (February 13th and 20th, 1884) bustees in Sahib Bagan, amongst the inhabitants of which there occurred, between January 21st and April 27th of this year, a severe outbreak of cholera. These bustees are located around a tank which for convenience sake may be here called No. 2. There are about two hundred families living around this tank, and, as is usually the case, the utilise this water for washing, bathing, cleaning, and drinking purposes. In this



* Passage leading from Jelepara-lane to tank.

water Dr. Koch found the comma bacilli, and he quite arbitrarily concluded that they caused that outbreak of cholera. I visited this tank lately and found in its water undoubted comma bacilli. There has occurred, during the whole of November, 1884, one single case of cholera, although about two hundred families use the water. Close to this tank there is another tank, No. 3, and around this live also about two hundred families. As in the former case, the people here around tank No. 3 use the water for all purposes, including drinking purposes. The water of this tank is dirty, and a sample taken close to the shore revealed undoubted comma bacilli. There has not occurred a single case of cholera in these bustees during the whole of this year. It is worth stating that there is a communication between tanks Nos. 3 and 2, there being a slight flow from the former into the latter. Tank No. 2 receives water from the ice-factory close by.

THE REPORT OF MR. L. WRAY, JUN., ON COLLECTING AND PRESERVING VACCINE LYMPH.

THIS report, which is addressed to the Assistant Resident at Perak, urges the need for more attention being devoted to the preservation of vaccine lymph. The report deals solely with the method of storage in tubes, and in it Mr. Wray points out that he has examined under the microscope tubes of lymph sent from England to the Government of Perak, and that he has "found some of them to be swarming with septic bacteria, and as a result void of *micrococcus vaccinæ*, and quite useless for purposes of vaccination." This is a reasonable ground on which to base his argument; but when he adds that such tubes "are constantly touched by hands that have, perhaps, only a few minutes previously been feeling the pulse of a fever-stricken patient or dressing sores of the most loathsome character," we should prefer to rely upon the rejection of lymph from persons guilty of such culpable carelessness, rather than upon the process of cleansing and sterilising the tubes.

Mr. Wray describes the apparatus with which he effects his object to be a glass tube dilated in one part, and closed at its lower end by a piece of indiarubber tubing, pinched by a pinchcock; the tube is filled with water, and the capillary lymph tube, after the latter has been filled with strong acid, has one end inserted into a pinhole in the indiarubber and the water is then forced through it. Subsequently, the capillary tube is dried in an oven and placed with others in a glass tube, hermetically sealed at one end and closed with cotton-wool at the other. The whole are then exposed to a high temperature to sterilise them.

Mr. Wray gives us no definite information as to comparative results with lymph tubes sterilised and with those filled without these precautions. A series of careful experiments with lymph taken at the same time would have a considerable value in determining their worth; and at the same time it might be well to compare the results with those obtained by lymph stored in points or in other ways. It must not be forgotten that the destruction of the vaccine organism may come about from causes other than micro-organisms collected from without the body of the vaccinifer, and that the preservation of lymph may be dependent as much upon its growth as on its subsequent exposure to external influences.

CYPRUS.

THE report on the census of Cyprus in 1881, taken under the superintendence of Dr. F. W. Barry, late Sanitary Commissioner of the Island, has just been published as a parliamentary paper. It shows the population to have amounted to 186,173 persons, being in the proportion of fifty per square mile. Of the total enumerated, 95,015 were males and 91,158 females, a preponderance of males which, "although contrary to the experience of all European countries, with the exception of Greece and Bulgaria, has been found to exist to a greater or less extent in all Asiatic countries." The average number of inhabitants to each house was 4·24. Of the whole population 24·4 per cent. were Mahomedans, 73·9 per cent. members of the Orthodox Greek Church, and 1·7 per cent. belonged to other denominations.

Under the head of "infirmities of the people" we find that the number of blind amounted to 12 per 1000 of the population, the average in England and Wales being only ·88 per 1000. This very high proportion is believed to be chiefly a result of the great prevalence of ophthalmia and, until recently, of small-pox, but is also in some measure due to the unwholesome surroundings and condition of the dwellings and to the want of personal cleanliness. The proportion of deaf mutes in the population is 1·2 per 1000, or double the ratio in England; and of persons of unsound mind (including lunatics, idiots, and imbeciles) 3·0 per 1000; but there is reason to believe this has been rather understated. It corresponds very closely with the ratio in England and Wales, which by the last census was shown to amount to 3·26 per 1000. There were 78 persons returned as affected with leprosy, of whom only ten were under twenty-five years of age. Dr. Barry remarks that there can be little doubt the number of lepers has been understated. "In Cyprus the leper, when recognised as such, is doomed by custom to social extinction. His property, if he has any, passes to his next of kin; he is an outcast from society, even from his nearest relatives; he can hold no official position, and even the offices of the church are denied to him. Under these circumstances it is a matter for surprise that so many as twenty-eight persons outside the leper farm have declared themselves to be affected with this loathsome disease." Of the lepers only two were returned as Mahomedans, the rest being members of the Greek Church.

THE PARKES MUSEUM.—The Council has received a number of interesting articles and models from the Japanese Section of the Health Exhibition, and at the special request of the Japanese Commissioner they have sent a large case of selected duplicates from the Museum to the Home Department at Tokio. The Council has also received the valuable collection of books in the health section of the library of the International Health Exhibition.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 6231 births and 4091 deaths were registered during the week ending the 24th inst. The births exceeded by 417, and the deaths by 464, the average weekly numbers during 1884. The annual death-rate in these towns, which had been equal to 24·9 and 24·2 per 1000 in the preceding two weeks, further declined to 24·0 last week. During the first three weeks of the current quarter the death-rate in these towns averaged 24·4 per 1000, against rates declining steadily from 28·1 to 21·3 in the corresponding periods of the six years 1879-84. The lowest rates in these towns last week were 16·4 in Brighton, 17·6 in Blackburn, and 18·0 in Derby. The rates in the other towns ranged upwards to 29·9 in Leicester, 30·3 in Norwich, 34·9 in Wolverhampton, and 40·9 in Cardiff. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 372 and 370 in the preceding two weeks, rose again to 372 in the week ending last Saturday; these included 112 from whooping-cough, 69 from measles, 47 from scarlet fever, 46 from small-pox, 38 from "fever" (principally enteric), 32 from diphtheria, and 28 from diarrhœa. These diseases, in the aggregate, showed the lowest rate of mortality last week in Blackburn and Birkenhead, and the highest rates in Preston, Leicester, and Cardiff. The highest death-rates from whooping-cough occurred in Bristol, Birmingham, and Leicester; from measles in Sunderland, Leicester, and Cardiff; from scarlet fever in Newcastle-upon-Tyne; and from "fever" in Wolverhampton, Norwich, and Derby. The 32 deaths from diphtheria in the twenty-eight towns included 12 in London, 5 in Liverpool, 2 in Bristol, and 2 in Bradford. Small-pox caused 61 deaths in London and in its outer ring of suburban districts, 1 in Birmingham, 1 in Liverpool, and 1 in Bolton. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had been 1001 and 1009 on the preceding two Saturdays, further rose to 1092 at the end of last week; the admissions also rose to 287 last week, from 234 and 216 in the previous two weeks. The Highgate Small-pox Hospital contained 99 patients on Saturday last, 25 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 609 and 552 in the preceding two weeks, further declined to 513 last week, and were 24 below the corrected weekly average. The causes of 93, or 2·3 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Derby, Bolton, and Halifax. The largest proportions of uncertified deaths were registered in Birkenhead, Huddersfield, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 30·7, 30·5, and 29·0 per 1000 in the preceding three weeks, further declined to 28·5 in the week ending the 24th instant, but exceeded by no less than 4·5 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 20·1 and 20·5 in Edinburgh and Leith, to 32·2 in Glasgow and 35·4 in Dundee. The 695 deaths in the eight towns included 29 which were referred to whooping-cough, 26 to measles, 11 to diarrhœa, 9 to "fever" (typhus, enteric, or simple), 6 to diphtheria, 5 to scarlet fever, and not one to small-pox; in all, 86 deaths resulted from these principal zymotic diseases, against 110, 94, and 83 in the preceding three weeks. These 86 deaths were equal to an annual rate of 3·6 per 1000, which was 1·4 above the mean rate from the same diseases in the twenty-eight English towns. The 29 deaths from whooping-cough in the Scotch towns showed a slight decline from recent weekly numbers, and included 9 in Glasgow, 5 in Dundee, 5 in Leith, and 4 in Greenock. The fatal cases of measles, which had been 26 and 20 in the previous two weeks, rose again to 26 last week; 16 occurred in Glasgow, 5 in Dundee, and 3 in Aberdeen. The 11 deaths attributed to diarrhœa, of which 5 occurred in Glasgow and 4 in Dundee, were 6 below the number in the corresponding week of last year. The deaths referred to "fever," which had been 5 and 12 in the preceding two weeks, were 9 last week, and included 3 in Glasgow, 3 in Edinburgh, and 2 in Aberdeen. Four of the 5 fatal cases of scarlet fever and 4 of the 6 of diphtheria were returned in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had declined from 231 to 174 in the preceding three weeks, rose again to 196 last week, and exceeded by 95 the number returned in the corresponding week of last year. The causes of 114, or nearly 16 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 31·2 and 31·0 per 1000 in the preceding two weeks, rose to 31·9 in the week ending the 24th inst. During the first three weeks of the current quarter the death-rate in the city averaged 31·4 per 1000, the mean rate during the same period not exceeding 23·9 in London and 24·2 in Edinburgh. The 216 deaths in Dublin last week showed an increase of 6 upon those returned in the previous week, and included 23 which were referred to the principal zymotic diseases, against 19 and 23 in the previous two weeks. Of these 23 deaths, 6 resulted from diarrhœa, 5 from measles, 4 from "fever" (typhus, enteric, or simple), 3 from whooping-cough, 3 from scarlet fever, 2 from diphtheria, and not one from small-pox. These deaths were equal to an annual rate of 3·4 per 1000; the rate from these diseases last week was equal to 2·0 in London and 2·3 in Edinburgh. The 6 deaths attributed to diarrhœa showed a marked increase upon recent weekly numbers, and the fatal cases of measles also showed an increase; the deaths from scarlet fever, on the other hand, declined to 3 from 6 and 13 in the previous two weeks. Three inquest cases and 3 deaths from violence were registered within the city; and 64, or nearly a third of the deaths, were recorded in public institutions. The 29 deaths of infants showed a further decline from recent weekly numbers, while those of elderly persons were more numerous. The causes of 38, or nearly 18 per cent., of the deaths in the city last week were not certified.

Correspondence.

"Audi alteram partem."

THE COMMA SHAPED BACILLUS: A ZYMOGENIC, NOT PATHOGENIC, ENTITY?

To the Editor of THE LANCET.

SIR,—On reading Dr. Koch's interesting and careful report on his investigations on Indian cholera, it occurred to me that I had already seen such organisms as are figured in his diagrams in material other than is associated with that disease. I then set to work in the microscopic examination of mucus from the small intestines of persons who had died from ordinary affections, and found curved bacilli, identical in shape, size, and appearance with comma bacilli, in all or nearly all. These bacilli, it is true, are to be found much more abundantly in the flaky mucus so commonly met with in the ileum after death from cholera than elsewhere in the digestive tract, or in this part of the bowel, under other circumstances. But I have found identical organisms in neutral or slightly alkaline urine in similar abundance; and the ordinary mucus even of cholera shows not many more bacilli than are to be seen in the mucus of the small intestines of persons who have died from other causes. Ordinarily, indeed, both as regards cholera and other affections, the intestinal mucus examined under the microscope shows very few curved bacilli and a great number of straight large putrefactive bacteria, micrococci singly, in zooglœa, and in chains, and spirilla. In human urine I found curved bacilli within five minutes of being voided from the bladder. Some six hours later the same urine showed a slight increase in these organisms; and this slow multiplication goes on till the urine becomes neutral or slightly alkaline, when they are to be seen in numbers such as are only elsewhere to be found in cultivations from the flaky mucus already mentioned.

The method of examination I adopt is as follows. A drop of urine from the surface is placed on a glass slide, which is then heated slowly at the flame of a

spirit lamp till evaporation is complete, and after a few minutes the dried residue is covered with a few drops of an alcoholic solution of gentian violet. Five minutes afterwards, the excess of colour is washed off with distilled water, and the slide again heated over the flame of the spirit lamp. I found this second heating absolutely necessary to kill the organisms, many remaining still alive after the first heating and the removal of the excess of colour, showing thus a most remarkable tenacity of life. The preparation may now be studied with a $\frac{1}{12}$ immersion lens, oil or water. A specimen mounted in Canada balsam can be very well studied with a $\frac{1}{8}$ object glass and No. 2 eyepiece. Latterly, I found that methyl blue gives a better result than gentian violet; for, though not so bright a colour as the latter, it somehow defines the micro-organisms more distinctly. It is to be noted, however, that the process of staining is much slower with methyl blue than with gentian violet. Quite recently I got excellent results from using a mixture of equal parts of the two colours. It would appear, then, that curved bacilli are not specifically connected with cholera; at all events, not in the light in which the head of the German Cholera Commission would have these organisms regarded. They are, nevertheless, an indubitable pathological feature of that disease; but this, I think, will soon be shown to be something more in the shape of a consequence than a cause of the malady. An experienced and trustworthy observer like Surgeon-Major Lewis testifies to the presence of comma bacilli in healthy saliva. They can be seen by anyone in healthy urine and in the mucus of the small intestines of those who have died from ordinary diseases, and are thus presumably discoverable throughout the mucous tract under most circumstances. This leads me to the expression of an opinion that has been gaining ground in my mind for some time, which is that the organism in question should be regarded more as a physiological than a pathogenic entity. Dr. Koch's own careful observations lend a measure of support to this supposition. He noticed that a colony of comma bacilli in cultivation to a certain extent dissolved the sterilised proteids on which they were nourished; presumably, the proteids were thus converted into peptones. He noticed also that for some days these organisms multiplied, to the exclusion of all others, in the flaky mucus of cholera kept on linen in a moist atmosphere, and then gave place to those characteristic of putrefaction.

Now, this is exactly what I find in the case of urine; until it becomes markedly alkaline, or, perhaps I should say, till decomposition commences, it shows myriads of curved bacilli, to the exclusion of all other organisms; whilst beyond this point large straight putrefactive bacteria predominate. Indeed, the former are seldom to be found in decomposing urine. This would appear to indicate the small comma bacilli to be *fermentative*, and the large straight bacilli putrefactive, organisms. And the fact that curved bacilli are found under varied circumstances in different regions of the mucous tract, surely points to the probability of their performing a certain set normal piece of work in the animal economy. In urine we have seen that their life history is closely associated with the pre-putrefactive or fermentative state of the change which this excretion undergoes. Now, we either know or suspect that fermentation plays a part in the digestion which takes place in the lower portion of the small intestine; but hitherto we have failed clearly to identify the agency by which it is accomplished. And here, I think, some light has been shed by Dr. Koch's observation that growing colonies of comma bacilli liquefied in their immediate neighbourhood the proteids on which they grew. We have it on good authority that the bacillus butyricus is commonly found in the stomach and intestine of herbivora, and the fact that this organism has the property of decomposing cellulose at once explains its importance in the digestive process of such animals. Why, then, should a similar zymogenic function not be attributed to an organism like the comma-shaped bacillus, which seems to have its normal habitat in the presence of mucous membrane in the human body? Indeed, I should not be surprised to find it conclusively proved that the comma-shaped bacillus is specially concerned in nitrogenous fermentation. Dr. Koch has drawn much more momentous inferences from arguments of a not less speculative character, and that, too, in the face of experiments, the negative result of which went to disprove his own hypothesis; and if I say that a superabundance of comma-shaped bacilli is found in the small intestines of cholera victims, because it would appear that whatever gives rise to that ailment brings about exalted fermentation in that part of the alimentary canal, I shall, at least, have as much logic in my assertion as he had in declaring that these organisms must bear a causal relation to the disease.

I am, Sir, yours, &c.,

GEORGE WATERS,
Surgeon-Major, I.M.D., Professor of Pathology,
Bombay, Oct. 17th, 1884. Grant Medical College.

COCAINE FUNGUS.

To the Editor of THE LANCET.

SIR, I feel it is my duty to point out to those who are using cocaine largely, either in ophthalmic or vesico-urethral practice, a danger which I have reason to suspect lurks in stale solutions of the alkaloid. A peculiar mould growth soon appears in the weaker solutions (4 per cent.), and apparently possesses the power of setting up inflammation of the mucous membrane to which it has been applied. It is well known that the epithelium is denuded by the action of the drug. The facility thus afforded to rapid absorption, or to direct action upon the tissues of any deleterious matter, is unquestionably great. Much greater, then, is the risk of absorption in operative procedure when cocaine is employed e.g., iridectomy, lithotrity, internal urethrotomy, &c., for here division or laceration of the tissues coexists with epithelium denudation. The most scrupulous asepsis of our solutions, as well as of instruments, is therefore imperatively demanded. My attention was first drawn to the subject by a stricture patient, whom I had treated with cocaine, complaining of profuse urethritis. As I had previously used the same solution with marked success in over fifty cases of stricture in urethral neuroses, lithotrity, &c., I could not account for the discharge, and was inclined to blame the patient sooner than damage the infant but brilliant reputation of the alkaloid. Two more stricture patients, however, appeared, both having been treated with cocaine, each of whom returned with acute urethritis (one with chordee). I examined my 4 per cent. solution, and found the mould growth I mention. Since my solution has been changed no fresh complication has occurred. I believe the stronger solutions do not permit the growth of the fungus, for with a 20 per cent. solution made on the same day as the one at fault I partially removed a large laryngeal papilloma without any resulting inconvenience, and on examination yesterday no fungus could be seen in it. Although the microscopical report of the growth is not yet to hand, nor am I able to adduce additional or more certain proof that the fungus *per se* has the power of setting up inflammation, I do not hesitate to publish the above facts, and trust their recognition may prevent other similar and more serious mishaps.

I am, Sir, yours truly,

HURRY FENWICK.

George-street, Hanover-square, W., Jan. 26th, 1885.

MEDICAL OFFICERS OF HEALTH AND PRIVATE PRACTICE.

To the Editor of THE LANCET.

SIR, The subject of your leader of last week is one in which I have long taken interest, and I therefore ask permission to say a few words thereon.

While agreeing generally with the views you express, I would point out that after twelve years' experience of the working of the Public Health Act, the number of towns or districts in which the state of public opinion is such, at the present time, as to enable the authority to guarantee a salary sufficient for the payment of the entire services of a competent officer of health is very few indeed. Such a salary ought not to be less than £600 per annum (seeing that there is no pension attached to the office); while in the case of a tried and valued officer, who has devoted his whole time and energies during some of the best years of his life to the public medical service, and who is precluded from otherwise adding to his income, the sum of £800 might fairly be considered as reasonable remuneration. But, excepting Glasgow, Liverpool, and Birmingham, there is no town where public opinion is sufficiently advanced for this, and in those mentioned the salaries given are much below that which should be accorded to the principal medical adviser of the corporate authorities of those great cities. In another twelve years things may

be changed, but at present I am strongly of opinion that entire exclusion from private practice ought not to be thought of in towns of less than a quarter of a million of inhabitants. Meanwhile, I think it is most unwise to encourage the idea that exclusion from practice is essential for the proper and conscientious performance of the duties of a medical officer of health. Some of the most highly cultivated and capable men, of good standing in our profession and in the towns where they reside, are, manifestly to the public disadvantage, thereby excluded from a branch of the public service in which the power of scientific observation, professional knowledge, tact, and influence are urgently needed. I am tempted to refer to a case in point - that of Cheltenham, a place with only 40,000 inhabitants, the health officership of which town is now being advertised at £300 per annum. Can it be possible that the authorities have been so unwise as to prohibit candidates who are engaged in private practice, while there is a physician residing there who has already done valuable work in the field of preventive medicine, and who would be willing to perform the duties of the office for the sum named?

You refer in your article to the fact that "some medical men, in their desire to get a footing in the sanitary service of the country, have undertaken to give themselves wholly to sanitary work at salaries which they should have regarded as hardly ample to command their services for more than one or two days a week." I regret to say this is perfectly true, as I know from my own experience during the past year. You do not, however, refer to what is still more to be deplored for the sake of our profession - namely, that medical officers whose "whole time" has been secured for salaries which may be stopped at the will of a town council have suffered those badly advised public bodies to thrust upon them duties of a most unprofessional character. If I were to enumerate some of these your readers would be surprised and shocked. Indeed, nothing illustrates more remarkably the unwisdom of excluding medical officers of health from private practice in towns or districts where public opinion is not ripe for such exclusion to be insisted on with advantage to the public than what has taken place of late in some of the northern towns of England.

I am, Sir, yours truly,

EDWARD SEATON, M.D.

George-street, Hanover-square, Jan. 27th, 1885.

To the Editor of THE LANCET.

SIR,—Your leading article in the last issue is an able and impartial analysis of conditions affecting medical officers of health, and deserves the thanks of all concerned; but still it seems to me that the circumstances are so involved in an atmosphere of neutral tint as to leave the object itself still obscured. As regards private practice (implying *ceteris paribus*), I believe it to be the opinion of a large number of practitioners themselves that it would in many ways cripple the independence of action in regard to public duties, and I know the appointment to have been declined for this reason alone. Again, with increasing private practice, how far can such increase extend without unduly encroaching on public duties? or could there be any proviso as to the number of hours daily or weekly to be devoted to the latter?

Now, Sir, there is a large section of medical men whose claims you omit to notice altogether, but whose special training and experience admirably adapt them for these appointments. I mean retired or half-pay medical officers of Her Majesty's army, superannuated too late in life (fifty-five) to commence the long struggle for success in private practice, but possessing valuable experience in all matters of sanitation; meeting and dealing as they have been accustomed to do with large bodies of men, women, and children directly, on their own responsibity, under all and varying circumstances, at home, abroad, in peace or warfare. From this point of view I might ask, Where was hygiene first reduced to, and taught as, a science in England if not at the Victoria Hospital, by Dr. Parkes, its founder, I might almost say its inventor, whose mantle fell upon a school regarding him with admiration and esteem; and thence diffused by his great work on the subject, a complete and crystallised gospel of hygiene? His genius, in my opinion, has scarcely received the recognition he deserved, though his book contains not only almost all that is as yet known on the subject, but also (preface) sentiments as profound and eloquent as any in our language. Again, I might point to the connexion between phthisis pulmonalis and defective ventilation, brought to light by the Army Sanitary Commission of, I think, 1858, in consequence of the reports and statistical observation of medical officers. I might adduce further examples, but I think I have said enough to show how important a factor sanitation is in the duty of the army medical officer, while at the same time there are numbers of unemployed active officers sufficient to form a corps d'élite for such service. It even appears to me the Director-General might arouse himself and point out to Government that it owes some *amende* (which might be made on these lines) to many officers whose promotion and prospects have been ruined by an *ex post facto* enactment.

I am, Sir, your obedient servant,

Jan. 27th, 1885. H. D. F.

THE EXTINCTION OF CHOLERA EPIDEMICS IN FORT WILLIAM.

To the Editor of THE LANCET.

SIR,—The letters of Drs. Marston and Mouat on the above subject call for a few remarks from me. In the first place, I must express my satisfaction at being supported by these distinguished officers in asking for an exhaustive inquiry in this case. Dr. Marston contends that the cessation of the epidemics should not be ascribed to the change made in the water-supply in 1865, for three reasons: (1) That long prior to the change—viz., between 1831 and 1837 - the cholera mortality was almost as low as it has been since; (2) that during the ten years ending in 1879 there has been a marked decline in the cholera mortality in Northern India, and he implies that the decrease in Fort William was only a part of this general decrease; (3) that many other sanitary improvements were made in Fort William to which the cessation of the epidemics might be as much due as to the change in the water-supply. I shall deal with these objections *seriatim*. With regard to the first point, there is reason to believe that Dr. Marston has been misled by imperfect returns. As there was no hospital in Fort William, the sick were treated at the Presidency Hospital, about a mile from the fort; and I find that in the years referred to eighty-three British soldiers, most of whom, *it is almost certain*, belonged to the Fort William garrison, died in the institution. Dr. Marston does not allow for these deaths; and the figures he quotes probably refer only to deaths that occurred so suddenly that the patients could not be removed to hospital. With regard to the second objection, it would be easy to show that the decrease of mortality for cholera in Northern India was due not so much to a decline of epidemic influence as to the withdrawal of a large proportion of the troops to the hill stations, where the risks of infection are comparatively small. The proportion of the troops in the hills having increased from 12 to 26 per cent. of strength, it is not to be wondered at that the cholera mortality fell from 9·24 to 4·18 per 1000. With regard to the third objection, I am glad that Dr. Mouat has stated the recommendations that were made by his committee in 1858. I conclude from Dr. James Anderson's description of the drainage and other sanitary arrangements in 1860 that the recommendations made had all been carried into effect by that time, except those relating to the water-supply. When I examined the fort in 1876 the drainage and conservancy arrangements exactly corresponded with Dr. Anderson's description. But although that able officer described "the barracks and fort altogether as kept remarkably clean," the garrison suffered heavily from cholera in 1860, 1861, and 1862. In the first of these years there were no fewer than 59 cases amongst the British troops. These facts seem to me to compel the conclusion that the change made in the water-supply was the main cause of the cessation of the epidemics. The health statistics of Fort William since that reform present a remarkable contrast to those of the principal stations of Northern India from the same period. The average death-rate of Fort William for the last eighteen years, for which statistics are available, was 12·3; that of the other principal stations 23·7 per 1000.

I am, Sir, yours truly,

Bray, Jan. 28th, 1885. A. C. C. DE RENZY.

THE USE OF COCAINE IN MINOR SURGERY.

To the Editor of THE LANCET.

SIR,—The following is, I think, a good instance of the value of cocaine in small operations:—

Miss B——, whose breast I removed for scirrhus in February, 1884, found a week ago that two small nodules of the disease, each about the size of a pea, very hard and painful, had appeared near the cicatrix of the operation wound. The nodules were about three inches apart. On January 23rd I injected three minims of a 4 per cent. solution of the hydrochlorate of cocaine on either side of one nodule; and, finding that after waiting ten minutes there was no pain on pinching the part, I cut down and removed the nodule, having to make an incision an inch and a half long. The patient felt absolutely nothing of the operation until I inserted the sutures, and that, she said, was hardly to be called pain. After closing the wound I injected another three minims near the second nodule, and operated in the same way; and although a little pain was felt, owing, I believe, to my not having waited sufficiently long for the third injection to take effect, it was very trifling; and from beginning to end this operation under cocaine was a decided success. There were no after-effects from the drug, and both wounds are healing by first intention.

I am, Sir, faithfully yours,

J. HERBERT SIMPSON, M.D.,
Surgeon to St. Cross Hospital, Rugby.

THE ADMINISTRATION OF ANÆSTHETICS.

To the Editor of THE LANCET.

SIR,—Being deeply interested in the administration of anæsthetics, I have read in this day's LANCET an account given of a death during or apparently subsequent to the administration of ether in the London Hospital on the 14th instant, reported by the house-surgeon, Mr. Proctor Selby Hutchinson. From a careful perusal of the same I have come to the conclusion that ether should not be blamed for the unhappy termination in the case. The post-mortem examination, independent of the anæsthetic used, revealed causes quite sufficient to produce death—viz., "The lungs were found emphysematous and congested. There was bronchitis, with a quantity of mucus in the tubes. The lower lobes did not contain much air. At the upper part there was more œdema. Trachea congested, containing frothy secretion. Heart flaccid, right ventricle and auricle occupied by soft coagulum; great increase of fat on surface of the same, and very little muscular tissue." Mr. Hutchinson states that Dr. Turner, who made the autopsy, considered that death had been brought about by fatty heart combined with bronchitis and emphysema; an opinion with which I cordially agree.

What I now wish to state is what I have stated repeatedly, and that is that all anæsthetics are dangerous, and will induce death if pushed too far; but of all anæsthetics I believe ether, properly and judiciously administered, is the safest, for it will never produce syncope or failure of the heart's action, no matter how much is given. It will produce asphyxia, or failure of respiratory action; but, as this is a very slow process compared to the former, timely warning is given to the anæsthetist to anticipate and prevent any untoward result, whereas syncope comes on and ends with such rapidity that there is no time for remedies. I also maintain that when bronchitis or pleuro-pneumonia is present to any great extent, ether or any anæsthetic is dangerous to use, and should not be administered.

In the administration of such agents I would suggest 1. That all anæsthetists should understand the properties and dangerous effects of each anæsthetic administered. 2. That all administrators should be qualified physicians or surgeons, and that they should carefully and thoroughly understand the process and degrees of anæsthesia before undertaking the very grave duty and responsibility of placing a human being into the mysterious sleep of insensibility. 3. That previous to any anæsthetic being administered, a careful and thorough examination of the thoracic cavity and its contents should be made, so as to detect, before it is too late, bronchitis or other pulmonary affection, as well as the condition of the heart. 4. That the administration of ether or any other anæsthetic should not be prolonged beyond the actual time required for the performance of the surgical operation. This I think it right to mention, as in a recent visit to some London hospitals I observed that the administration of ether with my inhaler was continued long after, in my opinion, there was any necessity for its use. After the main steps of an operation are over, anæsthesia, in the majority of cases, need not be continued. 5. At the slightest approach of danger, such as lividity and pallor of the face, stertorous breathing, cessation of the respiratory action or pulse, the anæsthetic should be at once discontinued, and fresh air given to the patient; and even when he has come round, the anæsthetic should not be there and then again administered, even should it be necessary to postpone the operation. The continuance of an anæsthetic after such warning symptoms can only lead to the most unfavourable consequences. 6. That the person deputed to administer the anæsthetic should devote his entire attention to the anæsthesia of the patient and to nothing else. He should not attempt to look about him or observe the progress of the operation. When mishaps have occurred they have frequently been due to inattention on the part of the anæsthetist. A competent and careful anæsthetist is, in my opinion, as important, and vested with as much responsibility during an operation, as the operator himself.

I am, Sir, yours truly,

L. HEPENSTAL ORMSBY, M.D., F.R.C.S.,
Surgeon to the Meath Hospital and County Dublin Infirmary.
Merrion-square West, Dublin, Jan. 24th, 1885.

WHOLE-MEAL BREAD.

To the Editor of THE LANCET.

SIR,—In some remarks upon wheat-meal bread in a recent number of THE LANCET, you mention me as the author of important improvements in the decortication of wheat; whereas, in fact, I am opposed to the decorticating treatment, because it fails to accomplish the object intended. My improvements comprise a new and original system of meals and breads which not only raises the standard of the products, but saves their cost and facilitates their manufacture. That is, having been at work practically upon the subject ever since originating the granular meal, and giving the process for it to the Bread Reform League, there has been built up by me, and step by step, a series of processes which will yield breads of superior excellence at the minimum of cost.

Yours truly,

CAMPBELL MORFIT.

Alexandra-road, Abbey-road, N.W., Jan. 22nd, 1885.

*** Dr. Campbell Morfit has forwarded to us three loaves of bread, illustrating his process and representing bread of the non-ferment class. No. 1 represents all the farina of wheat with some cerealine, amounting to 82-84 per cent. of the grain. No. 2 represents 94 per cent. of the wheat grain, or all except the tough portion of bran. No. 3 represents coarsely-ground wheat without any deduction whatever.—ED. L.

THE PRESERVATION OF THE DEAD IN MORTUARIES AND ELSEWHERE.

To the Editor of THE LANCET.

SIR,—The arrest of decomposition in the dead is a matter the importance of which forced itself urgently upon my consideration during the heat of last summer in the execution of my duties as a coroner. The Local Government Board have issued suggestions and plans for mortuaries, which are very excellent if only the sanitary authorities would follow them; but at present, in some large and important districts, no public mortuary exists; and in others where there is one the best means are not taken of preserving the bodies from decomposition, nor are there even proper arrangements made for making a post-mortem examination. But my present communication is to beg the use of your columns in order to throw out a suggestion, having for its object the arresting of decomposition in bodies by means of cold.

I would suggest that in all mortuaries, where possible, there should be made a case of iron, enamelled or galvanised, sufficiently large to hold four, six, or eight bodies, divided into compartments of about 7 ft. long, 2 ft. wide, and 2 ft.

high, by slides of the same material, surrounded by outer casing, also of the same, about 6 in. larger at the sides and back, covered with a jacket of felt and wood about 2 in. thick combined, to prevent conduction of heat. This outer space is for the reception of a mixture of salt and broken ice. The top should be closed by a lid, hinged in order to put in fresh ice and salt, and a tap should be made at the bottom to let out the meltings. There should be a door of iron covered with felt and wood, but it would not require any double casing for ice. The top would be as the door. Such a case to hold six bodies would occupy a space of about 7 ft. 9 in. long, 5 ft. 4 in. wide, and 6 ft. 2 in. high. Ice cases to hold a single body could be constructed on the same principle. When a body was required for examination or for any other purpose, a table capable of elevation could be placed before the open door and the shelf run out upon it. In many positions where steam or gas power could be used an ice-making machine could be employed instead of ice. It would be easy to make arrangements at the door end of the shelves, so as to give absolute security against any interference with the bodies within.

Cold, it appears to me, offers better advantages over other methods of preservation, leaving as it does the body completely intact. But by whatever means conservation may be effected its advantages are at once recognised as embracing the following points.

1. The prevention of disagreeable or dangerous odours. This is especially necessary where the mortuary is situated near houses or in hospitals; an instance of this latter has come under my notice where the mortuary is placed in the basement of the wards. In summer the effluvium finds its way into the windows of the wards; consequently, when an inquest is to be held urgent messages are sent to get the inquiry over directly, which is often impossible.

2. The coroner's inquest need not be unduly hurried, and this is of much importance in populous districts, both from the many engagements of the coroner, but also that it enables the jurymen to receive fair notice, so that they may arrange their own business accordingly, and gives time for the collection of evidence, thus preventing the necessity of adjournments.

3. In regard to identification, it gives greater and more complete facilities for the recognising of the dead. It will be at once seen how important this is from a legal and social point of view. Hitherto a week only is possible for identifying a dead body, and not unfrequently only a day or two. But by the plan suggested there would be no limit of time; and I see no reason why, in cases where the body has not been identified at the time of inquest, it might not be removed from the local to a central mortuary, and thus preserved for a period—say, a year. Portions of bodies like those lately found may in like manner be placed and kept until all means of inquiry concerning them should be exhausted, or may not the body of one dying far from his friends be preserved until arrangements can be made for burial or for a last look?

I am, Sir, yours truly,

A. BRAXTON HICKS,
Barrister-at-Law and Deputy-Coroner for Westminster and Surrey.

January, 1885.

THE M.D. EXAMINATION AT LONDON UNIVERSITY.

To the Editor of THE LANCET.

SIR,—We have read with surprise and a certain degree of amusement the views of your correspondent who signs himself "M.B.," relating to the "undignified complaint of one who aspires to a good degree." He evidently regards the passing of examinations as a much higher test of a man's capabilities as a practical physician than do we, who must confess a certain leaning towards the "schoolboy view" of your former correspondent. Moreover, "M.B." probably possesses a greater faculty for remembering the various facts and minutiæ which are necessary to ensure success in an examination like that for the London degree than is possessed by the majority. On these grounds we can respect his views. But when your anonymous correspondent turns aside and begins casting a slur on the teachers of practical medicine at the various London hospitals, contending "that he can count these teachers of clinical medicine on the fingers of one hand," we must confess to taking exception at his statement. The most obvious deduction that can be drawn from this remark is that either "M.B." has been endowed with an exceptional number of fingers, or that he has been singularly unfortunate in his experience. As we form two out of the remaining five who had the misfortune to be rejected in logic and psychology, though passing in medicine, we think that a disclaimer is not uncalled for.

We are, Sir, yours faithfully,

WALTER HULL.
F. FOORD CAIGER.

St. Thomas's Hospital, January, 1885.

THE CASE OF DR. BRADLEY.

To the Editor of THE LANCET.

SIR,—In last week's issue I am said to have given it as my opinion that an epileptic fit would not be recovered from in less than half an hour. That such a statement was made by me either in or out of Court I most emphatically deny. On the Sunday following the alleged offence I had an interview with Dr. Bradley. I asked him what kind of a fit it was that Mrs. Swetmore had, as her mother and friends had told me that her attacks usually lasted upwards of half an hour. He said it was a fainting fit. On this point I should almost feel disposed to differ from him; for if, as he alleges, she had a fit, it would probably be one of an epileptoid character. The learned counsel for the defence did not dwell upon the probabilities of women of a neurotic taint (of which Mrs. Swetmore is a type) suffering from delusions. In fact, I do not remember being asked a single question on this very important subject. That Dr. Bradley did not take my advice and obtain a professional expert as a witness is equally as much regretted by me as yourself; but that he had an "independent witness," and one who sympathised with him in his terrible calamity, you may rest assured.

I am, Sir, yours truly,

AMBROSE M. PALMER, M.R.C.S., &c.

Whittington, Jan. 27th, 1885.

LIVERPOOL.

(*From our own Correspondent.*)

HOSPITAL SUNDAY AND SATURDAY.

THE amount collected on Hospital Sunday has, as was feared, fallen short of previous years, owing to the inclement weather which prevailed, and also to the great depression of trade. It is hoped, however, that the deficiency may be made up by the improvement in the Hospital Saturday Fund, strenuous efforts being made to make this more generally known among working men, and to ensure more generous support. At the various annual meetings of the different medical charities which are now being held, the support received from Hospital Sunday is warmly acknowledged, and indeed is regarded as indispensable.

THE HOSPITAL FOR WOMEN.

The annual meeting of the Hospital for Women was held on the 26th inst., when the medical report read by Dr. Burton showed that the patients came not only from the city and neighbourdood, but from all parts of Lancashire, from Cheshire, North Wales, the Isle of Man, and elsewhere. The following was given as the summary of the year's work:—The number of patients treated at the dispensary department was 3397, with an attendance of 14,375. The in-patients numbered 363, with a mortality of 18, which is small considering the dangerous nature of many of the cases and that there were 249 operations. The expenditure was £1800, all of which had been raised, the hospital thus paying its way. £108 was received from fifty paying patients, while the dispensary patients' contributions amounted to £262.

THE INFIRMARY FOR CHILDREN.

At the annual meeting of the Infirmary for Children it was reported that the in-patients numbered 998 during the year 1884, while the out-patients were 12,234, and the daily attendances 30,779. In consequence of the depression of trade there was a deficiency of £323 on the income of the institution, which to that extent fell short of the expenditure. The following statistics respecting the mortality of children in this city was furnished to the committee by the medical officer of health:—Number of deaths under one

year, 3914; between one and two years, 1674; between two and five years, 1320; between five and ten years, 523; between ten and fifteen years, 239—total, 7670. The total number of deaths of all ages in the city for 1884 was 14,382. It will be at once apparent what a large proportion the mortality of infants and children bears to the total number, and that institutions whose object it is to reduce this mortality deserve support.

THE EYE AND EAR INFIRMARY.

Mr. Shadford Walker has resigned the office of surgeon to the Eye and Ear Infirmary, his term of office having expired. It would be impossible to give any idea of the extent to which the institution is indebted to Mr. Walker for his long and valuable services, first as assistant-surgeon, subsequently as surgeon. A greater contrast than the position of the infirmary as it was when he was first appointed to it and as it is now could hardly be imagined; and it is only justice to him to say that the change is largely due to his energy and influence. During the year 1884 the new eye cases numbered 7647, the new ear cases 2455; the former received 29,175 attendances, the latter 11,624. There were also 721 patients received into the infirmary as in-patients; the important operations performed among them numbering 460. The infirmary will still have Mr. Walker's services as consulting surgeon.

FEVER IN LIVERPOOL.

At the last meeting of the Health Committee it was stated that the following cases of infectious disease had been reported:—Fever 14, of which 11 were removed to hospital; small-pox 6, of which 5 were removed to hospital; scarlatina 38, of which 5 were removed to hospital. The report of the city hospital for small-pox cases was for the week ending Jan. 22nd as follows:—Remaining in hospital at date of last report, 23; admitted since, 11; discharged convalescent, 4; died, 1; remaining in hospital, 29.

Liverpool, Jan. 27th.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

VOTE OF THANKS TO THE NEWCASTLE POLICE SURGEON.

AT the last meeting of the Council the subject of the resignation of Mr. S. W. Rayne came up for consideration, and in accepting that gentleman's resignation the Council tendered a unanimous vote of thanks to him for his services, during which there has not been a single case of complaint against him. Mr. Rayne has served the town as police-surgeon for the long period of forty years, during which he has seen more than one complete change in the Council. The vote was ordered to be engrossed on vellum. The committee at the same meeting recommended the election of Mr. Baumgartner to the vacant office.

LEAD-POISONING IN WORKPEOPLE AT GATESHEAD.

The subject of lead-poisoning, which has come into rather frequent prominence in our district of late, came before the Gateshead guardians last week. It appears that a girl employed at one of our large lead works had been ordered to the workhouse with symptoms of chronic lead-poisoning. The chairman said that a short while ago they had reported two other cases to the Local Government Board, but as these arose prior to the new Act coming into operation nothing could be done. The present case, however, would be one for the Local Government Board to deal with, and it was agreed to report it.

GERMS AND DISEASE.

Dr. McAlister of Cambridge recently lectured at Newcastle on the subject of "Germs and Disease." The lecturer, after glancing at the figurative use of the word "germ," and the old germ theory so-called, pointed out that the pathologist and disease investigator of the present day looked for the cause of disease or disorder of the body in some disturbing agency introduced from without. Their attention thus became fixed on the disturbing entity, whatever it might be. The influences might be analysed into three groups, than which it was hardly possible to conceive anything simpler—viz., mechanical, chemical, and thermal. There was another group of disturbing agents whose action was much more complex, and which had not yet been reduced to these simple classes or categories. He meant the parasites of the body. The human body sustained at all times an enormous number of parasites, both animal and vegetable. The animal were less harmful than the vegetable. Some of the plants, so to call them, did no harm; others had very slight and local effects; and others invaded the whole system, took it captive, and caused widespread mischief. It was to these last that the lecturer principally alluded by the term "germs," and he showed that our knowledge of these last had greatly extended during the last fifteen or twenty years, owing principally to the aid afforded by the microscope. He then propounded the question, In what way do these germs set up disease? and said we were on the border of the unknown, and in a region in which during the next hundred years probably great discoveries would be made. The lecturer next alluded to the known relation between plant or germ life and zymotic diseases, and said there was overwhelming evidence that the microphytes stood in relation of cause and effect to disease; what was required to raise it to a point of absolute certainty remained to be pointed out. In the class of zymotic diseases the chain of proof, though nearly closed, could not be positively connected, owing to the insusceptibility of the lower animals to inoculation; on this point no doubt clearer light would be shed in a few years. In conclusion, Dr. McAlister said one of the great objects of modern medicine was the aim to render the whole class of plants concerned in zymotic disease extinct. He was in favour of much more stringent laws as to isolation, notification, &c. The lecturer illustrated his subject very ably, and was listened to throughout with great attention.

Newcastle-on-Tyne, Jan. 21st.

SCOTLAND.

(From our own Correspondent.)

INVITATION TO THE BRITISH MEDICAL ASSOCIATION TO MEET IN GLASGOW.

THE discussion as to the advisability of inviting the above Association to meet in Glasgow at an early date has now ended in the declaration by the University authorities that they are willing to co-operate in sending such an invitation for the year 1888. As the Faculty of Physicians and Surgeons has also indicated a desire to co-operate in the same undertaking, it may be regarded as tolerably certain that in the above-mentioned year the Association will meet in this city.

HEREDITY IN CRIME.

Something very like heredity in crime was illustrated in a case which came before one of the Glasgow police-courts a few days ago. A boy of twelve years of age was found guilty of stealing a pot of marmalade from a cart in the street, and was sentenced to four years' detention on board a training ship. In the course of the evidence it came out that at present the boy's mother, grandmother, and uncle are in prison, while his father has deserted him.

ABERDEEN UNIVERSITY.

The Senatus of Aberdeen University have had under consideration the advisability of enlarging the university buildings, principally in connexion with the medical school, so as to adapt it to the growing demands on the present insufficient accommodation.

GLASGOW ROYAL INFIRMARY.

The most exciting event of the past week was the annual meeting of contributors to the funds of the Glasgow Royal Infirmary, at which the medical element in the management for once scored a distinct success. After a very satisfactory general and financial report had been considered and adopted, a question was raised for settlement which ought never to have gone before a lay jury at all namely, Is enteric fever infectious, and is it judicious to treat it in the wards of a general hospital alongside other patients, more especially when there exists in the city a special hospital for the reception of such cases? The chairman of the managing board, together with a few other lay directors, went dead against the expressed view of the entire staff and of the medical directors in the matter, and wished to follow what is described as the invariable practice of the infirmary for

ninety years, in treating such cases within the institution. On being defeated at the managing board, these lay directors determined to take the unprecedented step of bringing this strictly medical question before the general meeting of contributors, with the result, however, that the public have endorsed the very reasonable attitude taken up by the medical directors and staff—namely, that in future such cases should not be admitted for treatment in the wards of the Royal Infirmary, an institution in which the treatment of zymotic diseases was expressly given up some ten years ago.

IRELAND.

(From our own Correspondent.)

MR. RAWDON MACNAMARA has been re-elected representative of the Royal College of Surgeons in Ireland on the General Medical Council.

BRITISH MEDICAL ASSOCIATION.

The annual general meeting of the Dublin Branch of this Association takes place this week at the College of Physicians, when the President-elect will deliver an address, and the office bearers will be elected by ballot for the ensuing year. Notice has been given by Dr. C. F. Knight that he will move the following resolution: "That in the opinion of this meeting it is desirable that three or four meetings of this branch be held during the year for the discussion of matters of professional interest, in addition to the annual meeting, and that the incoming Council be requested to make the requisite arrangements." The annual dinner will take place in the evening in the College Hall.

AMPUTATION AT THE HIP.

This operation was performed on Tuesday last at the Adelaide Hospital, Dublin, by Mr. J. Kellock Barton. The patient, a girl about fifteen years of age, had undergone an operation for excision. Mr. Barton adopted Furneaux Jordan's modified operation of skin flaps, with circular incision, which has a good deal to recommend it, more particularly as regards the facility for securing the femoral. In this case the operation was rendered tedious and troublesome by the firm ankylosis which existed, and which obliged Mr. Barton to saw the bone across before completing the operation. Esmarch's bandage was used instead of Davy's lever. The operation was performed under strict antiseptic precautions.

MEATH HOSPITAL, DUBLIN.

The governors of this old and valuable institution have issued a special appeal for funds, and it is to be feared, should a favourable response not be forthcoming, that a portion of the wards will have to be closed, at all events for a time. The hospital account has been overdrawn by about £1400, but this sum and nearly £4000 of invested capital have been expended in carrying out certain improvements which were absolutely necessary. These include a disinfecting chamber, lavatories and dressing-rooms attached to the fever wards, and two observation wards for the reception of doubtful cases.

STEEVENS' HOSPITAL, DUBLIN.

An election for a resident surgeon, in the room of Mr. Myles, took place last week, when, of five candidates who competed, Mr. John Neill, of the Ledwich School of Medicine, was elected unanimously. The selection was a judicious one, as Mr. Neill is a very successful private teacher, and has earned golden opinions from all with whom he has come in contact during his professional career.

COUNTY KILDARE INFIRMARY.

At Naas Court-house last week a presentment for £600 for the maintenance of the county infirmary being taken up, a Poor-law guardian objected to the grant as a waste of public money, and said the majority of the cesspayers were opposed to it. On a division being taken, the motion recommending the grant was adopted by a narrow majority. I congratulate Dr. Chaplin, a gentleman of high professional attainments, who is the surgeon to the institution, on the result, and regard the opposition to the grant as most unjustifiable. County infirmaries throughout Ireland have done much good in the past, and their extinction would be a matter of regret to all unprejudiced persons.

Dublin, Jan. 27th.

PARIS.

(From our Paris Correspondent.)

THE SUSPECTED CASES OF POISONING BY COLCHICIN AND ARSENIC.

As mentioned in my letter of last week, the body of the woman who was supposed to have been poisoned by her husband with colchicin has been exhumed and taken to the Morgue for examination, together with three jars filled with the earth taken from around the coffin. The examination was performed by Professor Brouardel, assisted by Dr. Locquay, and in the presence of M. Ogier, a chemical expert. The report of Professor Brouardel (the details of which have not yet been published) having advised a chemical analysis of the viscera, these have been forwarded in sealed jars to the toxicological laboratory of the Prefecture of Police. A short time ago another case of suspected poisoning was brought to the notice of the judicial authorities, which occurred under circumstances almost similar to those mentioned in connexion with the florist referred to above. In this case, the supposed criminal, who is a clockmaker by trade, and also a dabbler in chemistry, is suspected of having poisoned his first wife with the view of taking a second. The examination was performed by Professor Brouardel and M. Lhotte, a chemical expert, the result of which was the discovery of undeniable traces of arsenic. M. Lhotte also analysed the earth from around the coffin by means of Marsh's apparatus, but no trace of the poison was found in it; neither was there any discovered in the mixtures usually employed by undertakers to preserve the body. The clockmaker is under close arrest on account of the strange disappearance of his servant, who is supposed to have been murdered by him and the body made away with, as no traces of her are to be found. He is kept in ignorance of his being suspected of having poisoned his wife, and of the proceedings that have taken place in connexion with it. He will be eventually examined on both these charges.

THERMOMETRIC RECORDS.

The weather just now is extremely cold in Paris, the thermometer having marked yesterday at 7 A.M. 23° F., at 11 A.M. 28·4°, and at 1 P.M. 32°. To-day it is rather inclined to thaw. In connexion with this subject, I may mention that the bulletin of the Paris Observatory notes that on October 25th last the coldest locality in Europe was found to be St. Maur, just outside Paris, where the thermometer registered 23°; it was the only observatory in Europe the thermometer of which stood below freezing point; whereas at Haparanda, on the Gulf of Bothnia, it marked nearly 25°. At Bodo the thermometer stood at 19·4°. At St. Petersburg and Moscow the temperature was four degrees higher than that at St. Maur. At Stornoway, in the north of Scotland, and in a great part of the northern regions, the thermometer registered 50°.

DRUGS FOR THE PARIS HOSPITALS.

The estimate of the quantity of medicines &c. required for the use of the patients in the Paris hospitals for the present year is as follows:—24,000 kilogrammes of liquorice root, 15,000 of cinchona, 80,000 of linseed, 6000 of mustard, 15,000 of cod-liver oil, 20,000 of glycerine, 3000 of orange-flower water, 250 of opium, 2000 of bromide of potassium, 50 of nitrate of silver, 500 of the subnitrate of bismuth, 60 of sulphate of quinine, 12,000 of carbolic acid, 10,000 of chloral. In addition to these drugs, the hospitals are annually supplied with 30,000 fresh lemons and 40,000 leeches. Fresh herbs are estimated to cost 1946 francs; dry herbs, 45,000 francs.

HEALTH OF VICTOR HUGO.

It was reported that Victor Hugo's health was in rather a precarious state. On inquiry I learned that the illustrious poet was merely suffering from an ordinary "cold," which, however, at his time of life, he being an octogenarian, would cause some anxiety, particularly as he had been seized by a troublesome cough. He is, I am glad to say, quite recovered, for he has resumed his usual occupations and his weekly receptions.

Paris, Jan. 27th.

ROME.

(From our own Correspondent.)

BRIGHT and bracing weather has succeeded the ten days' rainfall which swelled the Tiber into flood and inundated the lower quarters of the city; while snow lies deep on the Sabine uplands, and even Soracte stands out in the virgin vesture which inspired Horace, one memorable day, to the composition of a perfect ode. But for the usual tale of pulmonary affections, always more serious among the Italian than among the English speaking population, the health of the city is excellent, and all its characteristic attractions, recreations, amusements, only awaiting the votaries who seem so slow in coming. It is fair to mention, however, that within the last few days the arrivals have been many and distinguished, and before the month is out the season will have made a start as promising as the gayest of its predecessors.

The Commission on the Influence of Woods on the Malaria prevalent on the Roman Littoral has published its report, from which may be deduced the following conclusions:—1. The wooded parts of that region mostly remain what they were two centuries ago—namely, tracts of low brushwood, sometimes cultivated for fuel, never producing trees of any considerable stem. These tracts, moreover, are generally marshy. 2. The dogma, accepted for the last eighty years, that the clearing, whether total or partial, of these wooded tracts always occasions an increase of malaria is absolutely without foundation. Those places in which the wood had been destroyed were rather improved as regards malaria. 3. Without ignoring the benefit which well-reared woods confer on climate, the Commission, keeping within the sphere of its inquiry, has found no malarious district in the Roman province where the planting of trees has produced the slightest diminution in the force or extent of the fever. 4. The Commission can prove that the sensible augmentation of fever cases within the last few years in certain communes is solely due to the increased number of labourers brought to those places for special works, while in other communes the augmentation of such cases is traceable to the neglect or abandonment of hydraulic treatment of the surrounding soil, whether with regard to the atmospheric or underground waters, or with regard to those reserved for irrigation or special industries. The Commission is convinced that in certain places the neglect of sanitary precautions has tended greatly to intensify the effects of malaria. 5. The notable augmentation of fever in years like 1879, attributed by the population to the destruction or thinning of the woods, was found to have been common to the whole province, and in parts where no wood was touched. Medical statistics compared with those of meteorology demonstrate that these maxima in the number of fever cases throughout all the malarious districts are in direct relation with special meteoric facts. 6. Admitting the transport of the malarious germ by means of winds to no great distance, the Commission concedes that a country may derive benefit from an extensive and thick plantation well reared and interposed between the habitations and the malarious centre, provided the plantation as regards height, direction of prevalent winds, and distance, be so placed as to form a true barrier between the population and the malarious centre aforesaid. And yet in support of this opinion there is only the assertion that the new or low part of Terracina experienced an augmentation of fever after the felling of a cork-wood, which presented many of the above-mentioned conditions for protecting the population from the malaria of the adjacent districts. Nevertheless, it must be noted that almost contemporaneously with the cutting down of the cork-wood, other changes occurred in the hydraulic conditions of the place, which must have proved equally disastrous, even had the cork-wood barrier existed. 7. In other localities, dense plantations, as at Sermoneta and Piperno, and woods extending far and wide around the district, not so placed, however, in point of height as to form a true barrier between the townships and the neighbouring malarious tract, neither have been, nor now are, of any avail in arresting the malarious influence from the tract in question. 8. The Commission found that soils without drainage, covered with woods or undergrowth and not cultivated, are themselves sources of malaria. Nothing but drying the soil will diminish the malaria, it being indifferent whether the wood be maintained so long as the soil is well cultivated. 9. Although the Roman province is almost destitute of woods properly so-called along the littoral, the pine forest of Castel Fusano in the delta of the Tiber being almost the only one worth mentioning, still the Commission did not fail to test the argument based on littoral plantation. It cannot admit, with some authorities, that such woods can arrest the noxious vapour carried by the winds across the Mediterranean from remote regions, since, even were such vapours and such transport demonstrated, the woods could keep them off only a restricted zone of land immediately adjoining. The Commission, however, does not ignore the fact that important economic and agrarian interests prescribe the planting of the littoral. In this case not only the soil on which it is proposed to plant, but that which is in immediate contact with it, should be placed in such conditions that the waters may readily be drained off it; if not, there would simply be a new source of malaria.

The *Archives Italiennes de Biologie* contain two notable contributions by Dr. Tommasi Crudeli, one on the Malaria Epidemic at the Tre Fontane near Rome in 1882, and the other on the Discovery of the Cholera Bacillus. The former of these papers has in substance already been touched upon in THE LANCET (*vide* the numbers for November 1st and November 8th, 1884), while the latter may now be referred to as an elaborate revindication of Pacini's claims to having first opened up the track which has since been so keenly followed up. It was in 1854, in the *Gazzetta Medica Italiana* of Florence, that the Tuscan pathologist described the *microbio colerigeno* (cholera-producing microbe) as first seen by him in that year; and in 1855, and again from 1865 to 1867, he continued his researches, which by that time had attracted in Germany, France, and Belgium an attention denied to them in his own country. Dr. Tommasi-Crudeli, as Pacini's pupil, had occasion to test the doctrine of the parasitic origin of cholera at Palermo in 1866, when 4000 persons succumbed to the disease, and he deduced from his experience many practical rules which have since proved of the highest service.

Dr. J. G. Van Marter of this city has discovered at Corneto, near Cività Vecchia, two specimens of ancient dentistry as practised by the Etruscans, the tombs in which they were found dating from the fifth century before the Christian era. Dr. Van Marter describes this treasure-trove as the "earliest known essay in dental bridge-work," and is at present prosecuting his researches into the practice of stopping the teeth, of which indications have already been noted in prehistoric tombs. An interesting paper on the subject has already been contributed by him to the *Independent Practitioner* of New York.

Your contemporary, the *Gazzetta Medica di Roma*, founded and edited by the Cavaliere Dr. Filippo Cerasi, after ten years' vigorous life in a quarto form, now appears in the more convenient octavo size. The first number of the new series, which is published fortnightly, contains, besides much interesting matter, an able contribution by Dr. Torquato Baldelli on "Multiple Echinococcus of the Right Kidney."

Rome, Jan. 24th.

THE SERVICES.

Deputy Surgeon-General David Boyes Smith, of the Bengal Medical Department, has been appointed Professor of Military Medicine at the Army Medical School at Netley.

WAR OFFICE.—Artillery Volunteer Corps (1st Kent): John Irvine Boswell, Gent., to be Acting Surgeon.

INDIA OFFICE.—The Queen has approved of the following promotion among the officers of the Staff Corps and Indian Military Forces made by the Governments in India: Brigade Surgeon George Bidie, C.I.E., of the Madras Medical Establishment, to be Deputy Surgeon-General.

ADMIRALTY.—The following appointments have been made:—Surgeon W. W. Jacobs, additional, to the *Duncan:* Surgeon Samuel W. Vasey, to Malta Hospital: Surgeon Alfred Patterson, to Haslar Hospital; William Rowlands to be Surgeon and Agent at Waterloo.

RIFLE VOLUNTEERS. 5th (Deeside Highland) Volunteer Battalion, the Gordon Highlanders: John Hector Anderson, Gent., M.B., to be Acting Surgeon.—1st Lancashire: Acting Surgeon James Bruce Macpherson resigns his appointment. 1st Surrey (South London): Samuel George Milner, Gent., to be Acting Surgeon.

ROYAL COLLEGE OF PHYSICIANS.

AT the ordinary Comitia of Fellows on the 29th instant, Sir W. Jenner, Bart., President, in the chair, Drs. Fincham, Andrew, Hughlings Jackson, Reginald Thompson, and Broadbent were elected Councillors. The following gentlemen were elected additional Examiners in accordance with the Scheme for an Examining Board for England:—Chemistry: *Dr. Russell.* Materia Medica: Drs. F. Taylor and Murrell. Elementary Physiology: Drs. Ewart and V. D. Harris. Physiology: Dr. Pye-Smith. Medicine: Drs. Beale, Cayley, Moxon, Green, and Sutton.

The annual report of the Examiners was presented, from which it appears that during last year 782 candidates presented themselves for the first examination, 110 for the second, and 290 for the final examination for the Licence of the College; the percentage rate of rejections at each examination respectively being 35·4, 66·3, and 33·3.

The replies of the Committee of Management to the questions submitted by the Medical Council were adopted by the College. The most important was the opinion that two years was not a sufficiently long period for study of the subjects of the second division of studies.

On the motion of the Registrar, the College resolved: "That every member of an English university who shall have passed such an examination or examinations at his university as shall comprise the subjects of the first and second examinations of the Examining Board in England, and who shall have completed not less than four years of medical study according to the regulations required by his university, be eligible for admission to the third or final examination of the Board, two years after his having passed all the other required examinations; that every candidate so admitted to examination be required to pay a fee of five guineas; and that every such candidate who shall have passed such third or final examination shall, on the further payment of not less than twenty-five guineas, and subject to the Bye-laws of each College, be entitled to receive the Licence of the Royal College of Physicians of London, and the Diploma of Member of the Royal College of Surgeons of England."

The proposition was supported by several Fellows, including Sir H. Acland and Dr. Burdon Sanderson, who stated that the University of Oxford would probably accept the examination of the two Colleges as qualifying for its degree, provided that its graduates showed evidence of better attainments in scientific medicine. It was pointed out by Dr. Duckworth that the proposal included *all* the universities in England; and on his motion, a letter from the University of Edinburgh, claiming an extension of the same privileges, was referred to the Committee of Management.

The following resolution, which will enable candidates for the L.R.C.P. who began their course before October, 1884, to avail themselves of the new regulations, was also passed:—"That any candidate for the Licence of this College only examined after October 1st, 1884, may avail himself of the regulations relating to the examinations of the Examining Board in England."

The College then proceeded to some resolutions, moved by Sir W. Gull, bearing upon the present mode of election to the Fellowship; but, after a short discussion, the "previous question" was moved and carried.

MAHOMED MEMORIAL FUND.

THE following additional subscriptions have been received:

	£	s.	d.
[illegible] H. P. Berry	1	1	0
[illegible] Chepmell ...	10	10	0
[illegible] Davis, Esq., per [illegible] Chepmell	2	0	0
[illegible]	10	10	0
[illegible]	5	0	0
[illegible] Hervey (Croydon) ...	1	1	0
[illegible] Hutchinson, Esq	10	10	0
[illegible] Jones, Esq. (Manchester)	5	5	0
The Earl of Leven and Melville	5	5	0
H. W. Pigeon, Esq.	1	1	0
Alfred de Rothschild, Esq., per Dr. Chepmell	10	0	0
L. W. S.	1	1	0
H. N. Smith, Esq.	2	2	0
Dr. Tuchmann	2	2	0
Dr. Thorowgood	1	1	0
Mrs. Thomas Turner ...	10	10	0
Messrs. Welford and Son, Warwick Farm Dairy ...	25	0	0

ARTHUR E. DURHAM, Treasurer.
JAMES F. GOODHART, W. H. A. JACOBSON, } Secretaries.

Obituary.

DANIEL NOBLE, M.A., M.D., M.R.C.S.

DANIEL NOBLE, whose death occurred at Manchester on the 12th inst., was born at Preston in 1810. He received his medical education at the Borough School and Guy's Hospital; and after becoming a Member of the Royal College of Surgeons and a Licentiate of the Society of Apothecaries, he commenced practice in Manchester in 1834. In 1853 he received the diploma of M.D. from the University of St. Andrews, and in 1860 the honorary degree of M.A. was conferred upon him by the same university. In 1847, when Manchester was visited by an alarming and disastrous epidemic of typhus fever, Dr. Noble was the general superintendent of the extensive arrangements which were made for checking the progress of the disease; and in 1866, when a general apprehension prevailed, fortunately not realised, of a renewed visitation of cholera, his advice was again sought. In 1859 Dr. Noble was offered by the Chancellor of the Duchy of Lancaster an appointment as County Magistrate, an honour which he, however, declined. In 1867 he was elected a Fellow of the Royal College of Physicians. Among other works he was the author of the following: "Influence of Manufactures upon Health and Life," "The Brain and its Physiology," "Elements of Psychological Medicine," "The Human Mind in its Relations with the Brain and Nervous System." He also contributed a number of papers to various medical journals, amongst which may be mentioned: "Mesmerism True—Mesmerism False," "The Epidemic Fever of 1847," "Cerebro-Spinal Concussion, with illustrative cases," &c.

DERRY JONES, M.R.C.S., L.R.C.P.ED.

IN the death of Mr. Derry Jones, Islington has lost one of its representative medical practitioners. During the fifteen years he pursued his calling in this district he succeeded in building up an extensive practice, and also in drawing round him a large circle of friends. Mr. Jones was essentially a good fellow. His good looks, his vivacity, and his manner of story-telling—and few could tell a racy story with greater zest and artistic finish than Mr. Jones—all combined to make his company welcome. Among the students of University College, where he received his medical education, he was a great favourite. Though not a brilliant student, he took his share of prizes and medals, and he carried with him into practice the respect and good wishes of his teachers. His qualifications were M.R.C.S. & L.S.A., 1869, and L.R.C.P. Edin., 1876. In the art of getting on in practice Mr. Jones might well be taken as a model. Withal he was essentially a man of the world. He enjoyed life and the goodwill of his neighbouring practitioners. His patients trusted him; many loved him. He leaves as his chief mourner and only relative, strange to say, an aged mother, whom—and we would note it as chief among his social graces—he loved and tended with a jealous care. The kidney mischief which carried him off was quite unsuspected; and, indeed, his death must come as a surprise to all who knew him. Mr. Jones died on the 21st inst., at the age of forty-one years.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 22nd inst.:—

Ensor, Henry Collen, L.S.A., Llanishen, near Cardiff.
Eskrigge, R. Bertram, L.R.C.P. Edin., Hardwick, Manchester.
Sydenham, George Francis, L.S.A., Tiverton.
Bell, William Howard, L.S.A., Myddelton-square.
Malden, Frank James, M.B. Durh., St. Neots.
Newbolt, George Palmerston, M.B. Durh., Weymouth.
Davison, John Lorenzo, M.D. Toronto, Toronto.
Broadbent, George Harry, L.K.Q.C.P.I., Manchester.
Williams, Campbell, Sydney, New South Wales.
Leech, Priestley, L.S.A., Warrington.
Kershaw, John Cawthron, Ardsley.
Mann, John Bentley, L.K.Q.C.P.I., Manchester.
Aspinall, John, L.S.A., Hindley.

Admitted on the 23rd inst.:—

Robertson, Robert Smith, L.R.C.P. Ed., Manchester.
Jolliffe, Albert Robert, L.S.A., Southampton.
Leggatt, Gerald Stedman, L.S.A., Highbury-hill.
South, Henry Erskine, L.S.A., Balham.
Cree, Gerald, L.S.A., St. John's-park.
Adams, Gofton Gee, L.R.C.P. Lond., Clifton.
Ingle, Arnold Clarkson, L.S.A., Cambridge.
Anwyl, James Norman, L.S.A., Manchester.
Bower, Edward Ignatius, L.S.A., Craven-street.
Ballachey, Henry Holloway, L.R.C.P. Ed., Edgefield, Norfolk.
Langhorne, Thomas Grant, Holland-park-gardens.
Deeble, Stephen Lawson, L.S.A., Netley, near Southampton.
Chamberlain, Charles Basham d'Eyncourt, L.S.A., Southsea.
Priestley, Robert Chambers, L.S.A., Hertford-street.
Humphry, Ernest, L.S.A., Brighton.
Lovell, Harry Haynes, Barnstaple.
Mackay, William Bertie, M.D. Ed., Lancaster-road.

Admitted on the 26th inst.:—

Relton, Bernard, L.S.A., The Vicarage, Ealing.
Fetherstonhaugh, Robert Trevor, L.R.C.P.L., West Dulwich.
Hacking, John Herbert, L.R.C.P.L., Old Trafford, Manchester.
Pollard, Reginald, M.B. Durh., Torquay, Devon.
O'Brien, Patrick Moriarty, Liverpool.
Orr, Andrew Aylmer, Charlotte-street.
Little, Francis Ernest, Halsey-street.
Page, Harry Marmaduke, Westbourne-park.
Lewis, James King, L.S.A., Greenwich.
Napier, Francis Horatio, Lancaster Gate.
Mudge, Zachary Belling, Hale, Cornwall.
Windsor-Aubrey, Henry Wentworth, Hale, near Salisbury.
Harrison, Frank, Sheffield..

Admitted on the 27th inst.:—

Bowie, Robert Forbes, L.R.C.P. Lond., Forres, N.B.
Winckler, William Joseph, L.R.C.P. Lond., Ampthill-square.
Burn, Thomas William Barnett, West Brixton.
Flemming, Percy, Regent's-park-road.
Emmett, Richard, Clapham-common.
Goodall, Edwin, Portsdown-road.
Jones, Samuel Cromwell, Velindra, South Wales.
Hillier, Thomas Ernest, Cromwell Residences.
Reid, Edward Waymouth, Canterbury.
Haviland, George Darby, Hawkhurst.
Moody-Ward, Richard, St. Thomas's-street.
Laws, Cuthbert Umfreville, Newcastle-on-Tyne.
Wornum, George Porter, Belsize-square.
Cattell, George Trew, Brixton.
Roberts, Arthur, Bishop Stortford.

Admitted on the 28th inst.:—

Ackland, John McKno, L.D.S., Southernhay, Exeter.
Dundas, Mordaunt George, L.S.A., Forest Gate.
Wunderlick, Otto Frederick, L.R.C.P. Lond., Wallace-road.
Jones, Hugh Edward, St. Thomas's-terrace.
Heatherley, Francis, Newman-street.

[The name of Mr. Percy William Menzies, Bristol, who passed in Anatomy at the Primary Examination on the 8th instant, was inadvertently omitted from the list published last week].

COLLEGE LECTURES.—The annual course of lectures will be commenced on Monday, February 9th, at 4 o'clock, by Professor W. K. Parker, M.R.C.S.E., F.R.S., who will deliver six lectures on "Birds, their Genesis and Structure." Professor Frederick Treves, F.R.C.S., will deliver three lectures on "The Anatomy of the Peritoneum and Intestinal Canal in Man," commencing on Monday, February 23rd. Professor Charles Stewart, M.R.C.S., will deliver three lectures on "The Structure and Life-History of the Hydrozoa," commencing on Monday the 2nd March. Professor Alexander Hill, M.B., M.R.C.S., will deliver three lectures on "The Grey Masses of the Cerebro-spinal System, their relations to one another and to Peripheral Nerves," commencing on Monday, the 9th of March. Professor Arthur Brailey, M.D., M.R.C.S., will deliver three lectures on "Some Points in the Anatomy and Physiology of the Eye," commencing on Monday the 16th March. The course will be concluded in June next, by Professor Edward Lund, F.R.C.S., Professor John Wood, F.R.S., F.R.C.S., Professor Charles Stewart, M.R.C.S. (Erasmus Wilson Lecturer), and Edward Albert Schäfer, M.R.C.S., F.R.S., the subjects of the several lectures will be hereafter published. The lectures will be delivered in the theatre of the College on each Monday, Wednesday, and Friday, at 4 o'clock precisely.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 22nd inst.:—

Bluett, George Mallack, University College.
Bowman, Henry Claxton, Manchester Royal Infirmary.
Cox, Alfred Harold Lissant, King's College.
Cox, Joseph Bethel, St. Bartholomew's Hospital.
Cree, Gerald, Middlesex Hospital.
Earls, James Henry, Dublin.
Hallilay, Henry, Leeds School of Medicine.
Roach, George Ernest, Guy's and London Hospitals.
Scott, Joseph Sandbach, Manchester School of Medicine.
South, Henry Erskine, St. George's Hospital.
Taylor, John Francis, London Hospital.
Venis, Walter, King's College.
Watts, Henry Ernest, Westminster Hospital.

The following gentlemen also on the same day passed the Primary Professional Examination:—

W. H. Cundell, St. Mary's Hospital; W. A. Winships, Newcastle-on-Tyne College of Medicine.

At a meeting of the Court of Assistants of the Society, held on the 27th inst., the undermentioned gentlemen were by them appointed as Assessors in Surgery at the Hall:—George Henry Makins, F.R.C.S. Eng., Resident Assistant Surgeon to St. Thomas's Hospital; Wm. Johnson Walsham, F.R.C.S. Eng., Assistant Surgeon and Demonstrator of Practical Surgery at St. Bartholomew's Hospital, Surgeon to the Metropolitan Free Hospital.

H. B. GUPPY, M.B., R.N., H.M.S. "Lark," has been elected a Fellow of the Geological Society of London.

HOSPITAL SUNDAY in Sheffield, in aid of the medical charities of the town, realised over £2000, and it is expected that further returns will increase the amount.

ON the 27th inst., an inquest was held by Mr. George Collier at Bethnal-green on the body of a boy who, bitten by a dog on December 23rd, died from hydrophobia on the 23rd inst.

THE *Grahamstown Journal* of December 9th contains an article recommending Grasslands Sanatorium, situate about twenty-five miles from Grahamstown, as a place of resort for those in search of health and rest, and who require quiet, kindly attention, and a favourable climate.

CARDIFF MEDICAL SOCIETY.—The following gentlemen were elected officers for the ensuing year:—President: Charles E. Hardyman, F.R.C.S.E. Committee: C. T. Vachell, M.D.; A. P. Fiddian, M.B.; A. Plain, M.B.; W. Hier Evans. Secretary and Treasurer: Thomas Garrett Horder.

THE concert given by the employés of the London and North-Western Railway at Euston Station, in aid of the University College Hospital, has resulted in the appointment of a life governor and a life donor; £52 10s. having been paid to the secretary to the People's Constitution Fund.

ABOUT seventy names of persons desirous of joining the class at Dumfries in connexion with the Order of St. John of Jerusalem have been received, and fifteen ladies have entered for a ladies' class which is in course of formation. The former is conducted by Dr. Hunter Dryden, and the latter will be taught by Dr. Gilchrist.

THE Steam Yacht "Ceylon" sailed from Gravesend on the 24th, at 2.30 P.M., on her trip to Madeira, West Indies, and New Orleans, returning by way of the Azores. Among the passengers were Sir Francis and Lady Stapleton, Colonel the Hon. King-Harman, M.P., the Hon. Spencer Stanhope, General Trevor, Dr. Oscar Jennings, and others.

ON Tuesday, at South Hayling, Hants, Lady Fitzwygram, wife of Sir Frederick Fitzwygram, M.P. for South Hants, distributed certificates to the successful candidates in "First Aid to the Injured," a centre having been lately established at Hayling Island in connexion with the St. John Ambulance Association, and courses of instruction given by Mr. Percy Pope, M.R.C.S.

MANCHESTER AND SALFORD SANITARY ASSOCIATION.—At the annual meeting of this Association and its branches, held on the 27th inst., it was stated that the importance and influence of the Society and the amount of work accomplished were restricted by the scanty pecuniary support received from the public. Several reports recording the work done by the Association were read, and several resolutions of a purely routine character were passed, previous to the election of officers for the ensuing year, after which the meeting separated.

WESTMINSTER SANITARY AID ASSOCIATION.—The third annual meeting of this Society, of which the objects are to prevent the spread of infection, to show the poor how this is to be done, to assist them to carry out the necessary precautions, and to promote sanitary measures in general,

was held on the 27th inst. The report, which was read and adopted, showed that in the nine district parishes of Westminster the sanitary visitors of the Association had attended 233 cases within the past year, against 212 cases in 1883. There has been no epidemic in Westminster during the three years the Association has been in operation; and in no instance in which the visitors attended to a case of infectious disease did the illness spread to other inmates of the house. A small debt exists, to discharge which subscriptions are solicited.

AT a largely attended meeting of the Council of the Charity Organisation Society, on the 26th inst., the discussion upon the question of self-supporting dinners for the poor was resumed. It was finally resolved, by twenty-four votes to eleven, that the Council viewed with interest the experiments which were being made to give dinners to elementary school children, but were of opinion that in the interests of the poor themselves the dinners could and should be supplied on self-supporting principles, free dinners, or those at a merely nominal payment, having a tendency to pauperise the people, being clearly injurious.

WIRRALL CHILDREN'S HOSPITAL.—The annual meeting of the subscribers to this institution was held on the 19th inst., the president (Mr. Laird, J.P.) in the chair. The hon. secretary read the report, from which it appeared that the number of in-patients treated during 1884 was 286, as against 191 in the previous year. The out-patients numbered 1950, as against 1885 in the previous year. The increase in the number of in-patients had necessitated a considerable increase in expenditure; but as the income in 1884 had been £1271 5s. 3d., against £944 16s. 11d. in the previous year, the treasurer had been able to close the year's account with a deficit of only £54 3s.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.—The annual meeting of the subscribers to this institution was held on the 20th inst., when it was stated that the number of in-patients for the year had been 655 and of out-patients attended on new tickets 2271. The financial position of the hospital is reported by the committee to be far from satisfactory, the result of the year's working being a loss of £668, the greater part of which may be attributed to the considerable decrease in the amount received from the Lords Commissioners of the Admiralty on the lock wards account. It was decided that the town should be canvassed in order to obtain subscriptions.

PRESENTATIONS.—On the 24th inst. a presentation was made to Dr. T. S. Byass by his friends and patients, among whom he has worked for more than half a century. The testimonial took the form of a large silver salver; of an elegantly designed silver casket of ancient Dutch workmanship, in which was contained 500 guineas; and an illuminated album containing the names of the subscribers.—On Monday evening, Jan. 26th, Mr. E. O. Day, assistant-surgeon to the Royal Hospital for Children and Women, Waterloo-road, was presented with a very handsome writing-desk as a mark of respect from some of his old patients at the South London Medical Aid Institute, from which Society he has just retired.

Medical Appointments.

Appointments for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BENNETT, FRANCIS GRAHAM, M.R.C.S., L.S.A.Lond., has been appointed Assistant Surgeon to the National Hospital for Diseases of the Heart and Paralysis, Soho-square.

BRUCE, GEORGE MALLACK, M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon to the London Temperance Hospital, Hampstead-road, vice Harold Simmons, resigned.

DAVIS, GEORGE AUGUSTUS, M.A., M.B., B.C.Cantab., M.R.C.S., has been appointed Senior House-Surgeon to the Ardwick and Ancoats Hospital, Manchester, vice C. A. J. Robertson, M.R.C.S., resigned.

BENSON, ROBERT MARSTON, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Plaistow Hospital, Metropolitan Asylum District.

DARKWOOD, EDMUND S., M.R.C.S. & L.S.A.Lond., has been appointed a Medical Officer to the Royal Kent Dispensary.

DENNISS, W. S., M.B., has been elected House-Surgeon to St. Mark's Ophthalmic Hospital, Dublin.

DICKINSON, J. J., B.A., M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon to the London Hospital.

ELIOT, ERNEST F., L.R.C.P. & L.M.Ed., L.S.A.Lond., has been appointed Medical Officer to the Reformatory School for Boys, Saltley, Birmingham.

HARRIS, ALFRED C. E., M.B., F.R.C.S.Ed., has been appointed Honorary Physician to the Birkenhead Borough Hospital, vice Stevenson.

HARRIS, THOMAS, M.D.Lond., has been appointed Pathological Registrar to the Manchester Royal Infirmary, vice Robert Maguire, M.D.Lond., M.R.C.P., resigned.

HOBSON, L. J., M.D.Lond., B.S., F.R.C.S.Eng., has been appointed Honorary Medical Officer to the Harrogate Bath Hospital, vice A. Ford, F.R.C.S.Ed., resigned.

HUDSON, T. J., M.D., L.R.C.P.Lond., has been appointed Medical Referee to the English and Scottish Law Life Assurance Company and to the National Life Assurance Company, for Leeds and District.

LINDEN, HENRY COOKE, L.F.P.S.Glas., L.R.C.P.Ed., has been appointed Medical Officer for the West District of the Bingham Union.

LING, HAROLD CHARLES, L.R.C.P.Ed., L.F.P.S.Glas., has been appointed Medical Officer to the Workhouse, Scarborough Union, vice De Renzy.

LOWE, ALEXANDER, M.B., C.M.Glas., has been appointed Medical Officer of Health for the Llanelly Division of the Crickhowell Rural Sanitary District, vice Skrimshire, resigned.

MURRAY, WILLIAM G., M.B., C.M.Ed., has been appointed Medical Officer for the Rickmansworth South District of the Watford Union, vice Whiteley.

PHIPPS, JOHN BLAKEMORE, M.D., M.R.C.S., has been appointed Health Officer for the Shire of Romsey, Victoria.

ROBERTSON, R. S., M.R.C.S., L.R.C.P.Ed., has been appointed Junior House-Surgeon to the Ardwick and Ancoats Hospital, Manchester, vice H. Scott, M.B., resigned.

SWANSTON, CHARLES, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Acting Visiting Surgeon to the Mudgee Gaol, New South Wales.

WARTERS, WILLIAM A., L.R.C.P., L.R.C.S., L.M., has been appointed Assistant Medical Officer to the Nottingham Friendly Societies' Medical Institution.

Births, Marriages, and Deaths.

BIRTHS.

BALLARD.—On the 22nd inst., at Walford House, Smarden, the wife of Philip Ballard, L.R.C.P.Lond., M.R.C.S.Eng., of a son.

CRAWFORD.—On the 21st inst., at 5, St. John's-park, Blackheath, the wife of Dr. Crawford, Director-General, Army Medical Department, of a son.

OLIVER.—On the 19th inst., at 3, Eldon-square, Newcastle-upon-Tyne, the wife of Thomas Oliver, M.D., M.R.C.P.Lond., of a daughter.

OWEN.—On the 24th inst., at The Hollies, Shore-road, Hackney, the wife of William Owen, M.R.C.S., of a son.

MARRIAGE.

HUTCHINSON—TEARLE.—On the 22nd inst., at the Parish Church, Gazeley, near Newmarket, by the Rev. J. Hutchinson, Vicar of Kimbolton, Herefordshire, assisted by the Rev. E. Tearle (uncle of the bride), Rector of Stockton, Norfolk, and the Rev. E. H. Littlewood, Vicar of All Saints, Newmarket, Walter Hutchinson, Surgeon, of Newmarket, to Rosa Mary, second daughter of the Rev. F. Tearle, M.A., Rural Dean, Vicar of Gazeley-cum-Kentford, Suffolk.

DEATHS.

BALDING.—On the 24th inst., at Shefford, Beds., from locomotor ataxy, Charles Culledge Balding, M.R.C.S., L.S.A.Lond. (formerly of Her Majesty's Medical Staff in the Crimea), second son of the late James Balding, M.R.C.S., of Barkway, Herts, aged 52.

BROWNE.—On the 22nd inst., suddenly, at his residence, Ridgeway, Southampton, Joseph Hullett Browne, M.D., late of Gordon-square, London, eldest son of Joseph Browne, Esq., of Holcombe House, Gloucestershire, aged 65.

DICK.—On the 22nd inst., at Dalrymple-crescent, Edinburgh, John Dick, M.D., late of Midcalder.

JONES.—On the 21st inst., at 1, Loraine-place, Holloway, N., Dr. Derry Jones, aged 41.

ORFORD.—On the 21st inst., at Bradden Rectory, Towcester, William C. Orford, M.R.C.S., late of Birmingham and Hull, aged 60.

OSBORN.—On the 23rd inst., at Bournemouth, of consumption, William Henry Osborn, M.R.C.S., only son of the late John Osborn, of Newnham-on-Severn, Gloucestershire, aged 30.

SELWOOD.—On the 23rd inst., at Hursley, Winchester, Henry Corpe Selwood, M.D.

WOOLCOTT.—On the 19th inst., at Ramsgate, John Woolcott, F.R.C.S.E., Founder and Consulting Surgeon of the Kent County Ophthalmic Hospital, Maidstone; formerly of Brook-street, Grosvenor-square.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, February 2.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. each day, and at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Inaugural Address by the President.—Casual communications by Messrs. Storer Bennett, Walter H. Coffin, and A. S. Underwood.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. T. Lauder Brunton: Digestive Disorders, their Consequences and Treatment (Lettsomian Lecture).

Tuesday, February 3.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 P.M., and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M., and on Fridays at 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Moseley: Colonial Animals.

PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Carrington: Cancer in a Cirrhotic Liver and Adrenals, with Pigmentation of Skin and Viscera.—Dr. Coupland: (1) Atrophy of Adrenals with Addison's Disease; (2) Case of Addison's Disease (card).—Dr. Barlow: Atrophy of the Adrenals.—Dr. Sainsbury: A case of Addison's Disease.—Dr. Norman Dalton: Infiltrating Growth in Liver and Adrenals of an Infant.—Dr. Norman Moore: Cases of New Growth in the Intestine.—Dr. Hale White: Myo-neuroma of the Pituitary Body.—Mr. D'Arcy Power: A Knee-joint seventeen months after the performance of Ogston's Operation.—Mr. Bowlby: Tumour of the Pituitary Body.—Dr. Goodhart: Tumour of the Pituitary Body in a Baboon (card).—Dr. Hadden: (1) Misplaced Kidney, with Short Ureter (card); (2) Foreign Body in Trachea (card); (3) Detachment of Peritoneal Coat of Small Intestine from Injury (card).

Wednesday, February 4.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour. Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown. Dr. McKeown: The Prevention of Ophthalmia Neonatorum and its Ravages.—Dr. Murphy: Sequel to a Case of Ovariotomy.—Annual Meeting; the President (Dr. Jervis) will deliver the annual address.

Thursday, February 5.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Dewar: The New Chemistry.

HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Mr. W. H. Evans: A case of Labour complicated by Vaginal Hernia.—Mr. G. Cowell: Purulent Ophthalmia in Infants.

Friday, February 6.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—8 P.M. Discussion on Myxœdema. Dr. F. D. Drewitt: Myxœdema.—Mr. Larder: Notes on Three Cases of Myxœdema, with Remarks on the Clinical Features of the Disease.—Dr. Atkinson: Notes on a Case of Myxœdema. Several patients will be shown by the readers. Mr. Swinford Edwards and Mr. P. Dunn will show some Morbid Specimens.

ROYAL INSTITUTION.—9 P.M. Mr. G. Johnstone Stoney: Thought, and the Phenomena of Nature.

Saturday, February 7.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. G. Johnstone Stoney: The Scale on which Nature works, &c.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, January 29th, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
Jan. 23	30·07	E.	33	33	...	38	29	...	Foggy
,, 24	30·10	E.	33	32	...	38	30	...	Hazy
,, 25	30·15	E.	35	34	...	42	33	...	Foggy
,, 26	30·13	S.	39	39	...	45	31	...	Foggy
,, 27	29·85	W.	45	44	...	52	38	·03	Overcast
,, 28	29·87	S.W.	49	47	...	53	43	...	Cloudy
,, 29	29·52	S.W.	53	49	...	54	47	·02	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

TOBACCO POISON.

La Gazzetta degli Ospitali reports that experimental researches on the physiological action of tobacco have led Dr. Zulinsky to the following conclusions: The poisonous action of tobacco smoke does not wholly depend on nicotine; when this is eliminated tobacco smoke still remains noxious, on account of the alkaloid colidine. It also contains oxide of carbon, hydrocyanic acid, and other deleterious principles.

Dr. Gurdon, Mr. Daunt, and others.—We must refer our correspondents to the paper whose title was given in the annotation.

Mr. John Horsfall.—We could scarcely notice the case without the particulars, which are not included in the paragraph sent us.

Mr. Joseph Abbott.—We have no recollection of the communication.

Mr. Gross.—Thanks. Next week.

AN APPARENTLY INSTINCTIVE APPETITE.

To the Editor of THE LANCET.

SIR,—The following case will, I think, be considered of very unusual occurrence. It is that of a child having a voracious and apparently instinctive appetite for mortar.

W. T——, aged three years, is a pale, unhealthy-looking boy, decidedly rickety, with thickened bones at wrist and ankle-joints, carious teeth, and enlarged abdomen; he is also backward in his walking, not having full locomotive powers. His mother informed me that up to two years of age he was a fine baby; he then had an attack of bronchitis, and was treated at a London hospital, where he was offered admission, which his mother refused. The attack left him in a weak state, and soon after that time he showed signs of rickets. About eight months ago he exhibited a great desire for eating mortar. The mother discovered his propensity by observing that the wall near his bed was stripped of paper and holes picked in it. On inquiring into the cause, she found that the boy used to eat the mortar, and his eagerness after it was so great that he would get, even in inclement weather, into the yard and pick the walls, and if prevented he cried. On occasion the child has been deprived of his mortar, and invariably when it is kept from him he vomits his food, and when had recourse to the symptom ceases. So at the present time it is the ordinary routine of his little sisters to collect mortar, which must not contain too much sand as he is particular in the quality. Lime-water has been substituted, but this the child refuses to be contented with, and will have his food in more solid form. He is now suffering from small-pox, and, on waking up in the night, cries for a piece or two of lime before going to sleep again. The quantity consumed during twenty-four hours is rather more than half a teacupful. His mother tells me he has never been weaned, and her custom has been to suckle her other children up to three years of age. To corroborate the mother's statement, I have frequently seen him partake of the mortar, which he crunches up and swallows with great relish.—I am, Sir, yours truly,

Lower Norwood, Jan. 19th, 1885. CHAS. E. ADAMS, M.R.C.S., L.S.A.

SEWER VENTILATION.

Medical Officer of Health.—Our correspondent is quite right. It is wrong to ventilate the sewers into the streets. Ventilating shafts should in all cases be constructed, and carried up, to a level higher than that of the houses, and kept well away from chimneys to avoid down-draughts. Street-level ventilators are simply so many apparatus for the dissemination of sewer-gas. The closed system of sewers or drains should offer no means of escape to the gas below a level higher than the windows of adjacent houses. Our correspondent should insist on the principle he has laid down. It is the only true and safe one. To multiply the low-level openings will be to multiply the points from which sewer-gas is discharged into the district, and to increase the spread of disease.

Dr. James Gairdner.—The work in question is entitled to the trust placed in it by our correspondent. It is based, like all such works, on Percival's treatise; but it takes note of later authorities, and is characterised throughout by good judgment and Christian feeling.

Dr. Lowndes, Mr. J. Goodwin Shea, Mr. Shirley Woolmer, and others.—We think the facts of the case have been sufficiently set forth.

Mr. J. H. Brown.—There does not seem to be any need of exposition of the matter.

CAFFEINE.

To the Editor of THE LANCET.

SIR,—As Mr. Nelson Hardy speaks so favourably of this drug and its heart-tonic action—the heart being probably secondarily impressed through the ganglionic system and vagus—I would fain mention a few instances where I also have found it of great value. In three cases lately treated with small doses of caffeine the improvement, which was well marked, was doubtless due to the stimulating action of this drug.

CASE 1.—A man fell a distance of about 20ft., striking his head severely, and sustaining a few slight contusions and momentary concussion, which were followed by constant pain in the head and down the spine. The usual treatment was found to be ineffective, and the use of bromide and iodide of potassium in small and large doses brought no relief. After nearly two months' observation caffeine was tried, and this soon rendered the heart's action normal, which had previously been increased in frequency and impulse. The headache subsided, and the patient, a navvy, soon returned to his work.

CASE 2.—This patient had received a severe blow on the head from a heavy piece of metal falling from a height. The wound, which was deep and ragged, soon healed, but left the man subject to intense frontal headache, which the bromide and iodide of potassium failed to relieve. By the use of caffeine in three-grain doses marked relief was soon obtained, and, this treatment being persevered with for a few days, complete cure of the giddiness and frontal headache followed.

CASE 3.—This was a case of chronic ovaritis (left) in a female aged twenty-five, married, and mother of one child. The patient had been subject to frontal headache a day or two previous to menstruation (which was regular and natural). Caffeine in three-grain doses three times a day completely removed the neurosis.

The only objection to this drug at present seems to be its costliness.

I am, Sir, yours truly,

EVERARD H. SAUNDERS, M.R.C.S., &c.,
Jan. 24th, 1885. Surgeon R.N.

A NEW EXACTION OF FRIENDLY SOCIETIES' MEDICAL ASSOCIATIONS.

Lex would feel obliged if the Editor of THE LANCET, or any of his readers, could inform him whether an engagement entered into between a friendly societies' medical association and their surgeon, binding the latter not to practise in the neighbourhood for two years after ceasing to hold the appointment, can be sustained in law, and whether such a case has actually been decided. Local solicitors do not seem clear about the question. [Perhaps some of our readers may be able to answer this question, which, however, we fancy, has not come before the courts.—ED. L.]

E. D. (Desford).—The symptoms given are insufficient to form a diagnosis upon. The eyes should be carefully examined, and especially for errors of refraction and alteration of tension in the globe.

Lewis.—The case doubtless is one of "pneumatocele," or "hernia of the lung."

PRURITUS VULVÆ.

To the Editor of THE LANCET.

SIR,—In answer to "M.D.'s" inquiry, he will find that "pixene," used as I ordered for lotions—viz., two drachms of pixene and half an ounce of glycerine to six ounces of water—will have at once a soothing and curative effect.

I am, Sir, yours obediently,
Princess Risborough, Jan. 26th, 1885. GEO. LOCKE, L.R.C.P.Ed.

To the Editor of THE LANCET.

SIR,—"M.D." seeks, at page 188 of your last issue, information regarding the best remedy for pruritus vulvæ. Among the numerous remedies to be found at Section 46 of the Medical Digest few equal in efficacy a saturated solution of boracic acid.

I am, Sir, yours obediently,
RICHARD NEALE, M.D.Lond.
South Hampstead, N.W., Jan. 26th, 1885.

THE FORFAR DISEASED MEAT PROSECUTION.

REFERRING to Dr. Murray's communication on this subject, Mr. Andrew Spreull, F.R.C.V.S., as one of the local veterinary surgeons referred to sends us a letter which, owing to its length, we are unable to publish in full. Mr. Spreull states that, instead of agreeing entirely with Dr. Murray in considering the case one of tuberculosis, he regarded it as something akin to, or, as he put it in his evidence, "of the nature of," tubercular disease, having at the same time considerable doubt if that was really its genuine character. The result of microscopical examinations of certain portions of the diseased product tend, Mr. Spreull states, to confirm him in his opinion that tubercle did not exist. Doubt is cast upon Dr. Murray's statement that extensive deposits existed in the lungs, the writer of the present communication averring that disease existed only in the liver.

M.D. would do well to refer to a letter on the subject which appeared in THE LANCET of March 25th, 1882, p. 508.

INDIAN ACONITE AND HYDROCHLORATE OF COCAINE IN THE TREATMENT OF CHILBLAIN.

To the Editor of THE LANCET.

SIR,—The sudden return of frost induces me to lay before your readers a brief account of the effects of the above-named drugs in some cases of chilblain that recently came under my notice; first, because the action of the one, in my experience, is superior to all other remedies in this affection, and, secondly, because the other is a new remedy of which much has been written of late.

In one case, after a fair trial of many remedies without any permanent benefit, from a favourable recollection of its good effect as a topical application in gout, I was induced to try the aconite. The preparation I used first was the tincture of the B.P., which I soon laid aside for that of the A. ferox, containing one part of the root to ten of proof spirit, as described by me in the remarks on this drug which I had the honour to make before the last meeting of the British Medical Association. This tincture is prepared by Mr. Martindale. It was well painted over the toes and inflamed portion of the feet for a quarter of an hour on four different occasions in the course of an evening, with the result of not only relieving all painful sensations, but of reducing the inflammation to such a degree that on the following day the patient was enabled to wear a boot for the first time during five days. Lotions may also be used. In a second trial it was equally useful, though, owing to an early application, the case was of a milder character. In another I first tried the hydrochlorate of cocaine, in the proportion of one grain to a drachm of vaseline; and I found that although this agent speedily relieved the tingling sensation, it had no antiphlogistic effect, and is therefore, *per se*, utterly incompetent in the disease under consideration. When supplemented by the aconite, as in the other cases, the cure was rapid and satisfactory. As a combination of these remedies might prove useful, I would suggest that those who have an opportunity should try it, never forgetting the danger of aconite wherever a breach of cutaneous continuity exists, which breach, though impending, a judicious application is likely to prevent, as it did in the first case under consideration. I will not take up your space with any remarks explanatory of the *modus operandi* of the aconite tincture, simply contenting myself with an expression of opinion that they would be in such direction as would lead to the use of this agent as a topical application in frost-bite. The Indian plant, probably owing to its more exuberant growth, I consider the more effectual.—I am, Sir, your obedient servant,

D. H. CULLIMORE, M.D., M.R.C.P., &c.
Welbeck-street, W., Jan. 26th, 1885.

Enquirer.—There should have been an article in the agreement to prohibit the course referred to. It is hardly a question of etiquette, so far as our correspondent is concerned.

TREATMENT OF FUNCTIONAL AMENORRHŒA.

To the Editor of THE LANCET.

SIR,—Kindly allow me through the medium of your columns to endorse the words of Dr. Pollock respecting the treatment of "functional amenorrhœa" by bogbean (*Menyanthes trifoliata*). I have used it for the last eighteen months, and am pleased to say I have always been satisfied with its results. I was first cognisant of its value in a case that would not yield to the usual remedies, when I was induced to prescribe it by my father, who, I may say, has used it for the last thirty-five years with success.

Allow me to thank Dr. Pollock for placing it before the profession, as I think it one of those simple remedies so often neglected.

I am, Sir, yours faithfully,
Burley, Leeds, Jan. 20th, 1885. ERNEST WHITE.

Dr. Jas. Niven.—We cannot comply with our correspondent's request.

M.B.Edin.—The controversy is closed.

A FACT FOR CIGAR-SMOKERS.

To the Editor of THE LANCET.

SIR,—The following fact is, I think, worthy of record in THE LANCET. During a recent tour in the United States, I visited one of the great centres of tobacco industry, and there I saw a white workman freely using his saliva in fashioning the pointed ends of cigars.

I am, Sir, your obedient servant,
London, Jan. 18th, 1885. M.D.

H. W., Surgeon.—Examination should be made carefully for phimosis, stricture, gleet, or any very sensitive patch in the urethra, and, if either be found, curative treatment adopted. The passage of a full-sized metal bougie every day or so is particularly useful. A hot bath every night may relieve. Sexual excitement of all kinds should be prohibited; and no aphrodisiacs, such as strychnia, should be given. These measures, with attention to the bowels, may be expected to result in recovery.

M.R.C.S.—We can only refer our correspondent to our advertising columns.

A WARNING.

To the Editor of THE LANCET.

SIR,—You would confer a great favour on me by inserting this letter in the next number of your valuable journal, as it might prevent others falling victims.

By this afternoon's post I received a letter from a brother officer in Scotland, saying he had received a letter signed with my name asking for the loan of £6 or £7 for a few days, and giving an address at Catford, S.E. The cheque was forwarded, as requested, but the letter was returned through the Dead Letter Office; the cheque, however, had been abstracted, and subsequently cashed. As many others may have received similar applications, I would wish it to be be known that I have not written to anyone for loans, nor do I know anything of the matter beyond what I have stated. This is the second time that this trick has been practised on medical officers in this district within the last month or so. I am, Sir, yours faithfully,

GEO. T. TREWMAN, M.B.,
Surgeon, Medical Staff.

Gosport, Jan. 28th, 1885.

ERRATA.—In Prof. Buchanan's paper published last week, p. 148, first column, line 38, for "over" read *out;* second column, line 33, for "anterior circumflex" read *posterior* circumflex.—In the report of Mr. Page's case of wound of the cornea, p. 155, on the last line of the first column, the figure 3 should be 2; and on line 22, in the second column, the figure 2 should be 3.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Donstan; Mr. F. T. Paul, Liverpool; Mr. W. H. Widdell; Messrs. G. Wright and Co., London; Mr. Rivington, London; Mr. White Mortimer, Los Angeles; Mr. Thomas Jones, Manchester; Mr. E. H. Saunders, Devonport; Dr. De Renzy; Mr. Shirley Woolmer, London; Dr. C. E. Saunders, London; Dr. Chalmers, London; Dr. Gurdon, Hopton; Mr. F. Page, Newcastle-on-Tyne; Mr. Walden, Jersey; Mr. Blunt, Chelsea; Messrs. Dawson Bros., Montreal; Mr. Millar, London; Mr. Hosegood, Chesham; Mr. Compton, Southampton; Dr. Adam, West Malling; Mr. Alvani; Dr. Allen, London; Messrs. Widenmann and Co., London; Dr. Juler, London; Messrs. Adams and Francis, London; Mr. Barrow, Notts; Miss Carson; Mr. Breach, Aston-Upthorpe; Mr. Hart, Clifton; Mrs. Whitehead, Broadstairs; Mr. Hicks, Bodmin; Messrs. Freer and Co.; Mrs. Rahn, Ipswich; Mr. Parnell, Clapton; Dr. Hart, Corby; Mr. Grant, Birmingham; Mr. Williams, Talgarth; Messrs. Heal and Sons, London; Dr. Wright, Southport; Mr. Roy, Jersey; Mr. Harrison; Mr. Ward, Harrogate; Mr. Reginald Harrison, Liverpool; Dr. H. C. Pope, London; Mr. C. Gross, London; Mr. E. H. Fenwick, London; Dr. R. Neale, London; Mr. R. W. Parker, London; Dr. Campbell Hyslop, Church Stretton; Dr. J. B. Hamilton, Dublin; Mr. G. Locke; Dr. Churton, Leeds; Mr. A. Spreull, Dundee; Dr. Dixon; Mr. G. E. Walker, Liverpool; Dr. Crocker, London; Dr. Ormsby, Dublin; Mr. Abbott, Exeter; Mr. A. M. Palmer, Whittington; Messrs. Caiger and Hull, London; Dr. Simpson, Rugby; Mr. Groves, Woodford; Mr. Kemp, Perth; Messrs. Burroughs and Co., London; Mr. Bailey, California; Mr. Godfrey, Northampton; Messrs. Davis and Co., Newcastle-on-Tyne; Mr. H. Kimpton, London; Mr. Harris, London; Dr. O'Hanlan; Dr. James Weir, Louisville; Messrs. Read and Co., Bristol; Messrs. Bates and Co., New York; Mr. Armstrong, Manchester; Mr. Cornish, Manchester; Mr. Heald, Leeds; Mr. Beaman, Ashton; Dr. Joseph Ewart, Brighton; Mr. J. G. Marshall, Doncaster; Mr. F. H. Folker, Salford; Mr. A. E. Starling, Coventry; Mr. J. G. Shea, Chesterfield; Mr. J. P. Glover, Quarndon; Mr. L. Macdona; Mr. Percy Pope, London; Dr. Charles Day, London; Mr. G. H. Burnham; Mr. Heather Bigg, London; Dr. Jamieson, Shanghai; Dr. Handford, Nottingham; Miss Ogston, Newcastle-on-Tyne; Mr. Hodgkin; Dr. Harrison, Colchester; Mr. Birchall, Liverpool; Mr. Smith, London; Dr. Brown, Wansford; Mr. Elliott, Carlisle; Dr. Douglas, Perth; Mr. Keetley; Dr. Strahan, Northampton; Mr. W. T. Crew, Nottingham; Mr. J. Philipson, Newcastle-on-Tyne; Mr. Kirchhoff, New York; Mrs. Thorne, London; Mr. G. T. Trewman, Gosport; Mr. Freeman, Bath; Dr. Sedgwick Saunders, London; E. J. L.; M.B. Edin.; H. W.; Physician, Edmonton; H. B.; L.S.A.Lond.; Medicus, Truro; M.D.; Lex; Medicus.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Horton, Leominster; Mr. Moore, Falmouth; Mr. Bullivant, Derby; Mr. Grace, Bristol; Mrs. James, St. John's-wood; Mr. Newton, Newcastle-on-Tyne; Mr. Saunders, Camden-town; Messrs. Goddard and Massey, Notts; Dr. Forbes, Blairerno; Miss Johnstone, Waterloo; Mr. Snell, Ketton; Messrs. Johnstone, Edinburgh; Messrs. Rock and Hawkins, Hastings; Mr. Good, Tenbury; Mr. Balding, Royston; Dr. Fulton, Toronto; Dr. Pierrepont, London; Messrs. Edis and Cooper, Huntingdon; Mrs. Bedingfeld, London; Mr. Parnell, Shepherd's-bush; Dr. Collier, Hounslow; Dr. Heelas, Hampstead; Dr. Willis, Avon-on-Thames; Mr. Wetwan, Southwold; Mr. Sergeant, Camden-town; Mrs. Mitford, London; Dr. Kerr, London; Mr. Stutter, Wickhambrook; Dr. O'Connor, London; Dr. Needham, Gloucester; Mr. Evans, Stroud; Mr. Hyslop, Shrewsbury; Mr. Kessen, Hull; Mr. Morton, Horncastle; Messrs. A. and C. Black, Edinburgh; Mr. Brown, Westgate-on-Sea; Dr. Hartley, Thirsk; Dr. Forsythe, Newton-Stewart; Mr. Mathews, Belfast; Mr. Bowes, Oldham; Messrs. Austin and Son, Clifton; Dr. Thomson, Newport; Mr. Stevens, Notts; Mr. Taylor, Buxton; Mr. Bell, Leicester; Mr. George, Liverpool; Messrs. Bell and Bradfute, Edinburgh; Mr. Jeaffreson, Framlingham; Mr. Gray, Rugeley; Messrs. Macmillan and Co., Cambridge; Mr. Blore, Leeds; Dr. Atkins, Toronto; Dr. Oliver, Newcastle-on-Tyne; Mr. Tivy, Clifton; Mr. Kay, Harrow; Lieut.-Col. Graham, Bristol; Dr. Shaw, London; Mr. Bellard; Messrs. Mackay, Edinburgh; Mr. Lesley, Manchester; Mr. Aylen; Messrs. Kilner Bros., London; Mr. Morris, Mr. Mulliner, Leamington; Mr. Williams, Port Isaac; Mr. Arthur, Walsall; Mr. Parsons; Mr. Scott, Glasgow; Mr. White, London; Mr. Hogg, London; Messrs. Beal and Co., Brighton; Dr. Eberle, Thirsk; Mr. Jordan, Birmingham; Messrs. Woolley and Co., Stoke-on-Trent; R. B., Liverpool; Dispensary, Pullatomas; W. B., Wigan; H. E. C., Clapham; M.D., Lincoln; T. K., Bedford; Medicus, Durham; M.R.C.S., London; Medicus, Wavertree; Julius; Medicus, Brockley; J. F. W., Bristol; G. J., Hulme; Chemicus, St. Peter's-park; E. C., Surbiton; Medicus, Liverpool; Alpha, Liverpool; G. M., Wigan; Phœnix, York; F. H., Upton; North Dist.; Medicus, Dover; M., South Kensington; Arcanum; Matron, Notts General Hospital; Medicus, Kensington; Practitioner, London; J. M. L., Holloway; F.S.A., Wye; Nemo; X. E.; Zeta, Ashton-under-Lyne; M.B., Pontypool; M.D., Southsea; Melton; M.D., Swanage; M.N.

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Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

Clinical Lectures ON SCLERODERMA.

By H. RADCLIFFE CROCKER, M.D., M.R.C.P.,
PHYSICIAN TO THE SKIN DEPARTMENT OF UNIVERSITY COLLEGE HOSPITAL, PHYSICIAN TO THE EAST LONDON HOSPITAL FOR CHILDREN.

LECTURE I.

DIFFUSE SYMMETRICAL SCLERODERMA.

(Concluded from p. 193.)

BEFORE I comment on the case already described, I will relate the history of the other, and show how she has altered since she first came under our notice.

Priscilla F——, a widow aged thirty-eight, was admitted under Dr. Tilbury Fox on May 19th, 1876, when I was the assistant to the skin department, so that she has been under my observation the whole time. Her father died of pneumonia. Her mother accompanies her to-day, and is quite healthy. She has been married ten years, and has had six pregnancies, but each one aborted at about the sixth month; there is no other evidence of syphilis. The husband was a circus man, and she travelled with him, leading a very hard life, which broke down her health. Three years before admission she got wet, and sat in her wet clothes in the circus. The next morning she had pains all over her body, especially in the joints, which were swollen, the knuckles, wrists, and ankles being specially affected. The joints were so stiff that she could not bend them without difficulty. Soon she experienced a sense of tightness of skin across the chest, which extended to the collar-bones and up the neck to the mouth, and the skin "felt like a cord" from the chest to the chin. The fingers became drawn down into the hand, much more than they are now, and pressure, continued for some time, produced pitting of the hands. The feeling of tightness of the skin gradually spread up the arms and over the face, and wasting set in; the legs became affected also, but less than the arms, and there was a feeling of tightness at the knees when she stooped, but the legs have not wasted very much. Pains, generally of a gnawing character, and sometimes pricking, were experienced, and are still felt at times. For about a year previous to admission there has been no change in the condition of the skin; for the last two years she has been subject to fainting attacks occasionally, but lately they have been more frequent and severe. She is often giddy, and has had occasional attacks of numbness in the lips and left side of the face, and also in the right leg, but only of a few minutes' duration. Condition on admission: The face is much wasted, there are no wrinkles or folds, and the skin is tightly stretched over the bones; but on the forehead with great difficulty the skin can be slightly pinched up. The lips are shrunken and tightly stretched over the teeth, and the incisors are loose and appear to be falling out, but the gums are not very hard now. The venous radicles are dilated and mottle the otherwise extremely pale surface. There is general desquamation of the epidermis in fine scales, and scattered papules appear from time to time, which ultimately leave only a patch of scales in their place. On the chest the skin is tight and parchment-like as far as the third rib, and in a lesser degree down to the level of the ensiform cartilage; below this the skin is normal. At the back the disease extends over the scapula, but is less marked at the supra-spinous fossa, and ceases between the shoulders. The hardness is most marked in the arms, where the skin is much thickened, but the muscles and fat are extremely wasted. There is an increase of pigment in the axillæ and the upper third of the area on the inner side. The right arm is flexed to a right angle at the elbow; the bony prominences are very conspicuous through the stretched skin, and ulcerated in two places from being knocked. The right hand is extremely atrophied, the skin quite smooth and shiny, and the fingers semi-flexed in a claw-like manner, the little one being nearly flexed on to the palm, though there is slight power of movement in the metacarpo-phalangeal joint, but none in the other joints. The wrist is ankylosed, but she has slight power of rotation from the head of the radius being partially free; the distal phalanx of the thumb is drawn back by the contracted extensor, but the other is straight. The front of the thigh is in the same condition as the arms, though less developed. The urine was 1012, with no albumen or sugar. The heart had no thrill, but there was a systolic and a presystolic murmur at the apex, both conducted towards the axillæ, and reduplication of the second sound at the base. Such was her condition in 1876. She was treated with iron and other tonics and cod-liver oil, and diligent friction with simple ointments. Under this treatment gradual improvement took place, and she has now recovered as far as the severely damaged tissues would admit. Her face, as you see, is still thin and expressionless, for not only the fat but the muscular tissue was atrophied. The skin is now easily pinched up and freely movable, but it is still pale, except where mottled by telangiectic vessels, which are very abundant. The upper lip is shortened still, but all the front teeth have dropped out, so that the shortening is less noticeable than before. The arms are much wasted, but the stiffness and hardness of the skin have disappeared and the wrist has recovered its mobility. The hands, however, are hopelessly crippled, for though the skin is movable, and perhaps there is a little more movement at the metacarpo-phalangeal joint, it is not of any material use, as the rest of the finger-joint is as completely flexed as ever. If you compare her hands with the preceding case you will see how exactly one is the counterpart of the other, with the exception that the wasting and flexion are somewhat greater in this patient. This is the condition that Ball described as "sclerodactylie," though another name is scarcely needed for a single phase of this disease. Deep as is the abyss into which such patients as we see before us are plunged, there appears to be a lower depth still. After a time in these patients the disease comes to a standstill, and though they generally lose flesh, at least their life is not in danger, unless from an intercurrent malady which they are less able to resist than they were before. In the other cases to which I allude the disease is progressive, with long periods of rest, it is true, but steadily downwards. Such a course is fortunately very rare, and I will merely quote in abstract one of Sir Erasmus Wilson's cases to illustrate it. The patient, aged fifty-seven, was secretary to a society, when the disease began, in 1866, with repeated attacks of swelling of the hands. Some months later the hardness and contraction made themselves sensible, and he experienced pain in the joints and tightening of the skin; then the front of the chest and neck became affected, and a little later the shoulders and arms; there was also a slight impediment in swallowing. In 1869, when Wilson saw him first, his hands, face, breast, and right foot were affected with atrophic scleroderma, and he was very feeble; voice, back, and knees, weak. In 1873 the disease had progressed and he was rather worse in every way, and deglutition was more difficult. In 1876 the left foot was attacked, like the right. In 1875 he died; it is not stated in what way. The condition had thus lasted nine years, with gradual progression and undermining of the general health.

Let us now compare our last two cases with each other, and then with the first two. In both the disease began with articular pains, but in the last it is clear that there was acute rheumatism present. In this patient there is a definite history of exposure to wet and cold immediately preceding the scleroderma, but in Jane E——, though probable, it cannot be definitely established. This association of acute rheumatism and heart disease with scleroderma is not an infrequent occurrence, and you will remember that this was the case in the child whose history I briefly related; but, as is so common in children, the brunt of the disease fell on the heart, the articular manifestations being slight. What is, then, the relation of acute rheumatism to scleroderma?—is it etiological? I scarcely think so. While there are, on the one hand, only a moderate proportion of scleroderma patients in whom the two diseases are associated, there are many scleroderma cases in which there has been no antecedent or associated rheumatic fever, while scleroderma would not be so rare if so common a disease as rheumatic fever was of direct etiological importance. I regard them, and also ordinary articular rheumatism which frequently accompanies scleroderma, as being due to a common cause—viz., exposure to cold, which is one of the most frequent and important causes of scleroderma. No doubt persons who have suffered from rheumatism are abnormally sensitive to cold and wet, and the same is true of people liable to erysipelas, and in this way rheumatism and erysipelas may

predispose to scleroderma among other things. With regard to the frequent association of valvular cardiac disease with scleroderma, it is more reasonable to consider it the direct outcome of rheumatism than to assume that it is due to a sclerosis of the valves analogous to the affection of the skin, though the possibility of such an origin cannot be denied.

To return to our last two patients. Both of them show their disease in the atrophic form, contrasting thus with the first two patients, though, as I have said, they do not represent anatomically but clinically opposite conditions. In this contracted condition the disease attacks the surface of the skin, the papillary layer, and epidermis, as well as the deeper part of the corium, and the subcutaneous tissues, which are alone attacked in the other form. The result is that the disease is much more obvious to the eye. The ivory-white colour which characterises nearly the whole of the skin of the affected area of Jane E——, unlike the white patch in Jane R——'s thorax, marks no mere deficiency of the pigment, but indicates a profound alteration of an atrophic character in the elements of the skin, due to defective nutrition. Great as that change is it is not irretrievable, except where there is complete destruction of elements, as we may see in the case of Priscilla F——. We shall consider this condition of skin again when discussing the other forms of scleroderma, as in them it is more invariably present. Both these patients have the deformity of the hands and forearms the same in every particular except degree, and in Jane E—— you will remember the upper and lower extremities were affected in precisely corresponding areas. Owing to the alteration of colour we can determine more easily the line of demarcation in this form, which, as we have seen, is rarely possible in the other. The symmetry is as exact here as in the other cases, both as regards the parts affected and the parts exempt, as in the small free areas in the knee- and elbow-joints, which allowed free motion of those joints; but all patients are not so fortunate, frequently the tissue round the tendon of the biceps is infiltrated and forms a thick band of hard tissue traversing the front of the joints like a cord, and firmly fixing the joint in a more or less flexed position. In both these patients there was some increase of pigmentation in parts, but this was insignificant compared to what occurs in some cases, as, for instance, in Jane R——. Interesting in this relation is Dr. John Harley's case, in the Medical and Chirurgical Transactions, vol. xli., where there is a plate of the skin in the clavicular region, showing a network of dilated vessels like those of Priscilla F——, but more regularly retiform, and between the vessels streaks of light-brown pigment, though the most extreme instance of pigmentation in connexion with this disease is recorded by Mr. Gaskoin in the fiftieth volume of those Transactions. In many respects this is a most interesting case. At present I will only refer to the pigmentation. The patient, who was a brunette, "became very dark, especially below the waist, and in the extremities. In depth of colour the skin resembled that of a negress, or one of the darkest races, but the staining was otherwise than uniform. In the darkest parts there were yet darker portions interposed. Thus, in spite of glossiness of surface, the aspect was singularly disagreeable, and the well-washed integument was always spoken of by her as being dirty. The locality of the joints was clearly indicated by an increased depth of tint; the neighbourhood of the coxal articulation was shown externally by a huge black stain. In the course of the limbs there were superadditions to and renewals of colour, in the form of markings and blots; there were smudges and alterations in the tints, as of brown and yellow ochre, side by side, crowded together, and but slightly blended. The skin was thus varied and unequal, and though the ensemble is very black, it is broken with dingy shades of red, purple, or green."

This is doubtless an extreme case, but it may emphasise to your minds the fact that more or less pigmentation is usually present. Another point in Jane E—— is of some interest. In the subcutaneous tissues of the nape of the neck were some firm tubercles, the remanet of a large number which had formerly existed in the same region. In two other instances these tubercles have been noticed in the case of Mr. Gaskoin just alluded to, and in one of Mr. Hutchinson, a boy of ten years old, where they were in large numbers in the superficial fascia and the periosteum of the superficial bones, especially over the scapulæ, the spines of the vertebræ, the cartilages of the ribs, the crests of the iliac bones, &c. It appears to me probable that these tubercles are of the same nature as the "rheumatic nodules" described by Drs. Barlow and Warner, and commonly found in association with cardiac disease and rheumatism; they occur in similar situations and tend to disappear spontaneously. In Mr. Gaskoin's case some disappeared in a month, some took much longer; probably, if looked for, they would be found much more frequently than appears now to be the case, as they produce no inconvenience and are rarely conspicuous.

We now come to the most interesting consideration. What is the relation of this atrophic form to the hypertrophic form? Is it a later phase, only that the new tissue has shrunken and produced this condition? This is the usually accepted explanation, and the minute anatomy of such cases as have been examined lend some support to this theory. There has been found a great increase in the connective-tissue bundles, and of the elastic fibres, with diminution of the subcutaneous tissue bundles and fat lobules; and in these contracted cases the skin is directly adherent to the fascia or periosteum. There is narrowing of the vessels, in Schwimmer's case, examined by Babes, from concentric hypertrophy of the media and intima, but the commonest cause seems to be the infiltration of lymphoid cells round the vessels, which lie in the lymph channels, and form a sheath of varying thickness which presses upon the vessel, and this pressure is added to by the contraction of the increased connective-tissue bundles. There is increased pigment in the rete and corium, ectasia of the sweat glands, at first, and ultimately destruction of them, and of the hair and sebaceous follicles. Doubtless the contraction of all this new connective tissue would be calculated to produce the condition we observe in the atrophic stage, and in some cases this probably plays an important part, but it can scarcely account for such cases as that of Jane E——, and for most of the atrophic cases on record, in which the contraction appears to follow too quickly for it to be due to the contraction of newly developed connective tissue. The disease commenced, you remember, with œdema, or, as she called it, "dropsy," limited to the extremities, and the present condition gradually supervened, and was fully developed in less than six months. In the other case the early history is not very clear as to how soon the wasting set in, but there was pitting on pressure at first. In a case of Erasmus Wilson, after great mental anxiety, the skin became dark and swollen, and in a short time contracted; that the swelling was œdema we learn from the condition of the hands and feet, which some months later were swollen. The patient had perfect command of their movements at first, but later they stiffened, and were contracted.

Clearly, then, these cases differ somewhat from the first set, in which there was no pitting, though the difference is one of degree, not of kind; for it is not simple œdema, the pitting being, as Wilson put it, more like that produced by pressing on a skin of lard than on mere dropsical tissue. What, then, is the factor which determines whether atrophy shall set in early or late, or be absent altogether? Mere blocking of the lymph channels will not account for the symptoms, for, as Kaposi justly remarks, we should expect with this the condition of elephantiasis arabum; but there is this difference—in elephantiasis arabum, the trunk afferent vessels are, for the most part, free, while large numbers of the afferent vessels, both venous and lymphatic, are blocked. The result is œdema and overgrowth. In scleroderma large numbers of the terminal afferent vessels are more or less obstructed; and though, no doubt, many veins and lymphatics are obstructed too, the amount of nutrition brought is so much diminished that atrophy, not hypertrophy, results; while in cases such as our first two, occlusion affects a smaller number of afferent vessels, or is less complete, and distension of the tissues results. In short, in my opinion, the condition is one of ischæmia affecting the terminal arterioles, on the one hand, and venous and lymphatic blocking on the other, and according to whether the arterial obstruction is relatively great or small, atrophy or hyperplasia results. This view is, I think, in accordance with the acknowledged anatomical facts, and it will explain how the atrophic stage may be reached with antecedent œdema, but without the conspicuous intervention of the extreme lymph infiltration which characterises the hypertrophic condition; still, it leaves unexplained what was the origin of the process. Hutchinson, Kaposi, Schwimmer, and others seek this in the nervous system. Kaposi and Schwimmer regard it as a central trophoneurosis, and this is probably true to a certain extent for these diffuse symmetrical cases; while for the unilateral cases, especially those which show a distinct nerve distri-

bution, a more local neurosis would accord better with the clinical facts; but even now we have only gone one step further back, for while the nervous system may start a morbid process, and may have influence in localising its cutaneous manifestations, some other factor is necessary to determine the kind of disease that shall ensue. What that other factor is we do not know; probably the idiosyncrasy of the patient, whether congenital or acquired, is one of the most potent influences. In this case our French *confrères*, from its relation to rheumatism, would probably consider that the arthritic disposition was the factor sought for; but, as I have already shown, this is not a satisfactory explanation, for it has already been made responsible for so many varieties of skin eruption that it leaves us much in the same position as before.

There is another point in these cases to which I must allude. Of the four cases before you, three are females and one a male. As it happens, this is the proportion in which, taking a large number of cases, the disease affects the different sexes, and the coincidence will perhaps impress it upon your minds.

Such then, gentlemen, are the history and explanation, as far as I can afford it, of this mysterious disease, which, attacking people in the prime of life who were often previously in good health, too frequently leaves them hopeless cripples and blights their whole future existence. Is there, then, nothing to be done for these unfortunate patients? Yes, something may, though it falls far short of what we should wish. For the hypertrophic cases there is always hope that improvement may occur before new fibrous tissue is completely formed and undergoes its subsequent contraction. The first two cases show that nature itself does much; but we may assist her, not so much directly as indirectly. Good food and protection from changes of temperature are imperative; ferruginous and other tonics, with cod-liver oil, are distinctly beneficial in most cases, and shampooing after Turkish baths, or friction with oily substances appear to be important adjuncts; while some attach importance to galvanisation of the sympathetic. Although it is difficult to appraise the value of these measures in a disease capable of spontaneous improvement, yet as a whole I believe them to be useful, and they are certainly grateful and encouraging to the patient to whom a "do-nothing" treatment is profoundly disheartening. For the atrophic cases the outlook is decidedly gloomy, too often by this time irremediable crippling has resulted before the patient is seen. Priscilla F——s case should encourage us to strive to give relief, though a cure is hopeless, for she had had the disease three years without improvement, when she first came under observation, and now has regained many of the lost movements, and all induration has disappeared. The same line of treatment was pursued as that indicated above, except that she had only the frictions and tonics without either Turkish baths or galvanism. The last agent is much advocated by some observers, but I have not tried it in these cases; for Jane R—— was so evidently improving spontaneously that it would have only been misleading to have used such an agent, while Jane E—— had been treated by galvanism for twelve months before she came here, without benefit. The best proof we can get of the efficacy of any line of treatment is when, after the disease has been quite stationary for some time, improvement ensues on the adoption of a certain measure. This is the case already with Jane E——; so that I think we may fairly credit the means employed with a good share in her improvement. The use of Turkish baths can afford another test of improvement- namely, in the resumption of the secretion of sweat, which is in abeyance when the disease exists in a high degree. Jane R——, for instance, observed spontaneously that sweating had returned in her hands in one of the baths, after being absent for several months. I think, therefore, there is fair ground for assuming that these therapeutic measures do really influence the disease for good, probably by improving the impeded circulation. Of course, arsenic, iodide of potassium, and mercury have been administered over and over again, but there is no evidence that they have been of any benefit; and mercury appears to have been distinctly injurious.

AT the recent annual meeting of the supporters of the Windsor Dispensary and Infirmary a very favourable report was presented, showing a balance in hand. During the past year a new women's ward has been erected, and increased facilities for dealing with accident cases provided.

ABSTRACT OF

Lettsomian Lectures

ON

DISORDERS OF DIGESTION,

THEIR CONSEQUENCES AND TREATMENT.

Delivered at the Medical Society of London on Monday, February 2nd, 1885,

BY T. LAUDER BRUNTON, M.D., F.R.C.P.,
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LECTURE III.

WITH regard to the treatment of disturbances in the digestive function, the first step towards restoring it to health is to remove, if possible, the disturbing causes. Imperfect mastication is one of the commonest causes of disordered digestion. Man is a low-pressure engine, and works almost all his organs considerably under their full power. A healthy stomach can usually digest a good deal more than it is commonly called upon to do. There is, however, a limit to all things, and that limit is more easily reached in some cases than in others. The reserve powers of any function gradually diminish as age increases. If the mind be excited in any way, the movements of mastication are apt to sympathise with the mental excitement. It is evident that, during meals, all ideas of action to be taken by the individual himself should be banished from the mind. Reading anything which interests strongly should not be done during meal-time; and solitary meals are as a rule to be avoided, for the presence of a companion serves to maintain the nervous activity to which reference was made in the first lecture as an important factor in perfect digestion. The condition of the teeth is another cause of imperfect mastication. No teeth at all is far better than a few teeth; an absolutely toothless old man may masticate and enjoy even hard toast, and here the gums may be like the mandibles of a turtle. The nature of the food plays a considerable part in the process of perfect mastication; for if the meat be tough or the bread new proper comminution is impossible, and so digestion is more difficult. The fine subdivision of fatty food is also of great importance in regard to its digestion. The fat of hot mutton is indigestible because it cannot be pulverised, whilst cold fat can. The more minutely we can subdivide the fat the more easily it is digested. Many years ago Professor Hugo Kronecker asked Dr. Brunton: "How should butter be spread in a sandwich? Should the whole of it be put on one slice of bread and the other slice of bread simply put over the top of it, or should the pat of butter be divided into halves and one of them spread on each piece of bread?" The professor answered the question: "The butter should be divided into halves, and one spread on each piece of bread, because in this way the butter is more minutely subdivided, and thus not only gives a more agreeable taste, but is more readily digested." In regard to butchers' meat there are great differences, depending both on the kind of meat used and its condition at the time of cooking. Meat cooked in a state of rigor mortis was tough to eat, but the old Romans used to eat still newer meat; they suffocated their fowls in wine and cooked them forthwith, so that both meat which is perfectly freshly killed, and also meat which has been kept for a sufficient time, are tender. Dr. Brunton thought the taste for "high" meat was an acquired and morbid one. Eating high meat may overtax the antiseptic powers of the gastric juice and bile. The Esquimaux and Icelanders can consume decomposing food to an extraordinary extent without suffering. The effect of keeping may, to a certain extent, be imitated by the application of a vegetable digestive ferment. In the West Indies a tough beefsteak is rendered tender by rubbing it with the juice of a fresh papaw fruit, which contains a ferment, papaine, having an action very much like the trypsin of the pancreas. Bad cooking is another cause of imperfect digestion. Pleasant and repulsive food will act on the stomach through the nerve centres; while the idea of pleasant food will excite

appetite, the very idea of unpleasant food will excite disgust, and even bring on nausea and vomiting. The appearance of the table furniture may also exert an influence on the digestion. That food itself is a moral agent has long been recognised, and has found expression in the proverb, "A hungry man is an angry man." The favour with which Isaac blessed Jacob was augmented by the ingestion of savoury meats. Cookery may not only be a powerful moral agent in regard to individuals, but may be of great service in regenerating a nation. "Schools of cookery for the wives of working men in this country will do more to abolish drinking habits than any number of teetotal associations." A clear-headed clergyman in New York has perceived that dentistry may be a moral agent, and he has insisted on all the people attending his mission chapel keeping their teeth in good condition.[1] Since the clergyman adopted this plan he has had very much less trouble from drunkenness in his congregation. In Switzerland the relation between the consumption of alcohol and the quality of the cookery has recently been investigated. Savoury substances probably stimulate the circulation of the blood in the nervous centres.

Another important question is the kind of food which a person may eat. The appetite is the best guide for the healthy man. As Dr. Austin Flint very sensibly puts it, "the diet should be regulated by the appetite, the palate, and by common sense." The duration of the meal is an important item, and the comfort of digestion at a *table d'hôte* may be safely attributed to the forced slowness of the progress of the meal.

The pleasurable sensation of perfect satisfaction, ease, and quiescence of body and mind should be the criterion of sufficient alimentation. To effect this most agreeable of sensations and conditions—the real elysian satisfaction of the reasonable epicure—timely attention must be paid to the preliminary processes, such as thorough mastication and moderate or slow deglutition.

Many a man has been saved much misery by a weak stomach, which punished its owner by sickness or headache whenever he tried to overburden it, and thus checked his tendency towards excess at the very outset. The late Professor Laycock observed that patients recovering from a severe illness not infrequently have a craving for salt herrings, pork, or ham; but the fact is that these patients really want salt, and if salt be given them in the form of a mixture the appetite is appeased and the harm is avoided which the herring or ham might have caused. The degrees of digestibility of various meats, fruits, vegetables, and drinks were discussed at length. Sour wines are apt to set up gastric catarrh. A single glass of good wine sometimes disagrees, and some of the people who suffer in this manner also have an unpleasant burning feeling in the gullet whilst swallowing the wine, and Dr. Brunton suggests that hyperæsthesia of the mucous membrane may have something to say in the matter. Coffee does not affect the stomach to such an extent as tea. In its preparation, however, a substance called caffeon is produced, and this, along with the caffein which is present in coffee and tea, appears to dilate the abdominal vessels and cause a feeling of fulness in the abdomen, with a tendency to piles in some persons.

Another cause of imperfect indigestion is fatigue. When exhausted, it is far better to get forty winks before dinner than after. Walking or other exercise after a long day's work and prior to dinner, by exhausting the nervous system, was a potent cause of indigestion. Effects somewhat similar to those of fatigue may be produced by depressing or disturbing mental emotions or bodily conditions. Different emotions appear to affect specially, not only different organs like the heart and intestinal canal, but different parts of the digestive apparatus. Thus disgust affects the stomach, causing vomiting; fear is seen, in some of the lower animals, to affect the rectum, causing defecation; compassion affects the small intestine, producing borborygmus; worry and anxiety appear to have a very special influence upon the liver. In treating indigestion due to injurious mental influences, bromide of potassium, either alone or combined with bromide of ammonium, is very useful, both in lessening the sensibility of the nervous system to worry and in procuring sleep; for, as Shakespeare truly says,

> "Sorrow's weight doth heavier grow,
> Through debt that bankrupt sleep doth sorrow owe."

Disorders of the genital organs are apt to give rise to mental depression and to digestive derangements.

[1] The New York Medical Record, Feb. 24th, 1883, p. 224.

The pathology of indigestion and the action of remedies cannot be properly understood unless we constantly bear in mind the intimate relation which exists between the alimentary canal and the rest of the body.

The gastric tonics are chiefly vegetable bitters, and they increase the appetite, lessen flatulence, and tend to diminish discomfort and languor. Nux vomica is one of the most useful of this class, and the great benefit derived from its use is probably due to its stimulating action on the nerve centres, by which the coördination of the digestive processes is rendered more perfect. Carminatives tend to disperse flatulence; the ethers and volatile oils probably act by increasing the movements of the stomach and intestine, and altering them in such a way as to allow the gases they contain to escape upwards or downwards. Charcoal, subnitrate of bismuth, and binoxide of manganese would appear to act largely mechanically; and cases of dyspepsia are reported which have been successfully treated by the administration of fine sand. The ethers and alcohols are closely allied to the carminatives. The difficulty about alcohol is to define its place. There is a great deal of practical truth in the definition of dirt as "matter in the wrong place." In regard to the use of alcohol in dyspepsia, Dr. Brunton thought St. Paul's advice to Timothy was very good: "Drink no longer water, but use a little wine for thy stomach's sake and thine often infirmities." Another important chapter in treatment is the removal of waste products. The regular action of the bowels must be maintained at all cost. Headache from constipation is probably due, in part at least, to poisonous products formed in the intestine and absorbed from it, for Brieger noticed that it was only in the first stages of albuminous decomposition that alkaloids are formed, and afterwards they seemed to disappear. So that prolonged constipation without headache may be explained. The manner in which the salts of Carlsbad are used at the site of their natural origin accounts for the greater benefit derived from them than when they are used at home. The sipping has a powerful influence on the heart, as already pointed out in the first lecture.

One cause of biliousness, which deserves attention, is the alteration in the condition of the bile itself. Biliousness is accompanied by two different conditions of biliary flow. In the one kind the stools are clay-coloured from the absence of bile; in the other, the stools are either normal or are dark-coloured, from excess of bile. Certain bodies of the aromatic series have a powerful action upon the secretion of bile. Salicylate of soda is a powerful hepatic stimulant, increasing greatly the quantity and rendering very fluid the consistence of the bile. Other substances of the aromatic series, especially toluylendiamin, greatly increase the quantity of solids in the bile, so that sometimes the bile, from being viscid and thick, will no longer flow through the biliary capillaries, and jaundice results. A similar action may be exerted by poisons manufactured in the intestines. Mercurials may have an antiseptic action in addition to their other well-known effects. Horse exercise acts in a mechanical manner on the liver, tending to squeeze the bile out of the organ into the intestines; rowing, or its imitation in the gymnasium, may effect the same purpose. The alteratives, though ill-understood as is the manner of their action, must occupy an important place. The acids are probably a means of carrying out nitrogen in the form of ammonia, nitrogen which should normally pass out as urea. Nitro-hydrochloric acid is found to be clinically useful in patients suffering from eructations of sulphuretted hydrogen; it is also useful in oxaluria and depression of spirits. Ammonia and chloride of ammonium have a powerful action on the liver. Ammoniacal salts increase the formation of glycogen. Diuretics are useful in some cases of indigestion. Hot water is thus useful in some cases of gouty dyspepsia. Alkalies increase the diuretic effect, and effervescent citrate or tartrate of potash is useful both as a diuretic and as a local sedative to the stomach in neurotic and gouty gastralgia. By the frequent use of water as a diluent, either alone or with salines, the consequences of indigestion in regard to the lungs, heart, and head may often be averted or remedied. Asthma in gouty subjects is, perhaps, best treated by a mixture of bromide and iodide of potassium, and the addition of a little arsenic is said to increase the effect. Bromide of potassium is frequently useful in cases of intermittent pulse, though Dr. W. Begbie used with success a remedy composed of two grains of powdered rhubarb, ten of subnitrate of bismuth, one and a half of nux vomica, and three of compound cinnamon powder, to be taken before meals, and, if there

be acidity, ten grains of bicarbonate of soda or of magnesia may be added to it. It may be given in water or in a wafer swallowed along with a little water. Giddiness frequently takes the place of headache in persons of middle age suffering from biliousness, and both headache and giddiness are frequently connected with disorders of vision. Bilious headaches with tenderness of the globe of the eye may be relieved by small doses of salicylate of soda, half a grain in an ounce of water being taken every quarter of an hour or half an hour. Considerable attention ought also to be given in confirmed cases of indigestion to a most important method first introduced to notice by Weir Mitchell—namely, massage. A case of most profound emaciation, apparently dependent upon tubercular peritonitis, was narrated by Dr. Brunton in which the effects of massage seemed little short of marvellous. From the hasty sketch given of the disorders of digestion Dr. Brunton thought it would appear that although our knowledge of the subject is still very imperfect, yet a large number of observations have been accumulated which we may hope will, before long, enable us to understand the pathology more fully and to treat these disorders more perfectly.

ON

SOME COMPLICATIONS OF TRACHEOTOMY, WITH ILLUSTRATIVE CASES.

BY ROBERT WILLIAM PARKER, M.R.C.S.,
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(*Concluded from p. 195.*)

3. *Irritative Changes due to the Presence of a Tube.*—In a few cases the mere presence of a tracheotomy tube in the trachea, even when perfect as regards length, shape, and size, appears to give rise to an irritation which is quickly followed by the growth of granulations. A considerable amount of granulations has been found in from four to eight days in cases which have terminated fatally. Such a condition may be suspected if the insertion of the tube appears to cause undue irritation, and especially if its insertion is followed by blood-stained secretion. The use of the feather also causes very considerable irritation, and has to be discontinued. In cases where the granulations about the external wound proliferate with unusual exuberance, such a growth may be suspected within. This peculiarity seems to depend on a hypersensitiveness of the tracheal mucous membrane, and it is an idiosyncrasy which must be taken into account. Minor degrees of this condition are often experienced, some tracheotomised children never reconciling themselves to the cleaning and changing of the tube.

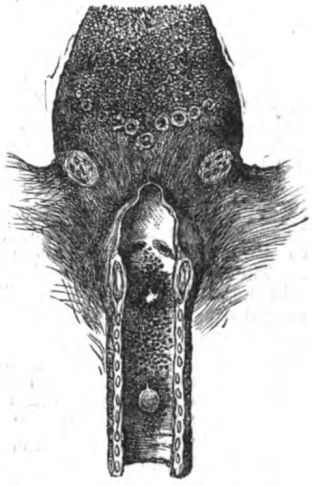
If granulations spring up, the best treatment is the local application of nitrate of silver. A silver probe, after being suitably bent and coated with fused nitrate of silver, is introduced into the tracheal wound, and made to touch as nearly as possible those parts on which the tube has rested. Or a few drops of a thirty-grain solution of nitrate of silver may be allowed to trickle into the trachea, the child sitting upright and inclined slightly backwards, so that the solution may run over the affected portion of the trachea.

The granulations I am now alluding to may occur all round the trachea, and not merely on the anterior wall or at one spot; for they are not due to pressure, but, as before stated, to the presence of a foreign body in an unusually sensitive trachea. I append the drawing of a trachea (see Fig. 5) in which granulations due to this cause were very abundant over the whole track of the tube. There was no sign of ulceration; the granulations occurred within five or six days of the operation. The child appeared to be doing very well, until one night it was suddenly choked after a violent fit of coughing. The autopsy revealed the presence of granulations between the tracheal wall and the tube, which doubtless during life were florid and turgid with blood, and completely filled the space; one currant-like granulation, larger than the rest and attached to a small pedicle, had apparently been driven by the coughing into the tube and completely occluded it.

In the case of warty laryngitis—that is, when there is a natural tendency to the formation of warts—the irritation of a tube leads to the production of minute warts, instead of granulations proper, as seen in Fig. 3, below the tracheal opening. In the case of granulations proper, some difficulty is usually met with in the removal of the tube. At first sight the obvious remedy is the removal of the cause; but an acute obstruction having necessitated the use of the tube, granulations having occurred and actually existing, the difficulty arises of how best to treat them. Such cases all point to the desideratum of tracheotomy without the use of tubes at all. At present, I have not been able to dispense with them; nor do I know of any trustworthy means of gaining the desired objects without tubes; at the same time it is a desideratum I constantly have in mind, and which I recommend to the consideration of my professional brethren.

As to treatment, reference has just been made to the use of nitrate of silver once a day, or once in two days. The alum spray or tannin spray (an ounce of tannic acid glycerine in seven ounces of water) must be used at frequent intervals through the day and night. The tube should be removed for as long as possible, and the silver plug inserted, the patient being meanwhile under direct supervision; for on the removal of the tube, the granulations swell out, and if present in quantity they in time occlude the trachea. Hence in a few instances a child will breathe well for an hour or two, then the tube must be reinserted. The explanation appears to be as follows. The tube by its presence keeps back the granulations, but having been removed, they commence to swell up; possibly also the more laboured breathing (which follows the removal of the tube), by causing congestion, helps them to still further occlude the

FIG. 5.



trachea. Cauterisation and astringents are the best remedies, and are generally successful.

4. *Accidental Conditions.*—Under this heading I shall include two cases, which, though not unique instances, are nevertheless so rarely met with as to require separate consideration. They appear so purely accidental in their incidence that none but the most general precautions can be taken to guard against them.

CASE 6. *Catarrhal Laryngitis; Tracheotomy; Difficulty in removing Tube; Hypersensitiveness of the Trachea; Death in Convulsion fifteen days after removal of Tube; Autopsy; large Granuloma at the seat of cicatrised Wound inside the Trachea.*—Eliza M——, aged two years and a half, was admitted into the hospital under the care of my colleague, Dr. Eustace Smith, on February, 1882. She was one of eight children, of whom one had recently been suffering from quinsy. She had enlarged glands about the neck, secondary to eczema capitis, to which disorder she was very subject. She was a plump, well-nourished child, and well-grown for her age, with no very manifest signs of rickets. On admission she was said to have been hoarse for two days; she had that morning complained of having "a pin in her throat." She had had no discharge from her nose, and there was no illness in the house. Her breathing had become so laboured by the following day that tracheotomy had to be performed by Mr. Battams; the high operation was done; chloroform was administered by Mr. Sanderson, one of the resident officers. No membrane was got up or seen. The child did fairly well; efforts to remove the tube, however,

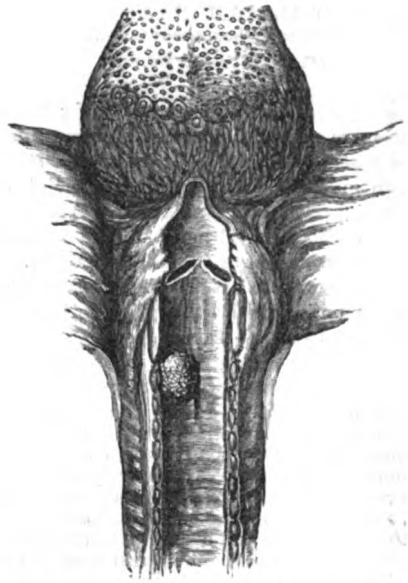
were not successful until March 15th, thirty days after the operation. It was remarked at the operation, as well as subsequently, that the child's trachea was remarkably sensitive; she coughed violently whenever it was necessary to clear the tube or attend to the wound, and one of the difficulties which attended the attempts to remove the tube appeared due to this hypersensitiveness of the tracheal mucous membrane. Finally, the tube was removed, and the external wound gradually closed up. The child breathed fairly well in the day-time, but had attacks of urgent dyspnœa, becoming progressively worse during the nights, with some nights of comparative immunity. The voice was not hoarse. On March 31st, forty-six days after the operation, the child died in a convulsion after an attack of dyspnœa rather worse than usual. The trachea was again opened, but too late to save life.

The autopsy revealed the condition depicted in Fig. 6. "At the site of the old tracheal wound is a highly vascular livid red mass of granulation, more or less pedunculated, projecting into and considerably narrowing the trachea at this point. The ary-epiglottic folds are very œdematous."

In this case the laryngo-tracheal mucous membrane was exceedingly sensitive, and doubtless also somewhat œdematous. Thus breathing was rather more laboured than normal after the tracheal tube had been removed. The granuloma doubtless gradually developed and increased in size, and finally, during an unusually severe paroxysm of laboured breathing, it became extra turgid, and so completely occluded the cricoid opening (which is the narrowest part of the windpipe), and thus killed the child. A fatal termination to a case of tracheotomy from this cause may be regarded as a rare event. Dr. Petel, in his graduation thesis,[1] only collected ten such cases in addition to the one he himself recorded. In three of the cases a second operation was performed with complete success. In one case the child was tracheotomised three times, and had still to wear the cannula. In another case the polypoid granulation was spontaneously coughed up. In three cases death resulted before help could be given. In two cases the condition, which had not given rise to any symptoms, was only discovered at the autopsy, death having taken place from some other cause. In a minor degree, nevertheless, I am inclined to think that such a condition is not very uncommon. There are no *a priori* grounds why granulations should not spring up on the deep surface of the wound as they do on the superficial. On the latter granulations, sometimes very exuberant, are the rule. From a study of the published cases it appears that the granulations have most frequently grown from the upper angle of the wound—that is to say, immediately below the cricoid opening, the point where their presence would be most dangerous. The possibility of such an occurrence has even been urged, but I think the grounds very insufficient, as an argument against the high operation. This condition may be suspected—the patient having previously undergone tracheotomy, the tube having been removed, and the wound being more or less cicatrised—if the breathing again becomes gradually and temporarily embarrassed, the voice generally remaining unaffected. At first this embarrassment will be chiefly obvious at night, when the child is asleep; then during the day-time also. It will be paroxysmal, and vary much in intensity; in the later stages expiration will be as much impeded as inspiration (or more); there will probably be blood-stained expectoration, especially after paroxysmal coughing. It is probable also that the external wound may have exhibited a tendency to exuberant granulations. Given such signs, what is to be done under the circumstances? The surgeon will have to be guided by the intensity of the resulting dyspnœa; if it tends to improve slowly, the use of the alum or tannin spray may be continued; if it tends to become more marked, a second operation will have to be undertaken and an examination of the part made, with a view to the removal (if present) of the granulations by forceps, caustic or otherwise. In his interesting graduation thesis Dr. Carrié[2] says, p. 63:—"In these circumstances, with difficulty [of breathing], recession, noisy breathing during the night, we must not await a first access of suffocation, which may prove fatal, but at once re-open the trachea."

CASE 7. *"Croupy" Cough; urgent Dyspnœa; Tracheotomy; Inability to remove the Cannula; Sudden Death three months later; Autopsy; Web-like Adhesions between the Cords.*—A little boy, eighteen months old, came under observation on account of a "croupy" cough and dyspnœa, which subsequently necessitated tracheotomy. No membrane was got up. At the end of a week attempts to remove the tube were commenced. They were quite unsuccessful, and remained so. The child's general condition was good, and he appeared well in all respects except that he could not get on without his tube. One night he was found dead in bed. No sound had been heard by the night nurse, who had just previously looked at him and found him sleeping comfortably. The bedclothes were quite undisturbed. His eyes were closed, and his features free from any sign of a death-struggle. The autopsy revealed the following condition. The lymphatic glands, tonsils, follicles of the pharynx, and root of the tongue were very much enlarged. On the anterior wall of the œsophagus, opposite the shoulder of the tube, there was an oval diphtheritic patch three-quarters of an inch long, corresponding with a similar condition on the posterior wall of the trachea. Looking into the larynx from above the vocal cords were seen to be much swollen. Looking up the trachea from below there was no visible passage; in fact, immediately above the tube there was a diaphragm of granulating and cicatrising tissue, which had a short, unattached margin opposite the posterior wall of the windpipe and

FIG. 6.



nowhere else. This septum would impede inspiration greatly and expiration altogether. There was great ulceration of the mucous membrane opposite the end of the tube.

5. *Ulceration in the Trachea, due to ill-fitting of the Tube.*—This condition is now of much less frequent occurrence than formerly. M. Roger was the first to draw prominent attention to the subject, and to suggest at once the cause and the remedy.[3] As I have no personal cases to relate, I must summarise M. Roger's views and conclusions. He showed that the complication was more liable to occur in some cases and in some epidemics than in others; but from the anterior wall being most affected, and just at the place corresponding to the lower extremity of the tube, he argued that the chief cause of the ulceration was pressure of the tube, "l'action vulnérante de la canule." This condition is most to be feared when the tube has to be worn for a longer period than usual, but it has been found as early as thirty-six hours after the operation. The ulceration may be only superficial, or it may be deep enough to perforate the trachea; and, as cases are recorded in which the innominate artery has been opened, it will be allowed that this complication is a very formidable one. As symptoms of this form of ulceration, M. Roger gives the following. It is to be suspected if the external wound assumes a sloughy condition, and if the breath and expectoration become fetid, the tube will be blackened, either entirely or in patches,

[1] Des Polypes de la Trachée, survenant après Cicatrisation de la Trachéotomie. Thèse de Paris, 1879, No. 500.

[2] "Contribution à l'Etude des Causes empêchant Ablation définitive de la Canule. Thèse de Paris. 1879, No. 13.

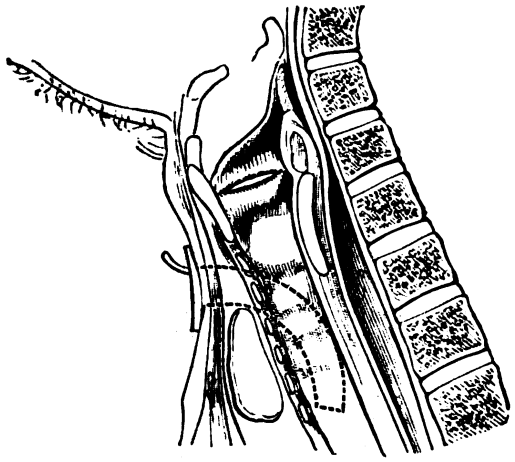
[3] Archives Générales de Médecine, 1859, vol. ii.

and there may be pain or difficulty in swallowing. Most of these symptoms, however, may occur without the presence of ulceration, as I have seen on many occasions. The difficulty of recognising the onset of this ulceration, no less than its dangerous nature, render it incumbent on the surgeon to watch his patient closely on the one hand, and on the other only to use such tubes as are comparatively safe and unlikely to press on the trachea.

M. Roger tried different materials—gutta-percha, india-rubber, flexible ivory; but finally discarded them in favour of silver, recognising that the ulceration depended on the unsuitable shape of the tube, rather than on the fact of its being rigid: "La forme des canules habituellement en usage n'est pas celle qui conviendrait le mieux" (p. 180, op. cit.). After many unsuccessful trials, M. Roger finally adopted Lüer's tube with the movable collar.

While admitting the immense improvement which was thus effected, I am inclined to think that much of the mischief was really due to the quarter-circle shape of the tube itself. A glance at the annexed drawing (Fig. 7), which

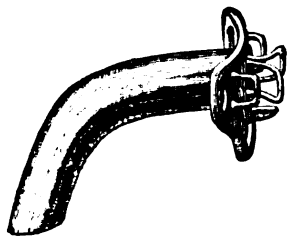
FIG. 7.



Outline figure of the trachea, showing its direction, and also an ordinary tube *in situ*.

represents the trachea in frozen section, will show that such a tube must of necessity press upon the anterior wall of the trachea. With a view to remedy this defect, I suggested some years ago an "angular" tube. An extended use of this tube leads me to think highly of it, and justifies me, I hope, in recommeding its adoption by others. The drawing (Fig. 8) shows how its lower half, by being directed

FIG. 8.



The angular tube.

backwards and downwards, corresponds with the direction of the trachea, and that, however long, it can never press upon it. If this tube be imagined in the trachea in place of the quarter-circle tube, as seen in Fig. 7, the advantage I claim for it will be conceded.

I will conclude by recommending surgeons to be well provided with a variety of sizes; slight differences in length of the tube, in depth from the front opening to the "angle," and in calibre, I believe, often turn the balance one way or another. A tracheotomy tube, like a boot, must fit comfortably, or it cannot be worn without injury. In order to make the inner tube pass the angle, its posterior wall has to be cut away; let me advise that as little as possible be removed. It is impossible to give too much attention to the manufacture of the tubes; all roughnesses and sharp edges must be avoided. Finally, I think it would be an improvement if the interior of the inner tube were polished, for it could be more easily cleaned.

Perhaps the day will come when we shall be able to dispense with tubes altogether; at present I know of no efficient substitute, though, as I have already said, my thoughts are constantly engaged in this direction.

The points in common in the foregoing, widely different, cases were urgent dyspnœa, necessitating operation, and subsequent difficulty in removing the tube; it will be seen on what a variety of causes the latter point may depend, and how important a correct estimate of its real one becomes. Since writing the above, I have operated for the second time on a little boy, and found a mass of granulation tissues blocking up the cricoid ring. In addition there appeared some cicatricial narrowing in the upper part of the trachea. The boy is still under treatment, and I am rather fearful that he will have to continue to wear his tube, until further growth in the trachea—which goes on very rapidly as adolescence approaches—has taken place.

Old Cavendish-street, W.

THE QUESTION OF THE IMPORTANCE OF FLEXIONS AND DISPLACEMENTS OF THE UTERUS.

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IN a former paper[1] I offered some remarks on the recent statistics of Vedeler and Herman as bearing on "the question of the importance of flexions and displacements of the uterus." Dr. Herman has since[2] replied, and I hope to be permitted to make some further observations on this subject. Notwithstanding Dr. Herman's objections, I still maintain that these statistics do not give trustworthy evidence as to the actual frequency of flexions of the uterus in really healthy subjects, considering, as I do, that in all probability many of the supposed healthy individuals would have given evidence of presence of symptoms had such been carefully and sufficiently looked for, and for other reasons previously stated. But supposing for the sake of argument we agree to waive the point as to the health of the subjects of the statistics in question, how far do they support the view that flexions are in themselves of no pathological importance?

It has been made a reproach to me that before generalising in the way I have done on the subject of flexions (and displacements) of the uterus I should have proceeded differently, and should have ascertained the frequency of flexions in women generally who are in a state of health. It is easy to make the criticism, but it is not easy to make observations such as would satisfy all requirements in any considerable number on women in a state of health. The statistics which have been put forward by Vedeler and Herman, and which profess to offer the desideratum in question, I have already commented on, and have objected to them for reasons which still appear to me good reasons. But, nevertheless, I consider that they constitute a valuable contribution to the facts necessary for the discussion of the subject. These statistics do not, in my view, invalidate the conclusions I had arrived at as to the importance of flexions and displacements of the uterus. The statistics in question are intended to show that in cases not offering marked symptoms, uterine flexions are common. But supposing this to be correct, it does not follow that severe symptoms may not, or will not, arise in association with further increase, gradual or sudden, in the degree of the flexions and displacement of the uterus. In my recent paper I stated that "the sufferings of which patients complain are of such a kind as to prove that they are directly related to movements of the uterus, to exaggeration of existing flexions, and the like." Flexions of the uterus are in many cases of slow growth, and may for a time, long or short, give rise to few symptoms; but an accident, or a strain, or long-continued over-exertion, may so increase and intensify a previously slight flexion that acute sufferings begin there and then to show themselves. Analysis of cases under my notice has shown the great frequency with

[1] Vide THE LANCET, June, 1884. [2] Ibid., Oct. 1884.

which injury, falls, accidents, &c. were found responsible for the illness from which the patient suffered, as I have shown in the last edition of my work. When such cases come before us it, of course, generally happens that we know nothing for certain as to the state of the uterus before the accident. In some, probably the uterus was in a tolerably normal condition, but it is probable that in most of such cases, and this view is favoured by these recent statistics, the uterus was affected with flexion to a certain degree before the accident, injury, overstrain, or what not, and was therefore more readily and seriously pushed out of its proper place, and more considerably altered in shape, by reason of that existing predisposition. Further, if the previous history of cases of this kind be carefully gone into, it will be found that in many instances facts will be revealed intimating a more or less long-standing disability on the part of the uterus, although the ailment had not been sufficiently severe to call for medical interference, and the subjects of these slight ailments having been reputed to be in health. The transition from health to disease is often slow, and the organs of the body though altered perceptibly to the anatomist from what is considered the true healthy standard may not give evidence of such alterations in the shape of symptoms. Flexions of the uterus are in this category, and in many cases they may attract for this reason no attention. But admitting this to be true, it has still to be considered what is their clinical importace as predisposing to more decided and serious alterations in the uterus? What in fact is the relation subsisting between a patient with flexion, but without suffering, and another who presents a condition of suffering in conjunction with flexion to which are found added congestion, marked derangements of the functions of the uterus of various kinds, &c.? It is plain that this question can only be answered by careful clinical inquiry. One thing is certain, that some women are "weakly" in regard to the uterine organs, and some are comparatively "strong" as the phrase is. There is a predisposition to further and more decided disease in the weakly individuals, and this predisposition is, according to my belief, founded on long experience, a condition of the uterus such as allows it too readily and too easily to assume a more or less flexed shape. It is easy to understand that this kind of predisposition is common, for the number of young women who are really "strong" is not very great.

It is further to be pointed out that when the uterus is flexed, the fundus being directed forwards or backwards, offers a mechanical condition which probably favours to a considerable degree the occurrence of further flexion or the intensification of such flexion. Forces acting downwards, such as severe straining, will necessarily, as it appears to me, cause the free end of the lever, which is also the weightier, under these circumstances, to descend lower in the pelvis. Dr. Berry Hart, in criticising my views on the etiology of flexions, has pointed out that the central part of the uterus not being a fixed point, the effect of such downward pressure will be to cause rather a prolapsus than an increase of flexion. The effect will, no doubt, vary in different cases, and unquestionably a general lowering of the uterus would be a part of such effect (it may even be the chief effect in some instances); but it will probably be conceded that the fundus of the uterus is more free to move forwards or backwards than is the central part of the uterus to move downwards. Therefore, my idea is that, as a general rule, when the uterus is already flexed, a straining force downwards will force the uterus as a whole somewhat lower in the pelvis, but that it will also considerably intensify an existing flexion. In many instances the intensification of the flexion is, as I have repeatedly observed, the main effect resulting.

Flexion of the uterus implies a certain degree of displacement of the organ. When the uterus is abnormally bent backwards, for instance, the fundus is a position of displacement, and the cervix is also more or less displaced. There may be also a displacement of the organ as a whole downwards. There are therefore three possible factors usually combined. (*a*) The bending; (*b*) the anterior or posterior displacement of the fundus, and also to a less degree of the cervical part of the uterus; and (*c*) descent of the uterus as a whole. In different cases there will be a different intensity in each of the three factors in question, and the degree of suffering observed would be expected to vary accordingly. The symptoms resulting are most intense when each of the three factors is present in a marked degree. Mere displacement without flexion is often attended with symptoms, sometimes severe ones, but clinical facts show that taken as a whole versions, for instance, are incomparably less important as regards production of symptoms than those cases in which the uterus is bent. This, to my mind, is one of the great proofs of the importance of the latter condition. In speaking generally, however, of the importance of flexions, I have, as will be gathered from my writings, attributed a due share in regard to the sufferings present to the conditions concomitant with flexions, above categorically described—viz., the factors *b* and *c*. When the uterus, being flexed, retains its ability to move, or is "free to move," there may be no symptoms, and temporary intensification of the flexion may be unattended with such decided symptoms as to induce the seeking medical relief. But when congestion of the uterus, fixation of the organ in its bent shape, and non-capability of restitution after a bending force has been applied, when these events have occurred, decided symptoms will not long be postponed. No doubt there are a multitude of cases in which the condition is one which may be described as being on the borderland; the individual suffers a little, the uterine functions are not well performed, the uterus is more or less flexed. The health improves perhaps, and no further efforts follow; or the individual is overworked or overstrained, the flexion is increased, symptoms occur, and medical advice is sought; or there is a slowly occurring disimprovement, consisting in a very gradual but permanent increase in the degree of the flexion, together with gradual increase in the disturbance of the general health and in the intensity of the local symptoms.

The explanation, therefore, of absence of symptoms in certain cases when flexions are present is that the growth of the flexion has been slow, and secondary effects have not been developed, the uterus gradually accommodating itself to the altered shape. The explanation of the occurrence of symptoms is that there is either a sudden displacement and bending of the uterus, which may or may not have been previously flexed to a certain degree, or that the bending and displacement have become gradually intensified up to such a point that accommodation power is overstepped, and the symptoms slowly but certainly show themselves. Leaving now the question as to the general frequency of flexions and displacements, I proceed to discuss briefly certain other disputed points. The question really at issue in these discussions regarding flexions is the influence exercised by them in bringing about other conditions, termed variously chronic inflammation, congestion, &c., which all recognise as abnormal. These other conditions are, it is admitted, frequently found associated with flexions, and they have to be explained. At the present moment the explanation which has been given of their occurrence, that they are traceable to the presence of flexions and displacements, is contested on various grounds, one being the fact that flexions are frequently found in cases where there is no other alteration. This argument I have already dealt with, but others remain to be considered. The question as to the manner in which "congestion" of the uterus is produced is a vital one in uterine pathology. I was led to form my present opinion on this subject by clinical observations simply and solely. Having so constantly observed that patients suffering from congestion of the uterus were relieved, and the congestion diminished, by altering the position and shape of the uterus, it naturally occurred to me that the congestion must be due to the altered shape and position of the uterus, and the result above described was found to follow so frequently as to leave no doubt in my mind that the congestion was in great part, at least, a mechanical one. Constant observation of the phenomena described, extended over some years, has induced me to consider this account of the causation of congestion of the uterus in the vast majority of cases as accurate. And I am convinced that change of shape of the uterus, such as is involved in the sudden production of a severe flexion, or in the continued and gradual intensification of a previously existing flexion, is precisely what constitutes the principal factor of congestion of the uterus as it is clinically met with. The mere change of shape, occurring in this way, affects the uterine circulation, I believe, by impeding its free course at or near the centre of the bend. In cases of flexion, however, there is always more or less displacement, and not seldom a displacement directly downwards, so that the pressure of the uterus may no doubt interfere with the circulation outside the uterine walls, and in other methods presently to be mentioned. I

repeat, the effect of straightening the flexed uterus in reducing an accompanying congestion has so constantly shown itself in cases under my observation, that flexion and congestion appear to me to stand in positive relation as cause and effect. That such a relation does exist has been admitted by Klob, a pathologist of repute, by Thomas of New York, and others. The well-known power of adjustment in regard to the circulation which other organs possess is doubtless possessed by the uterus. And for this reason, when the uterus has become gradually altered in shape the impediment in the circulation might be slight and the resulting congestion trifling in degree. For this reason flexion of the uterus may be present without marked congestion. But the question is, What will happen when the uterus becomes suddenly and markedly bent to a greater degree than before? Then it is that the phenomena of congestion of a mechanical character would be reasonably expected to be observed. Under such conditions I have repeatedly known it to occur. I say "known," meaning thereby that I have found severe congestion and acute flexion present on examination shortly after accidents, injuries, falls, strains, and the like, whereby the patient has been made suddenly ill. Further, *there* is abundant evidence afforded by the study of chronic cases of flexion that in many instances congestion to a slight degree has been present for a long period, leading eventually to productions of decided symptoms and without occurrence of any severe or sudden accident. I confidently appeal to clinical observation for confirmation of the above statements.

(To be concluded.)

ARTIFICIAL CIRCULATION AS A MEANS OF RESUSCITATION AFTER APPARENT DEATH.

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I. CHLOROFORM POISONING.

THOSE experiments which were published in THE LANCET, Sept. 1st, 1883, being insufficient to demonstrate several points in connexion with transfusion which require elucidation, I have, at the suggestion of Sir Spencer Wells, performed a series of experiments upon dogs at Ghent. As elsewhere stated,[1] the experiments performed in Dr. Pye-Smith's laboratory at Guy's Hospital having indicated that transfusion of blood and the intra-venous injection of saline fluid might be invaluable in certain cases of poisoning, the opportunity seemed favourable for testing the efficacy of the plan I have suggested where poisoning has occurred from the administration of chloroform. To M. Nuel, for the use of his laboratory at Ghent, and to MM. Boddaert van Custem, van Duyse, van Imschoot, Cleays, and Adenaw, for unwearying assistance in this work, my lasting obligations are expressed. I desire particularly to refer to Dr. Ringer's paper in THE LANCET (1883, vol. i., pp. 628-9), "Concerning the Effects of Dilution and Concentration on the Action of Poisons;" and to Dr. B. W. Richardson's paper on "Death from Chloroform," in the *Medical Times and Gazette* (1870, vol. ii., pp. 85-6), and to his communication to the Royal Society in 1865 on the "Possibility of restoring the Life of Warm-blooded Animals," &c., wherein a method of artificial circulation is described.

Experiment 1.—Repetition of the experiments already referred to (q.v.), to demonstrate the method of transfusion of blood and saline fluid, with subsequent repletion of the donor with saline fluid.—July 16th, 1884, 4.30 P.M.: Weight of giver, 47·35 lb. Weight of receiver, 40·74 lb. Hypodermic injection of morphia (⅓ gr.) for each dog. Coma becoming quickly profound in the receiver. $\frac{1}{100}$ gr. atropine was subsequently injected into this animal. Transfusion was established between the right external jugular veins of the dogs, the receiver being simultaneously depleted on the cephalic side of the cannula. The saline fluid employed (temperature 78° F.) contained rather less than half a minim of liquor ammoniæ to each ounce. After the transfusion of blood and saline fluid, the giver was repleted with saline fluid. The entire quantity of saline fluid injected into the dogs was 46·9 oz. Chloroform was the anæsthetic employed. After the experiment the donor had gained 3 oz. 230¾ gr.; since also this dog had vomited considerably after it was first weighed, the injection of saline fluid was still more in excess of the quantity of blood lost by transfusion. The receiver gained 21 oz. 162 gr. Thus it will be seen that in order to demonstrate the important point that blood would not coagulate in the instrument *in transitu*, the transfusion was very abundant, that the test might be a crucial one, and it appeared: (1) That the admixture of saline fluid with blood was capable of rapid and precise regulation; (2) that when the quantity of blood passing through the connecting tube is considerably less than the saline fluid, the former flows as a core, or as strands within the latter medium, the saline fluid being of the lighter specific gravity. Thus protected, the blood is not subjected to friction along the inner surface of the tubing. The transfusion of blood and the quantity of saline fluid injected into the receiver having been so great, it seemed probable that this dog might eventually perish from disorganisation of the corpuscles, and it was decided to repeat the experiment, keeping the injection of the saline fluid within the bounds of safety. And since the amount of saline fluid which can be safely substituted for blood holds a definite ratio to the quantity of blood in the body (the substitution may be carried to the extent of about one-fifth of the blood in man), it is clear that the experiment cannot be pushed so far on a small dog as the injection of saline fluid can be carried with safety in actual practice on human beings. The receiving dog died on July 30th. The autopsy showed that the vessels were exceedingly engorged with fluid blood of a dark colour. All the organs were engorged, especially the kidneys. Examined microscopically the kidneys did not exhibit notable changes. The animal was extremely fat, and there was fatty degeneration of the liver. The costal cartilages were firmly ossified. The dog was an old one, and had lost one eye. The dog which had supplied the blood recovered.

Experiment 2.—July 24th: The dogs each weighed about 12 lb. The receiver was depleted on the distal side of the afferent cannula to the extent of 8¾ oz. Transfusion of blood and saline, followed by repletion of the giver with saline fluid. Forty-four ounces of saline fluid at 85° F., with twenty minims of liquor ammoniæ, were injected into the dogs. This experiment confirmed the preceding; it was performed under mixed narcosis. The apparatus was now washed and taken to pieces; the vein of the giver was ligatured, and the wound closed with sutures. On attempting to tie the vein of the receiver, the animal, having recovered from the anæsthetic with unusual rapidity, struggled. Chloroform was administered with a small supply of air. The dog held its breath for a few moments, suddenly took three or four short inspirations, and (apparently) died instantly. It was proposed to attempt reanimation by means of injecting an ammoniated fluid towards the heart, and depleting from the distal side of the cannula. The apparatus was put together, and the saline fluid which had been prepared for the experiment just performed being exhausted, and there being no hot water at hand, cold distilled water, to which a few drops of liquor ammoniæ had been added, was injected into the jugular vein. The dog was depleted simultaneously. There was no response, and though the time before the operation was commenced was not noted, it was certainly considerable, as will appear from the description which has been given. As a last resort, four minims of liquor ammoniæ were injected by a syringe into the rubber tubing of the syphon, near the cannula, whilst the fluid was flowing. Instantly the heart's action was restored. The heart sounds, as heard by the stethoscope, were exceedingly rapid and forcible. The circulation was re-established; the pulsations of the arteries were very strong and fast; muscular contractions occurred. Artificial respiration was tried, but normal respiration was never resumed. The dog probably died from ammonia poisoning. The experiment with regard to resuscitation after chloroform poisoning was complicated in that it was performed after the dog's blood had been diluted by the previous transfusion of blood and saline fluid, and would not therefore tolerate the further dilution which the method of saline intravenous injection with simultaneous depletion involves. The blood giver recovered perfectly.

Experiment 3.—This was undertaken to test the value of the intravenous injection of an ammoniated saline fluid,

[1] British Medical Journal, April 26th, 1884.

with simultaneous depletion, for chloroform poisoning. The apparatus used was a simple syphon (Fig. 1) charged with saline fluid, containing a small percentage of ammonia. Near the cannula was a T-shaped glass interruption (inverted), the additional limb being surmounted by a short rubber tube and burette clip. This T-tube served not merely the purpose of an air-trap, but, by means of a syringe, a solution of ammonia stronger than that contained in the syphon could be injected into it at pleasure. On July 25th, at 2 P.M., 1/4 gr. of morphia was injected subcutaneously into a dog weighing 14·31 lb. At 2.30 the coma was very profound; 1/10 gr. of atropia injected. At 3.30 chloroform was administered on a towel by Dr. Boddaert very freely, with a small supply of air, till respiration and circulation had ceased. The tongue was then drawn out of the mouth and artificial respiration performed. Respiration and circulation were re-established. Chloroform was given again very freely. The respiration and circulation again stopped. Artificial respiration was performed. Respiration and circulation were again restored. Chloroform was again exhibited. The circulation and respiration ceased, and could not be restored by the performance of artificial respiration. The right external jugular vein was now exposed and grasped with a Wells's forceps at a point corresponding to the centre of the incision. The cannula of the syphon was inserted, by the help of a phlebotome, into the vein on the cardiac side of the forceps. The cannula was secured in its place within the vein by the application of a cannula pin and waxed ligature (Fig. 2), that it should not slip. The vein was opened on the distal side of the forceps. The quantity of blood drawn was about 8¾ oz. (besides a good deal wasted), and the quantity of the saline fluid injected was about 21 oz. at 90° F., containing 10½ minims of liquor ammoniæ. One minim and a half of liquor ammoniæ was also injected by the syringe. The intravenous injection and depletion were quickly followed by restoration of the circulation. Artificial respiration was now sedulously performed, and reanimation became perfect. The dog gained by the experiment about one-third of a pound in weight. This animal completely recovered. Since the injection and depletion appeared to have been carried further than necessary, it was decided to repeat the experiment, and to

FIG. 1.

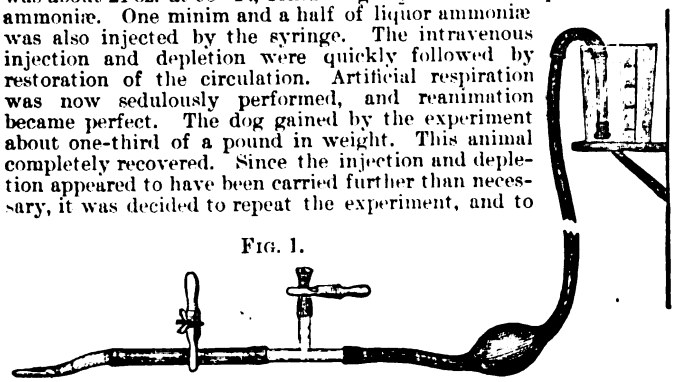
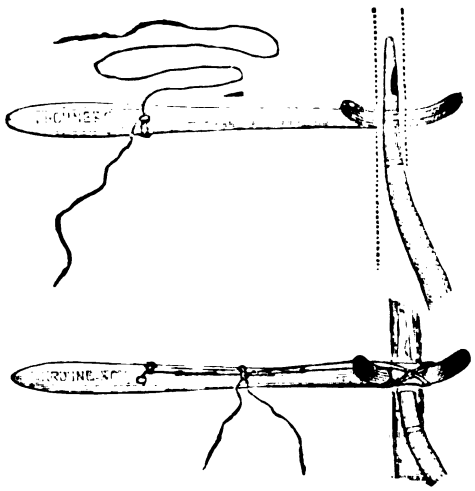


FIG. 2.



draw a little blood after the intravenous injection had been commenced.

Experiment 4.—July 25th: A black-and-tan dog; weight, 13.1 lb. 2 P.M.: Hypodermic injection of morphia, 1/4 gr. 2.30: Atropia, 1/10 gr. At about 5 P.M. the dog was poisoned with chloroform, and after the circulation and respiration had ceased, artificial respiration was ineffectually tried. After opening the external jugular vein with the phlebotome, the cannula, first entering between the vein and its sheath, was withdrawn. Blood escaped from the aperture in the vein, and a convulsion occurred. The aperture was now grasped with forceps, and the cannula inserted into the vein on its cardiac side. Ammoniated saline fluid was injected into the vein, but there was no return of animation. Depletion on the distal side of the cannula was tried, and the blood, which hardly flowed at first, was of a dark colour and tarry consistence. More saline fluid was injected, and three minims of liquor ammoniæ by the syringe. No signs of reanimation appeared. Artificial circulation was carefully performed, and altogether 23 oz. of saline fluid were injected. The quantity of blood drawn was not measured. On examining the heart, post mortem, its cavities were greatly distended with coagulated blood. It was resolved to repeat the experiment, but to deplete freely in the first instance, in order to relieve the heart and cerebral vessels of all engorgement.

Experiment 5.—July 27th: Weight of dog 11 lb. 3.15 P.M.: Injection of morphia, 1 gr. At 3.45 chloroform was freely administered on a towel with a small supply of air. The anæsthetic was exhibited for about a quarter of an hour, the respiration becoming shallower and fewer in number, and the pulse feebler towards the expiration of that period. At 4.1 the respiration ceased entirely. At 4.2 20 sec. the femoral pulses, which Dr. van Duyse and myself had been carefully feeling, ceased. The tongue was now drawn out forcibly with artery forceps, and artificial respiration was performed. Signs of animation not appearing, the operation was begun. A cannula was introduced as quickly as possible into the right external jugular vein, and tied therein. The dog was depleted on the distal side of the cannula, but the blood at first ran slowly and was of a very dark colour. At 4.5 i.e., 2 min. 40 sec. after the heart had ceased to beat—the injection of 8 oz. 7 dr. of saline fluid at 90° F. with about 4 minims of liquor ammoniæ was commenced. Artificial respiration was persisted with. The flow of the blood became freer, and of a brighter colour. Return of pulsation in the arteries was noticed at 4.10 precisely. Therefore the pulsations had been absent during a period of 7 min. 40 sec. The pulsations were now so forcible that it was feared a poisonous dose of liquor ammoniæ had been injected, but such was not the case. At about 4.30, after the experiment was concluded, the dog on being released ran about briskly. The amount of blood lost by depletion was not measured accurately, some being spilled. It probably was between 6 and 8 oz. 5 P.M.: It was noticed that whilst the dog walked about, curious tetanic contractions of the muscles of the extremities occurred. This point is of importance, for it has been shown that the injection of ammonia into the veins, in a toxic dose, causes tetanic spasms, which cannot be distinguished from those produced by strychnia.[2] This animal recovered satisfactorily.

Experiment 6.—July 27th, 3.15 P.M.: One grain of morphia was injected subcutaneously into a dog weighing 16·5 lb. The administration of chloroform was commenced at 6.15. The pulse became intermittent at about 6.34, and ceased entirely at 6.34 30 sec. The respiration ceased at the same time as the pulse, and could not be restored by artificial respiration, the tongue having been drawn out. Depletion with the injection of an ammoniated saline fluid (34¼ oz.) was performed at 6.38 i.e., three minutes and a half after apparent death. No signs of animation ever appeared. Probably the operation was begun too late after the cessation of the pulse. Further, at the commencement of the infusion the flow of blood was arrested by a coagulum which formed at the aperture made in the vein on the distal side of the cannula. So that what occurred in Experiment 4 took place here also—viz., that the heart, already paralysed by the chloroform, was distended by the infusion, which was in excess of the depletion. This hypothesis was supported by an examination of the heart and lungs, which were found to be enormously engorged. The quantity of blood lost—but not at the outset—was great; but, as already intimated, not so great as the quantity of fluid injected.

Experiment 7.—July 28th, 10.50 A.M.: One grain of morphia was injected into a dog, which weighed 18 lb. Chloroform was administered at 11.30. The pulse became irregular at 11.36, and ceased just before the respiration at 11.40. After the tongue had been withdrawn by artery forceps, and after artificial respiration had been ineffectually

[2] Richardson, Cause of the Coagulation of the Blood, p. 440.

tried, the right external jugular vein was exposed and grasped with forceps. The animal was bled on the distal side of the forceps and a cannula was inserted into the vein on the proximal side. At first it seemed doubtful whether the cannula was properly inserted within the vein; it was therefore withdrawn and inserted in the left external jugular vein. The depletion and injection of nearly 30 oz. of saline fluid at 100° F., with 15 minims of liquor ammoniæ, were commenced at 11.43—i.e., three minutes after apparent death. Four minims of liquor ammoniæ were injected later on by means of the syringe. Artificial respiration was performed concurrently with the maintenance of the circulation; but pulsation not returning, the region of the fauces and larynx was inspected. It was noticed that comparatively little air entered the lungs during their expansion, owing to the fact that the epiglottis, which was flaccid, was drawn down like a valve over the superior orifice of the larynx. The epiglottis was drawn forwards with another artery forceps, and in a few seconds, at 11.55—i.e., fifteen minutes after apparent death—forcible pulsations were detected in the femoral arteries. Contractions of the muscles of the jaws occurred, and also of those of the extremities. The mouth being closed, and the forceps which grasped the epiglottis having been necessarily removed, the indication seemed to be tracheotomy, which was at once performed. But the action of the heart suddenly stopped, and life departed. An autopsy showed that the heart was distended with fluid blood, save a small coagulum on the mitral and tricuspid valves. The vessels were engorged. This report justifies the belief that had tracheotomy been performed simultaneously with the injection and depletion, or, what amounts to the same thing, had the epiglottis been drawn forwards at the onset, life would have been restored. As it was, the artificial respiration was only effectually carried out some fourteen minutes after apparent death, and after the blood had been too diluted to perform satisfactorily its functions. In such a case, transfusion of blood might meet the difficulty.[3]

(To be concluded.)

CASE OF

LYMPHADENOSIS (HODGKIN'S DISEASE), WITH MULTIPLE GROWTHS FROM THE DURA MATER.

BY C. W. SUCKLING, M.D. LOND., M.R.C.P.,
PHYSICIAN TO THE QUEEN'S HOSPITAL, BIRMINGHAM.

J. O——, a man aged nineteen, was admitted into the Queen's Hospital on the 22nd of November last, complaining of pain in the head and giddiness. The patient said he had been ill for three weeks, suffering greatly from pain in the head: it was not constant, but the intermissions were very brief. The pain was always much worse at night, being chiefly localised at the back of the head. For the fortnight previous to admission he found that he saw things double unless he closed one eye. He had a good deal to do with lead in his work, being a galvaniser; he had never had syphilis and had not been a drinker. There was no family history of importance. Up to four days from the date of admission the patient was able to walk about, but he then had severe vertigo, everything appearing to move round him. On admission, the patient was found to be emaciated and markedly anæmic; the facial expression denoted pain. There was internal strabismus of the left eye and diplopia, showing paralysis of the left sixth nerve. He complained of severe pain in the head, especially at the back, and tenderness on percusssion was found all over the skull. The lips and teeth were covered with sordes, the tongue being covered with a thick brown fur. There were anorexia and great thirst, with constipation. The glands in the neck and groin were observed to be very easily felt, but they were not much enlarged. The spleen and liver were also found to be enlarged. The reflexes were normal, sensation also was unaffected. The patient could scarcely stand, the gait being very staggering; but the staggering was not in any definite direction. The pupils were equal and responded normally, but were rather dilated. There was no optic neuritis or any marked change in either fundus, but the veins were noted to be very large and tortuous.

[3] Vide infra, Experiment 15.

Nov. 28th.—The pain in the head is less in the morning, but the patient cannot sleep for it at night. The blood was examined, and the white corpuscles were found to be small and increased in number, but not to any considerable extent, certainly it was not leucocythæmic blood.—30th: At 12 P.M. the patient began to breathe rapidly; the temperature went up to 104°. Severe pain in the head was complained of. He became comatose, and died at 2 P.M. The temperature varied between 98° and 101° F. during the time he was under observation; the pulse was soft, dicrotous, and rapid throughout.

Autopsy.—Hypostasis and rigor mortis were slight. On removing the calvaria, the dura mater was seen, with a soft pulpy tissue of reddish colour, growing in scattered patches over the outer surface; these growths had eroded small corresponding cavities in the bone above. When the dura mater was stripped off the base of the skull, similar growths were found growing from the outer surface of the membrane; one growth, polypoid in form, projected into the lateral sinus of each side opposite the inferior angle of the parietal bone. Another growth filled the sphenoidal fissure of each side, embracing the nerves running through the foramen, thus accounting for the paralysis of the sixth nerve. The lungs and heart were normal; there was no enlargement of the thymus or of the lymphatic glands in the thorax. On opening the abdomen, the intestines were observed to be dotted all over with white spots as large as hemp-seed; these were the solitary glands. Peyer's patches were very large and distinct, and most plainly seen through the peritoneal coat of the intestine; the cæcum especially was covered with white spots thickly crowded together. On section of the patches no trace of caseation or congestion could be found; they were of a white colour. The mesenteric glands were as large as pigeons' eggs, pale and firm. The spleen weighed 24½ oz., was uniformly enlarged, dark-coloured, and soft. The Malpighian bodies were easily seen with the naked eye; they presented trabeculæ radiating from them in a stellate manner. The liver weighed 7 lb., was uniformly enlarged, the lobules being very large and pale; it was easily friable. The kidneys together weighed 10½ oz.; in the cortex of the left one there was a body composed of whitish firm tissue the size of an orange-pip.

The above case is exceedingly interesting and instructive. Growths from the dura mater are certainly rare in this disease, and the prominence of the cerebral symptoms with the very moderate enlargement of the lymphatic glands obscured the diagnosis. The following symptoms suggested the diagnosis of cerebral tumour: Vertigo, pain in the head, paralysis of the sixth nerve, diplopia, and staggering. The staggering was not in any definite direction, and did not enable us to totalise any mischief in the cerebellum, although the pain was very marked at the back of the head. The absence of optic neuritis is probably accounted for by the fact that the growths were on the outer surface of the dura mater, and had eroded cavities in the bone in which they lay; thus not encroaching to any extent upon the brain space. It was thought that the slight enlargement of the glands of the neck and the cerebral symptoms might be due to syphilis, and this was supported by the nocturnal exacerbations of the pain, which were very marked. But the patient positively denied having had a chancre, and iodide of potassium did no good. The enlargement of the spleen suggested leucocythæmia; and the blood was examined, showing only a slight increase in the number of the white corpuscles. The marked predominance of the cerebral symptoms and the absence of any considerable enlargement of the lymphatic glands led us away from the diagnosis of lymphadenosis. The disease in this case was manifested especially in the spleen, intestines, liver, and dura mater. Histologically the growths from the dura mater were of a lympho-sarcomatous structure, consisting of a delicate reticulum, the meshes of which were filled with leucocytes.

ROYAL SOUTH HANTS INFIRMARY.—The yearly meeting of the subscribers to this institution was held on the 27th ult., when the forty-sixth annual report was read. The number of in-patients treated during 1884 was 993, and of out-patients, exclusive of dental cases, 3017. The total income of the infirmary during the year was £4033, and the expenses amounted to £4227. A formal resolution, as brought forward for a year or two past, that the post of assistant house-surgeon be not filled for another twelve months, was carried, with one dissentient.

PERFORATING BULLET WOUND OF ABDOMEN.

NOTES OF THE CASE OF INSPECTOR SIMMONS, ESSEX COUNTY CONSTABULARY.

BY ALFRED WRIGHT, M.R.C.S., L.S.A.,
SURGEON K DIVISION METROPOLITAN POLICE.

THIS officer, whilst on duty, met three suspicious characters on the road three miles from Romford, and, thinking they were contemplating burglary (a surmise justified by the subsequent finding of burglarious implements, which the fellows threw away on being chased) challenged them, and was shot by one of the men at a distance of a few feet. The officer, struck by the ball in the abdomen, staggered but did not fall, and pluckily ran after the fellows for half a mile; and, though feeling faint, afterwards was able to walk to the nearest police-station, two miles farther on; an astonishing circumstance, considering the severity of the injuries. When first seen by me, at 7 P.M., about two hours after the receipt of the injury, there was not much shock, the countenance was not anxious, and the patient had not vomited. There was a small circular wound, evidently made by a bullet, two inches and a half below the umbilicus, and one inch and a half to the left of the median line. There had been but slight hæmorrhage. A catheter being passed drew off half a pint of clear urine. It was at this time hoped that the ball might possibly not have reached the abdominal cavity; for, though it could not be felt in the abdominal wall, it might easily be missed, as the patient was a stout and muscular subject, and of course the probe was but sparingly employed. One-third of a grain of hydrochlorate of morphia was administered hypodermically, hot bottles applied to the feet, the wound was closed by a piece of lint and collodion, and ice was given to suck to relieve thirst, which was great. During the night the doubt as to the intestine being injured was solved by the patient vomiting a large quantity of dark fluid, a specimen of which examined microscopically showed altered blood-corpuscles in abundance. Temperature 99°; pulse 100. The morphia was repeated during the night, but there was no sleep. The patient complained of severe thirst, a good deal of abdominal pain, and had vomited repeatedly and extensively.

Jan. 21st.—9 A.M.: A little tenderness round the wound; no general tenderness of abdomen. Temperature 99°; pulse 110. 1 P.M.: More vomiting of coffee-ground fluid; oozing of similar fluid and flatus from the wound. 8 P.M.: Seen by Mr. Sydney Jones. A counter-opening made an inch and a half below the wound, and a drainage-tube introduced, to allow the escape of fluid, which was beginning to bag in the abdominal wall. No more vomiting since the morning; abdomen slightly tender and tympanitic. Temperature 101·3°; pulse 115; spirits good. The patient was kept well under the influence of morphia injected subcutaneously, and nothing was allowed by the mouth except ice sparingly. 22nd: Restless night; tormented by intense thirst. Temperature 101·3°; pulse 120; respiration 52; more tympanites and more abdominal tenderness; no vomiting; a good deal of dark fluid (fæcal) discharge from the drainage-tube. 6 P.M.: Seen again by Mr. Jones. Condition much the same, but appears weaker. Linseed-meal poultice applied to the abdomen.—23rd: Slept fairly during the night. Temperature 101·3°; pulse 128, weaker; respiration 50. No vomiting. Four ounces of peptonised beef-tea with half an ounce of brandy were administered per rectum, morphia being continued hypodermically. 1 P.M.: The patient turned suddenly livid, with great dyspnœa and cold skin. Ordered brandy-and-water in quantities of a teaspoonful, and enema of beef-tea and brandy repeated. 6 P.M.: Says he feels better; circulation is restored, but the pulse (130) is evidently much weaker; temperature 101°; more tympanites and more general abdominal tenderness. Brand's essence of beef was given by the mouth. 11.30 P.M.: Pulse 138, very feeble; a good deal of abdominal pain; more tympanites; free discharge of flatus and fluid from the tube. Deposition taken.—24th: Gradually sinking during the night. The patient died at 11 A.M.

Autopsy, twenty-four hours after death.—Sanguineous oozing from nose and mouth; great distension of abdomen. Considerable extravasation in fascia and substance of abdominal muscles. Small circular wound through peritoneum; intense congestion of omentum and peritoneal covering of whole of small intestine. A good deal of soft lymph effused, but no extravasation in peritoneal cavity; small intestine uninjured. Wound a quarter of an inch in diameter in front of descending colon, eighteen inches from rectum, the wound being plugged by a fragment of clothing; a corresponding wound three inches lower down in posterior wall of gut. Much extravasation in areolar tissue between colon and sacrum, and in quadratus lumborum muscle; the bullet (weighing two drachms) sticking in centre of sacrum to the extent of a quarter of an inch. Lungs much congested posteriorly; other organs healthy.

Romford.

ABORTION, PHLEGMASIA DOLENS, AND SEPTICÆMIA.

BY E. L. DIXON, M.D., M.R.C.P.,
HONORARY MEDICAL OFFICER TO THE PRESTON AND COUNTY OF LANCASTER ROYAL INFIRMARY.

A SHOPKEEPER'S wife, aged thirty-six, was seen by me for the first time on Sept. 8th last. She had been married three years and a half, had had four abortions (before this), and no living child. When three months pregnant she, apparently from fright, was seized with uterine hæmorrhage, which had continued almost up to the time of my seeing her, but had then entirely ceased. Five days before, a solid substance of some size had been expelled, but had not been examined. Three days before, two or three small black fragments of the size of marbles, and of offensive smell, had also been passed. The day before she had been seized with shivering, and the left leg had begun to swell and be very painful. During one or two of her previous pregnancies it had also swollen. The leg from the hip to the toes was hot and much swollen, and pitted on pressure; the skin was very red in large patches below the knee; the veins about the hip were very marked; and the thigh in the course of the femoral was very tender but not hard. The uterus was slightly enlarged, and the os rather patulous; there was no offensive or other discharge. She had had alarming attacks of fainting during the day; the pulse was very rapid and the temperature high; there had also been retention of urine for many hours.

Sept. 14th.—She has continued very ill. One evening she had a violent rigor, and the temperature went up to 105·2°, and it has always been very high; the pulse has been rapid; there have been distressing vomiting and occasional profuse diarrhœa, and once or twice a mouthful of blood has been expectorated. She has been taking quinine in four-grain doses up to tinnitus aurium, when it was reduced to half the quantity. Hypodermic injections of morphia have been given to relieve pain and procure sleep, and also morphia and atropine pills, unless the purging was profuse, when the atropine was omitted. Her principal food has been iced milk, of which she has taken large quantities; alcohol in every shape has produced vomiting. A vulvar gland (of Bartholinus?) has become enlarged, hard, and painful. Once or twice there has been a very trifling discharge on the napkin applied to the vulva, which has been thought slightly offensive. The symptoms were so alarming that, although on passing my finger into the os I could feel nothing, and the end of it did not smell, I determined to thoroughly explore the uterine cavity, and for this purpose passed in a large sea-tangle tent.

15th.—I thought I reached something with the end of my finger in the uterus, which I washed out with carbolic lotion (1 in 20), afterwards introducing another tent.

The following day the cervix was found fully dilated, and (without an anæsthetic) I succeeded in hooking the finger over and withdrawing a foreign substance, which proved on examination to be a piece of putrid placenta about the size of a damson. Beyond its place of attachment the cavity wall of the uterus quite up to the fundus was perfectly smooth. A carbolic lotion (1 in 40) was now injected into the womb daily until the 19th, when the os had almost closed; there was no discharge of any kind, and the painful enlargement of the vulvar gland had disappeared.

The patient began rapidly to improve after the uterus had been emptied, the temperature fell, and in a week was

normal, and the pulse diminished in frequency. A state of gastro-enteric catarrh, as evidenced by a glazed tongue, vomiting of almost everything but iced milk, and occasional diarrhœa, continued, however, for some time. The right leg became also œdematous below the knee, but was not painful and was soon better. The swelling of the left leg also gradually disappeared.

The interesting point in this case is the retention of a small portion of decomposing placenta within the uterus with such trifling local indications of the existence of the source of infection. The patient was, however, the subject of septicæmia in a very alarming form; and, even at the risk of finding nothing, it seemed desirable to dilate and explore the uterus. This was done not a moment too soon; indeed, it had better have been done earlier, for the poisonous dose absorbed was quite sufficient to make the convalescence somewhat protracted. Bismuth with laudanum seemed most useful in combating the gastro-entérite.

Preston.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at mortuorum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.* lib. iv. Proœmium.

GUY'S HOSPITAL.

EIGHT CASES OF CATARACT OPERATIONS IN AGED PATIENTS; CURE.

(Under the care of Mr. HIGGENS.)

These cases of cataract, all of which occurred in patients of the age of eighty or above, are instances of the successful performance of an important surgical operation at a period of life when the surgeon is, as a rule, unwilling to operate except for emergencies. Although the reparative power of the cornea is impaired before the age to which these patients had attained, still in properly selected subjects, as has been recorded by Mr. Higgens, the operation of extraction may be most successful.

CASE 1.—Minto G——, aged eighty, was admitted on June 14th, 1875. Cataract in both eyes; left eye has been quite blind nine years. Extraction by oblique corneal section downwards, and removal of a small piece of iris performed in left eye.—July 17th: Vision = $\frac{2}{6}$ with + 3.

CASE 2.—Judith S——, aged eighty, was admitted on Oct. 9th, 1876. Cataract in both eyes; that in right eye most advanced. Extraction by small flap section downwards, associated with iridectomy, performed in right eye; no anæsthetic was administered.—Nov. 9th: Reads Snellen $\frac{1}{2}$ with + 2½. Vision = $\frac{2}{6}$ with + 3.

CASE 3.—Grace H——, aged eighty-two, was admitted on July 22nd, 1878. Cataract of both eyes; most advanced in right. Extraction by small flap section upwards, and iridectomy performed in left eye.—Aug. 26th: Reads Snellen $\frac{1}{2}$ with + 16 D. Vision = $\frac{6}{12}$ with + 12 D.

CASE 4.—*Esther* A——, aged eighty-eight, was admitted 20th Oct. 20th, 1879. Mature cataract in both eyes; extraction by small flap upwards, and iridectomy in right eye.—Nov. 17th: Could tell the time on a watch with + 13 D.

CASE 5.—William B——, aged eighty-four, was admitted on June 7th, 1880. Cataract in both eyes; right worst. Extraction in right, small flap upwards, with iridectomy.—June 12th: Reads Snellen 1·25 with + 16 D. Vision = $\frac{6}{60}$ with + 13 D.

CASE 6.—Phœbe C——, aged eighty, was admitted on June 22nd, 1883. Cataract in both eyes; extraction in left by small flap downwards, with iridectomy. Severe iritis ensued. On Dec. 10th the iritis had subsided, but the pupil was entirely blocked.—March 10th, 1884: A needle for section for opaque capsule performed.—24th: Reads J. 8 with + 16 D. Vision = $\frac{6}{12}$ with + 12 D.

CASE 7.—Lucy J——, aged eighty, was admitted on Jan. 21st, 1884. Cataract in both eyes. Extraction performed in both by small flap section upwards, with iridectomy.—Feb. 20th: Both eyes could tell the time on a watch with + 16 D.

CASE 8.—William T——, aged eighty, was admitted on Jan. 28th, 1884. Extraction by small flap upwards, and iridectomy in right eye.—Feb. 18th: Tells time on a watch with + 16 D.

ST. SAVIOUR'S INFIRMARY, NEWINGTON.

CASE OF SWORD SWALLOWING; DEATH FROM INJURY TO THE ŒSOPHAGUS; NECROPSY; REMARKS.

(Under the care of CHARLES GROSS, M.B., B.S.Lond., F.R.C.S., Medical Superintendent.)

THE interesting case which Mr. Gross describes is certainly most uncommon, there being few cases on record where the practice of sword swallowing has led to the death of the performer. Dr. Parkes described a case[1] where the man, aged twenty-three, passed the sword through the anterior wall of the œsophagus into the pericardium, the patient dying from acute pericarditis a few hours afterwards.

Reuben S——, aged thirty years, by trade a painter, was admitted into the infirmary on Jan. 17th, 1885. He stated he was in the habit of conjuring and sword swallowing in various public-houses. On Jan. 15th, two days before admission, he was performing at a public-house in Leather-lane, when on pushing a sword down his throat it hurt him far more than usual, and on withdrawing it he spat a little blood. Pain, with difficulty in swallowing, quickly came on, and feeling very ill and uncomfortable he was obliged to return to his lodgings. Becoming gradually worse, he procured admission to the infirmary. On admission he seemed very ill and in pain all over, but especially in the throat and down the gullet, much intensified in his efforts to swallow. The front of the neck was swollen and tender, the breathing shallow and hurried, and he kept spitting glairy mucus unstained with blood. There was nothing abnormal to be seen on looking down the throat. He was quite sensible and gave an account of the occurrence as above; he also stated that he thought the sword he had used on the last occasion had some roughness at its edge; that the performance always hurt him a little, and that he preferred to swallow a smooth whip-handle rather than a sword. He was put to bed, hot fomentations applied to the neck, and milk and fluid diet ordered. He became gradually worse, the neck swelled up more, pain and difficulty in swallowing increased; he eventually became delirious, and died suddenly at 7 P.M. on Jan. 20th, three days after admission.

Autopsy, seventy-two hours after death.—Body, that of a well-nourished, healthy-looking man, well covered with fat. No external marks of violence. Front of neck still somewhat swollen. The heart was large and flabby, and nearly empty. The lungs were slightly congested and œdematous; there was evidence of old pleurisy on the lower lobe of the left lung. The stomach was quite healthy and showed nothing abnormal. The œsophagus, from its commencement to within one inch from the stomach, was somewhat dilated, with its walls much thickened. Its mucous membrane was thickened, tough, and smooth, whitish in colour, resembling the internal coat of the aorta. The outermost coat and surrounding tissues were infiltrated with pus, constituting, in fact, a diffused abscess from the back of the pharynx to the diaphragm. There was no sign of any perforating wound, and only a slight patch of excoriation at the upper and posterior part. Below the bifurcation of the trachea the left vagus nerve ran through the abscess. The other organs, including the brain, were healthy, but full of blood.

Remarks.—The condition described was undoubtedly due to the irritation of the parts by the constant passage of a hard solid body, such as a sword or whip-handle, and had probably been coming on for some time; certainly longer than the five days between the last performance and his death. As he himself stated that lately it had pained him "more than usual," some slight inflammation most likely was set up some time ago, and gradually culminated in the formation of an abscess. The stomach was in no way affected. Probably the sword was not pushed so far, but stopped at the natural narrowing, where the gullet traverses the diaphragm. The immediate cause of death was syncope. I have not been able to procure, nor have I seen, the sword with which this man performed, but I have been favoured by a visit from two sword swallowers, who were attracted

[1] Trans. Path. Soc., 1848-49.

to me by reading the account of my patient's death in the newspapers, and who were anxious for an opinion as to the peculiar dangers to which they were exposed. The swords they use are 21½ in. long in the blade, 1¼ in. broad, tapering to 1 in., straight, heavy, thick, smooth, with well rounded edges and point, similar to those carried by the "pompiers" in Paris. The longest they perform with is 27 in. in length. For my edification they gave a demonstration of the feat. Straightening the passage by well elevating the chin, then putting the point of the sword well to the back of the throat, with one thrust they pushed it down as far as the hilt. With the shorter swords they could bend the body forward from the loins and withdraw the sword whilst in that position. They both acknowledged that they frequently hurt themselves, and one of them had been an in-patient at St. Thomas's Hospital in consequence of an injury to the œsophagus.

The man referred to was under the care of Mr. Francis Mason, and we are indebted to him for an account of the case. The patient, a man aged nineteen, was admitted on June 16th, and remained under treatment eleven days. Two days before admission he was performing in public, and had passed the sword down the œsophagus to within two inches from the hilt. He made signs to a bystander to pull it out, but, instead of doing so, he forced it down. The patient vomited two hours afterwards, and was obliged to go to bed, where he was only able to lie on the right side. When examined, he complained of great pain, referred mainly to the centre of the sternum and upper part of the abdomen. The pain was increased by attempts to swallow and by deep breathing; the abdomen was slightly tender, but not distended. Respiration 30; pulse 84.

June 18th.—There was no pain; he still lies on the right side. Respiration less painful; pulse 94.

20th.—Pulse 84; respiration 26.

21st.—Slight crepitation noticed at the left apex.

23rd.—Still complaining of pain, and there was occasional sensation of sickness and of heaviness after food. He was only allowed ice at first and then fluids, the diet being carefully regulated. The temperature on the evening of admission was 101·6°; on the following morning 101·2°; and for the next week there was a difference of from one to two degrees between the morning and evening temperatures, the highest evening temperature being 101·8° and the lowest morning temperature 99·4°.

In this case it would appear that there was injury to the mucous coat of the lower part of the œsophagus, and possibly to the stomach itself; whilst in the case under the care of Mr. Gross the mischief, as he says, appears to have commenced before the date of supposed injury.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.

MULTIPLE RENAL CALCULI AND PYO-NEPHROSIS; AUTOPSY; REMARKS.

(Under the care of Dr. MILLINGTON.)

FOR the notes of the following case we are indebted to Dr. Dingley:—

Calculi in the kidney usually give rise to so much pain and uneasiness during their formation that they are brought under the notice of the physician at an early period: pain referred to the region of the kidney, more or less constant in character and aggravated by exertion, with occasional hæmaturia, general impairment of health, &c., causing the patient to seek relief before they have reached a large size. It is most unusual for them to attain to such a large size and number, causing so great an amount of destruction of renal subtance as in this case, before producing symptoms of local disease.

Mary Anne R——, aged thirty-two, was admitted on Nov. 8th, 1884. She had been married twelve years and had had four healthy children, who were all living. Her mother was living and strong, but her father died in an asylum. The patient says she has been ailing for a year, gradually losing appetite and wasting, but has never had any pain till the last week. Three weeks ago she had an attack of vomiting, and about ten days ago noticed a swelling in her left side. On admission she was found to be very emaciated, weighing 6 st. 3 lb., and weak. Her skin had a pale and slightly earthy tint, it was also dry and harsh with long downy hairs on the back. Her tongue was dry and slightly furred, her appetite very bad, she did not vomit, and the bowels were open. At times she had attacks of pain in the abdomen. Upon examination a large rounded tumour was noticed in the left lumbar region, extending downwards and inwards, and measuring about 7 in. in length by 4 in. in breadth. It had a smooth soft feel, but no fluctuation could be felt. Something could be traced running over it from above downwards, which moved about and appeared to be the descending colon, but it did not alter the dulness of the tumour. The lower border of the swelling reached 1½ in. above the left anterior superior iliac spine, and extended across to the middle line. Above, the dulness extended to the seventh rib. In the right lumbar region there was another tumour similarly placed, measuring 5 in. in length and 3 in. in width, and extending obliquely downwards and inwards; but instead of the soft smooth feel of the other, it had a very irregular form and feel of stony hardness. It had a sharply rounded border, under which the fingers could be inserted. An irregular upper edge could be felt, and the tumour seemed to be entirely distinct from the liver. They were both fixed and not at all tender or painful, and over both absolute dulness was obtained. When the back was examined, on both sides there was absolute dulness reaching from the spine to the tumours in front. Vaginal examination showed that the uterus was normal and the pelvis free from disease. The chest was in a fairly healthy condition, but the pulse was very weak and small, and the cardiac sounds rather indistinct. The urine had a specific gravity of 1025; it was pale, but turbid, with a stringy deposit. It contained about one-eighth of pus, and, after boiling, about five-twelfths of albumen; but nothing but pus and epithelium cells could be detected microscopically.

During the first week that the patient was in the hospital the left tumour increased rapidly in size, and became distinctly fluctuating, and the question of aspiration was being discussed when severe paroxysms of pain set in, and lasted several hours, the patient being in agony until relieved by opiates. After the pain had become easier, it was found that the tumour on the left side was much smaller than when the patient was admitted, and it continued so to lessen that no prominence could be seen. At the same time the pus in the urine increased to one-half, and for some days large quantities were passed in this way. The patient was evidently getting weaker, and died from syncope on Nov. 23rd.

Autopsy.—When the abdomen was opened nothing abnormal was to be seen until the intestines were pushed back, when in the place of each kidney a large swelling was noticed. On closer examination, the one on the left side was found to be 8 in. long by 4 in. wide and 3 in. deep, and the renal vessels and ureter could be traced entering it, and the descending colon passing over it. When opened, it was found to be a thin-walled sac full of pus, the walls nowhere exceeding ⅛ in. in thickness, and for the most part no thicker than the skin. After the pus had been removed the organ weighed nearly 10 oz. Its interior was divided by septa into four conical sacs, all communicating with each other at their apices and roughly representing the pyramids. In two of these sacs there were calculi from ½ in. to ¾ in. in diameter, whilst in the pelvis and commencement of the ureter there was another calculus, shaped like a very elongated cone, which completely blocked the lumen of the ureter when pushed down. No trace of ordinary kidney substance could be found. The right kidney was also much enlarged, measuring 7 in. in length by 4½ in. in breadth, by 3 in. in depth. Its hard irregular feel at once indicated that it was full of large calculi. It weighed, with the calculi, 18½ oz. When opened there was found to be a small, thin capsule of healthy kidney substance surrounding five large calculi; these were rounded and irregular with prominent bosses, and were so closely embedded in the renal substance that this had to be torn in some places to show them; the largest measured 5 in. in length and 2½ in. in its greatest diameter, and had three outstanding processes. The next was 3¼ in. long and 2½ in. broad, and the other three were almost as large. In the pelvis another was found 2 in. long and ½ in. in diameter, being horn-shaped, and filling up the pelvis, and beginning of the ureter. The calculi on chemical examination were found to consist of carbonate of lime, mixed with a little fibrinous material; the lymphatic glands on both sides were much enlarged; the other organs both in the abdomen and thorax were healthy.

Remarks by Dr. DINGLEY.—The chief interest of this case lies in the fact that the physical signs and clinical characteristics were elucidated by the autopsy. The soft fluctuating tumour on the left side with pus in the urine pointed strongly to either pyonephrosis or perinephritic abscess, whilst the paroxysms of pain followed by diminution in the size of the tumour, accompanied by a corresponding increase in the amount of pus in the urine, pointed almost conclusively to the presence of a calculus. The diagnosis of the condition in the other kidney was not so clear, as the calculi were so embedded in the kidney substance that no grating or movement could be obtained; the position of the tumour, its fixity, and the presence of calculi in the other kidney were the most important indications. The most remarkable feature of the case is that with such an advanced morbid condition and calculi in both pelves the patient should, with the exception of the attack noted above, have escaped without any pain, and should only have had her attention aroused by noticing the tumour. It is also interesting as showing with what a small amount of secreting renal substance life can be maintained. Of course, in such an advanced state, active treatment was out of the question; but had the case come under observation earlier, it would be worthy of consideration as to whether, by a lumbar incision and free drainage, the patient's life might not have been prolonged.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Cancer in a Cirrhotic Liver and Adrenals, with Pigmentation of Skin and Viscera.—Atrophy of Adrenals with Addison's Disease.—Infiltrating Growth in Liver and Adrenals of an Infant.—Addison's Disease.—Myoneuroma of Pituitary Body.—Tumour of Pituitary Body.—Hypertrophic Cirrhosis and Congenital Disease of Kidneys.

AN ordinary meeting of this Society was held on Tuesday last, Dr. J. S. Bristowe, F.R.S., President, in the chair. Perhaps the chief interest of the evening centred in the specimens of tumours of the pituitary body; the long discussion which many anticipated on the subject of the relation of Addison's disease to the adrenals did not take place.

Dr. CARRINGTON showed specimens from a patient aged fifty-four, who for two months before admission into Guy's Hospital had been suffering from epigastric pain and growing weakness, which had become so great that he could hardly walk across the road. The skin was everywhere of a walnut-brown, except in the axilla; the mucous membranes were not stained. In the epigastrium was a tumour evidently connected with the liver. He gradually became more and more feeble, and died three weeks after admission. At the necropsy the body was well nourished, the lungs were of a deep-black colour and œdematous; the blood was fluid, and there were ecchymoses beneath the pericardium. The site of each adrenal body was occupied by a cyst the size of a large orange containing soft brown grumous blood-clot. The surrounding tissues were not infiltrated. The liver weighed sixty-two ounces, and was extremely cirrhotic; its colour, internally and externally, was black. Scattered thickly through the organ were nodules, looking like altered blood-clot; several were as large as a pullet's egg. The spleen weighed thirteen ounces, and was very black externally and internally. The case was worthy of note on account of the obscurity of its pathology; though the naked-eye appearances were of cancer of the adrenal organs, yet the microscopic examination had shown that the walls of the cysts consisted of normal suprarenal substance. The apparently secondary growths in the liver consisted of clumps of altered liver cells. The pigmentation of the skin and viscera showed either that cancer of the adrenal bodies could produce the pigmentation, or that the patient was the subject of malarial melanæmia. Microscopic examination did not, however, confirm this view.

Dr. COUPLAND exhibited a specimen of Atrophy of the Adrenals with Addison's Disease. It was obtained from the body of a man aged thirty-seven years at death. He had been under observation for four years. The symptoms began in 1879, and death took place in January, 1884. Attacks of vomiting, faintness, lassitude, and extreme debility were the symptoms of which the patient complained. The last attack of this sort appeared to have been brought on by excessive drinking—an unusual circumstance with the patient,—and ended in death. There was decided pigmentation of the skin, especially of the face, hands, axillæ, and groins, and slate-coloured patches on the lingual and buccal mucous membranes. The scrotum was pigmented, the penis less so, and the areolæ of the nipples not at all. At the autopsy some pellets of orange-coloured fat alone remained in the site of the right adrenal, and numerous nerves could be traced to this region from the semilunar ganglion. The left adrenal was thin, arophied to about one-third of the normal size, though retaining somewhat of its normal shape. There was lymphoid infiltration of the gastric mucosa, and hyperplasia of the follicular and agminate glands of the intestine and of the splenic follicles. The body was well nourished and free from any tubercular deposit. Dr. Coupland referred to five similar cases where symptoms of Addison's disease were associated with absence or atrophy of the adrenals, three being recorded in the Society's Transactions for 1882 by Drs. Goodhart, Davy, and Eastes. He then mentioned the fact of the normal atrophic changes of the adrenals and their not unfrequent congenital absence or ill development, especially in association with defective cerebral development, and pointed out how cases like the present opened up the much-debated subject of the nature of Addison's disease. Reference was made to the results of Tizzoni's experiments,[1] and to Dr. McMunn's observations on the origin of the pigments of the adrenals.[2] The suggestion that disease of these bodies might account for all the symptoms of Addison's disease could not be sustained in face of the large body of facts showing that the adrenals may be destroyed by cancer, degeneration, or atrophy without such symptoms occurring. The alternative doctrine of the dependence of the symptoms upon a lesion of the abdominal sympathetic seemed the only possible one, but in order to harmonise it with such cases as the present one it required that the atrophic changes of the capsules should be a result of some primary derangement of the nerve centre.

Dr. BARLOW showed specimens of Atrophy of the Adrenals. Though there existed a state of extreme atrophy of the adrenals, the right one still retained the cocked-hat shape. Microscopic examination proved the nature of the atrophied tissue to be of supra-renal origin. The spleen was somewhat enlarged, and its capsule thickened; the left kidney presented a small bilobed tumour, situate in and puckering the cortex; it was tough and leathery, and of rounded shape; it had the typical characters of a gumma; no reaction was obtained with iodine. The specimen came from a female patient aged forty-two, who had typical signs of Addison's disease. The duration of the illness was ten months, during which the patient was pregnant, and gave birth to a stillborn child. He considered that the possible association of Addison's disease with syphilis had not been adequately discussed. He referred to a contribution by Baerensprung on disease of the adrenals in congenital syphilis, which appeared to be of the nature of miliary gummata so far as could be made out from the drawings and descriptions.

Dr. H. SAINSBURY related an ordinary case of Addison's Disease in a man aged fifty-one. The symptoms lasted for two years, and consisted of severe pains about the back and epigastrium, with attacks of vomiting, progressive asthenia, and pale bronzing of the skin. At the autopsy the costal pleura of the left side showed patches of pigment, and both lungs were darkly pigmented. Adhesions of the right pleura and of the peritoneum were present. The adrenals were converted into stony masses, but were not adherent to the kidneys. There were minute ecchymoses of the mucous membrane of the stomach. The connective tissue around the adrenals on the right side was specially dense. The caseous change was most marked in the left adrenal body. Microscopical examination of the semilunar ganglion showed a denser fibrous tissue than usually obtained in a healthy person of about the same age. No bacilli were found in the diseased tissues.

Dr. NORMAN DALTON showed specimens of Infiltrating Growth of the Adrenals and Liver. They were taken from the body of a male child aged six weeks. The abdomen

[1] Vide THE LANCET, vol. II., 1884, p. 559.
[2] Ibid., current volume, p. 169.

was large. A syphilitic history was obtained, and snuffles were present, but no rash. The subcutaneous veins were enlarged, and the umbilicus became œdematous towards the close of life. The liver weighed thirty-seven ounces and a half; was variegated in colour, having a basis of yellowish-brown, which was mottled with hæmorrhages. A tumour, the size of a hen's egg, was found in the position of the left adrenal body, and presented a similar appearance on section to that of the liver, though the hæmorrhages were somewhat larger. Under the microscope groups of leucocytes were to be seen bounded by a stroma of fibrous tissue, which may have originated either in an interlobular hepatitis or in a thickening of capillary walls. The growth in the suprarenal showed a peculiar finely granular, almost fibrillated, substance, which stained deeply with picro-carmine, and through which leucocytes were strewn in various arrangements. This granular structure was probably a degenerated reticulum of lymphoid tissue; the medullary portion only was affected, and there did not seem to have been any infiltration. There was a history of syphilis, but in all probability the conditions were allied to those met with in cases of leukæmia. A similar case had been recorded by Mr. R. W. Parker in the thirty-first volume of the Society's Transactions; there was no syphilitic history in that case.

Mr. J. A. P. PRICE of Reading showed a living specimen of (?) Addison's Disease. Of pigmentation there was none on the face or on the dorsum of the hands, and the peculiar mottling of a dirty-brown colour was confined to the trunk, thighs, and arms. There was no pigmentation of the mucous membranes. The pigmentation had been present for three years. A swelling of the abdomen was probably due to glandular enlargement, which certainly existed in the neck. There was a slightly increasing proptosis, and this fact, together with a rapid irregular action of the heart without murmur, pointed to the sympathetic nervous system as the cause of the affection.—Dr. ANGEL MONEY referred to a case of lympho-sarcoma of the left adrenal body, in which there was great development of the external genitals with growth of large hairs on the mons veneris. The child was about one year old. The liver and lungs were apparently secondarily affected. He said that Dr. Dickinson had described a similar case in an early number of the Pathological Transactions.—Dr. HALE WHITE had examined some hundreds of specimens of semilunar ganglia, and thought that Dr. Sainsbury's specimens were not abnormal.

Dr. HALE WHITE exhibited a specimen of Myoneuroma of the Pituitary Body. It was taken from a boy who died from inflammation of the meninges, apparently caused by the tumour. Microscopic examination showed that it consisted largely of striped muscle; the fibres were, as a rule, well-formed, but had here and there undergone atrophy. At one part of the section a small body about the size of a pin's head was seen. This was exactly like a sympathetic ganglion, having a fibrous sheath and several ganglionic nerve cells lying embedded in a fibrous groundwork. There was a clear space around each nerve cell, which was multipolar and nucleated. In the same part of the tumour were several bundles of white nerve fibres, some of which had undergone degeneration. Fibrous tissue containing fat bound together these nervous and muscular elements. The tumour was the size of a large hazel nut; it implicated the optic chiasma; there was extreme atrophy of the optic nerves. New growths of the pituitary body are not excessively rare, but one like this has not been previously described, the nearest approach to it being a tumour of the pineal gland containing several cysts lined by epithelium, the tissue between the cysts containing hair, sebaceous glands, fat, hyaline cartilage, smooth muscle, and nerve. Was this new growth in the pituitary body due to an included mass, or was it developed from the posterior lobe of the pituitary body, which in the lower animals remained connected with the brain more closely than in man?

Mr. BOWLBY showed specimens of a Tumour of the Pituitary Body taken from a man aged twenty-two, who had had fits ten years and headaches; he died in a semi-comatose condition. The tumour was situated at the site of the pituitary body, and consisted of a bony part the size of a large walnut, which was not closely attached to the base of the skull, and of a softer mass containing cysts filled with soft sabulous matter. The bloodvessels were very numerous, and there were masses of epithelial cells growing into the tumour. There was some true bone, and this feature, together with that of the included portion of epithelial cells, closely resembled those of the specimens shown to the Society by Mr. George Lawson. The origin of the tumour was probably to be explained on the supposition that an inclusion of more epithelial tissue than usual took place in the developmental process by which the pituitary gland made its appearance.—Mr. J. BLAND SUTTON referred to some facts in the anatomy of the nervous system of the snail, showing how the gullet passed through the nervous ganglionic ring at the cephalic extremity. He then spoke of the facts in the development of the pituitary body, which was largely composed of a nipped-off portion of the epiblast at the extreme cephalic end of what was the pharynx in the human body. A vertical section of the basi-sphenoid region of a fœtus of the seventh month showed a piece of connective tissue connecting the pituitary body with the superior constrictor muscle of the pharynx. In Dr. Hale White's case it was probable that the upper part of the pharynx had been cut off during development lower down than usual, and this would explain the presence of striped muscle fibre in the tumour, which was really a member of the class of tumours designated by the term "teratomata."

Mr. BRUCE CLARK showed a recent specimen of Primary Carcinoma of the Prostate and Base of the Bladder, taken from a man aged fifty-one, who had complained of difficulty of micturition for six weeks. A No. 19 French catheter was easily passed and the urine drawn off. The prostate could be felt per rectum much enlarged and firmly fixed. The urine was drawn off for the remainder of the patient's life; it contained blood and albumen, and had a specific gravity of 1012. Cystotomy was ultimately performed, and a piece of the growth was removed for examination. The temperature varied from time to time, and the case terminated in sudden death just after the appearance of hemiplegia and coma. At the autopsy an abscess was found at the base of the brain, and abscesses were present in the psoas muscle and lungs.

Dr. HALE WHITE showed a recent specimen of Hypertrophic Cirrhosis in a child aged nine years, who died from lobar pneumonia. The kidneys presented a shrivelled lobulated condition, probably congenital.—Dr. WICKHAM LEGG asked whether the other organs had been examined, and whether the temperature were raised. A case under his care presented the febrile chart of typhoid fever, and delirium with diarrhœa was also present. Cirrhosis was known to occur in early life in which other organs, as the heart and kidneys, were also cirrhosed. These facts tended to show that cirrhosis was not so much a local disease of the liver as a general one of the whole system.—Dr. HALE WHITE, in reply, said that he supposed the temperature was raised, as the lungs were in a state of red hepatisation.

The following card specimens were exhibited:—Dr. Coupland: Cases of Addison's Disease. Dr. Goodhart: Tumour of the Pituitary Body in a Baboon. Mr. D'Arcy Power: Knee-Joint seventeen months after Ogston's operation. Dr. Hadden: (1) Misplaced Kidney, with Short Ureter; (2) Puff-dart in Trachea; (3) Detachment of Peritoneal Coat of small Intestine, from Injury without Rupture of the Bowel. Dr. Hale White: A Calculus composed of almost pure Triple Phosphate.

HARVEIAN SOCIETY OF LONDON.

ON Thursday, the 15th ult., the annual meeting and conversazione was held in the Stafford Rooms, Tichborne-street. The Council, in its report, had to deplore the death of five members of the Society, but gave a very favourable account of the Society's financial and numerical condition. Valuable work had been done during the past year, and for the remainder of the present session many interesting communications were announced. Votes of thanks were given, on the motion of Mr. W. Adams and Mr. Cripps Lawrence, to the Council; of Dr. Meadows and Dr. Silcox, to the Treasurer; and of Dr. Symes Thompson and Dr. Dawson, to the President. In his address the retiring President, Mr. G. P. Field, alluded to the recent history and to the prospects of the Society, and to the sad losses it had experienced during the year; and acknowledged with satisfaction the result of the general appeal made in favour of the widow and orphans of one of the Society's most distinguished members, the lamented Dr. Mahomed. The subject selected for the address was the progress of medical

science during the period which had elapsed since the foundation of the Society in 1831. The vast improvements and the marvellous discoveries belonging to that period were reviewed in decades. The germ theory of disease, now in the ascendant, was chosen as an illustration of the remarkable oscillations to which medical opinion is liable. Medical literature, medical legislation, and medical ethics were included in the survey of recent advances. Honours were slow to reward the labours of the profession; they had not exceeded an average of a title and a half each year. But while the healing art was not represented in the House of Lords, "Poetry and Porter had equally secured Peerages." The address concluded with remarks on the desirability and practicability of founding a teaching university in London. The thanks of the meeting for Mr. Field's valuable address having been carried by acclamation, the President announced that the officers proposed by the Council had been duly elected. Dr. T. Morton, the new President, then took the chair, and declared the conversazione open.

The following names are those of the officers elected for the ensuing year. An asterisk is prefixed to the names of those gentlemen who did not hold the same office during the preceding year:—President: Dr. T. Morton. Vice-Presidents: Dr. Ferrier, *Mr. Malcolm Morris, Dr. J. H. Staples, *Mr. Charles Vasey. Treasurer: Dr. T. Buzzard. Hon. Secretaries: Mr. J. E. Lane, Dr. Wm. Ewart. Council: Mr. Bryant, Dr. Cavafy, Mr. H. E. Juler, Dr. Symes Thompson, Dr. Dunbar Walker, *Mr. G. P. Field, *Mr. F. Otley Lovell, *Dr. Kirkpatrick Picard, *Mr. W. H. Platt, *Mr. H. Power, *Dr. Gilbart Smith, *Dr. John Williams.

The conversazione was enlivened by musical performances and the display of numerous objects of scientific, artistic, and historical interest.

MEDICAL OFFICERS OF HEALTH SOCIETY.

Small-pox Hospitals, their Influence on Surrounding Populations.

AT a meeting of this Society, held on Jan. 16th, at Adam-street, Adelphi, Dr. T. O. Dudfield, President, in the chair,

Drs. E. T. WILSON, GWYNN, and TRIPE each read a paper on the Influence of Small-pox Hospitals on Surrounding Populations. The following are abstracts of the papers:—

Dr. WILSON said that the occasional spread of small-pox *in the imm*ediate neighbourhood of small-pox hospitals in the metropolis seems to be an acknowledged fact; at the same time it is clear, from Dr. Thorne Thorne's exhaustive *inquiry*, that no such extension of the disease has ever been known to take place in even the largest provincial towns. How is a difference so remarkable to be explained? Are the *ordinary* channels of small-pox spread, acting under the altered conditions of a dense population, sufficient to account for the facts, or are we driven to seek for some altogether *new factor*, peculiar, it may be, to the metropolitan area? The answer is important, as on it would seem to hang the very existence of isolation hospitals for small-pox in London even in their present modified form. Those who hold that no new element has been introduced would point to the exceptional facilities which have existed up to a very recent *period*, perhaps exist even now, for the extension of small-pox around the isolation hospitals: defects of site and of construction: ingoings and outgoings with but slight precautions: abuse of the ambulance system; convergence of friends upon the hospital, and of patients who often walk through the streets; surroundings generally of the poorest; cases treated at home or concealed;—these and other causes too numerous to mention are, it is maintained, sufficient to account for any undue spread of the disease in the neighbourhood of small-pox hospitals. There are others, however, notably Mr. Power, Dr. Tripe, and Dr. Gwynn—who have felt themselves compelled to the conclusion that, whatever may be the case elsewhere, in London the infectious matter from small-pox hospitals is carried through the air for distances of a mile or a mile and a half. The evidence for this remarkable theory, first propounded by Mr. Power in 1881, rests on statistics chiefly, and on facts which certainly admit of more than one interpretation. Much stress is laid, for instance, on a graduated intensity in the number of houses invaded round small-pox hospitals, although in some cases the houses and population have been so varied in character as to render any comparison between districts useless, and in others the intensity has resulted from a convergence of disease commencing at a distance, and not from any divergence springing from the hospital as a centre. Again, whilst Mr. Power holds that the spread takes place at the commencement of an epidemic only, when acute cases begin to accumulate in a hospital and atmospheric conditions are favourable (these being a still, foggy air, deficient in ozone), others contend that the spread is noticed towards the close of an epidemic—under atmospheric conditions very varying, sometimes in the direction of the wind, sometimes in its teeth,—and apparently in entire independence of the number of acute cases at the time in the hospital. Such contradictions cannot but give rise to the suspicion that neither the atmosphere nor the numbers in hospital are concerned in the spread round these buildings, especially when it is found that the waves of intensity during an epidemic period are synchronous to a very remarkable extent around the various small-pox hospitals and in the metropolis as a whole; that, moreover, whole streets and buildings with susceptible individuals, in the closest vicinity to small-pox hospitals, often enjoy an immunity from the disease quite unaccountable on any theory of distal aerial spread of the infection. The distribution of cases also in both time and space, especially in Mr. Power's investigation, points to some causes acting continuously within the district rather than to any emanation from the hospital itself. On these grounds, and in view of the known causes of small-pox spread, giving rise to thirty or even fifty cases from a single one, it is contended that there is no need of a hypothetical aerial spread of infection to account for cases whose origin cannot be traced; and that a small-pox hospital *per se*, and independently of its operations and intercourse with the neighbourhood, is not necessarily a danger to the surrounding population.

Dr. EDMUND GWYNN read a paper dealing with the question, Could a small-pox hospital limited to thirty or forty beds be maintained in a crowded neighbourhood without danger to the surrounding inhabitants? Abundant proof had accumulated that in former epidemics small-pox had increased greatly in the neighbourhood of large hospitals. In Hampstead all the houses lying between the hospital and Haverstock-hill in the epidemic of 1872 were attacked, and in the epidemic of 1877 there was a great concentration of disease in houses adjoining the hospital. But in the epidemic of 1881, when the hospital was closed, the houses and streets in the vicinity were almost entirely free from small-pox. The Hampstead Hospital was again opened for small-pox cases on April 6th, 1884, the largest number of admissions in any week being 44, and in some weeks the numbers in hospital fell to 7 and 5. Three or four weeks after the opening of the hospital a large increase in the number of cases in Hampstead occurred; the houses near the hospital were not the first attacked, the chief outbreak being in the district of Belsize. These latter houses were distant from the hospital from one quarter to half a mile, and during the period they would receive their infection the wind blew steadily from the direction of the hospital on to them. After the first week in June the number of houses invaded within a quarter-mile circle from the hospital continued to rise steadily in proportion to the other houses in the parish, until at the end of eight months out of 310 houses in the special area 62 had been attacked, against 134 out of a total of 6870 houses contained in all the parish. In the epidemic of 1881 the special area, containing 267 houses, contributed only four, against 36 in all the parish. Thus with the hospital open the incidence on houses in the special area had increased to 20·9 from 1·5 with the hospital closed. A similar area taken around the workhouse showed only an increase of 1·5 over ·57. The death-rate from small-pox per 1000 deaths had risen from 2·1 in 1881 to 15·3 in the present case. The author asked, if the explanations offered to account for the spread of disease in the neighbourhood of the hospital by concealed cases, by overcrowding, by the natural march of the epidemic from east to west or south to north, are to be accepted as satisfactory when the hospital was open, why did the disease almost absent itself from this particular quarter during a severe epidemic when the hospital was closed? The entrance to the hospital was formerly on the west side, yet disease in former epidemics concentrated itself on the east side, where ambulances only come to remove cases by reason of a barrier erected in Fleet-road. In the present case the barrier had been removed and the entrance was now in Fleet-road, yet the disease first appeared on the west side. There appeared to be little spread of disease on the line of sewer above the

hospital. The author believed the danger from the hospital to arise from its action being continuous, whereas local outbreaks in other quarters could be effectually dealt with by disinfection and removal of cases.

Dr. TRIPE began his paper by stating that if it be admitted that the infectious matter of small-pox can infect at a distance, say, of twenty yards—and this is allowed by most authorities,- he could not understand why, under favourable circumstances, it could not infect at a greater distance, especially as no one assumed that the poison could be destroyed in a few minutes. He then referred to the great difficulty in ascertaining the precise source of infection in most cases, and therefore of assigning aerial infection as a means by which the disease is spread. This is especially the case as regards the Homerton hospital, where the visitors and tradespeople going to the small-pox and fever hospitals enter and come out by the same gate, and where the wards are much too near the street. After describing the position of the hospital as regards the streets and open country, he brought forward statistics to show how that in all the epidemics since that of 1870-71 the inhabitants of the streets near the hospital had suffered far more than those at a distance from it; that the high rate diminished as the distance from the hospital increased, and that although other outbreaks nearly as severe had from time to time occurred in other parts of the district, yet they had not occurred in every epidemic, as was the case with the streets near the hospital. As regards the proposition that the disease is spread by aerial infection, Dr. Tripe stated that in March, 1884, an outbreak of sixty-seven cases in six days occurred in a part of the district (to the south-west of the hospital), where there had been but two cases a fortnight before, and where it was in his opinion impossible that the disease could have been caused by the so-called ordinary modes of infection. In this instance the wind veered three times all round the compass from south-west, and blew on each occasion for some time east-north-east or north-east from the hospital. There was almost a calm on two occasions, and the air was unusually moist for March. Dr. Tripe again expressed his belief, which he had stated before the Royal Commission on Hospitals for Infectious Diseases, that the infection may be carried over a high building, and he gave what he considered reasonable proof of this assumption.

In the discussion which followed the reading of the three papers, the President, Drs. Gibbon, Iliff, Pringle, and others took part.

ACADEMY OF MEDICINE IN IRELAND.

A MEETING of the Medical Section was held on Dec. 19th, the President, Dr. Cruise, in the chair.

Dr. WALTER SMITH read a paper on the Nature and Treatment of Lupus. He found the frequency of occurrence of lupus in Ireland (Dublin) to be about 1 in 200 cases of skin disease. In England and Scotland the proportion is about one in fifty. He drew attention to the differential diagnosis of lupus, but he dealt chiefly with the arguments in favour of the doctrine that lupus is a branch of the tuberculous stock and is produced by an organised pathogenic virus. These arguments are derived from three sources—viz.: (1) clinical, (2) histological, (3) experimental. Viewed clinically, numerous skilled observers in England, France, and Germany recognise the points of contact between scrofula and lupus, and note the frequent coincidence of cheesy affections of the glands and joints with lupus. In 1883 among thirty-eight patients under M. Besnier's treatment for lupus in St. Louis, eight presented well-marked physical signs of phthisis. Histologically, the close resemblance between a caseating miliary tubercle and a lupus nodule had been often pointed out, and quite recently Dr. R. Koch had furnished decisive proof. He examined seven cases of lupus: in four, excised bits of skin; in three, scrapings of the lupus tissue. He found tubercle bacilli in all the four excised bits, but never more than a single bacillus in a giant cell. Experimentally, both culture and inoculation experiments had yielded positive results. As to the treatment, it was pointed out that if the tuberculous doctrine of lupus be accepted, it strengthens the position of those who advocate constitutional treatment, and especially anti-strumous remedies. The different plans for dealing locally with the lupus neoplasm were referred to, particularly the methods of linear scarification and of erasion.—Dr. HENRY KENNEDY said he had in his practice combined constitutional with local treatment, and of thermal applications he had used plain hot water, as hot as the patient could bear. In one case he established an issue in the patient's arm, which had the effect of keeping her face well for six years. All that time she wore the issue. Cod-liver oil was one of the best constitutional remedies. It was remarkable, as showing the constitutional history of the cases, that the moment the health became impaired the disease reproduced itself. He had used blistering with good effect.—Dr. ARTHUR BENSON alluded to some experiments made on rabbits by introducing pieces of living granulations, taken from the conjunctiva of a child suffering from lupus, into the eyes of the animals. One rabbit died after a week from hæmorrhage into the stomach. The eye was examined and found healthy. In the eye of the other rabbit there soon appeared patches of tissue of a yellowish colour with a pinkish appearance, very similar to what is recognised as tuberculosis of the cornea. After three weeks this animal succumbed to chloroform, and sections made from the enucleated eye by Dr. Abraham exhibited tuberculosis of the cornea and iris. Almost all the patients he had seen with lupus of the conjunctiva showed a marked tubercular tendency, but without lupus appearing elsewhere in the body.—Dr. DOYLE said when he was a student lupus seemed to be a prevalent disease; but he had reason to think that in a number of the cases eczema had been mistaken for lupus.—Dr. CORLEY was not so sure of the bacillary theory in this disease as some recent writers on the subject appeared to be. Having had large experience in the treatment of lupus, he had tried several remedies—red iodide of mercury amongst others; but latterly he had chiefly employed the method of scraping with Volkmann's spoon, which he thought gave the best results. Still some of these cases returned after two or three months, when he had to repeat the scraping, the disease having reappeared. Undoubtedly, constitutional treatment, especially by cod-liver oil, was of great value in some cases.—Dr. FINNEY said his treatment was chiefly scooping combined with linear incision. The cases in which he adopted scooping were those where the lupus was in the tuberculated form, and not where it had formed large thick crusts. Thus, where the tubercle was disseminated with a certain amount of skin between the patches, a good cicatrix might be anticipated. If a portion of skin apparently healthy, but not really so, was left without being touched with the nitrate of mercury, lupus nodules developed again. In many cases the return of disease was due to the inefficiency, rather than the inutility, of the treatment. The intense pain caused by exposure to cold wind in some of his cases was relieved by the scraping process and linear incision and burning out every spot with nitrate of mercury.—Dr. ROBERT M'DONNELL related the particulars of a case in which various remedies, including arsenic, had been tried, without having given permanent relief, until eventually the patient was cured by the free use of cod-liver oil internally; but she died some years afterwards from phthisis, showing the tubercular character of the disease in this case. Whilst a student in Paris, under Cazenave, he had paid a good deal of attention to the disease. Cazenave observed a case of lupus of the face, which became attacked by erysipelas, and, although fearing this complication would make the disease a great deal worse, to his surprise, when it passed away the patient got rapidly well. Effects of this kind suggested the use of counter-irritants to imitate erysipelas; and Cazenave, after using a number of irritants for the purpose, gave preference to red iodide of mercury ointment; but, beyond comparison, the greatest improvement of the time in the treatment of the malady was the scraping with the spoon and then rubbing the raw surface with a rough sponge. He had used this method a great many times, and had never been disappointed. There was a form of lupus in which, if arsenic was given at all, it should be in such doses as would produce poisonous symptoms, to act as mercury does where it was intended to produce marked salivation. It produced rapid improvement, but he could not say that a permanent cure was always effected.—Dr. WALTER SMITH, in reply, said the diagnosis of superficial lupus of the ear from eczema was shown by a loss of tissue when the crust was removed. So far as he knew, the bacillus was only found in tuberculous and scrofulous affections, and not in large ulcers, and therefore it could not be introduced from without. Lupus on a single surface like the cheek seldom ulcerated deeply; but when it attacked the nose it acted on both surfaces, and

thus caused great destruction of tissue. He could hardly lay down a specific rule as to which cases were most suitable for scraping. Spots of lupus too small to be scraped he treated by drilling with a pointed piece of wood tipped with nitrate of mercury.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

AT the meeting held on January 9th, Dr. Bell, President, in the chair, after the exhibition of several pathological specimens,—

Dr. JAMES BRAITHWAITE related a case of Fibroid Tumour (Sessile) in the Anterior Wall of the Uterus. This was removed from the peritoneal surface of the uterus by enucleation, and a large abscess was opened into the capsule of the tumour. The abdominal wound was closed, but free drainage was provided for by the capsule being stitched to the lower angle of the wound. The patient was in a very bad condition at the time, having been tapped for ascites repeatedly; and she died within twelve hours from cardiac thrombosis.—Professor JESSOP remarked that his experience of the removal of uterine myoma by abdominal section was limited to three cases. In 1865 he performed hysterectomy by the extra-peritoneal method in a case of very large multiple myoma, and the patient died after the removal of the clamp on the sixth day. A few years later he operated in a similar case by the intra-peritoneal method, and the patient died in the course of a few hours. A few weeks ago he operated by enucleation in a case in which the tumour weighed between 4 and 5 lb. He found some difficulty in stripping the tumour of its cyst; but there was not much haemorrhage. In dealing with the cyst he inverted its edges so as to bring the serous surfaces in contact to the extent of about the upper five-sixths, and stitched the margins at the lower end to the abdominal wall for drainage. The patient is now convalescent, and Mr. Jessop hopes to bring her for inspection on a future occasion.—Mr. C. G. WHEELHOUSE mentioned two cases of abscesses in the uterine walls, one of which opened primarily into the bladder, the other directly into the uterine cavity, and both of which, the former by mechanical dilatation of the urethra and the latter by dilatation of the uterine cervix, were reached, cleansed, drained, and cured.

Dr. HELLIER read some notes of a case of Hysterical Ischuria in the case of a young lady aged fifteen, in whom for a period of nearly seven weeks there was marked scantiness of urine, interspersed with periods of complete suppression. On two occasions there was no secretion for forty-eight hours, and once, it was asserted, no urine was passed for five days. The case was associated with severe attacks of gastralgia, with obstinate constipation and menstrual irregularity, but there was little vomiting and no uræmic symptoms. After considering the possibility of fraud, Dr. Hellier discussed the reasons which led him to employ the somewhat unsatisfactory term "hysterical," criticised some of the common definitions of the word, but pointed out that it must be retained for the present because of its very practical meaning in (1) diagnosis, (2) prognosis, (3) treatment, with special reference to the employment of moral means of cure.

Mr. MAYO ROBSON showed a patient who had sustained an extensive laceration of the arm, leaving a large gap seven inches long by three wide in front of and above and below the right elbow-joint, exposing the brachial artery. After a sharp attack of secondary hæmorrhage on the fifth day from ulceration into the brachial artery, which necessitated its ligation, healthy granulations covered the wound, and on the sixteenth day after the accident a large flap of skin with its base below was reflected from the thorax and placed directly on the granulating surface, being left attached by a pedicle two and a half inches wide, which was separated on the twelfth day. The flap had nearly all lived, and the patient had now a sound right arm with every movement perfect. The points of interest in the case were: (1) The transplanting of the flap directly on to granulations, and not on a refreshed surface; (2) the question as to whether or not the brachial should have been ligatured at first, thus saving the patient the danger of death from sudden rupture. Bearing on this point, Mr. Robson had seen a wound heal without hæmorrhage, in which the carotid artery was not only exposed, but even notched.—Dr. BARRS pointed out the little tendency blood-vessels have to participate in pathological changes going on in their vicinity, so long as the blood stream through them is uninterrupted.—Professor JESSOP related several cases where he had successfully transplanted flaps on to granulating surfaces.—Mr. Wheelhouse and Mr. Ward spoke, and Mr. Robson replied.

Mr. W. H. BROWN related a case where two months after Amputation of a Stiff Index-finger following Whitlow the stump became so tender that the patient begged to have it removed, which was done. The removed portion was examined by Dr. Griffith, who reported that there were two small fibrous nodules situated in depressions at the end of the bone. These consisted of nerve-fibres embedded in fibrous tissue.—Professor JESSOP related a case in many respects like the above in which amputation of the finger failed to relieve, but after years of suffering the neuralgia spontaneously disappeared.

Dr. CHURTON read notes of a case of Syphilis very early affecting the nervous system, and showed the patient, a man aged twenty-four years, strong but of dissolute habits, who had had a chancre four months ago. Two months after this he had sensory disorders in his right foot, spreading to the whole limb, and shortly after to the left foot and limb; he staggered in walking. A month later the hands became affected; he could not cut his food or pick up a match; he could not distinguish any object with accuracy by the sense of touch. When admitted into the Leeds Infirmary he seemed dazed and gave varying replies; he could not walk at all nor stand alone, even with his eyes open and anxiously watching his legs. The plantar and patellar reflexes were absent; simple muscular power somewhat feeble, no special wasting of muscles. Under treatment by mercurial inunction, rest, and abstinence from alcohol, the patient had in three weeks so much improved that only slight symptoms of ataxy remained.

Mr. MAYO ROBSON showed a girl, aged sixteen, from whom he had removed, on Dec. 10th, the sac of a Spina Bifida the size of a fœtal head, on account of severe brain symptoms, apparently due to inflammation of the sac, great increase of fluid, and pressure on the nervous centres. The patient was in good health, and presented only a cicatrix over the site of the tumour. He drew attention to: (1) Simple tension, raising temperature; (2) suppuration set up by tension, and not necessarily by septicity; (3) the new departure in the treatment of such cases; and (4) the excellent result of the operation, which undoubtedly saved the life of the patient.—Dr. Eddison, Mr. M'Gill, and Professor Jessop joined in the discussion.

Reviews and Notices of Books.

Scientific Papers and Addresses. By GEORGE ROLLESTON, M.D., F.R.S., &c. Arranged and Edited by WILLIAM TURNER, F.R.S.; with a Biographical Sketch by EDWARD B. TYLOR. Two Volumes. Oxford: Clarendon Press. 1884.

WE have experienced great pleasure in reading these memorials of a very active, vigorous, and independent worker and thinker. The subjects of which they treat are multifarious, and all as he treats them are rendered interesting. Whether we open the volume at the chapters devoted to the series of prehistoric crania which he with Canon Greenwell took such pains to unearth and describe, at that in which he discusses the origin of the domestic pig, at the place where he inquires into the cause of the rot in sheep, where he so nearly gave a correct solution in naming the black slug instead of the Limnæus since shown by Lewis to be the real delinquent, or at some other of the numerous essays contained in these volumes, we cannot fail to be struck at the amazing extent of Dr. Rolleston's knowledge, the facility with which he adduces and arranges facts, and the caution with which he draws inferences from them. Rolleston was indeed a brilliant man. His memory was singularly tenacious and his powers of work extraordinary. In fact, his too early death may be in great part attributable

the increasing demands he made upon his mental and to bodily powers. *Apropos* of this, we once heard him tell the following anecdote. He had been, as was his custom, hard at work in the museum, and was returning home, when a stranger accosted him with, "Ah, Professor Rolleston, I am glad to have met you, for I find I have half an hour to spare, and I should be so much obliged to you if you would show me over the mus——" "You have found a spare half hour," interrupted Rolleston; "for God's sake give it to me; I have been looking for it all day."

The work is introduced by a charming biographical sketch by his friend Edward B. Tylor, the present Reader in Anthropology, in which such details of his early life as are known, and many extracts from his letters, are given. Rolleston was born in 1829, and whilst very young was devoted to natural history; at the age of six setting traps in the grounds of his father, and dissecting mice and weasels. Not less significant of his future, Mr. Tylor observes, was his setting up heaps of stones to record the death of a favourite animal, or other event. A boy who at eight years old piled up in the plantation a memorial cairn to commemorate his sister's recovery from scarlatina was well started on the line for an explorer of ancient burial-grounds. Early imbued with a sound knowledge of Latin and Greek by his father, at the age of twenty-one he took a first-class in classics, and next year was elected a Fellow of Pembroke. The Fellowship was a medical one, and naturally determined him to take to medicine as a profession. He entered at St. Bartholomew's Hospital, and worked there long and hard. The outbreak of the Russian war led to his departure for Smyrna, and to his doing duty in the general hospital. At the close of that war he returned to Oxford, and was soon appointed to the Linacre Professorship of Anatomy and Physiology (1860). In 1861 he married Grace, daughter of Dr. John Davy and niece of Sir Humphry Davy, by whom he had seven children. He died from renal disease in 1881. Though never lecturing to large classes, he worked at each lecture with untiring assiduity. He made many warm friends amongst his pupils, and he was proud and pleased to say that they never forgot their old master; from them he was constantly receiving specimens, which, whilst they filled the shelves of the museum, told him that the lessons he had taught were bearing fruit, and that he was affectionately remembered by men who were separated from him by many years of time and by half the circumference of the earth. Professor Turner has collected no less than seventy-nine memoirs and addresses, which have been published, to which are added three hitherto unpublished notes. There is not one of these which is not interesting, and which, if it have been already read, will not bear a second perusal; not one that is not illustrated by his varied learning and accurate powers of observation. A large number of them are anthropological, deal with the contents of barrows, and give an account of researches and excavations in various parts of the country; others deal with zoological subjects; the majority are, however, occupied with points of anatomy and physiology, on which he was constantly engaged. He leaves a brilliant name to his children. We can wish them nothing better than that they should emulate his earnest and useful life.

London and Provincial Water-supplies, with the latest Statistics of Metropolitan and Provincial Waterworks. By ARTHUR SILVERTHORNE, Assoc. M. Inst. C.E., Consulting Engineer. London: Crosby Lockwood and Co. 1884.

THIS is a carefully compiled and most valuable statistical account of the water-supply of London and about eighty of the other principal towns of Great Britain and Ireland. The book will be a real boon to all practical sanitarians. It consists partly of tables showing the sources of supply, the quantity supplied, the population, the rateable value, the expenditure and revenue, the scale of charges, and some other details for each important town, and partly of a critical and historical description of the metropolitan and provincial undertakings. The gigantic character of the London supply is shown by the fact that the population of Greater London is now over five millions, and is increasing at the rate of about 100,000 every year. It is estimated that if the present rate of increase is maintained, this enormous population will have doubled by the year 1919. By far the greater part of this wonderful metropolis is supplied by the eight London water companies. Mr. Silverthorne gives great and deserved praise to these companies for their general management, and expresses a strong opinion that the present supply is not only sufficient in quantity, and, with proper precautions, in quality; but is also capable of indefinite expansion to meet the wants of the constantly increasing population. He repeats the familiar arguments as to the danger and injustice of drawing our supply from distant places, and quotes with entire approval the opinion of Sir Robert Rawlinson to the effect that "to sacrifice the present source and lay out fresh capital to bring in some imaginary pure supply would be gross waste of money, and would not accomplish the object intended." From the engineering point of view this argument is unanswerable; but it must not be forgotten that the physician and the chemist have something to say on the other side.

The present supply of water to London is certainly ample, although we occasionally hear of water famines in certain districts. It amounted in 1883 to 144,592,772 gallons daily, or nearly thirty gallons per head of population. But the cost to the consumer is unfairly high, and the profit to the shareholders inordinately large. Mr. Silverthorne, who writes in the most moderate tone, points this out with great clearness. He explains the various modes by which companies can increase their profits and expresses a decided opinion that Parliament must ere long put a check upon them. The doubt we have long felt as to the wisdom of the present system is certainly not removed by the statement.

The statistics of provincial water-supply are very interesting, and occupy the greater part of the book. There is still great inequality in the supply of different towns, but of course there are much greater difficulties in some cases than in others. Hastings is still unsatisfactory, as in the time of our inquiry. The population at the last census was 42,258, and the average quantity of water supplied in twenty-four hours 700,000 gallons, or less than 17 gallons per head, derived in part from surface springs. The new works at Filsham will, it is said, add 500,000 gallons to the daily supply; but, on the other hand, it must be remembered that in the autumn the population is much greater than on the day of the census. The supply in the summer is, moreover, more scanty, and probably inferior in quality. Eastbourne, on the other hand, with a population in 1881 of 24,000, has a daily supply of 1,300,000 gallons, derived from deep chalk and greensand wells, which is equal to 54 gallons per head. Eastbourne is growing so rapidly and its summer population is so large that the supply is by no means too liberal. Brighton, with a population at the last census of 134,954, has a daily supply from chalk wells and adits of 4,500,000 gallons, equal to 33 gallons per head. Glasgow receives about 50 gallons per head each day of the pure water of Loch Katrine.

SOCIETY OF ARTS.—At the meeting of the Society of Arts on Wednesday next, the 11th inst., there will be a discussion on the recent Report of the Royal Commission on Metropolitan Sewage. It will be commenced by a paper by Capt. Douglas Galton, F.R.S. Sir Frederick Abel will be in the chair, and most of the principal authorities on sanitary questions are expected to be present.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 7, 1885.

THE distinction of the Fellowship of the Royal College of Physicians is one which is highly prized. Its value depends not merely upon the privileges it confers and the opportunities it affords for taking a share in the management and educational work of the College, but also upon the fact that it is regarded as a recognition of honest persevering labour in the sphere of medical science. It is, then, looked forward to as an object worthy of attainment by those who have resolved to devote their lives to pure medicine—a pursuit which during many years has no compensation beyond such a distinction as this. It carries with it but little social advantage, but it stamps its holder as one who has chosen a definite line in life; and it should be conferred with strict regard to such a circumstance. Nor should it be alone bestowed upon those who are entering upon a career; it is quite fitting that those who have borne the burden and heat of the day, who have earned for themselves a reputation, should also be entitled to receive almost the only honorary reward the profession can offer. Being, then, as it is the legitimate object of ambition, it is most important that the manner in which the Fellowship is conferred should be, as far as possible, above cavil and reproach. The duty that devolves upon the College in making the selection is therefore one of a momentous kind; and great care should be exercised to ensure that those who are selected are worthy to receive the distinction. It is perhaps unavoidable that now and again some undeserved hardship is apparently inflicted, and that the names of members of the College who are known to have done good and honest work are passed by. No system of election is altogether free from a blemish of this kind. But under a system which leaves the selection of candidates in the hands of a Council the risks of injustice from inadvertence and ignorance are increased. It is true that the Council is supposed to represent the whole body of Fellows, and therefore to be trusted to consider the claims of all eligible members impartially and fully. But it is impossible to expect that the Council can possess all the knowledge requisite for this task; and the unfortunate occurrence of last year, which resulted in no Fellows being elected at all, arose simply from this one reason.

It is nevertheless well known that every Fellow of the College has the right to nominate a Member whom he thinks deserving of the Fellowship, and the nominations so made are placed at the disposal of the Council, in order to aid it in its selection. Now, whether rightly or wrongly, the idea has grown up that the Council is not guided by these outside nominations at all. It is doubtless owing to this impression that the nominations received from the Fellows are absurdly few; and this very paucity suffices to lead the Council to the belief that the Fellows are willing to leave in their hands unlimited discretion. It must, then, have been a rude shock to the Council, and for our own part we do not hesitate to say a most unmerited rebuff, to have had their nomination list returned on their hands. The Fellows of the College by their act of last year, impelled doubtless by unimpeachable motives, really passed a vote of censure upon themselves; for they had neglected their duty in not making nominations, and were not satisfied with the result of the task they had thus tacitly imposed upon the Council.

The present system of election to the Fellowship, if carried out by the College and its Council as thoroughly as it should be, ought to sufficiently safeguard the College from the risk of conferring an honour where it is not deserved or of withholding one where it is merited. To deprive the Council of the prerogative of selection, and to cast the whole responsibility upon the Fellows, might give rise to a state of things much to be deplored. It would open the door to intrigue and canvassing for votes, which are the inevitable concomitants of an open election. It might split the College into factions and damage its reputation seriously, so that the Fellowship would no longer be held in esteem. No such radical change is in fact needed. All that is required is that the Fellows should feel assured that their nominations are thoroughly weighed by their representatives; that the idea that the Council are indisposed to attend to such nominations, fearing that they are often made on considerations other than those of securing the most suitable men for the distinction, should be dispelled. In a word, the Fellows as a body should trust the Council they elect that it will perform its unenviable duty of selection with the greatest circumspection; and the Council in its turn should trust the Fellows to nominate impartially those who are entitled to receive the encouragement of their professional brethren in a career that is opening to them, or the reward of their approbation for years of pure unselfish labour in their profession.

THE agitation against the lunacy laws and in favour of their reform is confessedly, in the main, factitious; but outside the area of this useless, if not actually mischievous, perturbation there is a calm and mature opinion that the law, as it stands, is unsatisfactory, and that it ought to be, and eventually must be, changed. We are anxious to make it clear, to those of our readers who do not yet recognise the position we have assumed, that while we have no sort of sympathy with the mad onslaught of agitators against the private asylum system, or with the unbridled abuse of those who keep private houses of detention for the insane, it is our mature conviction that the whole business is bad and in need of prompt and sweeping amendment. We cannot but regard the trade of keeping private asylums for the insane as incompatible with the position and obligation of members of an enlightened profession. Those who are so engaged nearly all agree with us; indeed, we could scarcely point to a single member of the profession in the way of business alluded to who has not, either publicly or privately, expressed himself in the same sense on this subject. The private asylum system is an anachronism, and those who are personally responsible for its maintenance keenly feel it to be one. If there were no central Board of Commissioners in Lunacy to cast a glamour of respectability on the trade, not a Member or Fellow of the College of Physicians would engage in

it. There must be "abolition." The only question is, how and when will it be brought about? We have no immediate hope in relation to the matter; and we must be excused for thinking that the agitation in progress, to which some among us seem to attach much importance, will not hasten the desired reform. On the contrary, we incline to think it may have the disastrous effect of postponing it.

Dr. BUCKNILL'S article in the current number of the *Nineteenth Century*, on the "Abolition of Proprietary Madhouses," falls, we fear, into the category of ill-advised proceedings in agitation for reform of the lunacy laws, and, in so far as it does so, its publication is to be regretted. It is an able composition, admirably written, cleverly argued, and we do not for a moment question the entire accuracy of the somewhat startling allegations made in it. Nevertheless, we do more than question the wisdom of making those allegations, well-founded as they may be. There is such a thing as pushing a policy of defamation too far, so that the effect shall be to turn the tide of sympathy in favour of the class abused. We do not commiserate the asylum proprietors on the position in which Dr. BUCKNILL'S paper has placed them. They are rather to be congratulated on its appearance. It is for our side of the case—the opposition—pity needs to be asked. If Dr. BUCKNILL should be anxious to know why we feel and write thus, notwithstanding that on the whole we agree with him, the answer would be simply this: the system is so bad that it is wanton as well as witless to abuse the men. Nor are all his allegations germane to the question at issue. What conceivable bearing on the private asylum system has the fact—assuming it to be a fact—that some asylum keepers have made a profit by letting out their attendants on hire? We fail to see the objection to this particular branch of the business. It is not only, as Dr. BUCKNILL describes it, "a custom of the trade"; it is a perfectly intelligible and commercially sound custom. Nor is there anything whatever more mean or less respectable in this department of the commercial enterprise than in that of letting furnished lodgings, with board, washing, and attendance included; a profit being of course made on every item of the business—house rent, the wear and tear of furniture, the food consumed, and the services of the *employés*. Why all this straining at a puny gnat, when the camel is swallowed without so much as a single grimace? Others of Dr. BUCKNILL'S specific allegations are equally open to criticism.

When reform is seriously undertaken, there will be reasonable and sufficient opportunity for the discussion of the real question at issue in all its bearings. We do not complain of the transparently silly objections of those who are interested in maintaining the existing state of matters. They urge that we have no knowledge of the subject and nothing to propose. We *have* a reasonably good acquaintance with the facts, and our proposals have been on more than one occasion placed at length and in detail before our readers. They cover the whole ground, and to them we adhere. We do not expect any great benefit from partial changes in the law. So long as mental disease is looked upon and treated as something apart from the subject of general medicine, and while special *legal* powers are demanded "for the protection of doctors," or "for the safety of society and the insane," there must be dissatisfaction, insecurity, and scandal. In truth, medical men ought to have no more to do with the legal and social disabilities of the mentally diseased than they have with the moral character, the financial position, or the educational attainments of their patients. If the profession were true to itself, it would cut the Gordian knot of all this difficulty by refusing to give or sign any document having a legal bearing or capable of being used in a court of justice, except it be to protect the insane from the legal consequences of responsibility for wrong-doing in their madness. We repeat the affirmation that no single power is needed by physicians engaged in the medical treatment of the insane which the *common* law does not give every citizen. At the present moment *lunacy* law, so far as the insane or society may be concerned, is an idle farce in Scotland: there the doors of asylums are not even locked; no sort of coercion is employed beyond that which every nurse uses in the care of a *patient*, and all goes well. Let this system be adopted throughout the country; let there be no more talk of "lunatics" in the legal sense, but only of *patients* in the medical sense of the term; let *hospitals* replace "asylums," and we shall neither need to clamour and agitate for lunacy law reform, nor will there be any longer reason or use for "certificates."

THE address of Lord REAY, in his capacity of Lord Rector of the University of St. Andrews, on University Reform in Scotland, is sure to have pleased his audience, and may be read with much interest by others. He recommends most freely the creation of new Faculties and more generous endowments of the Scottish Universities. He would have universities fulfil the double function of educating for the professions, including the teaching profession, and providing for general culture and research. He would have by all means a Faculty of Science and a great enlargement of the functions of the Faculty of Law. He would certainly retain the Faculty of Theology, so that clergymen may be trained to grasp the relation of theology to other sciences. His observations on the Medical Faculty of the Scottish Universities would have been more valuable if they had been less flattering and more critical. They were as follows: "About the Medical Faculty little need be said, as it has obtained European fame by adopting many of those improvements which I am recommending for the other Faculties. Nothing that it can possibly require should be refused to it." This is very pleasant language for Scotch professors, but it is not altogether worthy of Lord REAY, who should know that in one part of Europe at least—namely, England—there are many persons of no mean authority who think lightly of the medical work and the medical degrees of the Scottish Universities, and who have only been confirmed in their opinions by the recent action of these bodies in regard to medical legislation. Lord REAY very properly maintained that the placing of the Scottish universities on a level with universities anywhere was a matter of public, not merely local, importance. We should entirely agree to this if the Scottish universities showed a little more readiness to fall in with public proposals for testing the work they do. Their attitude to the Medical Bill of the Government has been that of bodies who believed that the empire existed for them rather than otherwise. Lord REAY explained to his audience that the first thing

for Scotch statesmen to do was to make the most of "Scotch brains," and that the great thing for the Scotch universities is to supply the empire with the professions ready-made. "We have scattered doctors and surgeons broadcast over the empire. Why should we not do the same for other professions?" Why not? That is a question which we may leave the Scotch universities to consider. They have done a great "professional" business hitherto, and it will be their own fault if they do not continue to have a large share of the work of educating the "professions" for the empire. But they must remember that the conditions are altering very much. The schoolmaster is abroad. The Education Act of 1870 has not only extended and improved popular education, but has given a great stimulus in England to secondary education. Universities, too, are multiplying—and universities that receive cheerfully any legislation in the interests of the public. The consciousness of having some slight "brains" even may overtake the community south of the Tweed, and English statesmen may be required, as Lord REAY requires Scotch statesmen, to look to the greater efficiency of universities. Not the least significant part of Lord REAY'S address was the confidence with which he predicted that London is to acquire a splendid university. We share the same faith, and we agree with Lord REAY that such an acquisition would act beneficially by way of competition with the universities of Scotland. Lord REAY would have men *qualified for professions by a university degree, and not by the State examinations, which is the system of Germany.* He may be right, but there is much to be said against this view. If university degrees become the common qualification of men for professions, they will lose that distinctive and honourable character which gives them their special value. Moreover, under such circumstances they would have to be given on low terms—we mean low examinational terms,—which would be a public misfortune. In our judgment, university degrees should be distinctions, not mere qualifications. They should imply more than mere qualification. We cannot doubt that this is Lord REAY'S meaning, for he carefully points out that the one essential element of success in a university is that the teaching should be first-rate. Would he exclude, say from the medical profession, all who cannot command university teaching and a university degree? And are the universities to concern themselves with the mere qualification of medical men, and not with their higher education? We must leave Lord REAY'S address, feeling that perhaps the newspaper report of it has not done him justice, while grateful to his lordship for raising so well questions which concern, as he says, not the Scotch universities, but the empire.

THE decision of Mr. Justice STEPHEN last February with respect to the burning of a body in irregular and revolting circumstances, asserted the legality of cremation when performed in a decent manner. The subject had never been so much considered in this country as to call for the recognition or control of law, and it therefore remained a matter of opinion. That which alone had influence over it was the law of nuisance, which operated equally in the case of burial, and more or less of every social usage. We may say, then, that the permissive stage has been reached in reference to cremation, and that to be burned or buried is at the option of every person who desires to arrange for the disposal of his body after death. The question now before us has to do simply with the advisability of the former method, and the special regulations, if any, which must guide its execution. In the course of many discussions the reasons of general public interest which may be stated on one side or the other have received due consideration. We, as medical men, are naturally desirous to concern ourselves more particularly with that aspect of the case which presents the most notable features to the medical jurist. To register a practical certainty as to the cause of death is also, we observe, justly regarded by the Cremation Society as a first essential to the success of their scheme. They propose in their latest circular, as in those formerly issued by them, to do this by means of the process now in use as the necessary preliminary to burial—namely, by certification where there has been medical attendance during life, and by the usual autopsy where there has not. They propose, in addition, to strengthen the ordinary medical certificate by a second, given on later inquiry by a practitioner who would have to decide whether the circumstances connected with the death as reported to him were sufficient to have caused it. This second assurance is really, then, a repetition of the first, for all the evidence which gives it value is derived from the same sources. The most trustworthy of these is usually of course the visiting practitioner. We admit without hesitation that for many cases these precautions would be ample. Thus, there is to our present understanding of medicine nothing in the course of ordinary acute disease, or for that matter of most diseases which are fairly common, to excite suspicion of unlawful practice. It is no less certain, on the other hand, that the natural and the artificial or criminal factors of disease may, and often do, closely agree in their effects in consequence of their acting along the same lines. Symptoms are moulded on pathology. The structural proofs of local irritation, the physiological inaction of narcotism, are the same for many of their causes. There need be no surprise therefore if now and then the most acute observer may have to trust to informants, in order to trace the history of his own diagnosis.

When we come to chronic poisoning, the uncertainty is at times great, and is very apparent in the action of such drugs as arsenic, strychnia, opium, and mercury. Cases of exhumation, on account of some suspicion as to the real nature of a fatal ailment, have commonly been of this kind, as, for example, that which resulted in the conviction of PRITCHARD. The medical attendant has in such cases, we may presume, had no doubt as to the reality of an apparent illness not due to poison, or it may be the influence of the latter has appeared to be the grateful euthanasia of exhaustion at the close of a long and painful malady. A second certificate might perhaps have been barred by some opposing trifle of detail, but no reliance should be placed on the chance of this occurring. There is no absolute security even in multiplied certificates. They follow one another in line, one may say, and the tendency to repetition is unavoidable. We do not think therefore that the advocates of cremation have materially strengthened their position by their latest circular. In the vast majority of cases in which the *bonâ-fide* course and termination of disease seem

clear to all who are interested in the patient, it is of no real consequence whether the earth or the urn is made the last resting-place, nor even whether the illness and death have been certified or not; but the question is one of law, not of fact alone. Certification is, or is understood to be, applied generally for the satisfaction of law in a few doubtful and exceptional cases. It may fail to give that satisfaction. Then the body is for a long time procurable for examination. Cremation would abolish this final evidence, without offering an equivalent guarantee that life has not been taken by design. Regarding fact as well as jurisprudence, we are unwilling to remove the legal sanction which has been accorded to the burning of the dead, even while we do not approve the practice, though we can clearly see that a feeling of insecurity must belong to it so long as cremationists admit no need for post-mortem examination except in ordinary coroners' cases.

DR. LAUDER BRUNTON'S name is so strongly associated with the scientific aspect of medicine that the Fellows of the Medical Society of London and the profession at large felt perfectly sure that his Lettsomian Lectures would deal with the subject of disorders of digestion in a scientific and able manner, and we may say at once that this anticipation has been fully justified. We have endeavoured, in giving full abstracts of these lectures, to present our readers with the most important matters upon which the lecturer touched, and we shall now make it our duty to further discriminate and arrange the material which Dr. BRUNTON has brought forward. If we were asked what two or three salient features chiefly distinguished the character of these lectures we should select the following: The consideration of the subject of diffusibility in regard to the dimensions of molecules; the importance of the part which that class of bodies known as alkaloids may play in the physiology and pathology of digestion; and the question of the action of some of the newer remedies on the intestinal and neighbouring secretions. There can be no doubt that a knowledge of molecular chemistry will prove to be the most solid and lasting foundation of physiology and pathology. The sizes of molecules, their varying constitution, the interaction of the atoms of which they are composed, and the manner in which molecules behave towards one another—these are questions which it is the aim of molecular physiology to elucidate and explain.

With regard to the diffusibility of various substances through membranes, Dr. BRUNTON has given some important information. MORITZ TRAUBE showed in experiments on diffusion through artificial membranes that a membrane of tannate of gelatine would allow nitrate of barium, with a molecular weight of 130·6, to diffuse through it, and would also allow the passage of all compounds having a smaller molecular weight; but it stopped the passage of ferrocyanide of potassium, having a molecular weight of 211·4. "Membranes may thus be regarded as atomic sieves, and if one substance will not diffuse through a membrane which will allow another to pass, we may consider that the molecules composing the substance which diffuses are smaller than those of the other." The importance of such views on the causation of certain forms of albuminuria is very great. The number of atoms in a molecule of a typical albumen is so numerous, and the modes in which these atoms may be arranged are so varied, that albumens are justly regarded as some of the most interesting chemical bodies, and a thorough knowledge of their actions and composition is very necessary; so that we welcome the prominent manner in which Dr. BRUNTON has brought forward physiological facts concerning albumens, and has given them a place in clinical medicine which men of less daring would perhaps have hesitated to assign them. But surely it is only by thus boldly asserting the practical importance of acquired physiological knowledge that we are likely to gain any large addition to a scientific understanding of the processes of disease. It is, however, with the exposition of the share which alkaloids may take in the morbid and healthy economy of the body that we are most pleased.

It is some time since Dr. BRUNTON called attention to the symptoms of nervous depression which are to be attributed to certain forms of indigestion. At that time alkaloids had not been shown to be formed in the body, but now the evidence which we have to prove the presence in the circulation of alkaloids formed in the intestine is identical with that which we have to show their presence when injected subcutaneously. BOCCI has found that from human urine an alkaloid can be extracted which has precisely the same physiological action as that powerful nerve-depressor, curare. And the alkaloid which BOCCI discovered in the urine has been stated to be identical with the alkaloid obtained by BRIEGER from the peptones formed in the process of digestion of fibrin with gastric juice, which has received the name of peptotoxin. These alkaloids may not be of identical constitution, though their action is like that of curare in paralysing the peripheral terminations of the motor nerves.

In respect of treatment, there can be no doubt that readers of Dr. BRUNTON'S remarks on this subject will gain a clearer insight into a rational mode of dealing with patients the subjects of disordered digestion. Under this heading it will perhaps be most useful to take note of the further knowledge which we appear to be acquiring on the mode of action of some of the complex bodies of the aromatic series. The influence of salicylate of soda on the secretion of bile as well as toluylendiamin, may well form a nucleus or starting-point for a most extensive series of investigations. The former of these bodies causes the bile to be secreted in very large quantities of a very fluid kind, whilst the effect of the latter is in the opposite direction. In this connexion Dr. BRUNTON observed: "We do not yet know whether a similar action on the liver is exerted by substances—we may perhaps say poisons—formed during the process of digestion in the intestine. If such substances are formed, their formation might be consequent on something wrong in the food which had been taken, or on some disturbance of secretion or absorption, or might be due to foreign organisms having been taken into the intestinal canal and having produced there abnormal decomposition."

Throughout the lecture the idea prevails that the intestinal canal is a part of the outside world; and the inevitable conclusions from such an idea—that processes allied to those which occur in the main and tributary sewers of our municipal system of drainage may occur in the *primæ* and

secundæ viæ of our inside yet outsides paces—may be drawn without conflicting with our knowledge of medicine, even if a little shocking to our sense of refinement.

THE new Conjoint Board is to be congratulated upon the recognition of the value of its examination scheme accorded to it by the University of Oxford. That university has asked permission for its members, who have passed the earlier stages of study, to be eligible for the final examination without passing through the first and second. On their part the Colleges have resolved to admit to the same privileges any member of an English university. We believe that Edinburgh has made a similar application, so that the next very important matter which the *English* Conjoint Board will have to decide will be whether it should afford equal facilities to the students of the Scotch and Irish universities as it does to the English. At a time when the proportion of Englishmen studying medicine in Scotland is steadily increasing, any proposal to still further encourage this exodus by bestowing upon the students of Scotch universities privileges of the same kind as are afforded to those who prefer to remain in England might lead to opposition. Yet, if the Conjoint Board is satisfied that the anatomical and physiological examinations passed by the graduates of Scotch and Irish universities are of the same stamp as its own, it would be unjust to decline any extension of such privilege to the whole of Great Britain and Ireland. Indeed, the London Colleges must feel gratified that there does exist so widespread a desire to obtain their diplomas, and they will act wisely in not placing any uncalled-for obstacles in the way of candidates. The question is one which, however, demands most careful consideration. Meanwhile, an even more important step is proposed to be taken by the University of Oxford. It is this: it will regard the passing of the final examination of the Conjoint Board as equivalent to the final examination for a degree in medicine; but before conferring the degree it will demand of its graduate evidence of higher study, in, we presume, the form of a thesis upon some subject in scientific medicine. We trust that this scheme will speedily be sanctioned by the university. For although it may be said that Oxford thereby gives up its legitimate sphere of medical examination, it only does so to a certain extent. Its students now spend their final years at the London hospital, for Oxford has not the means of providing a clinical education. To the Oxford student it will have the advantage of diminishing the number of his examinations; whilst the university will retain an influence upon higher medical learning which will do more for medicine than any attempt to resuscitate what has been termed the "lost medical school," in a city which does not possess that very necessary part of a medical school—a wide field for clinical instruction. We shall follow with interest the practical working of these proposals.

A NEW mission hospital is being erected at Hang-Chow, the cost being borne chiefly by the William Charles Jones Fund, administered by the Church Missionary Society. Many English and Americans in China have also contributed, and even the mandarins of Hang-Chow. Dr. Duncan Main is the medical missionary in charge.

Annotations.

"Ne quid nimis."

INDIAN MEDICAL SERVICE.

WE learn from our contemporary, the *Broad Arrow*, that the Indian Government has come to an important decision with regard to the travelling expenses of officers wishing to enter the Staff Corps. "Hitherto officers leaving British regiments to join probationary appointments in native regiments have been obliged to defray their own travelling expenses, on the grounds that they are proceeding to an appointment for their own advantage, and also benefiting pecuniarily by the arrangement. In future these officers are to be exempted from the operation of this rule, and to be allowed passages at the public expense, under the circumstances mentioned." The new regulation appears to us to have an important bearing upon one of the undoubted grievances of the medical officers. We have repeatedly called attention to the injustice done them in being required "to pay their way to all appointments in which they draw higher pay." The expense thus incurred is in many instances greater than the benefit derived, especially in the case of "officiating appointments." So far as we are aware the only reason given for maintaining this rule with regard to medical officers has been that the abolition of it in their case might form a precedent for the exemption being extended to the service generally. The new regulation as regards officers joining the Staff Corps removes this objection at least, and establishes a system which ought, in justice, to be extended to the medical corps. In the British medical service an officer proceeding from one station to another, or from one appointment to another, unless in the case of an exchange between officers at their own request, is entitled to the travelling expenses of his rank, or to a free passage, and it is difficult to understand why a similar rule should not be applied to the officers of the Indian Medical Service. Important changes have within the last few years been introduced into the department in the interests of the public service, many of them by no means acceptable to the officers interested, and we do not think it is too much to expect of the Government that it should endeavour to remove the feeling of discontent which has arisen from the new arrangements by abolishing a regulation so manifestly unjust and impolitic.

THE ELECTION TO THE FELLOWSHIP OF THE ROYAL COLLEGE OF PHYSICIANS.

THE time is now approaching when the list of Members recommended for the Fellowship of the Royal College of Physicians will be submitted for the consideration of the Council. It is to be hoped that the *fiasco* of last year will not be repeated. It will be remembered that, owing to some unaccountable delay, the election had to be postponed till a later period in the year than usual, and that when the list did ultimately appear it gave so little satisfaction to the Fellows that it was referred back to the Council to be modified. The cause for this unparalleled rejection arose not so much from the sin of commission as of omission; it was probably felt that great injustice had been done in passing over the names of certain young physicians who had a decided claim to the honour on account of the services they had rendered to the profession as teachers in their respective schools, as well as having contributed to the progress of medical science by the prosecution of original research. In considering the claims of the various candidates at the forthcoming election, the first duty will be to weigh the merits of the junior members, since early election to the Fellow-

ship greatly enhances the honour, and those only should be selected who have earned a recognised position either by practical teaching, as examiners, or by original research. Next in order, the claims of the provincial members should be considered; and these of late years have increased enormously, owing to the development of many of the medical schools in the large towns. Nor should the Army and Navy be overlooked, nor the claims of some of the most distinguished physicians in our colonies be disregarded. It has been usual hitherto to elect on an average about twelve Fellows annually, but with the great extension of scientific work in the provinces and the establishment of universities in colonies, it may be a question whether this number might not be extended to fourteen or fifteen. Out of this number four Fellowships at least should be conferred on junior members as a mark of special distinction for professional work done in connexion with their hospital or the societies. Five Fellowships might be distributed among provincial members, one for each of the services, whilst three would be hardly too many to meet the requirements of India, Australia, New Zealand, Canada, and the numerous physicians practising in the large cities of Europe and America. Finally, one or two might be bestowed for other than professional work, such as for eminent service to the State, distinction in literature, or for pure science. But whatever course the Council may decide on, it is earnestly to be desired that they will carefully weigh the merits of each candidate as expressed on the nomination papers, and not disregard the recommendation of the junior Fellows with regard to election of the younger members. Above all things, a repetition of the events of last year's election must be avoided if the College desires to maintain the prestige of the Fellowship unimpaired.

GOVERNMENT PRECAUTIONS AS TO CHOLERA.

IT is evident that an organised scheme of inspection by officers attached to the Local Government Board is in progress, and that it has for its principal object to prepare sanitary authorities for the possible importation of cholera into this country in case of a recrudescence on the Continent. On the one hand, we find that Dr. Blaxall, R.N., one of the ordinary medical staff of the Board, is renewing the inspections which he commenced along the sea-coast last autumn; and on the other, it is announced that Professor de Chaumont of Netley is expected to represent the Board at some of the northern ports, and that Dr. Davies, jun., of Bristol is at work in the south, advising authorities as to the measures which they should take so as to be prepared beforehand in case cholera reaches our shores. The value of inspections such as these is very great. The comparative freedom which this country enjoys as regards diseases which are due to preventable causes is largely due to the preventive works which have been carried out during non-epidemic periods, to the sanitary improvements effected by the labours of Mr. Simon, his staff, and their successors, as also to the continuous labours of the present body of officers of health; and it is only by continuing to follow out the principle of being ready beforehand that we can expect to prevent the importation of cholera or to check its progress if it finds its way into our midst. Above all things is it necessary, first, that at all our ports there should be a sufficient staff for inspection purposes, and sufficient means for the immediate isolation of actual or suspected cases; and, secondly, that all sanitary authorities, whether in connexion with ports or inland, should similarly be prepared to deal with the sick, and should get rid of all conditions of filth in their districts which are likely to contaminate the air, water, or food of the community. After the epidemic of cholera in Egypt in 1883 the Italian Government made a number of proposals as to some concerted action on the part of the various European States, with a view of preventing the diffusion of the disease from the East; but, so far as could be judged by the ordinary Italian press, the attitude of Italy was then not such as was likely to secure the end they professed a desire to attain, and the epidemic of 1884 put the question aside for a time. But Italian views have, it is believed, undergone a material change since the proposal was first made; and it is stated that a new proposal of a similar sort has not only been made, but this country has decided to join in an international gathering by sending a delegate. The occasion may be regarded as an opportune one, for the countries in which the late epidemic so specially prevailed, have had an opportunity of learning afresh how utterly futile the sanitary cordons and allied preventive measures, on which they have hitherto relied, become in the moment of danger; and it may be that the more advanced views which have been long favoured in this country, and which have also come to be relied on in Germany, may ultimately form the basis for some general European action against the diffusion of disease.

THE INCREASE OF THE POPULATION OF FRANCE.

AT a late meeting of the Académie de Médecine, M. Rochard, who is evidently fond of statistical inquiries, read a paper on the rate of increase of the French population. Our readers may remember that in the early part of 1883 (THE LANCET, vol. i., page 417, 1883) we had occasion to draw attention to a remarkable attempt made by M. Rochard to estimate the loss in wealth that a nation sustains from such a preventable disease as typhoid fever. M. Rochard has now directed his attention to the causes of the slow augmentation in the number of Frenchmen. The French population grew at the rate of 6·30 per 1000 living at the beginning of the century, whereas the apparent increase is now represented by 3·34 per 1000; the real increase is, however, lower than this estimate, and may be put down as 2·47, a proportional rate which is even too high when emigration is taken into account; so that the actual augmentation of the French population cannot be given as more than 1·65 per 1000. This small increase cannot be explained on the ground of diminution in the number of marriages; for marriages are relatively more common now than they were in the beginning of the century. On the other hand, the number of children born in wedlock would seem to have suffered considerable diminution. This poverty of legitimate births is related to a voluntary abatement of fecundity, as well as to an involuntary loss of fecundity. The doctrines of Malthus, though not well known in France, still appear to be put in practice to a considerable extent. In the provinces the limitation of family would seem to be directly due to anxiety concerning property, whilst in towns the increase in family would lead to increased expenditure, which is so much dreaded. In the higher classes considerations of another kind present themselves. In this case the fear of the fatigue and danger to which the young mother is necessarily liable, and the altered appearances due to pregnancy, which also prevent the full enjoyment of society, seem to be the reasons for wishing to prevent increase of family. Moreover, to have many children is considered to be *mauvais goût*. The report goes on to say that France cannot be allowed to remain idle whilst other nations are in arms, for she needs children for her defence, children born of *le vieux sang français*. The upper paths of life are overcrowded, every one seeks to attain to the highest places; agriculture is deserted; peasants leave the country for the town; the rural population, which was formerly three-fourths of the whole of France, now measures barely two-thirds. M. Rochard concluded his paper by asserting that

"the evil is in our midst, and that public opinion must be brought to bear on the question." M. Le Fort considered that the Civil Code exercised some influence in causing the feeble increase of the population; for in Germany, the only province which did not increase its population was that which still retained the French Civil Code.

LEAD-POISONING.

A CASE was recently brought before Mr. Bushby, at Worship-street, which showed how unsatisfactory the Factory and Workshops Act is so far as concerns the protection it affords to men in factories where unhealthy trades are carried on. In this instance the complainant informed Mr. Bushby that he had been employed at a white-lead manufactory, and that in consequence of the owner not complying with the rules laid down in the Factory Act he had lost the use of his limbs, and that he now wanted to proceed against the owner for the damage he had received. Mr. Bushby was unable to afford the man any assistance, since he could not find that the Act was intended for the protection of men, but only of women and children. If this should prove to be the case, then the sooner the Act is amended the better. It may be all very well to say that men can protect themselves, but it often happens that the men are ignorant of the risks they run, or at least do not know how to guard themselves effectually against the dangers of an unhealthy trade. In this case it was alleged that the owner had failed to secure the attendance of a doctor to visit and examine the workmen at stated intervals, as required by the Act, so that the unhappy man, instead of having the particles of lead removed from his system before they had damaged his tissues, and at a time when treatment might have been effectual, was allowed to continue to imbibe the poison till paralysis resulted. Should such neglect to provide protective medical inspection be proved to be true, we can hardly imagine that a penalty is not incurred, and even should the Factory Act fail to reach the offender, it is to be hoped that the Employers' Liability Act would at least provide the injured man with some compensation for the terrible and lingering disease inflicted on him.

"WHEN DOCTORS DISAGREE."

ON January 19th the Ipswich Borough Coroner resumed and completed an inquiry into the cause of death of a pauper in St. Peter's Workhouse. It was alleged that the deceased woman had been struck on the head by the nurse in attendance, and the object of the investigation was to ascertain if such supposed blow had shortened the duration of life. The post-mortem examination was conducted, at the request of the jury, by Mr. Hetherington, a gentleman disinterested in the case. The body was fairly well nourished. There were two or three insignificant bruises on the limbs; there were four discharging openings on the neck. The scalp, cranium, and dura mater showed no signs of violence having been inflicted. Beneath the pia mater, on the right hemisphere of the brain, was some lymph, the result of recent meningitis. The large curvature of the stomach was infiltrated with cancerous growth, and behind the stomach were some enlarged glands, and also an abscess. The lobe of the right lung was consolidated, and the pleuræ were generally adherent. The right side of the heart was enlarged. It was an interesting and singular fact that during the lifetime of the patient the malignant disease of the stomach had not been suspected; but this may be explained by the circumstance that neither orifice of the viscus was involved. It is true on one occasion the deceased was treated for "colic," but this seems to have been the only symptom referable to the abdominal organs. It passes our comprehension why Dr. Elliston and Mr. Hetherington should have so utterly failed to agree in their opinion as to the cause of death. The former said the fatal issue was due to meningitis; the latter as strongly contended that it was the result of cancer of the stomach. It was a pity they did not recognise the relation that one lesion probably bore to the other. The proximate cause of death may have been meningitis, but surely it was not fair to exclude the antecedent conditions—suppuration in the neck and abdomen and cancer of an important organ. Every pathologist knows that in the advanced stages of malignant disease venous thrombosis is not rare; and may not the meningeal effusion have been the consequence of clotting in the convolutional veins? Again, a patient exhausted by the cachexia of carcinoma is likely to develop secondary pyæmic changes in the presence of purulent foci, such as were found in this case in the neck and abdomen. We leave without comment other points in dispute between Dr. Elliston and Mr. Hetherington, as they were not very material to the inquiry. The view of each one seems to us too exclusive, while the facts as deposed to warranted a very clear expression of opinion of the cause of death. Whether or not the discredit thrown on the nurse was merited it is not our province to decide; but it is only fair to state that from our reading of the evidence there seems no grounds for supposing that deceased succumbed to other than natural causes. The verdict of the jury, which we append, was a sensible one:—

"That the medical evidence brought before the jury being very conflicting as to the actual cause of death, we return our verdict that death arose from natural causes; and we very much regret that, owing to the great difference of opinion of the medical gentlemen, we are unable to say whether death arose from cancer or meningitis. The evidence brought before the jury has disclosed certain circumstances in reference to the death of Maria Cleveland which the jury recommend should be inquired into by the Local Government Board, and they request that the coroner should forward a copy of this recommendation to the proper authorities."

The coroner undertook to comply with the request of the jury.

SANITARY ADMINISTRATION IN IRELAND.

AT the Congress of the Sanitary Institute, which was held in Dublin in 1884, Dr. Edgar Flinn read a paper on the administration of the Public Health Act in Ireland. He explained at the onset that, with the exception of a few towns, such as Dublin (under Dr. Cameron's supervision), the Public Health Act in Ireland was a dead letter, and after making allowances for the differences between England and Ireland, both as regards wealth and other matters, he arrived at the conclusion that the principal cause of the great contrast in sanitary administration was that in Ireland the health officer was the district Poor-law medical officer, whereas in England so many officers of health are either specially skilled or give their whole time to their duties. As an ex-officer of health in England Dr. Flinn contrasted the reception given to health reports by the Irish guardians and by the English guardians respectively, in their capacities as sanitary authorities, and though he drew too rosy a picture of the English reception, at least in a number of sanitary districts, yet his statement that the Irish reports are rarely listened to and are often conveyed straight to the waste paper-basket is, we fear, but too true. As a general rule, it is a great mistake to appoint a certain number of medical practitioners to hold a health office merely because they happen to hold a Poor-law one. And not only so, but since there are nearly always several Poor-law medical officers to each union, the result is that in health matters the sanitary authority have a number of advisers scattered over different portions of their district,

instead of a single one. Owing to this circumstance alone they seek the advice of none. Where a single officer has the duty of advising an authority, a definite responsibility is vested in him, and he nearly always succeeds in performing his duty with some degree of efficiency. Without doubt, the point raised by Dr. Flinn is an important one, and it will have to be dealt with before an efficient sanitary administration is secured for Ireland. But we fear that there are other reasons than the one to which prominence is given for the laxity which obtains across the Channel. Money is scarcer there than with us, the education of the inhabitants in the rural districts has been long and sadly neglected, and even amongst many of the better classes there is not the same appreciation of the value of sanitary work as is the case in England. Ireland, too, lacks the educating element of a staff corresponding with the medical department of the English Local Government Board, and though both countries have need to make more rapid progress than they have done, yet Ireland has the largest amount of lost time to make up.

RESEARCHES ON THE NEUROGLIA OF THE RETINA OF VERTEBRATA.

IN the first part of the *Archives Italiennes de Biologie* for 1885, Dr. Joseph Sacchi gives an account of certain special investigations he has made in regard to the structure of the retina. H. Müller demonstrated before his lamented death that in all vertebrates there was a system of nucleated elements, which he termed fibres, that were sometimes disposed in fasciculi and were sometimes isolated, traversing the whole thickness of the retina from the internal limiting membrane to the external nuclear layer. He further showed that in some animals there was a second supporting system running parallel to the retinal layers. Hence he advanced as a general fact relative to the structure of the retina that in the nuclear layer the supporting apparatus formed by the radial fibres is reinforced. This reinforcement is formed partly by the radial fibres themselves, by means of lateral offshoots decussating in different planes, and in part by special elements which are isolable and belong exclusively to the nuclear layer, such special elements being particularly evident in the retina of fishes. M. Sacchi gives the results of the observations of Rivolta, Golgi and Manfredi, Rampoldi, Dogiel, and Tafani. He has himself examined the retina of Petromyzon, Esox lucius, Tinca italica; Bufo vulgaris, Rana esculenta; Tropidonotus natrix, Platydactylus mauritanus, Emys europæus, Testudo græca; Columba livia; Canis, Felix catus, Bos taurus, Equus caballus, and Cercopithecus. He appears to have obtained the best results in the case of Emys europæus, Testudo græca, and Petromyzon marinus. The eyes were quickly removed after death and placed in a 0·30 solution of osmic acid, and then into one of potassium bichromate of nearly equal strength, and finally into a chloride of sodium solution coloured with eosine. In the Emys, the anterior layers of the retina up to the neurospongium are continuous with one another, and the feet of the rods and cones are seen to be connected with the nuclei situated at different heights in the external nuclear layer. The inter-granular layer is composed of bodies of elongated and usually more or less triangular form, resembling smooth muscular tissue, but giving off branches at various points of the surface which gradually become attenuated, and after dividing dichotomously, end in extremely fine processes. Their contents are homogeneous without granulations or striæ, and there is no trace of a nucleus. Their length varies between 65 μ and 97 μ, and their diameter between 3 μ and 5 μ. The successive layers of the retina in Emys europæus are, then, as follows:—The rods and cones, presenting an external limb, a coloured droplet, an intercalated portion and an accessory portion; an external limiting membrane; the outer granule layer or large visual cells of Dogiel with large basal cellules; the intergranule layer; the internal granule layer with the fibres of Müller and nerve cells situated alongside the neurospongium, constituting the spongioblasts of Müller; the neurospongium; the ganglion cell layer; and, lastly, the layer of optic nerve fibres.

THE POWERS OF WATER COMPANIES.

IN a special report which has been submitted to the Kensington Vestry Dr. Dudfield draws attention to a case in which twenty separate business premises in a mews in his district were suddenly deprived of their water-supply by the action of the Grand Junction Waterworks Company, who severed the service pipes to the several premises because the landlord had failed to pay the water-rates. In this case the landlord's default to make the proper payment seems to have been inexcusable; but Dr. Dudfield refers to the case mainly with a view of showing how needlessly extensive and arbitrary are the powers with which water companies are vested in this matter. Not only can groups of houses be thus suddenly deprived of one of the necessaries of health and life, but if any neighbours or friends were to give those persons whose water has been cut off a supply from their own service pipes, or were to allow them to take enough for their needs, they would render themselves liable to penalties of ten pounds and five pounds respectively; whereas the company could, without resorting to so extreme a measure, recover the rent for water by an ordinary legal process. It is true that in the case in question the company, after the matter had been made the subject of public comment, fixed a stand-pipe in the mews, and so prevented an actual water-famine; but it seems clear that water companies have in this and allied respects powers which are much in excess of those which should be granted to bodies having a monopoly of one of the requisites of life, and we are glad to observe that all the details of the case have been brought under the notice of the Local Government Board, of the Home Secretary, and of the Royal Commission on the Housing of the Working Classes.

DEGENERATION AMONGST LONDONERS.

THE lecture delivered last week by Mr. James Cantlie on "Degeneration amongst Londoners" was received with approval not unqualified by dissent. The address, while true to the concentrated life of many large towns besides London in its general tenour, might be said to be a diagrammatic, or rather a scenic, portrayal of that life. Some of its statements could hardly be received without a qualifying grain, as that, for instance, which declared a pure Londoner of the fourth generation to be impossible. It dealt principally, moreover, with the poorest class of town dwellers, among whom the struggle for existence is seen in its rudest and acutest phase. This fact, no doubt, has served to heighten the colour of the picture. At the same time, it must be admitted that the variation is rather one of shade than of contour, and arises not unnaturally from the necessities of illustration which belong to the subject in question. He who would find the centres of decay in a nation, still on the whole robust and active, must seek for them at the points of social tension. The proofs of pressure, starvation, and atrophy, of vice and of brutal reversion, and of their results are all to be found here. The beginnings of the same process may be watched and often remedied in other grades; in this class, one frequently sees the beginning run on to its end in a single generation. Mr. Cantlie is not disposed to let this happen. He does not speak as a mere melancholic or idle image breaker, but as a practical healer of abuses. His means of cure are two: fresh air and exercise. With regard to the vital importance of each of

these to all normally formed persons there can be no question. The existence of various well-known societies and committees for the direct promotion of wholesome living is evidence enough to this effect. The subject for consideration rather is, how to bring these necessary luxuries—for so they must now be described—within reach of the many who have them not; and for the solution of this problem no answer which is not practical is worth having. Any such answer must of course affect the working of our whole civic system. Work, means, and food, the regulation of working time so as to allow of a fair measure of personal leisure and of sleep, are equally matters of the first significance, and may be said to form in many cases the standing ground required for the operation of all other remedial measures. We have good hope that the national mind, recognising that there is degeneration and that it is curable, will continue to treat it with sympathy, as it has begun to do, and will direct upon it the fresh air of public discussion and the healthy exercise of a wisely corrective legislation.

MILK EPIDEMIC IN THE STATE OF NEW YORK.

DR. F. C. CURTIS gives an instructive account in the Fourth Annual Report of the State Board of Health of New York on a sudden outbreak of enteric fever at Port Jervis in the autumn of 1883. Isolated attacks occurred at intervals from October 1st to the 15th, on which latter day a batch of six cases was reported; eleven attacks took place in the two days, October 24th and 25th; nine, seven, and eleven more were recorded on the next three days, and at intervals up to November 12th the fresh cases averaged some six a day, after which date a subsidence set in, the last case occurring on Dec. 24th. Port Jervis contains a population of about nine thousand inhabitants, and 148 cases of enteric fever occurred amongst them. Previous to the occurrence, the locality had the reputation of being healthy. The outbreak arose, suddenly and subsided with similar rapidity; it was limited to Port Jervis. There were apparently no special foci of infection, the disease being distributed here and there without any special reference to sanitary or other local circumstances; and a comparatively large proportion of the members of each infected family were attacked. By a process of exclusion, Dr. Curtis eliminates many of the ordinary causes of enteric fever distribution; and he then points out that, whereas there were some twelve milk vendors in the place, nearly all the cases occurred amongst some 500 who received their milk from one special vendor; indeed, out of the total of 148 cases, 128 took this special milk. A portion of the milk delivered by the dairyman in question came from a farm in the Neversink valley, and on inquiry it transpired that enteric fever broke out in the family residing there in the previous August, and was still prevalent at the date when Dr. Curtis made his inquiry into the circumstances of the epidemic. After ascertaining all the arrangements carried out in the dairy, Dr. Curtis came to the conclusion that three ways were open for the infection of the milk. In the first place, the well on the premises might have become infected from the deposit of the excreta and the bath water. The infection might also have reached the milk cans either directly by means of the infected air of the premises, or by reason of the cloths used for cleansing the cans, these cloths being at times hung up to dry in a place having direct aerial communication with an infected apartment. And, lastly, it was possible that those coming in contact with the sick might have conveyed infection directly to the milk, owing to the part they took in the dairy operations. Under any circumstances, the milk was not only liable, but almost certain, to receive infection under the operations carried out at the dairy farm. Milk contamination fully accounted for the fact that of those attacked by the disease 87 per cent. were persons supplied by the one dairyman; and it also explained the circumstance that no other cause of disease except milk infection could be ascertained to exist in the place. The discovery of milk as the source of infection also led, by the suspension of the supply, to the cessation of the outbreak. In this dairy farm it is stated that "at least ordinarily scrupulous care" was taken in the handling of the milk. This is often the case when disease follows in the track of the milkman; and it seems quite evident that no such supervision of dairy farms or milk-shops as can in practice be carried out suffices to eliminate all possible sources of infection. Those who drink cooked milk only have invariably escaped milk infection even when subjected to the same influences as those who have been attacked; and each fresh milk epidemic tends to prove that safety against infection can only be secured by the boiling or cooking of all milk used for domestic purposes.

NUISANCE FROM BRICK-BURNING.

THE Society of Medical Officers of Health have recently had under consideration the very general complaint which has been made in the outskirts of the metropolis as to the nuisance arising from the process of brick-burning. During the sultry weather of last summer many persons, it is alleged, were compelled to get up in the night to close their windows against the offensive effluvia, and the Council of the Society express the opinion—first, that there are sufficient reasons for regulating this trade by bye-laws, as other offensive trades have been, with such manifest advantage to the public; and, secondly, that owing to the considerable distance which these effluvia travel, and to the fact that many of the brickfields contributing to the nuisance are outside the metropolitan area, legislation should be general, and apply to areas within a specified distance of centres of population. With the general conclusions arrived at we fully concur, for at present one of the most offensive trades to which towns are subjected is carried out quite regardless of the large amount of discomfort which it occasions to the populations living in the vicinity of the works.

THE LATE REV. DAWSON WILLIAM TURNER, D.C.L.

ON the 29th ult. there died in Charing-cross Hospital, of which institution he was an honorary life governor, a man who, though not a member of our profession, was in deep sympathy with it, and who in some respects was a very remarkable personage. The work of the last ten years of his life chiefly concerns us now, and it may suffice to tell here that Dr. Dawson Turner was the son of the well-known banker of that name in Yarmouth. He was a demy of Magdalen College, Oxford, took deacon's orders, and after some years became head master of the Royal Institution School, Liverpool. Here he did excellent work, and had a succession of distinguished pupils. On resigning his head mastership, he settled in London, and followed with much interest the practice of the surgeons in the out-patient departments of several of the hospitals, notably at Westminster and Charing-cross. He wrote a pamphlet, entitled "Hints and Remedies for the Treatment of Common Accidents and Diseases, and Rules of Simple Hygiene,' which has passed through nine editions. In preparing this he was careful to secure assistance from several of his friends and old pupils in the profession. He was a constant contributor to the Press on subjects connected with hospital management, and was especially interested in securing supplies of books, newspapers, and clothing for the inmates of many of the London hospitals. He visited the wards of one or two hospitals regularly, recited poetry to the patients, listened to their tales of distress, and ministered both to their bodily and spiritual welfare. Spending next to nothing

on himself, he did good by stealth, and none appealed to him with a worthy claim in vain. In addition to several excellent classical works, including his well-known "Notes on Herodotus," he issued a capital series of Analyses of Greek, Roman, English, and French History, and Grammars of the French, German, and Italian languages. His interest in matters medical was dated from an early period, when a schoolfellow of Sir James Paget's; and he was naturally proud of his nephew, Sir Joseph Hooker. Amongst his numerous pupils were the present Bishop of Ripon, Sir George Campbell, Canon Duckworth, and Professor Warr of King's College; he also claimed Dr. Dyce Duckworth and Mr. Thomas Pick amongst these. His only son is now studying medicine in the University of Edinburgh. Dr. Turner was seized with left hemiplegia in the Strand on the 17th ult., and was taken to Charing-cross Hospital. He rallied to some extent, but succumbed to an attack of facial erysipelas, from which he had twice previously suffered. He was in his seventieth year. A friend of the friendless, a humble follower of his great Master, all who knew him are left the poorer by his death—certain, however, that he had well done his work and left a noble example behind him. Of him it may truly be said—"Exstinctus amabitur idem."

THE MEMBERS FOR SOUTH-EAST LANCASHIRE AND THE VACCINATION QUESTION.

IT is curious to watch the dilemma of a member of Parliament with an honest and intelligent mind betwixt the clear duty of upholding vaccination as the greatest boon conferred on humanity by Medicine, and the desire to conciliate the fanatics who see in it nothing but a means of mischief. A case in point occurred on Saturday last, when Mr. Leake and Mr. Agnew were confronted with the anti-vaccinationists. The members stood fairly well to their convictions as regards the propriety of making primary vaccination compulsory; but they might with a little more trouble have easily made out a much stronger case, and might have reminded their well-meaning but unintelligent constituents that within the last few weeks one poor man in London has paid dearly for his breach of this most beneficent law by the death of three unvaccinated children. Mr. Leake's reasoning on the question of compulsory revaccination was a little peculiar. He seems to have had a very remarkable experience on this point. We had better quote his own words: "As for revaccination, his experience of it was so serious and costly—the revaccination of his household in London a few years ago had cost him between £50 and £70—that in the future he would take any risk rather than have the operation done again." Such an unusual and unfortunate experience can be no argument against a system by which the operation would be done for the people for a trifling sum at the public expense. But though we can neither understand nor defend the cost of Mr. Leake's revaccinations, we can assure him that one case of small-pox—even a mild one in his family in the middle of a London season—would be a more costly, serious, and annoying business than even such a bill for revaccination. Mr. Agnew found it equally difficult to be unfaithful to the overwhelming case for vaccination and to resist the enthusiasm of its opponents. He held out a vain hope that, as medical men had given up bleeding, they might one day give up vaccination, and enable members of Parliament to make discreditable pledges to its opponents. Mr. Agnew is not likely to be thus helped out of his perplexity. We are nearing the centenary of the scientific demonstration by Jenner of the protecting virtue of vaccination. Under its influence, well repeated, but not indefinitely repeated, small-pox nurses live with absolute impunity in small-pox hospitals, repeating and confirming Jenner's demonstration to all who have eyes to see. The century is a critical one; but, so far from abolishing vaccination, it is extending the principle embodied in it to other diseases, and science is only grieved that it cannot do so more extensively. Public men will be well repaid, and will do an infinite public service, in informing themselves on this great question, and in courageously stating the teachings of science and of common sense.

TUMOURS OF THE PITUITARY BODY.

PATHOLOGICAL anatomy affords abundant illustration of the principle that morbid action is prone to occur in tissues and organs which have ceased to take any important share in the physiology of the economy. At the Pathological Society on Tuesday last the members were treated to an inspection of several new growths of the pituitary body. The development of the hypophysis cerebri, or pituitary body, as it is commonly called, has been the subject of considerable controversy amongst embryologists. Von Baer and Schmidt taught, in 1862, that the whole of the gland was developed at the expense of the infundibular process at the floor of the third ventricle. In 1838 Rathke stated that a diverticulum from the upper end of the alimentary canal shared in the formation of the hypophysis. Dursy made the pituitary body to be formed out of the end of the notochord, as well as of the epithelium of the alimentary tract. Reichert at first believed this structure to be developed from the remains of the front end of the notochord, but later on he considered that the pia mater was chiefly involved in its formation. Rathke also modified his earlier views, and came to believe that the diverticulum of the alimentary canal disappeared, and that the hypophysis cerebri was developed from a portion of the mesoblast, in front of the clinoid process. Wilhelm Müller wrote an elaborate memoir on the development of the pituitary body, in which he made out that a hypoblastic diverticulum from the upper end of the alimentary tract joined the infundibulum from the third ventricle. Götte and others, however, believe that the epiblast of the stomodæum is concerned in the formation of the diverticulum which goes to meet the infundibular process, and this was the view which Mr. J. B. Sutton adopted at the discussion on Tuesday night. The excellent specimens of the myoneuroma shown by Dr. Hale White contained abundant nerve cells and striped muscle fibre. The mesoblast around the upper end of the alimentary tract is no doubt the source of these striped muscle fibres, and the explanation proffered by Mr. Sutton that a larger amount than usual of nipping off of the epiblast took place is very reasonable, though it seems to us hardly necessary, seeing that it is almost impossible for an epithelial diverticulum to be formed without including some of the mesoblast which invariably surrounds it. All that is requisite to suppose is that this mesoblast underwent an unusual development.

THE USE OF CARBOLIC ACID IN PURULENT AFFECTIONS OF THE CONJUNCTIVA AND CORNEA.

DR. BURNHAM of Toronto, in a paper published in the *American Journal of Ophthalmology*, strongly advocates the use of a 5 per cent. solution of carbolic acid in gonorrhœal ophthalmia, especially in those cases where there are deep transparent excavations. In such cases he directs the patient to be kept in bed; a large basin of cold water, cooled by ice, is placed at the bedside. With this the eyes are to be frequently bathed, whilst cloths wetted with it are to be kept on the lids. The 5 per cent. solution of carbolic acid is to be thoroughly applied every hour. It produces but little pain, and by degrees it is to be exchanged for a 2½ per cent. solution. It acts as an antiseptic and astringent. Dr. Burnham finds it effective in cases of kerato-iritis.

CONVOCATION OF THE UNIVERSITY OF LONDON.

THE adjournment of Convocation to the 3rd instant enabled it to get through the long agenda list which was submitted at the January meeting. A motion by Mr. F. W. Aveling, urging greater limitation in the sphere of examination in Greek and Roman history at matriculation was after discussion referred to the annual committee. It was also resolved that the scriptural examination should be thrown open to all graduates; and another motion, requesting the Annual Committee to frame a scheme for promoting the formation of a union "which should aim at bringing members of the university into frequent friendly and intellectual intercourse," was also carried. Some debate arose upon a proposal that in the selection of examiners preference should be shown to London graduates, and ultimately this was lost by a considerable majority. It was also resolved that Convocation should meet at least three times annually. In the course of a debate upon the D.Lit. degree, the Chairman stated that changes were about to be made in this examination and in that of the D.Sc.—the basis of which is the recognition of original work in higher literature or science as qualifying for the degrees. The rest of the business referred to the M.A. degree, including the passing of a resolution recommending that modern languages be made a branch of that examination.

SANITATION AT WOOLWICH.

IT is strange that Woolwich, an important garrison town, should not only be without a medical officer, but that the local board of health, which by the way until very recently did not number a single medical man among its members, should be strictly within its legal rights in omitting to appoint an officer. The way in which this legal hiatus came about was this: Woolwich was included in the Metropolis Local Management Act of 1855, but by a saving clause the new powers and duties conferred upon metropolitan local boards were not extended to Woolwich; and, on the other hand, this parish is not subject to the Public Health Acts of 1872 and 1875, so that it could only appoint a medical officer under a permissive provision of the Public Health Act of 1848. But the local wiseacres misunderstanding the objects and duties of a medical officer, and the town happening to have been free for some years past from any serious epidemic, maintained that such an officer is quite superfluous. The Local Government Board Inspector, Mr. Spear, who has just issued a report upon the "Sanitary Condition and Administration of the Local Board District of Woolwich," is of a very different opinion. He points out that it is impossible, without the supervision of a skilled medical officer of health, to deal satisfactorily with the overcrowding, infectious disease, unhealthy houses, nuisances, &c., which he found to exist.

DEATH OF DR. W. STORY.

AN inquest was held on the 27th ult. on the body of Dr. William Story, who died somewhat suddenly at his residence at Linslade on the previous night. A verdict of death from natural causes was returned. It will be within the recollection of our readers that at the winter assizes held at Bedford in October, 1881, Dr. Story was convicted on a charge of arson, and sentenced by Mr. Justice Matthew to five years' penal servitude. There being strong reasons to believe that the offence was committed while the prisoner was in a state of insanity, strenuous efforts were made to obtain a remission of the sentence, and a petition was sent to the Home Secretary praying for a mitigation of the punishment. This petition we published in our issue of June 24th, 1882, remarking that if the facts therein stated were correct, the case was one not for suit but for remonstrance. Towards the end of 1883 (we think in October) Dr. Story was released from prison and returned to reside at Linslade, where, as above stated, he died on the 26th ult., aged seventy-two years. He had been seriously ill from time to time after he returned home. We regret to learn that Mrs. Story is left quite destitute; she is sixty-six years of age, and her grievous troubles of the last few years have so impaired her health as to incapacitate her from earning her livelihood. We therefore venture to appeal to our readers on her behalf. Mrs. Story's address is Wing-road, Linslade, Leighton, Beds.

LUNACY REFORM AND POOR-LAW MEDICAL OFFICERS.

AT a meeting of the Council of the Poor-law Medical Officers' Association, held Feb. 3rd, attention was drawn to the proposed Lunacy Law Amendment Bill, from which it would appear that in future Poor-law medical officers will be debarred from examining lunatics, and that such duty will be vested in medical officers of health, the family medical attendant, and superintendents of asylums. It was resolved, "That this Council feels strongly that such a step would throw an undeserved slight on the 3500 Poor-law medical officers of England and Wales. The Council sincerely trust that every Poor-law medical officer in his respective district will at once place himself in communication with his representative in Parliament, so that such Bill may be amended when in Committee."

THE CARRIAGE TAX.

THERE is an earnest and commendable endeavour in progress to promote the abolition of the carriage-tax. Medical men who use carriages chiefly for professional purposes are much interested in the accomplishment of this reform. It is thought that if the tax were abolished there would be a considerable increase in the number of carriages kept, if not in the number of persons keeping carriages. We venture to doubt the accuracy of this conjecture; but, be that as it may, in so far as this burden of taxation falls on the shoulders of those who use carriages for business purposes, it is an impost on industry. Looking at the matter in this light, we are entirely with the promoters of the movement, and they have our warm sympathy.

THE HOSPITAL SATURDAY FUND.

THE eleventh annual meeting of this Fund, under the kindly presidency of Mr. Samuel Morley, was recently held. The promoters, on the motion of Mr. Lucraft, pledged themselves to do all they could to increase the number of collections in workshops. The Workmen's Convalescent Home, St. Margaret's Bay, near Dover, was alluded to with reasonable satisfaction by the President, who offered £400 towards defraying the debt of £2000 remaining on the Home if others would provide £1600. This would enable the committee to receive 100 more patients. Mr. Morley's offer should meet with a hearty response.

BOARDING-OUT OF PAUPER CHILDREN.

MISS ANNETTE PREUSSER complains, in a letter to *The Times*, of the unfairness to those who believe in the boarding-out of pauper children of the action of the Local Government Board. The Board objects to appoint a general inspector of such children because only a thousand are so boarded, and the board of guardians are not allowed to visit and inspect for themselves. We think there is enough evidence in favour of this system to entitle it to a little more encouragement from both guardians and the Local Government Board.

WATER-SUPPLY IN THE ORMSKIRK RURAL DISTRICT.

THE need for a proper water-supply for Burscough Bridge in the Ormskirk rural district has for some time past been under discussion; the existing wells are polluted, and a culvert by the canal which is resorted to is apt to fail in dry weather, and is liable to be fouled by filth deposited by the occupants of boats and barges. When the sanitary authority recently made a move towards procuring a proper supply, they were met by the resolution of a meeting of ratepayers opposing the scheme on the ground of expense; and, apparently fearing to do anything in opposition to these people, the matter is to be allowed to drop. No such resolution can, however, relieve the sanitary authority from the duty it has of seeing that the inhabitants of its district are provided with a proper water-supply, and for any ill results which may ensue in consequence of their failure to make such provision the authority will primarily be responsible.

PROPOSED EXTENSION OF THE ROYAL SURREY COUNTY HOSPITAL.

WE are glad to hear that more than £1700 have already been promised towards the sum of £6000 required for the carrying out of the above desirable proposal. The annual meeting of the governors of the hospital (the president, the Bishop of Winchester, in the chair) will be held on the 28th instant, and we trust on that occasion many additional names with substantial sums attached to them will be added to the subscription list. It would seem advisable that the larger towns of Surrey, especially Guildford, where the hospital is situated, should be actively canvassed with a view to securing small contributions. Not only does "Mony a little mak' a mickle," but it is very desirable that those classes who enjoy the benefits of the hospital should at least have their attention directed to this present opportunity of expressing their gratitude to, and appreciation of, such an excellent institution. Contributions, we may add, will be gladly received by the Treasurer, R. J. Shepard, Esq., Guildown House, Guildford, and by the Assistant Secretary, T. Taunton, Esq., at the hospital.

THE MEDICAL SOCIETY OF LONDON.

THE last Lettsomian lecture was delivered by Dr. Lauder Brunton at the meeting held at the Medical Society's Rooms on Monday last. At the conclusion of the lecture, Dr. Hare proposed, and Dr. Milner Fothergill seconded, a cordial vote of thanks to Dr. Brunton, expressing a wish also that the lectures would be published for the benefit of the profession at large. The vote was passed with acclamation. Elsewhere we have drawn attention to the salient features of these lectures. Next Monday night Mr. Henry Morris will read a paper on Some Points in the Surgery of the Kidney, and an important discussion is anticipated.

THE CASE OF FREDERICK MARSHALL.

THE *St. James's Gazette* is mistaken in supposing that because Frederick Marshall has been sent to Broadmoor as a "lunatic" he is placed there for life without trial. The prisoner is only in the position of an accused person under remand until such time as he can "plead" to the charge against him. If he should recover, he will be put on his trial. If not, he will remain under remand. He could not be better placed in any asylum in the country, and he will be most justly and humanely cared for by those to whose custody he is entrusted. While he is insane he cannot possibly plead "guilty" or "not guilty" to an indictment which is simply suspended—not either quashed or adjudicated upon.

HOSPITAL ELECTIONS.

THE principle of purity of election has just been successfully asserted at the Royal Alexandra Hospital for Sick Children at Brighton. A vacancy having occurred in the office of house-surgeon, fourteen candidates applied. The medical committee sent up to the committee of management the names of three, and recommended one of the three (Mr. Morgan) for selection, he being, in their opinion, the candidate possessing the highest testimonials. The committee of management elected Mr. Morgan. This result redounds greatly to the credit of the majority who voted for him. Mr. Morgan was a perfect stranger, and was not indebted in any way to local influence or patronage for his success. If local institutions generally adopted the above principle, there would always be a plentiful supply of highly qualified candidates for vacant offices. Mr. Morgan was a student of Charing-cross Hospital, where he greatly distinguished himself.

DR. KLEIN ON THE CHOLERA BACILLUS.

AT the meeting of the Royal Society on Thursday last Dr. Klein read a paper on the Relation of Bacteria to Asiatic Cholera, and showed clearly that the "comma bacillus" of Koch does not behave differently in cultivation from the similarly shaped organisms found by Lewis in the mouth and by Deneke in cheese. On many other points—e.g., as to the presence of the organisms in the intestinal mucosa, the action of acids upon their development, &c.—Dr. Klein has arrived at results entirely opposed to those of Koch; and he explains some of these divergences by the difference in time at which the post-mortem examinations have been made. The English Commission made the examinations as early as possible after death, and found that the "comma bacilli" increased in number *pari passu* with the length of time that elapsed between death and the examination. We must defer fuller notice of Dr. Klein's paper till next week.

THE PROPOSED TEACHING UNIVERSITY FOR LONDON.

THE second meeting of the members of the Association for promoting a Teaching University was held on Thursday, the 5th inst., at the Society of Arts, and an Executive Committee was appointed to reconsider the report issued by the provisional committee, to enter into negotiation with the different representative bodies, and to ascertain how far the authorities of the existing University of London were prepared to adopt the main suggestions of the Association. Lord Rosebery has consented to succeed Lord Reay as Chairman of the Association. The Committee includes, amongst others, Professor Marshall, and Drs. Ord, Pye-Smith, and Norman Moore.

CORPORAL PUNISHMENT ON BOARD TRAINING SHIPS.

IN reference to the complaint of excessive corporal punishment of boys on board the *Northumberland*, the following letter has been received from Sir Thomas Brassey, M.P., Secretary to the Admiralty, in answer to a communication from the Society for the Prevention of Cruelty to Children:—

"Admiralty, Whitehall, Jan. 29th, 1885.

"DEAR SIR,—In reply to your letter of the 2nd inst., I have to state that the circumstances have been investigated, and that steps have been taken to prevent the recurrence of the frequent caning of boys which has occurred on board the *Northumberland*.—Most faithfully yours,

(Signed) "THOMAS BRASSEY.

"Dr. D. Buxton, Secretary, London Society for the Prevention of Cruelty to Children, 7, Harper-street, Bloomsbury, W.C."

AT the usual meeting of the Metropolitan Asylums Board on the 31st ult., a letter from the Admiralty was read, stating that if the managers wished to keep the ships *Atlas* and *Endymion*, which were lent some years ago by the Admiralty on an emergency to meet the outbreak of infectious disease, they must be paid for, the *Atlas* being valued at £3400 and the *Endymion* at £6500. It was unanimously resolved that an answer be sent to the effect that the managers would purchase the vessels; but that, having regard to the fact that the managers were the administrators of poor rates, they would be glad if the Admiralty could see their way, after further consideration of all the circumstances of the case, to reduce the amounts named.

AT the request of the committee formed for the establishment of a British Hospital at Port Said, who met for the first time on the 31st ult., Lady Strangford has issued an appeal for funds for building purposes. A site for the hospital was given some years ago; a plan, suited to the climate, of a compact, one-storeyed building, to hold forty beds, has been approved; the furniture, linen, &c., are on the spot waiting to be used; and, most important of all, a sufficient income for the maintenance of the hospital is secure. All that is needed is money for the structure itself. The object is a good one, and we trust that Lady Strangford's request for assistance will not be made in vain.

THE front page engraving of the *Animal World* for Feb. 1st depicts the inside of the accident ward of Charing-cross Hospital, and Mr. Dodson, the house-surgeon, engaged in bandaging the leg of the injured dog, whose sagacity was a theme of comment, a short time ago, in almost every newspaper in the kingdom.

WE have great pleasure in calling the attention of our readers to the resolutions passed at a meeting held on the 15th ult., and reported on another page, in reference to the proposal to mark, by a suitable memorial, public and professional appreciation of the important services rendered by Dr. Maclean, C.B., during his tenure of the chair of Military Medicine at Netley, a post which he is about to vacate.

THE *Opinione*, the leading journal in Rome, announces that on the 1st inst. an illustrious guest *(ospite illustre)*, in the person of the celebrated English naturalist, Prof. T. H. Huxley, President of the Royal Society of London, assisted at that day's sitting of the Royal Academy of the Lincei, of which he is Corresponding Fellow.

THE *Demerara Daily Chronicle* records the death, on December 27th, of Dr. Cameron of Georgetown. The deceased was health officer of the port, chairman of the Board of Poor-law Commissioners, and health officer of the city, and was greatly respected in the colony, where he had practised for over a quarter of a century.

DR. EUGÈNE BODICHON, known chiefly in connexion with his efforts to bring into notice the febrifuge qualities of the Eucalyptus globulus, died on the 28th ult. at Algiers, aged seventy-four.

PROFESSOR GUIDO BACCELLI has been elected President of the Royal Academy of Medicine of Rome.

AT Hull on the 2nd inst., a man was fined forty shillings and costs for having exposed his son whilst suffering from small-pox.

ARMY MEDICAL SCHOOL AT NETLEY.

THE winter session of the Army Medical School terminated on the 2nd inst., when the prizes were distributed before a large company assembled in the lecture-room of the Royal Victoria Hospital, Netley. The War Office was represented by Dr. Crawford, LL.D., Director-General of the Medical Department of the Army; and the India Office by Sir Joseph Fayrer, K.C.S.I., Physician to the Council of India. At the invitation of the Senate of the School, Sir James Paget, F.R.S., presented the prizes to the successful competitors.

The names of the surgeons on probation who passed successfully through the course of special instruction for the medical departments of the British and Indian services, a list of whom will appear in our next, were read by Surgeon-General Longmore, C.B., together with the reports of the results of the examinations, intended for the information of the Secretaries of State for War and India.

Sir James Paget then distributed the awards, accompanying each with appropriate remarks to the recipient, and afterwards delivered an eloquent address to the young military surgeons, which occupied half an hour, and was listened to throughout with the most marked attention by the whole assembly. The text of the discourse may be said to have been a survey from a civilian's point of view of an army surgeon's professional career and responsibilities under the peculiar circumstances incidental to military life, especially when on active service in the field, and a comparison between them and the career and responsibilities of a surgeon in a large sphere of civil practice. A hope was strongly expressed by many present that Sir James Paget would consent to his address being hereafter published *in extenso*.

The Director-General, after a few well-chosen remarks on the address delivered by Sir James Paget, added his congratulations and best wishes to the young surgeons who were just entering the ranks of the public service. The business of the session was then closed, and the company were subsequently entertained at luncheon by the principal and other medical officers in the spacious mess-room of the officers' quarters in the hospital.

THE MACLEAN MEMORIAL.

AT a meeting held on the 15th ult., at the residence of Surgeon-General Sir Joseph Fayrer, K.C.S.I., the following resolutions were unanimously adopted:—

1. Proposed by Director-General T. Crawford, M.D., and seconded by Deputy Surgeon-General J. A. Marston: "That a representative committee, composed of members of the Public Medical Services, be formed for the purpose of taking steps to mark by a suitable memorial their high appreciation of the distinguished services of Professor W. C. Maclean, C.B., M.D., on the occasion of his retirement from the chair of Military Medicine in the Army Medical School at Netley."

2. Proposed by Surgeon-General Sir Joseph Fayrer, K.C.S.I., seconded by Surgeon-General W. A. Mackinnon, C.B.: "That the following gentlemen be requested to act as a provisional committee for the purpose of carrying out the foregoing resolution, with power to add to their number: Surgeon-General Sir Joseph Fayrer, K.C.S.I., Bengal Medical Service (retired); Surgeon-General Sir W. Guyer Hunter, K.C.M.G., Bombay Medical Service (retired); Surgeon-General W. A. Mackinnon, C.B., Army Medical Staff; Inspector-General of Hospitals H. Macpherson, Bengal Medical Service (retired); Inspector-General J. D. Macdonald, F.R.S., Naval Medical Service; Deputy Surgeon-General J. A. Marston, Army Medical Staff; Surgeon-Major J. L. Paul, Madras Medical Service; Brigade Surgeon H. Cayley, Bengal Medical Service; Fleet-Surgeon Walter Reid, Naval Medical Service; Surgeon-Major K. McLeod, Bengal Medical Service; Secretary and Treasurer—Surgeon-Major K. McLeod; Bankers—Messrs. Grindlay and Co., 55, Parliament-Street, London, S.W."

3. Proposed by Surgeon-General W. A. Mackinnon, C.B., seconded by Brigade Surgeon H. Cayley: "That the amount of subscription be limited to £1 1*s*."

4. Proposed by Surgeon-General Sir Joseph Fayrer, K.C.S.I., seconded by Surgeon-Major K. McLeod: "That the proposed memorial take the form of a portrait of Professor

Maclean, to be hung on the walls of the Netley Hospital, and that, if funds permit, a replica of the portrait be presented to Mrs. Maclean."

WILLS OF MEDICAL MEN.

THE will and codicil of Thomas Wright, M.D., F.R.S., late of 4, St. Margaret's-terrace, Cheltenham, Gloucestershire, who died on Nov. 17th last, has been proved by Thomas Lawrence Wright, the son, Joseph Wethered, and William Henry Paine, M.D., the executors, the value of the personal estate in the United Kingdom exceeding £25,000. The testator makes special gifts to each of his children, including the house and premises, 4, St. Margaret's-terrace, to his said son, and there are legacies to his sons-in-law and to a servant. One-third of the residue of his property he leaves to his said son, and one-third upon trust for each of his daughters, Mrs. Wethered and Mrs. Wilcox.

The will of Joseph Luke, M.D., late of Oak Lodge, Green-lanes, Finsbury-park, who died on the 22nd of October last at Hastings, has been proved by Robert M'Clure and Charles Frederick Elsten, the acting executors, the value of the personal estate amounting to over £8000. The testator leaves all his property upon trust for his wife for life, and then for his five children.

The will of Andrew James Scott, M.D., formerly Surgeon in the Madras Army, and of Tiverton, Devon, but late of 4, Anglesea-terrace, St. Leonards, who died on October 21st last, has been proved by William Collier Angove, Mrs. Emma Scott, the widow, and Captain William Augustus Scott, the son, three of the executors, the value of the personal estate exceeding £6800. The provisions of the will are in favour of the testator's wife and daughters and his said son and his children.

The will of John Dan Brown, M.D., late of Rochester, Kent, who died on October 23rd last, has been proved by Arthur Tresco Franklyn Brown, Physician and Surgeon, the son and sole executor. Subject to a legacy to his housekeeper, the testator leaves all his real and personal estate to his said son.

The will of Charles Blakeley Brown, M.D., late of 3, Hill-street, Berkeley-square, who died on October 22nd last, has been proved by Mrs. Emila Brown, the widow and sole executor, the value of the personal estate amounting to over £15,000. The testator devises and bequeaths all his real and personal estate to his wife absolutely.

The will and codicil of Edward Thomas Roe, M.D., late of 18, Kensington-crescent, who died on September 28th last, was proved on the 18th ult. by William Hobbs, the sole executor, the value of the personal estate exceeding £4400. The testator leaves all his furniture and effects and an annuity of £200 to his wife, Mrs. Sarah Roe, and the residue of his property to his two daughters.

The will and two codicils of Mr. James Alexander Guise, Inspector-General of Hospitals, retired, late H.M. Bengal Medical Service, formerly of Elm Grove, Elgin, Scotland, but late of The Knoll Leigh Woods, Long Ashton, Somersetshire, who died on October 4th last, were proved on December 23rd last by Charles Guise, the brother, John Fullerton Beatson, M.D., C.I.E., and Miss Mary Ann Georgina Guise, the daughter, the executors, the value of the personal estate exceeding £4600. The testator leaves legacies to his executors and an annuity to his brother, Francis George. The residue of his property is to be held in trust for his wife, Mrs. Mary Jane Guise for life, then for his daughter, Mary Ann Georgina, so long as she shall remain unmarried, and then for his said daughter and his son, James John.

The following legacies have recently been left to hospitals and other medical institutions:—Mr. Benjamin William Benson, of 2, St. Leonards-terrace, Chelsea, £100 to the London Hospital, Mile-end-road; Mr. Edmund Burke, of 85, Avenue-road, Regent's-park, Barrister-at-Law, £500 to the Cottage Hospital, Walsall, near Birmingham; and Mrs. Elizabeth Lewis, of Nightingale Villa, Clevedon, all her shares and interest in the Clevedon Gaslight Company to the Clevedon Dispensary, and all her shares, stock, and interest in the Clevedon Waterworks Company to the Clevedon Cottage Hospital.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 6020 births and 4188 deaths were registered during the week ending the 31st ult. The deaths showed an increase of 96 upon the number returned in the previous week, and were equal to an annual rate of 24·5 per 1000 of the estimated population of these towns in the middle of this year, against 24·2 and 24·0 in the preceding two weeks. During the first four weeks of the current quarter the death-rate in these towns averaged 24·4 per 1000, against rates declining from 27·7 to 21·1 in the corresponding periods of the six years 1879-84. The lowest rates in these towns last week were 13·5 in Birkenhead, 17·6 in Salford, 18·0 in Derby, and 19·0 in Hull. The rates in the other towns ranged upwards to 30·2 in Plymouth, 32·7 in Preston, 34·9 in Cardiff, and 36·6 in Norwich. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 370 and 372 in the previous two weeks, further rose to 386 last week; of these 141 resulted from whooping-cough, 58 from measles, 56 from scarlet fever, 43 from "fever" (principally enteric), 35 from diphtheria, 32 from diarrhœa, and 31 from small-pox. The lowest death-rates from these diseases, in the aggregate, were recorded last week in Derby, Brighton, and Nottingham; and the highest in Preston, Sunderland, Norwich, and Cardiff. The greatest mortality from whooping-cough occurred in Bradford and Norwich; from measles in Sunderland and Cardiff; from scarlet fever in Newcastle-upon-Tyne and Halifax; and from "fever" in Preston and Norwich. The 35 deaths from diphtheria in the twenty-eight towns included 15 in London, 4 in Liverpool, 2 in Nottingham, 2 in Bradford, and 2 in Cardiff. Small-pox caused 60 deaths in London and its outer ring of suburban districts, and 2 in Liverpool. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had been 1009 and 1092 on the preceding two Saturdays, further rose to 1147 at the end of last week; the admissions, which had been 216 and 287 in the previous two weeks, were 263 last week. The Highgate Small-pox Hospital contained 97 patients on Saturday last, 22 having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 609, 552, and 513 in the preceding three weeks, rose again to 556 last week, and were 16 above the corrected weekly average. The causes of 105, or 2·4 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Leicester, Derby, Norwich, and Plymouth. The largest proportions of uncertified deaths were registered in Oldham, Sheffield, and Huddersfield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had steadily declined from 30·7 to 28·5 per 1000 in the preceding four weeks, rose again to 30·2 in the week ending the 31st ult., and exceeded by no less than 5·7 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 21·4 and 22·0 in Edinburgh and Leith, to 33·7 in Glasgow, 34·9 in Perth, and 41·9 in Dundee. The 738 deaths in the eight towns included 28 which were referred to whooping-cough, 23 to measles, 20 to diarrhœa, 11 to scarlet fever, 9 to "fever" (typhus, enteric, or simple), 7 to diphtheria, and not one to small-pox; in all, 98 deaths resulted from these principal zymotic diseases, against 83 and 86 in the preceding two weeks. These 98 deaths were equal to an annual rate of 4·0 per 1000, which was 1·7 above the mean rate from the same diseases in the twenty-eight English towns. The 28 deaths from whooping-cough showed a further slight decline from the numbers in recent weeks, and included 15 in Glasgow, 3 in Edinburgh, and 3 in Leith. The 23 fatal cases of measles were fewer by 3 than the number in the previous week; 12 occurred in Glasgow and 10 in Dundee. The 20 deaths attributed to diarrhœa showed an increase upon recent weekly numbers, and were 8 above the number in the corresponding week of last year. They included 7 in Glasgow and 5 in Dundee. The fatal cases of scarlet fever and of diphtheria showed an increase; 7 of scarlet fever and 5 of diphtheria were returned in Glasgow. The 9 deaths referred to "fever," of which 5 occurred in

Glasgow, corresponded with the number in the previous week. The deaths attributed to acute diseases of the respiratory organs in the eight towns, which had ranged from 203 to 196 in the preceding four weeks, rose to 214 last week, and exceeded by no fewer than 123 the number returned in the corresponding week of last year. The causes of 86, or nearly 12 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 31·0 and 31·9 per 1000 in the preceding two weeks, further rose to 35·5 in the week ending the 31st ult. During the first four weeks of the current quarter the death-rate in the city averaged 32·4 per 1000, whereas the mean rate during the same period did not exceed 24·0 in London and 23·9 in Edinburgh. The 240 deaths in Dublin last week showed a further increase of 24 upon the high numbers in recent weeks; they included 22 which were referred to the principal zymotic diseases, against 23 in each of the previous two weeks. Of these 22 deaths, 9 resulted from fever, 5 from whooping-cough, 3 from measles, 3 from scarlet fever, 2 from diarrhœa, and not one either from small-pox or diphtheria. These deaths were equal to an annual rate of 3·3 per 1000, the rate from the same diseases last week being equal to 2·1 in London and 1·9 in Edinburgh. The 9 deaths referred to "fever" exceeded the number returned in any recent week, and the 5 from whooping-cough also showed an increase; the fatal cases of scarlet fever, measles, and diarrhœa had declined. Two inquest cases and 2 deaths from violence were registered in the city; and 79, or more than a third, of the deaths were recorded in public institutions. The deaths both of infants and elderly persons showed a considerable increase last week. The causes of 20, or more than 8 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

THE post of Principal Medical Officer, South-Eastern District, which has been vacant since the retirement on the 15th July last of Deputy Surgeon-General W. Stewart, has been temporarily filled by Brigade Surgeon George Langford Hinde; Deputy Surgeon-General R. Wolseley, Sanitary Officer, Aldershot Division, has been appointed Principal Medical Officer, North British District, Edinburgh; Deputy Surgeon-General W. Skeen has been appointed Principal Medical Officer to the troops stationed in the Cork District.

WAR OFFICE.—Army Medical Staff: Surgeon John Buxton, M.B., half-pay, has retired from the Service, receiving a gratuity; Surgeon William Maunsell-Collins, M.D., retires from the Service, receiving a gratuity; Brigade Surgeon W. C. Boyd has been granted retired pay, with the honorary rank of Deputy Surgeon-General; Surgeon-Major R. W. Forsayeth has been placed on retired pay, with the honorary rank of Brigade-Surgeon; Surgeon-Major Robert Hyde has retired from the Service on retired pay, with the honorary rank of Brigade Surgeon.

INDIA OFFICE.—The Queen has approved of the transfer to the half-pay list of Surgeon-Major Theophilus Bolton Wright Plunkett Johnston, of the Bombay Medical Establishment.

ADMIRALTY.—The following appointments have been made:—Staff Surgeon James Dear Smith, M.D., to be Fleet Surgeon in Her Majesty's Fleet; Deputy Inspector-General Michael W. Cowan, M.D., to Bermuda Hospital; Surgeon Samuel Johnson, M.B., to the *Ranger;* Surgeon Francis G. Wright, to the *Asia;* Surgeon W. Eames, to the *Grappler;* Surgeon John L. Aherne, B.A., to the *Sultan.*

ARTILLERY VOLUNTEERS.—2nd East Riding of Yorkshire: Lieutenant Frederick Richard Chapman, M.B., is appointed Acting Surgeon.

ENGINEER VOLUNTEERS.—1st Gloucestershire: Surgeon George Adams resigns his commission; but is permitted to retain his rank, and to continue to wear the uniform of the corps on his retirement.

RIFLE VOLUNTEERS.—1st Cambridgeshire: Acting Surgeon George Edward Wherry, M.B., resigns his appointment.

THE HOSPITALS ASSOCIATION.—The first annual meeting of this Association is to be held on March 11th, when Sir Andrew Clark, Bart., M.D., will preside.

Correspondence.

"Audi alteram partem."

HARVEY'S MANUSCRIPT LECTURES.

To the Editor of THE LANCET.

SIR,—The MS. of the original lectures at the Royal College of Physicians by William Harvey, including his earliest observations on the heart and circulation, and delivered by him in and after 1616, were rediscovered in the British Museum in 1877. I gave a description of the little book, and exhibited an autotype copy of one page in my Harveian oration at the College in 1877. I then suggested that it would redound to the honour of the present generation, and be an advantage to the history of medicine, if the whole of the lectures could be published in autotype, accompanied by an intelligible transcript. The handwriting is so crabbed, and there are so many abbreviations, that no one but an expert could succeed in understanding them. Without the valuable aid of Mr. Bond, now the chief of the British Museum, I should have failed in my attempts to understand much, if anything, of the lectures. By dint of severe labour Mr. Bond succeeded in interpreting one of the lectures, and has now been good enough to make me acquainted with a gentleman who will undertake to transcribe the whole of the lectures. My inquiries lead me to believe that no publisher could be found to undertake the risk of publication in the form proposed, unless guaranteed a certain amount of professional support. On the other hand, I calculate that if from two to three hundred gentlemen would engage to each take a copy at a price not exceeding two guineas, the work might be safely proceeded with. Autotyping is a much more expensive process than ordinary printing, and the honorarium to the transcriber would necessarily add considerably to the cost.

May I ask your permission to submit the question to my professional brethren through your journal whether they will aid in this labour of love of, and admiration for, our great prototype of the scientific physician? I am permitted to state that the Presidents of the Royal Colleges of Physicians and Surgeons warmly support the undertaking.

I am, Sir, your faithful servant,

EDWARD H. SIEVEKING, M.D.

17, Manchester-square, W., Feb. 2nd, 1885.

P.S. Any communications on the subject may be addressed to me, or to Messrs. Churchill, 11, New Burlington-street, W.

CONGENITAL DISLOCATIONS OF THE HIP.

To the Editor of THE LANCET.

SIR,—In his inaugural address,[1] Professor Bennett has alluded to some work of mine in connexion with congenital dislocations, and thinks he has proved that any theory I have advocated "falls to the ground." Contrary to the usual course, Dr. Bennett has in his address discussed a single topic, and has selected this one "by the accident of obtaining a recent specimen of congenital dislocation of the hip." This was taken from a child, six years of age, in whom there was "no evidence of arrest of development as the cause of dislocation." "In discussing the subject his object was to revive the knowledge of what had conferred great honour on the profession of this city (Dublin), and to point out that the pathological facts recorded by his predecessors in the Surgical Society had been too much ignored, notably Hutton's demonstration of the true position of the head of the femur."

In the year 1835, Dr. Hutton[2] brought the case alluded to, of John N——, aged thirty-one, who "had always been an idiot," before the Medical Section of the British Association in Dublin. There was discovered "a remarkable deficiency of development in the right hemisphere of the brain; a great part of the right hemisphere was deficient, and a serous cyst, filled with limpid fluid, five inches in length and between two and three in its transverse diameter, occupied the hiatus." Moreover, there was dislocation of the left hip, together with atrophy of the limb, and contraction and atrophy of the left upper extremity, with sub-

[1] The Dublin Journal of Medical Science, January, 1885.
[2] The Dublin Journal of Medical and Chemical Science, vol. viii., 1836.

luxation of the radius and deformity of this bone and of the bones of the carpus. The whole limb was atrophied, and the forearm was permanently flexed on the arm. These are the cases on which Dr. Bennett founds his argument. He reviews, cursorily, the theories of Dupuytren, and those of Ammon, Cruveilhier, Chelius, Stromeyer, and South, and does not agree with any of them. He writes thus, "The last theory I purpose mentioning is one which has been strongly supported by Mr. South—namely, that the deformity was due to abnormal delivery, to breech presentation of the fœtus, and to force during delivery by the hook or other means applied upon the flexure of the thigh." And he thinks that "the most important theory is that of Guérin—namely, that during fœtal existence some irregularity of nerve action occurred, and the muscles in particular groups became affected for the time spasmodically. Whatever the change was, whether spasmodic action of muscle or simple disorganisation of muscle of any kind, it was followed by retraction of the muscle." And upon this he says, "I assume as the first point that congenital dislocation of the hip, of the shoulder, and of the elbow, and congenital club-foot are all deformities of the same class." And again, "The congenital dislocation of the hip is a single dislocation, varying in degree but not in kind."

Now, I have endeavoured elsewhere to show that congenital dislocations may be divided into two classes—viz., those connected with some abnormality or monstrosity (and these are for the most part subluxations), and dislocation of the head of the femur upwards and outwards, which is not uncommon, and which occurs without other abnormality. I have had forty of these cases under my care, of which thirty-one were double and nine were single dislocations; and, so far as I have been able to learn, with one exception only, all occurred in preternatural labours. The other was the result of violence immediately after birth.

After I had given some attention to this subject, I saw three cases with Dr. Tyler Smith. They all had the peculiar lameness of congenital dislocation, and he told me that all occurred in breech presentations, and that he had assisted the birth with the finger or with the hook in the flexure of the thigh. In these and in other similar cases he had heard a click after making traction, but he did not explain it to himself. In such cases I have never seen anything which would denote spasm; nor in such cases have I met with talipes or other distortion except in one instance. In this case a boy had congenital dislocation of the left femur and double varus; one of his sisters had double dislocation, and the other had dislocation of the right femur. Neither of the sisters had any other abnormality. The mother's pelvis was deformed, and she died in giving birth to a fourth child.

It will be remarked that Dr. Bennett says of his case, a girl six years of age, that there was "no evidence of arrest of development as the cause of dislocation." And he adds that he "was struck with the destruction of the fibres of the gluteus maximus muscle—indeed, they had almost disappeared in places." Now, because there was no arrest of development, dislocation must have occurred through violence, and the violence must have been such as to rupture the fibres of the gluteus maximus. Dr. Bennett thinks that there is no proof of external violence, but that displacement is caused by intra-uterine spasm. Did anyone ever hear of such intra-uterine spasm as to rupture the gluteus maximus? Even Guérin never proposed such a theory. That has been left entirely for Dr. Bennett, and I doubt if anyone will contest the honour of the discovery with him.

With regard to the second case (Dr. Hutton's), it is obvious that it does not enter into the category. I know the preparation, and believe it to be a case of hemiplegia, with subsequent displacement. But whether it is so or not, it is scarcely such a case as should be selected to show "the true position of the head of the femur" in congenital dislocation—a hemiplegic idiot of thirty-one years.

Dr. Bennett thinks that the operation which I proposed, and have frequently done, is "a possibility," but "rather a large order." To anyone who is in the habit of operating, it is simple enough; it may seem terrible to others. The last operation of this kind that I performed was done nine weeks ago. The head of the bone is now well fixed in the acetabulum, and the child can raise the limb easily from the couch. Also, she can stand without apparatus, and can walk. I should be delighted to show this case to Dr. Bennett. It is said that one fact is worth a hatful of theory. I hope I may persuade Professor Bennett that my facts are worth more than his theory.

Yours obediently,

Grosvenor-street, Jan. 29th, 1885. B. E. BRODHURST.

HEMIANÆSTHESIA FROM CONGENITAL BRAIN DISEASE.

To the Editor of THE LANCET.

SIR,—In an annotation which appears under the above title in your last issue with reference to a case which I brought before the last meeting of the Clinical Society, it is stated that the title of my paper could only be justified on the *lucus a non lucendo* principle; and that no evidence had been forthcoming that the affection was congenital. As this statement is not in consonance with the facts of the case, I must ask you to allow me to mention that I expressly stated at the meeting, in reply to a question from Dr. Adeney, that a full history of the case had been given to me by the father of the girl, a very intelligent man. It was to the effect that the primary cause of the child's illness had by her medical attendant been pronounced to be (I am now quoting the *ipsissima verba* from a letter of the girl's father to me, dated April 24th, 1884) "a paralytic seizure at or immediately after birth, *which has affected her left side ever since*, and is more noticeable in her left arm than in her left leg." This seizure was also considered to be the cause of the epileptic fits, from which she had suffered at intervals ever since birth. When she was about twelve months old she was taken to Dr. Russell Reynolds and Sir James Paget, and the former of these gentlemen expressed the opinion that the child could not be expected to talk until it was six or seven years of age.

I trust that these details will satisfy you and the writer of the paragraph in question that the case was really one of congenital brain disease, and not, as he avers, one of functional or hysterical hemianæsthesia. If I had thought it to be one of the latter kind I should not have brought the case before the Society, as I consider that subject to be thoroughly threshed out. My case was, however, one of an entirely different nature, and also a most unusual and exceptional one. For this reason there may naturally be differences of opinion with regard to the localisation of the lesion, and the remarks of Dr. Angel Money were very much to the point in this respect; but that there was really a cerebral lesion, produced at or immediately after birth, cannot for an instant be doubtful. Moreover, if the affection had been hysterical, there would most probably have been the usual phenomena of transfer after the application of electricity, which was not the case.

I am, Sir, your obedient servant,

Harley-street, W., Feb. 1st, 1885. JULIUS ALTHAUS, M.D.

*** Our difficulty in adopting Dr. Althaus' view presents itself in the following light:—If the morbid symptoms which lasted for eleven years without variation depended on a coarse lesion of the brain, and if the case were cured, then it is clear that electricity can get rid of the effects of very chronic organic brain disease—a position which we prefer not to accept until substantiated by post-mortem experience.—ED. L.

THE UNIVERSITY OF LONDON.

To the Editor of THE LANCET.

SIR,—At a recent meeting of Convocation I see that Dr. Curnow moved, and Mr. Christie seconded, "The desirability of holding the preliminary scientific examination twice a year." Could not a proposition somewhat similar in character, but more comprehensive, be carried applying in like manner to all the examinations up to and including those for the degree of Bachelor in all the faculties? This would be a great boon to medical students whose degrees are not ornamental titles, but essential to the practice of their profession. Another point or two also may be considered with advantage to them:—1. Whether the four years of medical study required for the M.B. may not be counted from any time after having been registered as a student of medicine, before or after matriculation, and not, as now, divided into two fixed periods between each examination. 2. The desirability of dividing the subjects of some of the examinations into parts, or if the candidate pass in a certain number of them—say a half—let such subjects be allowed him at any subsequent examination, he not being then permitted to compete for honours. The examinations are so numerous and so severe that some means might reasonably be carried out

to hold them more than once a year, and also to remove those arbitrary periods of study between each examination. If the university should still continue to act as an examining board only, might not something be done to improve the position of those who matriculate by giving them some designation, such as "L.A."—Licentiate in Arts? This examination is acknowledged to be the most severe of its kind, and is also the Arts examination for degrees in Medicine, Law, and Science. If such a designation were granted, no doubt a very much larger number of candidates would come forward than at present. Many of those who pass it never intend going further, and take the examination merely as evidence of a good general education, but find that, without some such designation, it is of little use to them in after-life.

I am, Sir, yours, &c.,

Jan. 11th, 1885. M.D.

THE NEW SCOTTISH CONJOINT EXAMINATIONS.

To the Editor of THE LANCET.

SIR,—As your columns are always open to correspondents who aim at exposing abuses of medical examinations, I would like to make a few remarks on the new Scottish Conjoint Scheme of Examinations, from which great things were hoped for by the friends of the Scottish corporations.

At the first professional examination just concluded, many of the candidates, who were allowed to pass by the so-called just and conscientious examiners, practically knew nothing of their work, and would not have been allowed to pass by any licensing board in England or Ireland. Four candidates I know of actually were advised not to think of presenting themselves, as there was not the slightest chance of their passing, yet every one of these four men entered, and *passed*. It is a well-known fact that in the written part of the examinations wholesale "cribbing" is practised, the candidates being allowed to sit where they like, and they take the advantage of arranging beforehand beside whom they are to sit. These things must be known to the examiners, and yet not the slightest effort is made to prevent their occurrence. The second and final examinations are certainly conducted with ordinary severity, so far at least as the oral and practical parts are concerned; but even in these important examinations the written part of the test is merely a farce, owing to the help given by one candidate to another. It is indeed time that the system of visiting examinations, particularly in Edinburgh (it is not unnecessary even at the university), should be regularly and strictly carried out.

I am, Sir, yours, &c.,

Edinburgh, Jan. 19th, 1885. M.D., F.R.C.S. Edin.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

THE WEATHER AND MORTALITY IN THE NORTH.

SITUATED as we are in the narrowest part of England, and between two seas, we are well accustomed to change of weather; but the present winter has been so far one of the most changeable on record, and is noteworthy, if not for its severity, at least for its variableness. There has been no great amount of disease, and we cannot say that the aggregate mortality has been increased; still there has been some influence very deadly to aged persons within the last few weeks, and our newspaper obituary has been remarkable for the great ages recorded. This mortality in the aged has been observed to be coincident with thermometric changes, sometimes as much as ten and fifteen degrees between two days.

THE HELM WIND.

Attention has been called in the press to the remarkable manifestations of the phenomenon known as the helm wind, which was observed in Carlisle and its neighbourhood on the 16th and 17th ult. It was noticed as a dark-coloured cloud resting like a cap upon a portion of the Pennine range of mountains between Crossfell and the Cheglin Fells, the broken fragments of clouds being driven with great speed from the east; the rustling noise of the wind, which resembled the roaring of a heavy sea when it breaks upon a rocky shore, and the lifting force and whirling sensation peculiar to this wind, being very marked. This remarkable wind is confined to this district of England, and its lifting force is such as to sometimes overturn vehicles and animals caught in its course, which seldom extends beyond seven miles from where it originates. Sometimes there is a second cloud, called the "helm burr," further back and higher than the ordinary beautiful bar, but it was not observed on the late occasion. The Royal Meteorological Society is now obtaining facts, and the results of observations in the various districts where the "helm" blows, which cannot fail to prove of interest when published.

NEWCASTLE LYING-IN HOSPITAL.

The annual meeting of governors was held last week, Dr. Gibson of our city occupied the chair. The report of this useful charity showed that 359 cases had been attended during the past year, and considering the prevalent distress, and that the cases would be among the extreme poor, it is satisfactory to hear that throughout the year there had not been a single fatality.

NEWCASTLE THROAT AND EAR HOSPITAL.

The annual meeting of this charity was held on Monday last, the Bishop of Hexham and Newcastle presiding. The report showed that about 1600 patients had been admitted to the benefits of the institution during the year, being an increase of 400 over the previous year; 673 had been treated gratuitously, while the important amount of £208 had been contributed by voluntary offerings of patients. The institution is quite free from debt, but its increasing popularity renders it necessary for the governors to take steps for its early enlargement.

THE NEWCASTLE INFIRMARY.

The question of the enlargement of the infirmary on its present site or the erection of a building on a new site may now be regarded as settled by the compromise unanimously agreed upon at the late court of governors, in the following terms:—"That the question of the extension of the present infirmary by the erection of a permanent wing be abandoned, and that a temporary wooden building be erected in the garden, at a cost of about £2000;" and, "It being apparent that the time has arrived when the Newcastle-upon-Tyne Infirmary should be removed to a more salubrious situation, the special committee be empowered to negotiate for a new site suitable for the erection of a hospital capable of accommodating 300 or more patients, to be designed in accordance with the latest and most approved principles of hospital accommodation, obtained by open and public competition; to prepare the necessary instructions for designs and plans, and to take steps to obtain the funds necessary for the undertaking." To the speedy and unanimous action of the medical staff the public are indebted for this satisfactory aspect of the question; and yet, to an outsider, it does appear a pity that £2000 and more should have to be spent on a temporary wooden building.

TYPHOID FEVER AT WOLSINGHAM.

A very serious outbreak of typhoid fever has taken place at Wolsingham, in the adjoining county of Durham. Wolsingham is a manufacturing and mining town of about 7000 population. The staple trade is iron and steel, and it is principally among the workers that the epidemic prevails. Over sixty cases are reported so far.

Newcastle-on-Tyne, Feb. 4th.

IRELAND.

(From our own Correspondent.)

BELFAST ROYAL HOSPITAL.

A SPECIAL MEETING of the Corporation was held last week for the purpose of considering the resolution upon religious registration adopted by the Board of Management on the 10th ult. The following was the resolution which the meeting was convened to consider: "That it be the duty of the house-surgeons and physicians to ask the following question of any patient entering this hospital, when in a condition to give an answer—'Do you wish to state your religious denomination?' If the patient expresses such a wish, the surgeon or physician shall enter the name, address, and religious denomination in a book kept for the purpose, to which all clergymen shall have access." After a very

stormy discussion, the following amendment was adopted: "That, considering the absolutely unsectarian character of the Royal Hospital, which has existed for nearly one hundred years, ministered to and supported by all parties and classes in the community, and that the system as at present administered has proved satisfactory to the Board of Management, the medical staff, and the visiting clergy, we decline to make any change in the present management."

BRITISH MEDICAL ASSOCIATION.

The annual meeting of the Dublin Branch took place on the 29th ult. The Council, in their report, referred to the great block that exists in the senior ranks of the Army Medical Department, and appointed last year a subcommittee to draw up a report on the subject. After the Council had received this, they learned that the authorities were then engaged in the consideration of impending changes in the department, and therefore deemed it opportune at such a time to take further action upon it. The Council regretted to say that since the report was received the matters referred to in it had not improved. The meeting passed a vote of thanks to Mr. Edward Hamilton for the manner in which he had performed the office of president during the past year; and the incoming President (Dr. Atthill) delivered his inaugural address on the subject of medical reform.

Dr. Barron has been presented by the students of the Belfast Royal Hospital with an address and a collection of surgical instruments, on the occasion of his severing his connexion as visiting surgeon to the hospital.

Compared with the corresponding quarter of 1883, the returns of pauperism furnished by the Local Government Board for the last December quarter show a decrease of 651 in the average number of workhouse inmates throughout Ireland on Saturdays during the quarter, and a decrease of 1187 in the average number of persons in receipt of out-door relief.

Dublin, Feb. 3rd.

BELFAST.

(From our own Correspondent.)

THE BELFAST HOSPITAL FOR SICK CHILDREN.

FROM the reports read at the twelfth annual meeting of this most popular charity we gather that during the past year there were 342 intern patients, while during the same period there were 8509 out-patients, a number which exceeds that of any previous year. The senior students attending Queen's College have, as heretofore, attended the practice of the hospital. In accordance with a rule by which a physician and surgeon retire alternately, an election was held on January 8th, on which occasion Dr. Byers was unanimously re-elected for four years as honorary attending physician. Dr. Nelson has been appointed honorary oculist. More than one hundred ladies of the committee and other friends have guaranteed to raise each £5 or more, by which a sum of at least £500 will be added to the capital of the hospital before June 1st next. This plan, it was thought, would be better than raising the money by a bazaar. Already nineteen ladies have handed in subscriptions amounting to an average of £7 each.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.

The second annual meeting of this institution was held on January 25th. During the past year 715 new cases have been under treatment, the total number of visits paid by these patients amounting to 3611. The financial statement showed that there was a balance in the treasurer's hands of £10 15*s.* 5*d.*, and the receipts from "pay-patients" during the last year have been £37 1*s.* It is to be regretted that the funds of the institution do not as yet warrant such an increase of expenditure as would provide a few beds for cases of severe illness.

THE SAMARITAN HOSPITAL.

The annual meeting of the friends and supporters of this hospital, which is specially devoted to the "medical and surgical relief of women affected with diseases peculiar to the sex," was held on January 29th. There were 1100 patients treated during the year 1884. Of these 1016 were treated in the extern department and 84 in the wards. The number of visits made by the extern patients was 5798. The patients have contributed £250 to the funds during the year—a very interesting fact.

ULSTER EYE, EAR, AND THROAT HOSPITAL.

During the year ending December 31st last 1961 cases were under treatment; of these 100 had continued in attendance from the previous year, and 1861 were new cases. There were 223 intern patients. The committee have for several years advocated the partially self-supporting system of hospital management. Of the extern patients 1103 paid an entrance fee of one shilling, and 635 were treated free. Of the ordinary intern patients 66 were free, whilst 112 were paid for. Private wards were let to 45 private patients. During the present year senior students of the Belfast Medical School have been permitted by the acting surgeon, with the approval of the committee, to be present at operations. During the year 120 important eye operations, including 60 cataract extractions, 22 operations for squint, and 13 cases of removal of the eyeball, were performed. Three hundred and fifty-eight other operations, including the ear and throat, and minor operations on the eye, were also performed. It has been decided to appeal to the public for funds to carry out the plan of extension of the hospital as recommended by the surgeon, Dr. McKeown. He advised the addition of two day-rooms, two small wards for ear and throat cases, two small wards for contagious cases, a dormitory for an additional nurse, a dark room for oxy-hydrogen light, and open-air exercise ground.

PARIS.

(From our Paris Correspondent.)

PROSECUTION OF MEDICAL MEN IN PARIS.

A RATHER strange prosecution against four medical men was brought before the Correctional police last week by a M. Bouyer, who charged them with malpraxis, which, he stated, resulted in his being disabled for life, and claimed 20,000 francs damages. The charge was founded on the following circumstances:—The plaintiff, who was an "officier de santé," although he never practised, and edited a financial paper, assuming the title of "Dr.," applied to Dr. Piogey for advice for a wound in the hand, accidentally caused by a rusty nail about fifteen months ago. Phlegmonous inflammation having set in and gangrene threatening, Professor Trélat and Dr. Delens, two eminent surgeons, were called in consultation. These gentlemen considered it necessary to make free incision and to apply drainage-tubes, to save not only the patient's arm, but even his life, which was much endangered, as he was also diabetic. The doctors were, moreover, accused of having removed him, contrary to his will, and whilst in a state of delirium, to a "maison de santé," although it was done for his own personal advantage, his own room being in a most insanitary condition. At the "maison de santé" he received every care and attention, and Dr. Piogey, under the impression that the patient was a professional brother, placed his own nephew, who bears the same name, and who is also a physician, in constant attendance on him. The other three doctors paid him regular visits as long as necessary, and on the assumption that the patient was a *confrère*, did not make any charge for their professional services. On his recovery the patient left the "maison de santé," and his first act was to prosecute his benefactors on the charge mentioned above. A more flagrant example of ingratitude can scarcely have been recorded in medical history, and the judges, concurring with this view of the case, rebuked him, and not only did not allow him damages, but condemned him to pay 12,000 francs, to be divided equally among the four doctors.

PRIZES AT THE FACULTY AND ACADEMY OF MEDICINE.

The Faculty of Medicine of Paris has awarded the prix Châteauvillars to Dr. Constantin Paul for his work entitled "The Diagnosis and Treatment of Diseases of the Heart." The Academy of Medicine has divided that portion destined for prizes of the Morbinne legacy among the following gentlemen: Dr. A. J. Martin, 4000 francs, for his work on the "Civil Sanitary Administration in Foreign Parts and in France;" Drs. Straus and Roux, 2000 francs each, for their cholera researches at Toulon; Dr. Van Morris, of Dunkirk, 2000 francs, and to Dr. Amat, military surgeon, 500 francs, for their memoirs on the influence of sea-bathing in the treatment of scrofula in children.

FEMALE STUDENTS AS INTERNES.

The question of the admissibility or the inadmissibility of female medical students to the "internat" of hospitals has just been discussed at the Municipal Council of Paris; and although Dr. Peyron, the Director of Public Assistance, and other members pointed out in strong terms the inconvenience that would arise from the lady students having to eat and sleep in the same room with the male students, their admissibility has been voted by 48 against 25. A compromise, however, has been proposed to the effect that a separate room shall be allotted to the lady students.

UPROAR AT THE SCHOOL OF MEDICINE.

Some disturbance took place last week at the School of Medicine during Professor Robin's lecture, some of the students having resorted to the by no means commendable practice of uproarious interruptions during the discourse crying out "Your resignation!" "Go to the Senate." Professor Robin has never been very popular among the Paris medical students, as he has always been rather severe at the examinations. But this is not the only reason. I believe they simply wish to make the berth which he has occupied for more than thirty years "too hot" for him, so that he may be induced to leave it and make room for someone more in favour. Meanwhile Professor Robin's course of lectures on histology has been suspended until further orders.

Paris, Feb. 4th.

Obituary.

CHARLES CULLEDGE BALDING, M.R.C.S., L.S.A.

A LITTLE more than a year ago we noticed the fact that Mr. C. C. Balding had been compelled to retire from practice at Shefford, owing to continued ill-health; and the occasion was marked by the presentation to him of a complimentary address and testimonial, expressive of the high esteem in which he was held by those among whom he had practised since 1857. The illness from which he suffered terminated fatally on the 24th ult. It was locomotor ataxy, and for nine years he had continued to pursue his unselfish labour amongst all his patients, rich and poor, whilst suffering often from the increasing and agonising pains of that formidable disease. He deserves to be remembered for this heroic struggle against his own physical pain whilst engaged in relieving the sufferings of others. Mr. Balding was the second son of the late Mr. James Balding, of Barkway, who died at an advanced age in September, 1883. Two of his brothers, Mr. D. B. Balding of Royston and Dr. Mortimer Balding of St. Albans, are well known to the profession. All three brothers received their medical education at the Middlesex Hospital. Soon after leaving the hospital Mr. C. C. Balding in the early part of the Russian war accepted an appointment on the Army Medical Staff for service in the Crimea. He was with several personal friends detailed for duty at Eupatoria, where, owing to the failure of the British Commissariat Department, they were subjected to great privations, which told seriously on the health of himself and of those who were quartered there with him. He afterwards served at Trebizond, where he remained until the end of the war. After his return home, in somewhat impaired health, he renewed his work at the Middlesex Hospital, and subsequently, in November, 1857, commenced practice at Shefford, by succeeding to that of Mr. J. M. Layman, whose daughter Ellen he afterwards married. Here he soon gained the confidence of a wide circle, and his professional work became laborious.

The funeral took place at Campton, on Thursday, Jan. 29th. The coffin was of plain oak, and upon it were carried the Crimean medals and sword of the deceased, and numerous wreaths sent by sympathising friends. He was followed to the grave by his three sons and four brothers, and also by Mr. C. Layman (brother-in-law), and the funeral was attended by all the members of the medical profession in the town and neighbourhood, as well as by most of the principal inhabitants. The deceased leaves a widow, and family of three sons and two daughters.

We believe that an endeavour will be made to procure for one of the sons the privileges of education at Epsom Medical Benevolent College, and we cordially commend to the notice of the governors the son of so honourable and heroic a member of our profession.

WILLIAM BRAITHWAITE, M.D.

DR. WILLIAM BRAITHWAITE of Leeds, whose death occurred on the 31st ult., was born in 1807, and was consequently in his seventy-eighth year. After serving an apprenticeship to the late Mr. Thomas Teale, and afterwards to Mr. T. Pridgin Teale, Dr. Braithwaite pursued his professional studies at St. George's Hospital. He became a Licentiate of the Society of Apothecaries in 1828, a Member of the Royal College of Surgeons in 1829, and in 1860 he received the degree of M.D. from the University of St. Andrews. In 1830 he commenced practice in Leeds on his own account, and filled the posts of honorary surgeon to the Eye and Ear Infirmary and lecturer at the Leeds School of Medicine on the diseases of women. In 1840 he commenced the publication of the "Retrospect of Medicine," a work which has proved of much value to, and gained great approval from, the members of the medical profession. Dr. Braithwaite was the oldest medical practitioner in Leeds, and, on account of his professional ability and his sympathetic and kindly disposition, was held in high esteem by all with whom he came in contact.

HENRY A. MARTIN, M.D. BOSTON, MASS.

THIS well-known surgeon died on Dec. 7th, 1884, aged sixty years. He graduated at the Harvard Medical School in 1845, and commenced practice shortly afterwards. On the breaking out of the war in 1862 he was appointed staff surgeon, and served in that capacity at Fort Monroe. Subsequently he became medical director of the department of South-Eastern Missouri, of Norfolk, Portsmouth, and Newbern; and then, in the Army of the Potomac, surgeon-in-chief of the first division of the Second Army Corps. On his resignation he received the brevet rank of Lieutenant-Colonel for "gallant and meritorious services." In 1870 Dr. Martin introduced the Beaugency virus into America: and in 1877 he brought before the notice of the profession the pure rubber bandage, the use of which he proposed in the treatment of ulcers of the leg.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Members of the College on the 29th ult.:—

Dakin, William Radford, M.D. Lond., Edith-road.
Foxwell, William A., M.B. Camb., General Hospital, Birmingham.
Handford, Henry, M.D. Edin., Nottingham.
Lewers, Arthur Hamilton Nicholson, M.B. Lond., Gower-street.
McDonagh, John Michael, M.D. Brussels, Beaufort-street.
Pasteur, William, M.D. Lond., Queen-street, Mayfair.

On the same day the following candidates were admitted Licentiates:—

Adams, Gofton Gee, Oakfield-park, Clifton, Bristol.
Annacker, Ernest, Oxford-street, Manchester.
Bower, Edward Ignatius, Acton-street.
Bowie, Robert Forbes, Huntley-street.
Bury, Herbert Taylor, Granby-street.
Canfield, Ralph Metcalf, M.D. Vermont, Amwell-street.
Cox, Robert Hippisley, Mount-street.
De'Ath, George Hanby, Guy's Hospital.
De Montbrun, Domingo Antonio, Osnaburgh-street.
Dingley, Arthur William, Camden-road.
Downes, Howard, St. Mary's-road, Canonbury.
Fetherstonhaugh, Robert Trevor, Park-road, West Dulwich.
Fisher, Henry Holdrich, Wilmington-square.
Gilbertson, James Henry, Hertford.
Gordon, Frederick William, Brynarlais, Llandidrod Wells.
Gubb, Alfred Samuel, French Hospital, Leicester-square.
Hacking, John Herbert, Old Trafford, Manchester.
Hall, William Hamilton, Claremont-square.
Henry, William George, M.D. McGill, Torrington-square.
Huntington, William, Amberley-street, Liverpool.
Jones, John Arnallt, Tir Caradoc, Talbach.
Josling, Charles Langford, Sidcup.
Kebbell, Charles, Sussex County Hospital, Brighton.
Lake, Richard, Bessborough-gardens.
Laurie, Caspar Robert, Buckhurst-hill.
McKillop, Alexander, M.D. Toronto, Nicholas-street.
Medley, Harold, Thomas Dupuis, Brondesbury Villas.
Messiter, Arthur Frederick, Willington, Burton-on Trent.
Mullis, George William, Penton-place.
Page, Alfred Matthew, St. John's-wood-terrace.
Parfitt, Edward Browne, Maxilla-gardens.
Pulling, Herbert John, Denbigh-street.
Ross, William Albert, Toronto, Canada.
Rugg, George Lewis, Stockwell Villa, Clapham-road.

Shackel, George Arthur, Erleigh Court, Reading.
Smith, Albert, Stockwell-green.
Spry, William, Upper Bedford-place.
Staddon, John Richard, Fentiman-road.
Stewart, George Eland, Coburg-road.
Strickland, Charles, Warwick-road.
Thorold, William Grant, Sussex-street, Pimlico.
Tratman, Frank, St. Peter's-road.
Turner, Frederick Senior, Avenue, Chiswick.
Washbourn, William, Granby-street.
West, Charles James, Buckingham Palace-road.
Williams, Reginald Muzio, Blackheath-hill.
Williams, Robert Richard, Ampton-place.
Winckler, William, University Hospital.

The following gentlemen passed the Primary Examination for the Licence on the 2nd inst.:

A. J. Adie, H. Armstrong, R. D. Barber, W. O. Barsham, H. C. Bartlett, W. Bett, E. G. Blaxland, B. M. Bond, H. B. Brackenbury, C. Christopherson, S. A. Clarke, R. G. Cookson, E. E. Dalton, E. P. Daniell, H. M. L. Dean, H. Debenham, R. B. Eccles, C. H. Evans, F. R. Farmer, M. J. Finucane, N. H. Forbes, F. T. Frost, W. R. Garrould, W. Green, H. E. Hackett, W. Harries, H. J. Hawthorn, E. J. Haynes, C. P. K. Hemming, W. H. Henshaw, C. T. Hudson, F. H. Hudson, J. Hutchinson, T. B. Jacobson, A. G. James, J. A. James, T. John, R. F. Jowers, C. N. Lovely, W. R. N. Maloney, F. G. S. G. Martin, F. R. Miller, E. Morris, W. H. Moyle, S. A. Mugford, G. W. Ord, A. E. Palmer, H. C. Parsons, A. E. Paul, G. Perrin, J. D. Price, W. T. Rayne, R. F. Reading, W. Roalfe-Cox, A. Roberts, P. Rose, H. W. Scratchley, P. I. Shopoff, H. Sieveking, C. S. Simpson, E. S. Smith, H. S. Smith, F. A. Warner, W. D. Wells, H. J. Wheeler, O. A. Wickham, S. Wigglesworth, V. Wigglesworth, C. Wisken, A. B. Woakes, R. W. Wright, T. N. Wright, J. H. Yolland, R. W. Young.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — The following gentlemen, having passed the required examination for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 29th ult.:—

Dingley, Arthur William, L.R.C.P. Lond., Camden-road.
Messiter, Arthur Frederick, L.R.C.P. Lond., Burton-on-Trent.
Thorold, William Grant, L.R.C.P. Lond., Ilfracombe.
Lake, Richard, L.R.C.P. Lond., Bessborough-gardens.
Freeland, Freeland John, L.S.A., Torrington-square.
Wilding, James, L.S.A., Lambourne-road.
Maggs, William Adolphus, L.S.A., Hanover-square.
Thomas, Thomas William, L.S.A., Albert-street.
Shadwell, Harry Winstanley, L.S.A., Hammersmith.
McCabe, William Alexander Bowes, L.S.A., St. Heliers.
Williams, Edward Lloyd, L.R.C.P. Lond., Buckingham-gate.

Admitted on the 30th ult.:—

Bennett, James Robert Abrahall, L.S.A., Lydford, Devon.
Hall, William Hamilton, L.R.C.P. Lond., Lancing.
Guinness, Harry Gratton, L.S.A., Bow.
Staddon, John Richard, L.R.C.P. Lond., Ipswich.
Llewellyn, John, L.S.A., Mount-place.
Barron, Hunter Jackson, L.R.C.P. Lond., Endsleigh-street.
Edwards, Richard, Pontalgoal.
Oakley, William Donald, M.D. McGill, Ontario.
Mason, Francis John Goringe, Woolwich.
Nowell, Barnes, West Kensington.
Southern, Francis Gerald, L.S.A., Ludlow, Salop.
Coleman, William Edward, Albert-street.
Harris, Arthur Wellesley, L.S.A., Exmouth-street.
Kelson, William Henry, L.S.A., St. Peter's-street.
Soutter, James, L.S.A., Hull.
Hartzhorne, Bernard Frederic, L.S.A., Chiswick.
Davidson, Charles Robert, M.B. Durh., Lincoln.
Cropley, Alfred, L.S.A., Swaton, Lincolnshire.

Admitted on the 2nd inst.:—

Smith, Edward John, L.S.A., Brixton.
Rockwood, William Gabriel, M.D. Madrat, Ceylon.
Bencraft, Henry William Russell, Southampton.
Wright, Frank Marsh, L.S.A., Bottesford, Notts.
Stevenson, William Dymes, L.S.A., Kew Gardens.
Bateman, Frederick Augustus Newton, L.R.C.P. Lond., Pall-mall.
Jones, Herbert Charles Walter, L.S.A., Cheltenham.
Ritson, Robert, Maryport, Cumberland.

Admitted on the 3rd inst.:—

Barnett, Frank Septimus, L.S.A., Stoke Newington.
Huzzey, Reginald Lee, L.S.A., Ampthill, Beds.
Brooks, Samuel John, L.S.A., Tollington-park.
Sequeira, Henry James, L.S.A., Jewry-street.
Harcourt, Vincent Xymines, L.R.C.P. Lond., Eastbourne.
Nicholson, Henry Gilbert, L.S.A., Hereford.
Doudney, George Herbert, M.D. Durh., West Dulwich.
Munro, William John, M.B. Edin., Sydney, New South Wales.
Mathews, Frank Edward, L.S.A., Doughty-street.
Thompson, Walter Scott, George-street.

Admitted on the 4th inst.:—

Annacker, Ernest, L.R.C.P. Lond., Manchester.
Dixey, Frederick Augustus, M.B. Oxon., Oxford.
Jackson, Herbert Francis, Ballina.
Laurie, Caspar Robert, L.S.A., Bournemouth.
Wingrave, Vitruvius Harold Wyatt, L.S.A., Guildford-street.

Admitted on the 28th ult.:—

Sillick, James Henderson, Merrick-square.

Of 234 candidates who presented themselves for examination, 89 passed and obtained their diplomas; 45 passed in Surgery only and will receive their diplomas on passing in Medicine and Midwifery, or on obtaining a medical qualification; 17 were referred for 3 months, 76 for 6 months, 4 for 9 months, and 3 for one year.

COLLEGE OF PHYSICIANS IN IRELAND. — At the January examinations the following obtained the licences in Medicine and Midwifery of the College: —

MEDICINE.—W. Beatty, Francis Lindesay Carte, John Joseph Costello, John Alfred Laycock, James Griffiths Whittendale.
MIDWIFERY.—Louis Albert Frederick Bate, Francis Forster Brady, John J. Costello, Samuel Ebenezer Falconer, John Samuel Fenton, John Alfred Laycock, Alfred John Smith.

The undermentioned was admitted a Member:—
Robert Fitzmaurice.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 29th ult.: —

Barnard, Walter Burrows, Charing-cross Hospital.
Bennett, Deane, St. Mary's Hospital.
Bennett, James Robert Abrahall, University College.
Blomfield, George Wills, London Hospital.
Ensor, Edwin Thomas, London Hospital.
Guinness, Harry Grattan, London Hospital.
Haynes, Charles, Charing-cross Hospital.
Jones, Edward Francis, London Hospital.
Long, Frederick William Devereux, Charing-cross Hospital.
Noyes, Alexander, Wellesley Finch, Charing-cross Hospital.
Stephens, William John, King's College.
Weston, Joseph Theophilus, Bengal Medical College, Calcutta.

[After the name of Mr. Ernest Roach, in last week's list read, "Guy's and Queen's Hospitals, Birmingham."]

THE Queen has been pleased to announce to the father of the late Dr. Marshall, Her Majesty's Resident Physician, that she has granted him a yearly pension of £150 for life. Mr. Marshall resides at Crieff, Perthshire.

THE plans for a Paddington-green Park which Mr. Mark H. Judge submitted to the Paddington Vestry in 1883, are now being considered by the Metropolitan Public Garden, Boulevard, &c., Association.

MEDICAL MAGISTRATE. — Alex. W. Macfarlane, M.D., F.R.C.P. Edin., has been placed on the Commission of the Peace for the county of Ayr, on the recommendation of the Lord Lieutenant.

ON the recommendation of Mr. Gladstone, a grant of £100 from the Royal Bounty Fund has been made to Dr. George Gore, F.R.S., in recognition of his eminent services in original chemical research.

DEATH UNDER CHLOROFORM.—An inquest was held in Salford on the 29th ult. on the body of a boy who died in the Salford Hospital while under the influence of chloroform, given previous to the removal of a piece of necrosed bone from the leg. The jury returned a verdict of "Death by misadventure."

THE WELSH LIBEL CASE.—The action brought by Dr. Howell of St. Clears, medical officer to the Carmarthen Board of Guardians, claiming £10,000 from the Board for alleged wrongful dismissal and libel, has been dismissed with costs by the District Registrar of the High Court of Justice.

THE VENTNOR HOSPITAL. — The Royal National Hospital for Consumption and Diseases of the Chest, Ventnor, has just received the grant of a Royal Charter of Incorporation. The petition to the Queen was signed by the Duke of Albany, the then president, a short time before his decease. Lord Rosebery has since consented to act as his successor.

THE EPIDEMIC AT KIDDERMINSTER. — The official report of Dr. Parsons to the Local Government Board upon the enteric fever epidemic at Kidderminster was laid before the Town Council on the 4th inst. The sewers and house drains throughout the town are stated in the report to be seriously defective, and the question of contamination of the water-supply is discussed at some length. Dr. Parsons conclusion is that the cause of the epidemic cannot be be certainly assigned. He points out clearly the steps which ought to be taken as to improved water-supply, amendments in the sewerage, and other matters. The report of the engineer estimates the probable cost of the works required at £250,000.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The usual quarterly court of directors of the Society was held on Wednesday, January 14th, the President, Sir James Paget, in the chair. A sum of £1361 was voted to be distributed among the sixty-three widows

and eleven orphans in receipt of ordinary grants, and the three orphans receiving extraordinary relief from the Copeland Fund. The expenses of the quarter amounted to £61 8s. The acting treasurer announced a legacy of £100, duty free, from Dr. Nathaniel Rogers of Exmouth. Two new members were elected, the deaths of four reported, and the resignation of another accepted. Fresh applications for grants were received from three widows, for themselves and four children, and, on the report of the committee of visitors, assistance was given to all.

THE GERMAN HOSPITAL.—The report which was read at the recent annual general meeting of the subscribers to this institution stated that the number of in-patients during 1884 was 1822, of whom 353 were cases of accidents, most of them English; 45 were admitted into the sanitorium; 351 gained admission into the Convalescent Home at Dalston, and as many as 34 were sent to the Convalescent Hospital at Eastbourne. The number of out-patients last year was as follows:- At the Hospital Dispensary (including 200 cases of accidents treated as out-patients, three-fourths of them being English), 15,921; at the Eastern Dispensary of the institution, 3994; at the Western, 1760; dental cases, 1093; making a total (together with 1822 in-patients) of 24,590.

DEATH OF MR. GEORGE J. FORD.—It is with regret that we record the death, on the 3rd instant, at the Royal College of Surgeons of England, of Mr. George Jaques Ford, at the age of sixty-five, from Bright's disease. Born on Dec. 11th, 1819, at Balsham, Cambridgeshire, he entered the service of the College as hall porter in 1840, where during upwards of forty-four years he secured the esteem, trust, and indeed friendship of all the officers and servants. During his illness he was attended by Dr. Frederick J. Goodhart with unceasing care and kindness. The older Fellows and Members of the College will miss a well-known face on entering the College, and one which served as a connecting link between the past and the present. By his death the College loses an old and trustworthy servant. The funeral will take place at Kensal-green Cemetery to-day (Saturday), at 2.30 o'clock.

HUNTERIAN SOCIETY.—The annual meeting of this Society will be held on Wednesday, Feb. 11th, at 7.30 P.M.; after which, at 8 P.M., the oration will be delivered in the theatre of the London Institution by Dr. F. Charlewood Turner. The annual dinner will be held at the "Albion," Aldersgate-street, on Friday, Feb. 13th, at 6.30 P.M., Dr. Robert Fowler, President, in the chair. The following is the list of officers for the ensuing year:—President: Dr. Pye Smith. Vice-Presidents: Dr. Major Greenwood, Mr. W. C. Toulmin, Mr. William Clapton, Dr. Stephen Mackenzie. Treasurer: Dr. Fotherby. Trustees: Dr. Fotherby and Mr. De Berdt Hovell. Librarian: P. L. Burchell, M.B. Orator: Sir Andrew Clark. Secretaries: Mr. Charters Symonds and Dr. Charlewood Turner. Council: Drs. Carrington, Robert Fowler, E. G. Gilbert, J. Dundas Grant, W. Talbot King, John Millar; Messrs. G. Ernest Herman, F. M. Corner, Charles Davidson, T. R. Fendick, W. Rivington, R. G. Tatham.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BERRINGER, Mr. J. J., has been appointed Public Analyst for the Borough of Penryn.

BROWNE, GEO. HENRY, L.F.P.S.Glas., L.R.C.P.Ed., L.A.H.Dub., has been appointed Public Vaccinator for the Llanelly District of the Crickhowell Union.

CARRINGTON, R. EDMUND, M.D.Lond., M.R.C.P.L., has been appointed an Assistant-Physician to Guy's Hospital.

CASSAL, Mr. C. E., has been appointed Public Analyst for the Parish of Kensington.

CLUBBE, C. P. BARLEE, L.R.C.P.Lond., M.R.C.S., has been appointed Honorary Surgeon to the Children's Hospital, Glebe, New South Wales.

CRESSWELL, THOMAS HOBBES, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Arncliffe District of the Settle Union.

EAKINS, GEORGE REGINALD, M.D.Brux., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Honorary Consulting Physician to the Echuca Hospital, Victoria.

ESSER, HENRY C., M.R.C.S. & L.S.A.Lond., has been appointed House-Surgeon to the Birmingham and Midland Eye Hospital.

GROOM, HENRY THOMAS, M.R.C.S., L.S.A.Lond., has been appointed Assistant Medical Officer to the Walton Workhouse, West Derby Union.

HARLAND, Mr. R. H., has been appointed Public Analyst for Greenwich.

HICKS, BRAXTON, M.D.Lond., F.R.C.P., F.R.S., has been elected an Honorary Physician to the Royal Maternity Charity.

JOHNSON, CHARLES HENRY, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Fourth District of the Basingstoke Union.

JOHNSTON, M., M.R.C.S., L.R.C.P., L.M.Lond., has been appointed Junior Assistant Medical Officer to the Sussex County Lunatic Asylum, Hayward's-heath.

KING, ARTHUR, L.D.S., has been appointed Dental House-Surgeon to the Dental Hospital of London.

LYON, THOMAS GLOVER, M.A.Camb., L.R.C.P.Lond., M.R.C.S., has been appointed Clinical Assistant to the Hospital for Diseases of the Skin, Blackfriars.

MANSELL-MOULLIN, JAMES ALFRED, M.A., M.B.Oxon., M.R.C.P., M.R.C.S., L.S.A.Lond., & L.M., has been appointed Assistant-Physician for Diseases of Women at the West London Hospital, vice Albert Venn, promoted.

PARKES, LOUIS, M.D., S.Sc. C.Lond. Univ., has been appointed Medical Officer to the Mansion House Council on the Dwellings of the Poor, vice B. A. Whitelegge, M.D., B.Sc., resigned.

POWELL, JOHN JOS., M.B.Lond., M.R.C.S., has been appointed House-Physician to the Queen's Hospital, Birmingham.

PRIEST, JAMES DAMER, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Waltham District of the Edmonton Union.

SAUNDBY, R., M.D., C.M.Ed., M.R.C.P.Lond., has been elected Physician to the Birmingham General Hospital, vice Dr. Russell, resigned.

SAUNDERS, W. SEDGWICK, M.D., L.R.C.P.Ed., M.R.C.S., has been reappointed Medical Officer of Health and Public Analyst for the City of London.

SMITH, Mr. C. R., has been appointed Deputy Assistant Dental House-Surgeon to the Dental Hospital of London.

STEELE, RICHARD, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer to the Cottage Homes, Leicester Union.

VENN, ALBERT, M.D.Aberd., M.B. & C.M., M.R.C.P.Lond., has been appointed Physician for Diseases of Women at the West London Hospital, vice Alfred Wiltshire, F.R.C.P.Lond., M.D. St. And., resigned.

VIPOND-CROCKER, J. C., L.D.S., has been appointed Assistant Dental House-Surgeon to the Dental Hospital of London.

WALKER, E. B. C., M.B., M.C.Ed. (late Junior Assistant Medical Officer), has been appointed Senior Assistant Medical Officer to the Sussex County Lunatic Asylum, Hayward's-heath.

WILLIAMSON, HARRY MAJOR LECKENLY, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Clapham District of the Little Union.

Births, Marriages, and Deaths.

BIRTHS.

GIFFARD.—On the 27th ult., at Pavilion-parade, Old Steine, Brighton, the wife of Douglas W. Giffard, M.R.C.S., of a son.

LARKIN.—On the 24th ult., at Grove-park, Kent, S.E., the wife of F. G. Larkin, L.R.C.P., M.R.C.S., of a son.

O'BRIEN.—On the 26th ult., at Peshawur, Punjab, India, the wife of Surgeon-Major T. B. P. O'Brien, Army Medical Department, of a son.

PARSONS.—On the 28th ult., at Whitworth-road, South Norwood, the wife of H. Franklin Parsons, M.D., of a daughter.

ROOME.—On the 1st inst., at Fluelen House, Guildford, the wife of Henry A. Roome, M.B., of a son.

MARRIAGES.

BENJAFIELD—WILKINSON.—On the 29th ult., at New College Chapel, London, William B. Benjafield, M.B.Ed., of Edmonton, to Miriam Alice, daughter of Joseph Wilkinson, of Foley-avenue, Well-walk, Hampstead-heath.

LUKIS—STEWART.—On the 20th ult., at Cawnpore, India, Charles Parley Lukis, Surgeon Bengal Medical Service, to Lilian, daughter of John Stewart, Esq., of Ardvorlich, Perthshire, Colonel Royal Artillery, Cawnpore.

PORTER—CHAMBERS.—On the 29th ult., at St. George's, Hanover-square, J. Francis Porter, M.D., to Edith S., only child of G. Chambers, Esq.

SPARROW—PILLING.—On the 29th ult., at St. Luke's Church, Southport, Robert Lancelot Sparrow, M.R.C.S., to Louisa, younger daughter of the late James Pilling, Stone Hill, Rochdale.

DEATHS.

BRAITHWAITE.—On the 31st ult., at Clarendon-road, Leeds, William Braithwaite, M.D., in his 78th year.

BRUCE-JOY.—On the 28th ult., at Pembridge-gardens, Bayswater, William Bruce-Joy, M.D., formerly of Leeson-street, Dublin, in his 65th year.

CAMERON.—On Dec. 30th, 1884, at his residence, Main-street, Georgetown, Demerara, British Guiana, Alexander Gordon Matheson Cameron, M.D., youngest son of the late Capt. John Cameron, 79th (Cameron) Highlanders, aged 58.

MARTIN.—On the 19th ult., at Oundle, J. C. Martin, M.R.C.S., aged 68.

MCNAY.—On the 29th ult., at Scardeburg, Bournemouth, Annie Elizabeth, eldest surviving daughter of the late Thomas F. McNay, M.D., F.R.C.S., of Newcastle-upon-Tyne. No cards.

MIDDLEDITCH.—On the 29th ult., at his residence, Ladbroke-grove-road, W., Henry Arthur Middleditch, M.D., M.R.C.S., L.S.A.Lond., aged 62.

PARROTT.—On the 31st ult., at his residence, Clapham-common, S.W., John Parrott, M.R.C.S., in his 65th year.

WILLIAMS.—On the 18th ult., at Zanzibar, of malarial fever, John Alexander Williams, M.B., M.R.C.S., Medical Officer to Her Majesty's Consulate, aged 29. By telegram.

WORTHINGTON.—On the 31st ult., at Lowestoft, William Collins Worthington, F.R.C.S., in his 85th year.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths*

Medical Diary for the ensuing Week.

Monday, February 9.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. each day, and at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

MEDICAL SOCIETY OF LONDON.—8 P.M. Mr. Henry Morris will open a Discussion on some points in the Surgery of the Kidney.—Mr. James Startin will show Cases of Lupus cured by Caustics.

Tuesday, February 10.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 P.M., and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M., and on Fridays at 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M., and on Saturday at the same hour.

ROYAL INSTITUTION.—3 P.M. Prof. Moseley: Colonial Animals.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. Mr. H. H. Johnston: The People of East Equatorial Africa.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Dr. D. Lowson: Case of Displacement and Fracture of the Axis.—Mr. Richard Davy: The Radical Cure of Club-foot, with exhibition of Cases.

Wednesday, February 11.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour. Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

HUNTERIAN SOCIETY.—7.30 P.M. Annual Meeting.—8 P.M. Oration by Dr. F. Charlewood Turner.

EPIDEMIOLOGICAL SOCIETY OF LONDON.—8 P.M. Major K. McLeod: The Prevalence of Epidemic Roseola in Calcutta.

ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Presidential Address, illustrated by Lantern Microscope: On the Life History of a Septic Organism hitherto unrecorded.

Thursday, February 12.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Dewar: The New Chemistry.

THE PARKES MUSEUM OF HYGIENE.—8 P.M. Dr. Percy Frankland: The Selection of Water for Domestic Supply.

Friday, February 13.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

MEDICO-PSYCHOLOGICAL ASSOCIATION.—4 P.M. Dr. Hayes Newington: The Influence of Minor Uterine Troubles on Insanity.—Dr. Hack Tuke: The Insane in the United States.

CLINICAL SOCIETY OF LONDON.—8.30 P.M. President's Address.—Dr. Hale White: A Case of Myxœdema, with a Post-mortem Examination.—Dr. Carrington and Dr. Hale White: Two Cases of Phlegmonous Pharyngitis.—Dr. Hughes Bennett: A Case of Locomotor Ataxy without Disease of the Posterior Columns of the Cord.—Dr. Seymour Taylor: A Case of arrested Rickets (living specimen).

ROYAL INSTITUTION.—9 P.M. Sir John Lubbock: Forms of Leaves.

Saturday, February 14.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—3 P.M. Prof. John Marshall will deliver the Hunterian Oration.

ROYAL INSTITUTION.—3 P.M. Mr. G. Johnstone Stoney: Operations which go on between Molecules.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, February 5th, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Jan. 30	29·32	S.W.	48	47	...	53	47	·12	Raining
,, 31	29·11	S.	45	43	...	48	42	·07	Cloudy
Feb. 1	29·14	S.W.	45	43	...	51	41	...	Cloudy
,, 2	29·31	S.W.	50	47	...	55	42	...	Cloudy
,, 3	29·22	W.	46	44	...	51	43	·06	Cloudy
,, 4	29·40	S.W.	42	41	...	48	39	...	Cloudy
,, 5	29·35	S.W.	40	38	...	46	33	·25	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

EAU DE TABLE.

IT has often been a matter of surprise that an agent of such prime importance in vital processes as oxygen undoubtedly is should so long have remained in a comparatively obscure position as a remedial agent. But the fact is, that in its ordinary form oxygen gas does not seem capable of direct employment with any special advantages. The attempt now made by Messrs. Brin Frères of Paris-Passy to introduce into use a distilled water saturated with oxygen must be regarded in a very favourable light. The profession in France seem to have taken eagerly to this new preparation, and it is being largely employed in hospitals for the purposes of inhalation in various diseases. In the preparation of the "eau de table" filtered water is stated to be used and then saturated with pure oxygen. In a cylinder capable of supporting a pressure of 300 lb. to the square inch a certain quantity of oxygen is dissolved in the water, while the excess of gas which has not been taken up remains imprisoned in the water, which is then put into bottles and syphons. The water is used for ordinary drinking purposes, and, mixed with wine or other liquors, is said to develop their aroma. It appears to have been useful in many diseases of the digestive and urinary organs.

Dr. Robert Bell.—We shall be happy to give attention to the matter on receipt of the sample.

Mr. Joseph Abbott.—We are unable to comply with the request.

"PRURITUS VULVÆ."

To the Editor of THE LANCET.

SIR,—In compliance with the request of "M.D." for suggestions in the treatment of pruritus vulvæ, I would refer him to the history of a case recorded by me in THE LANCET of Dec. 6th, 1884, under the heading of "The Spinal Cord in Health and Disease" (Case 14), and would advise that he treat his patient in a similar manner, and to kindly inform me of the result either privately or through THE LANCET. Your correspondent does not state whether his patient's ailment is complicated with pregnancy; but I should regard its concomitance or otherwise immaterial to the issue, as, if my theory of the causation of the disease be correct, and that it is due to central and reflex agency, no merely local medication can effect a cure. My plan is simply vesication over the spine at the region of the fourth and fifth dorsal vertebræ, which limited zone I have demonstrated stands in pathological relation with disease in many distant organs.—Yours truly,

Belfast, Feb. 3rd, 1885. ALEXANDER HARKIN, M.D., L.R.C.S.

M.D. (S.E.) would do well not to use the ordinary form of death certificate. He cannot legally certify.

Mr. George Abbott (Tunbridge Wells).—Next week.

Mr. Spreull (Dundee).—The letter has not been preserved.

OVARIOTOMY IN CHINA.

THE ovariotomy recently performed at Shanghai by an American lady doctor has been made the subject of an illustration in a pictorial magazine published for the instruction and amusement of natives by a Chinese printing establishment in Shanghai. The drawing is curious in many respects, none of its details being correct, and is accompanied by an explanation in which Chinese doctors are branded as humbugs who shelter themselves behind the inevitable course of nature when a patient dies, and bombastically take credit for great skill when nature in spite of them brings about a cure.

Messrs. Ferguson and Co.—Galton's whistles can be obtained, properly graduated, of Mr. J. P. Hawksley, acoustical instrument maker, 357, Oxford-street, W.

Practitioner.—It is impossible to lay down an inflexible rule. It is better to follow the custom which has prevailed in the place.

MEDICAL PRACTICE IN THE ARGENTINE REPUBLIC.

To the Editor of THE LANCET.

SIR,—In your issue of Jan. 24th there is a paragraph referring to the Argentine Republic as an El Dorado. If this is so, things must have changed since I was there in 1865, though, according to the letter quoted from the *South American Journal*, matters seem much the same. I would strongly urge would-be participators to make further inquiries. It is quite true that there is a Government Medical Board, of which every (passed) medical man resident in Buenos Ayres is a member, to whom is entrusted the examination, in Spanish, of all foreigners desiring to practise in the Republic. It did not follow, however, that passing or failure at the examination was any criterion of the knowledge of the candidate. It was an open secret at the time I am writing of that unless the candidate had entered into partnership with one of the resident medical men, therefore an *ex-officio* member of the Examining Board, either paying a considerable sum for the position, or in some way giving an equivalent, his chance of passing was very limited. I may perhaps be allowed to illustrate the fact by my own case. I was offered £500 per annum to become an assistant to an Englishman having English qualifications and qualified according to the laws of the Republic, with the further advantage of a partnership after five years, on condition that I passed the Medical Board. This seemed so good that I was on the point of accepting the offer, when a friend, an old resident in Buenos Ayres, informed me that the medical man in question had already tempted others in a similar way; but, on presenting themselves for examination, the result was uniform—they were plucked. It was openly suggested that an arrangement had been come to between members of the Board by which some member other than his partial plucked the candidate, and expected a similar return from his brother members when occasion required. Without passing this examination you have no *locus standi*, cannot recover fees, and, moreover, are liable to prosecution in any unsuccessful case.

I very much doubt if such sums as are mentioned have ever been paid, save in some exceptional case, though no doubt fees are higher than with us. Expenses, too are very heavy, greater even than in England, and very few of the most successful practitioners seem to be able to leave their families free from all anxiety in pecuniary matters at their decease. I am sorry to throw cold water on anything that gives a hope that the profession may find a "trump" at last; but perhaps a word of warning may lead enthusiastic beginners to realise that there are two sides to the story. Persons and things may have changed during the last twenty years; but such a close borough is not likely to have yielded its secrets without a hard fight, and anyone who knows South American politics will not be surprised if something akin to what I have described has survived to the present day.

I may add, the dollar when not specie represents 2½*d.* in this depreciated state. While I was there the Government fixed the value of the English sovereign by authority—viz., 122½ dollars paper.

I am, Sir, yours faithfully,

Jan. 31st, 1885. J. R. L.

Mr. J. Lawrence.—Messrs. Richards, Glanville and Co., 4, Brown's-buildings, St. Mary Axe, E.C.

Dr. Gilbert (Louvain).—There is no smaller English work than Green's Manual of Pathology, or Woodhead's Practical Pathology.

Dr. Moyer's paper will appear in an early number.

LOCK HOSPITALS IN INDIA.

To the Editor of THE LANCET.

SIR,—It is stated, apparently on good authority, in *Allen's Indian Mail* Jan. 24th, that, as an experimental measure, it has been decided to close the lock hospitals at a number of stations in the Bengal Presidency, among the rest, those at Allahabad and Cawnpore. I am aware that for some time past this view has been impressed on the Government by some of the leading sanitary authorities in India, and at last apparently with success. Allow me to say that, having had many years' experience of the working of lock hospitals in India, especially at Cawnpore, I consider the step now taken to be not only a retrograde one, but also one fraught with danger to the soldier and loss to the State. If this step be carried out we may expect a large increase of sickness from the most intractable form of disease, and when too late the folly of the step will be apparent.—I am, Sir, your obedient servant,

Dublin, Jan. 25th, 1885. J. B. HAMILTON, M.D., Surgeon-Major, Medical Staff.

TESTS FOR HEARING.

PROFESSOR A. GRAHAM BELL has recently added to the instruments for measuring the acumen of the senses by the construction of an apparatus for determining the capacity of the ear. It has been described as a telephone receiver with a rotary circuit breaker revolving at a sufficiently high speed to produce a note of uniform pitch to the listener at the telephone. By means of increasing the distance between two coils in the circuit the current is diminished, and the sound at the telephone weakened until inaudible. By means of a scale showing the distance between the coils a standard is obtained for the representation of the acuteness of the hearing. It has been found that equal capacity of both ears is exceptional, most persons having a marked difference in this respect. From the results of a number of tests among the public school children in New York, Professor Bell estimates that 10 per cent. have slight defects in hearing, and that 1 per cent. are too deaf to receive benefit from the ordinary modes of instruction.

Mr. E. J. Gurdon.—The London office of the *South American Journal* is at 37, Walbrook, E.C.

SOUTHERN CALIFORNIA AS A HOME FOR CONSUMPTIVES.

To the Editor of THE LANCET.

SIR,—Some years ago, when wintering at Mentone, my attention was directed to an English institution there of a semi-charitable nature for the benefit of consumptives. The plan on which it was conducted was as follows: Patients were received for a weekly payment of, I think, £1 1*s.*; the balance necessary for the support of the institution was obtained by voluntary contributions from the charitable public.

I desire to draw attention to Southern California as a field for a charitable institution similar to the above. The advantages of this locality, as compared with the south of France, may briefly be stated as follows:—1. The climate is for consumptives the best in the world; it is not too hot in summer, and is not as cold or as wet as Mentone in winter. 2. Persons possessed of some capital can purchase a few acres of land, and make a living by fruit farming. 3. Persons without means will have a fair chance of getting some light employment which will enable them to support themselves. 4. Persons suffering from consumption should have some occupation to prevent them dwelling on their physical infirmity; the out-door occupation of cultivating, or superintending the cultivation of, a small tract of land is probably the best. Land can be purchased here in small or large tracts; and if a judicious purchase be made, it will be a profitable investment, apart from the consideration mentioned above. 5. Many persons in delicate health go to Mentone for one winter and experience some benefit; not being able, however, to leave their homes and business for a length of time, the improvement proves to be temporary only. Here permanent homes can be made, and a permanent cure be effected. There are thousands of persons in this country—your correspondent among the number—who came here in the incipient stage of consumption, and who are now perfectly strong and well. 6. If sufficient money can be raised to build and furnish a consumption hospital here, I am confident that it could be maintained at less cost than the hospital in Mentone. A building capable of accommodating 200 patients could be erected and furnished for about £10,000. A suitable site, either at Pasadma or San Gabriel, in Los Angeles County, would be donated by a British subject resident here.

It may be objected that the distance from England to California is too great. In reply to this possible objection I have only to say that anyone whose lungs are seriously attacked must make up his mind to winter out of England for four or five years. From London to Los Angeles viâ Panama will not cost more than two round trips from London to Mentone. I beg to urge charitable people in London to form a provisional committee, and, if satisfied of the feasibility and advisability of the plan I have suggested, to solicit subscriptions in aid of the undertaking. A considerable amount would, I am sure, be subscribed here. Subscriptions would also be readily obtained in Canada; as many Canadians are annually driven here by the severity of the Canadian climate. I will be happy to furnish any and all information and assistance in my power, as also will the Rev. A. G. L. Trew (formerly of St. James's Cathedral, Toronto, Canada), rector of San Gabriel, Los Angeles County.

I am, Sir, yours truly,

Los Angeles, California, Jan. 1st, 1885. C. WHITE MORTIMER, British Vice-Consul.

Mr. S. S. Noakes.—Amidon's Student's Manual of Electro-Therapeutics (G. P. Putnam's Sons, 25, Henrietta-street, Covent-garden, London).

BLEACHING OF THE HAIR.

To the Editor of THE LANCET.

SIR,—In Quain's Dictionary, page 576, it is stated by the late Sir Erasmus Wilson that hair may turn white in a few hours from mental disturbance, and that this is caused by the rapid development of gaseous fluid within the substance of the hair, obscuring the pigmentary granules. I should much like to know if any of your readers have ever seen or known of a well-authenticated case, and, if so, was the bleaching permanent, or did the gaseous cloud gradually roll away and allow the natural colour to reappear? It seems impossible that hair, perhaps many inches long, could be altered by any change that takes place in the body; not even death itself affects it.—I am, Sir, yours truly,

Gillingham, Dorset, Feb. 2nd, 1885. T. WOODS.

Mr. L. Macdona.—We should advise our correspondent to put his questions and his views before the Secretary of the Edinburgh Medical Missionary Society. Druitt's is a very good book; so are Bryant's Surgery, Roberts on Medicine, and Bristowe's book.

Mr. W. A. Ellis.—We may safely leave S. W——'s nonsense to the care of C. R. G—— and other local champions of vaccination.

E. J. L.—The cases described by our correspondent are such as bring the coroner's office into contempt.

MEDICAL ETIQUETTE AT THE EAST-END.

To the Editor of THE LANCET.

SIR,—About a fortnight ago I was called at 3 A.M. to attend a lady patient living close to my house. The child having been born suddenly, the husband naturally ran for the nearest medical man, as the practitioner engaged to attend lived at a considerable distance. I went at once, and attended to the patient and child. When leaving, the husband asked my fee; but I declined to accept any, stating that under the circumstances of the case I attended for the medical man engaged (who was a stranger to me), from whom I expected to hear as soon as he took charge of the case. Not having heard from, or received any acknowledgment for my services from, the said medical man, who has driven past my door on several occasions since then, I would feel obliged if you would kindly let me know through the medium of your columns, should such a case occur again, whether I would be justified in accepting a fee for my attendance, or refusing to attend for the same practitioner.

I am, Sir, yours truly,

Jan. 27th, 1885. A SUBSCRIBER.

*** Our correspondent acted most properly, and on none but the very highest principles can he be expected to act so again for the practitioner in question.—ED. L.

Dr. Thompson (Rome).—We hope to be able to find room for the paper in an early number.

A. B.—The method is undignified.

TINCTURE OF ACONITUM FEROX.

To the Editor of THE LANCET.

SIR,—In reference to Dr. Cullimore's letter on the above in your last issue (page 235), I shall be glad if you will allow me to make a correction as to its strength. I prepared it 1 in 8 of rectified (not proof) spirit, the same strength as the B.P. tincture of aconitum napellus, so as to have its action compared with the latter.—Yours obediently,

New Cavendish-street, W., Feb. 3rd, 1885. WM. MARTINDALE.

ERRATUM.—In line 9 of the report of cases under Dr. Elder's care at the Women's Hospital, Nottingham, page 202, for "two months later" read *twelve* months later.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Dyce Duckworth, London; Dr. Harkin, Belfast; Dr. Sieveking, London; Mr. Blore, Leeds; Dr. Herman Weber, London; Dr. Jas. Allan, Leeds; Dr. Cullimore; Dr. H. G. Sutton, Sittingbourne; Dr. J. N. Bloom, Vienna; Mr. Minns, Thetford; Mr. W. C. Lucas Dromahair; Mr. J. J. Fox, Strathpeffer; Dr. J. H. Thompson, Rome; Mr. A. B. Marshall; Mr. Humphreys, Llanfair; Mr. Berry, Wigan; Mr. Vacher, Birkenhead; Mr. Vanes, Aston; Mr. Abbott, Exeter; Mr. Alfred Wright, Romford; Dr. L. W. Marshall, Nottingham; Mr. Taafe, Brighton; Dr. Cafferata, Louvain; Dr. Bonavia, Etawah; Mr. G. Abbott, Tunbridge Wells; Dr. Wahltuch, Manchester; Dr. Althaus, London; Dr. Freyer, Mussoorie; Mr. Edgar Flinn; Dr. V. Sandford, Hereford; Dr. Rummo, Naples; Mrs. Pratt, Cardiff; Mr. English, London; Messrs. Wilson and Co., London; Mr. Birchall, Liverpool; Mr. W. W. Jones; Dr. Shipsley, California; Messrs. Street and Co., London; Dr. Elder, Nottingham; Mr. Rodman, Glasgow; Mr. Peet, London; Dr. Jay; Messrs. Woolley and Co., Manchester; Mr. Reeder, Liverpool; Messrs. Brown, Gould, and Co., London; Messrs. Savory and Moore, London; Messrs. Heal and Son, London; Mr. Lever, Stratford-upon-Avon; Mr. Hartley, Worcester; Mr. Havens, Eastbourne; Mr. Fuge, Taunton; Messrs. Wright and Co., Birmingham; Dr. Brown, Wansford; Mr. Sell, London; Mr. Whitty; Mr. Rowland; Messrs. Lloyd, Bullock, and Co., London; Messrs. Brainsby and Son, Peterborough; Mr. Shapcote, Devonport; Messrs. Funk and Co., New York; Mrs. Bourchier, Sheffield; Dr. C. Bell Taylor, Nottingham; Mr. J. P. Glover, Quarndon; Mr. Mallins, Watton; Mr. W. A. Ellis, London; Dr. Monteath, New Abbey; Mr. R. W. Parker, London; Mr. J. S. Wood, London; Dr. Hamilton; Mr. Banham, Sheffield; Mr. Mayo Robson, Leeds; Dr. Graily Hewitt, London; Mr. Spreull, Dundee; Surgeon-Major K. McLeod, London; Dr. R. Crocker, London; Mr. C. E. Jennings, London; Dr. Suckling, Birmingham; Mr. Reginald Harrison, Liverpool; Mr. Alfred Wright, Romford; Mr. A. T. Norton, London; Mr. S. Snell, Sheffield; Mr. Martindale, London; Mr. Jessett, London; Mr. Blackett, London; Messrs. Kegan Paul and Co., London; Mr. Kolckmann, London; Mr. Shore; Mr. E. Jones, Limehouse; Mr. H. Kimpton, London; Mrs. Rahn, Ipswich; Mr. Barrow, Nottingham; Mr. Niven, Portsmouth; Mr. Perrygree; Mrs. Carless, Liverpool; Dr. Althorn, Uttoxeter; Messrs. Davis and Co., Newcastle-on-Tyne; Dr. Langley, London; Messrs. W. and A. K. Johnstone, Edinburgh; Mr. Armstrong, Manchester; Dr. Robert Bell, Glasgow; Mr. Sawtell, Stroud-green; Dr. Ainslie Hollis, Brighton; J. R. L.; T. E. B.; M.D., S.E.; Tyro, Turnham-green; A. B.; Medicus, Preston; M.D.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Eberle, Messrs. Oliver and Boyd, Edinburgh; Mr. Leslie; Mr. Hodgkins, Oxford; Dr. Pavy, London; Mr. Godfrey, Northampton; Dr. Earle, Melbourn; Mr. Harris, London; Mr. Cornish, Manchester; Mr. Ince, Farningham; Mr. Bird; Mr. Jones, Maidstone; Mr. Skrimshire, Holt; Mr. Beaman, Ashton; Mr. Unsworth, Liverpool; Mr. Marsh, Hindley; Mr. Bury, Wrexham; Dr. Purcell, London; Mr. Towle, Manchester; Mr. Harrison, Liverpool; Dr. McNamara; Mr. E. N. Smith, London; Mr. Shute, Greenwich; Mr. Watson, Yarmouth; Mr. Reed, Woolwich; Mr. Macgregor, Aberfeldy; Mr. Ross, Stornoway; Mr. Morris, London; Mr. Fox, Bristol; Mr. Weatherly, Portishead; Mr. Fry, Swindon; Mr. Davis, Honiton; Mr. Ostell, Carlisle; Mr. Alcan, Paris; Dr. Woodforde, Dorking; Mr. Brockelbank, Islington; Dr. Drysdale, London; Miss Hertz; Mr. Lawson Tait, Birmingham; Mr. Greenish, London; Mr. Clarke; Mrs. Baker, Hereford; Messrs. Isaacs and Co., London; Mr. Twyford, Hanley; Mr. Maythorn, Biggleswade; Mr. Kennon, Inverness; Mr. Preston, London; Mr. Ferguson, Melsonby; Dr. Larkin, Grove-park; Mr. Jackson, London; Mr. Teague, Manchester; Mr. Taylor, Cottingham; Mr. Thompson; Mr. Flower, Melksham; Mr. Brooks, Wellington; Mr. Hulme, Birmingham; Mr. Andrew; Mr. Blair, Greenock; Dr. Burgess; Mr. Vipond; Mrs. Spencer, Sheffield; Messrs. Bell and Co., Manchester; Dr. Williams, Talgarth; Mrs. James, St. Johnswood; Messrs. Wyleys and Co., Coventry; Mr. Crassweller, Clapton; Mrs. Rowe, Manchester; Mr. Hanley, London; Mr. William, Enfield; Mr. Rowe, Twickenham; T. F., Oldham; J. S., Keighley; Medicus, Manchester; Z.; Secretary, Manchester Royal Infirmary; W. R. A.; Nursing Sister; A. L., New Brompton; Medicus, St. Johnswood; Surgeon; Dispenser, Pwllheli; A. C., Ealing; Medicus, Llanfair; G.; Medicus, Borough; Medicus, Dublin; Medicus, Liverpool; M.D., Southsea; Braxton, Sheffield; Surgeon, Manchester; E. I., Kensington; Assistant, Bridgend; M.D., Swanage; A., Sheffield.

Midland Evening News, Trowbridge Chronicle, Dumfries and Galloway Saturday Standard, Demerara Daily Chronicle, Yorkshire Post, Naval and Military Gazette, Leighton Buzzard Observer, Dramatic Review, Voice, Liverpool Daily Post, &c., have been received.

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Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

Annual Address

DELIVERED AT THE

OBSTETRICAL SOCIETY OF LONDON,

On Wednesday, February 4th, 1885,

BY HENRY GERVIS, M.D., F.R.C.P.

GENTLEMEN,—Once again from this chair, and for the last time, it devolves upon me to briefly review our general position as a Society, to offer you some account of our work during the year which closes to-night, and to pay the customary tributes to the memories of those of our Fellows whom we have lost.

As regards the general position of our Society, I have again to speak to you in the full strain of congratulation. During the past year we have welcomed into our ranks 67 new Fellows, a considerably larger increase than the average of many preceding years; and although against this large increase we have to place our losses by death, amounting to 10, and those by resignation and erasure, reaching 31, our numbers now stand at 722, forming a larger constituency than that of any other London Society, unless, in the case of the Royal Medical and Chirurgical Society, its non-subscribing Fellows are included, when its numbers slightly exceed ours, the Pathological Society coming next with 684. The attendance at our meetings has been everything we could wish, and on more than one occasion in the summer when there were great attractions elsewhere the loyalty of our Fellows was such that no falling off occurred in the numbers present. I may perhaps, in passing, be pardoned for expressing my gratification—a gratification, I am sure, in which all present share—at the regularity with which so many senior Fellows of the Society, including nearly all those who have filled the chair, attend our meetings. After long years of splendid work and service, when temptations to ease become somewhat strong, still evening after evening they have been here, encouraging us by their presence and assisting us by their knowledge and experience. Respecting our finance, you have heard from the report of our treasurer the gratifying intimation that after payment of all our liabilities and the investment of nearly £100, we close the year with a balance of £237 and with the amount of £1400 in consols. The report of our hon. librarian is also highly satisfactory. A library of 3406 volumes is no small addition to the equipment of a Society, and the advantages offered by our rooms in Berners-street can hardly be surpassed. In comfort and convenience they approach, indeed, those establishments which recently a great statesman spoke of as temples of luxury and ease. As regards our midwifery examinations, the report of our chairman will have told you much that is encouraging. Our diploma is becoming increasingly popular, and, as you have heard, no fewer than sixty-three candidates presented themselves during the past year for examination, of whom forty-nine passed, raising the total number of midwives in possession of our certificate to 247. Among the numerous claims our Society has on the profession—and in twenty-five years few societies, if any, have established greater,—not the least is the impetus given through our Midwifery Board to the higher education of midwives.

Now, as to our work during the year that has passed. In briefly reviewing it I have first to recall to you the paper read by Dr. J. Williams at our meeting in March on "Corroding Ulcer of the Os Uteri," by common consent an excessively rare disease, almost undescribed by systematic writers, and which probably has often been mistaken for rodent ulcer, or some form of epithelioma. The particulars of Dr. Williams's cases, however, their clinical features and the results of microscopical observation appear to separate them distinctly from cancerous affections; less distinctly from lupus - a disease, indeed, thought by some speakers to be probably identical with the disease described by Dr. Williams.

The early part of our meeting in April was occupied by Dr. Francis Neugebauer's exhibition of specimens of vertebræ from cases the subjects of spondylolisthesis, and by his personal exposition of his views. In Dr. Neugebauer's opinion the slipping forwards of the vertebræ, characteristic of the disease, occurs not as a result of any dyscrasia such as rickets or osteo-malacia, or of any bone disease, inflammatory or specific, as caries or ostitis, but by the weight of the trunk, especially when this is increased by unusual stoutness or frequent pregnancies, acting in virtue of certain surgical predispositions or lesions; and, further, that the deformity is not limited either to the sacro-lumbar articulation or to any age or either sex. The surgical predispositions he believes to be most influential are—(1) a congenital arrest of development, produced by defective ossification in the vertebral arch, and (2) complete or incomplete fracture of the arch with imperfect union. These conditions permit a sliding forwards of the anterior part of the last lumbar. But he considers also that the last lumbar vertebra may sometimes not merely partly slide forwards, but be totally displaced forwards as a result of fracture of its articulations with the sacrum; and this he terms "glissement en masse." In a word, both the less and more pronounced forms of spondylolisthesis he considers traumatic in origin.

The same evening we had Mr. Doran's suggestive paper on the genealogical relations between prolapse of the vagina and intestinal hernia, illustrated by three pedigrees of patients who suffered from prolapse of the anterior wall of the vagina, and in whose families a remarkable tendency to other hernias existed. The paper, as a whole, strongly supported the view, now largely held, that not merely prolapse of the vagina, but prolapse of the uterus itself, is essentially a hernia, "with a definite sac, definite boundaries, and definite contents."

Dr. Kilner concluded an interesting evening by a valuable communication on the use of the induced current in parturition. He not only uses electricity for strengthening uterine contractions when feeble and checking post-partum hæmorrhage, but also very largely for the relief of the pain of labour, as an equaliser of the pulse, and as a preventive of undue exhaustion. He showed a very small and easily portable coil battery, which he used in ordinary midwifery cases; and if similar results can be obtained by other and less specially skilled observers, there can, I think, be no doubt that in electricity in this form we gain an agent which will be a valuable adjuvant in the ordinary management of labour.

At the meeting in May Dr. Arthur Mitchell brought before the Fellows the result of his wide experience as to the influence of mental emotion in women as a cause of idiocy in the offspring. In many cases in which this was assigned as a cause by the mother, Dr. Mitchell thought the evidence insufficient, but in some he expressed his belief that it was a true cause, especially if the state of mental emotion had been a protracted one, although, possibly, its influence on the intellect of the child might be indirect, and through its influence on the bodily health of the mother. In the debate which followed Dr. West thought the verdict must still be "not proven," but Dr. Fletcher Beach, Dr. M. Duncan, and other speakers coincided with Dr. Mitchell's view, that there was a certain proportion, at present unsettled, of cases of idiocy in which mental emotion in the mother had been the determining cause.

In connexion with Dr. Mitchell's paper I may, perhaps, be pardoned if I venture to call attention to the fact that in the work of this Society we have strangely overlooked the department of the diseases of children. And yet at its formation it was expected that children's diseases would occupy a prominent place in our proceedings, and in our bye-laws and regulations the first section of the first chapter states that the Obstetrical Society of London is instituted for the promotion of knowledge in all that relates to obstetrics and diseases of women and children. But in our twenty-five years' work I can recall, excluding this evening's paper on Ophthalmia Neonatorum, scarcely half a dozen communications on infantile diseases. Dr. Tanner once brought forward the subject of Infantile Syphilis; Dr. Playfair of Empyema in Children; Dr. Madge narrated some cases of Pericarditis and Chronic Hydrocephalus; Mr. Curgenven read a paper on Hereditary Convulsions, and Dr. Wynn Williams gave us an interesting account of his treatment of Diphtheria, a monograph to which to this day I feel much indebted when brought into contact with that disease. With possibly one or two additional papers which I may have overlooked, and an occasional discussion in connexion with the exhibition of some specimens, this constitutes the whole of our work in this important department.

In days gone by I have heard it said occasionally that the

one fault of our Society, if it had a fault, was its too great devotion to gynæcology, and that there was just a suspicion of a tendency to sameness and repetition in our discussions; that, come to a meeting when he might, a practitioner was sure to hear us discussing some gynæcic minutiæ, or, by way of change, some obstetric rarity, and, less often than he could have wished, those commoner subjects which are met with in daily practice and at the bedside of the puerperal woman. Be this as it may, though for my own part I must plead a still deep interest even in such well-discussed subjects as the symptomatology and treatment of uterine flexions, there is, I think, no doubt that if some of those of our Fellows who practise generally and are having the daily care of children would bring before us some of the results of their observations and experience in these diseases, it would add much to the utility of our meetings, give variety to our discussions, and assist in the more complete fulfilment of the objects proposed at the foundation of our Society. At this same meeting in May we had the notes of a case of extra-uterine gestation by Dr. Mathieson of Ontario, in which a living child was delivered by vaginal incision from a cyst by the side of the uterus. A considerable discussion followed, not merely as to the advisability of the particular operation performed, but also as to the exact character of the case, several speakers thinking it to be a gestation in a variety of double uterus, or an interstitial gestation rather than one truly extra-uterine.

At the June meeting we had important contributions from two past presidents of the Society. Dr. Playfair gave careful and detailed particulars of two cases, in which he believed that spontaneous absorption of thrombi in the pulmonary artery had taken place; and Dr. Matthews Duncan read a paper on "Fœtal Revolutions" as distinct from its rotations, and described the various forms of revolution observed in different presentations and conditions of the fœtus.

At the July meeting the report of the committee on Dr. F. Neugebauer's specimens of Spondylolisthesis was read. This committee included, besides two of our own Fellows, Dr. Barnes and Mr. Doran, two who were visitors on the evening when Dr. Neugebauer was present, Mr. W. Adams and Mr. Noble Smith, to all of whom our best thanks are due for the trouble and time they gave to the consideration of the subject. Their report confirmed the view of Dr. Neugebauer that spondylolisthesis arises from the traumatic slipping away of the anterior half of one or more vertebræ, notably of the fifth lumbar, from the posterior half. Dr. J. Williams then gave a detailed account of the progress of involution in the puerperal uterus in a case in which both the ovaries had been removed; one three years previously, and one during the labour which preceded the involution in question. Involution was at first distinctly delayed seven weeks after delivery, the uterus being of the size usual in the fourth week; but seven months after delivery the condition termed super-involution had occurred, the uterus was smaller than would be normal even in a nullipara, and measured but two inches in length. At the same meeting Dr. M. Duncan, in association with Dr. Hurry, read a very interesting and important paper, illustrated by numerous specimens and drawings, on the subject of "Fœtal Flexions and Extensions during Pregnancy," and their bearing on the etiology of malpresentations.

At our meeting in October, delayed a week by the occurrence of the 1st on a Wednesday, we had from Mr. Hopkins Walters an account full of interest of a case in which the uterus with one ovary and tube had been forcibly torn away by the midwife in attendance on the case; and in addition to these particulars Mr. Walters gave a summary of a large number of cases more or less parallel in which accidental avulsion of the uterus had occurred. In some of these the uterus had been inverted and an erroneous diagnosis of tumour had led to the occurrence; in others, and in the fewer number, as in Mr. Walters's case, no previous inversion had existed. Various theories as to the *modus operandi* were suggested by those who took part in the debate, such as the introduction of the hand into the peritoneal cavity through a rent in the posterior wall of the vagina, and so pulling the uterus out by force from above; too forcible expression by pressure on the lower abdomen; retroverting the uterus first by the introduction of more or less of the hand into its cavity, and then tearing it away by the purchase so obtained; and, lastly, Mr. Walters's own idea, that it was at first detached, partially at all events, by thrusting the hand into it for the removal of the placenta without making adequate counter-pressure on the hypogastric region, and then torn entirely away, partly in panic and partly through ignorance. In whichever of these ways the accident occurred in this particular case, speaking generally there can, I think, be no question that in any and every case the forcible avulsion of the uterus after delivery is a proceeding of the utmost gravity and entailing the most serious responsibility.

At our meeting in November Dr. Graily Hewitt read a paper illustrating his views on the close connexion he believes to exist between distortion and displacement of the uterus in pregnancy and severe sickness. In addition to cases occurring in his own practice, Dr. Hewitt brought before us an interesting series of ten cases published by Professor Horwitz, and others by other writers, making in all thirty-two cases, in which more or less displacement of the uterus, both general and axial, was associated with vomiting of a severe type in early pregnancy. In all these cases when attempts were made to raise the uterus from its displaced position, and the attempt was successful, the vomiting ceased, but when the attempt failed death resulted, except where artificial or spontaneous abortion took place. The conclusions which Dr. Hewitt tabulated were that nearly always sickness was due to some error in the condition of the gravid uterus itself; that this error was generally some interference with its normal expansion and growth, associated sometimes with its detention in the bony pelvis, generally as a result of flexion or version, or less commonly from the presence of some pelvic tumour, and sometimes, but less frequently, in association with undue hardness about the os and cervix. Very varied views were expressed by those who took part in the debate, which occupied two evenings, but the more general opinion appeared to be that displacements and distortions of the uterus were less influential factors in the etiology of pernicious sickness than Dr. Hewitt thought, and that even the large number of cases brought forward were not sufficient to permit as yet any dogmatic generalisation on the subject.

It was not the wish of the Fellows present to allow the debate to occupy a third evening, and so it happened that several who were anxious to speak, myself among the number, had not the opportunity. I am the more wishful, therefore, in this reference to the work of that evening to say how indebted we are to Dr. Hewitt for the very considerable addition he has made, in his paper as well as in the tables he was good enough to print for our use, to the facts on which to build our views of these rare cases. Very briefly my own experience has been this: that when conception has taken place in women the subject of uterine flexion, and particularly of anteflexion, severe enough to have led to preceding dysmenorrhœa, and so been noted beforehand, but not severe enough to have induced sterility, there has nearly always been an increased tendency to early and very troublesome sickness, and often to other reflex derangements, such as pyrosis, ptyalism, and various neuroses. Flexions of the uterus, gravid and non-gravid, lead, I believe, in a considerable proportion of cases to a pathological hyperæmia of the uterus. So, it may be, that this tendency to sickness which prevails in cases where flexion co-exists is not due to flexion as flexion, but to the pathological hyperæmia, which it, in common with other faulty conditions, such as endometritis, ovaritis, or fibroids, is apt to induce. In incarceration of a gravid uterus, whatever be the cause of the incarceration, this pathological hyperæmia would be still more increased, and the reflex results proportionately heightened. As regards Copeman's method, I should like, also, to take this opportunity of stating that my experience of it in cases of uncontrollable vomiting, by which I mean vomiting beyond the control of any medicinal or dietetic treatment, when associated with anteflexion, has been distinctly satisfactory. I have no experience of it apart from this association.

And, lastly, at our meeting in January, Dr. W. Duncan brought forward in a thoughtful and comprehensive paper the subject of extirpation of the uterus. Besides giving details of two cases in which he himself had performed the operation, and discussing the subject generally, Dr. Duncan gave a tabular statement of all the known cases in which the entire uterus had been removed either by the abdominal or the vaginal operation, amounting in the former to 137, with a death-rate of 72 per cent., and in the latter to 276, with a death-rate of 28·6. These tables alone must have involved considerable work and research, and for his kindness in printing them so as to further the completeness of the

debate, we are greatly in his debt. The debate being adjourned, I am not in a position to sum up the final result, but so far as the proceedings of one evening extended, every speaker, whether basing his opinion, like Dr. J. Williams and Mr. Thornton, on personal experience of the operation, or, like Mr. Doran, on the anatomical relations of the uterus, especially with reference to the arrangements of its lymphatic system, expressed himself in terms generally adverse to the operation. This, indeed, was the conclusion at which Dr. Duncan had himself arrived, at all events for every case of cancer involving only the vaginal cervix. The other conditions for which extirpation had been carried out, such as prolapsus and certain cases of endometritis, were not touched upon in the debate, but I shall be surprised if much support is given to such procedure by any speaker at the next April meeting.

This, gentlemen, is but a very brief and imperfect sketch of the more important papers and discussions of the session, and far from represents the sum total of our work. At every meeting we have had numerous specimens exhibited, some of extreme and general interest, some of great rarity, nearly all important and instructive. Indeed, after two years of close attendance at our meetings I am not sure whether I have not learned as much from what I have seen as from what I have heard; but, at the same time, with the wealth of contributions in the hands of our secretaries and the life and vigour which characterise our Society, it is impossible to allow the exhibition of specimens to extend much, at all events, beyond the half-hour allotted to them. Possibly, if we were to adopt the plan of the Pathological Society and have card specimens passed round, specimens with short descriptive accounts appended, and intended for inspection rather than discussion, the difficulty of getting in all we wish would be at least partially met. Regarding, then, our work as a whole, the papers read—some in the highest sense scientific, some more practical, and some chiefly clinical—the specimens exhibited, including many improvements in instruments and apparatus, and the discussions elicited at uniformly well-attended and often crowded meetings, I think we may fairly claim for our Society, not only that its strength and vigour are unabated, but that it ranks as an educational force of the first importance.

Our losses by death this year are fortunately not so numerous as often they have been; but the list, always too long, includes some well-known names, and others who, although of less wide reputation, were not the less dear to their own circle of relations and friends, to all of whom our respectful sympathy is given.

The first to be taken from us in the early spring was Dr. J. Hickinbotham of Birmingham. He had been a Fellow of the Society since 1867, and last year was elected on the Council. Dr. Hickinbotham had practised in Birmingham for many years, and for the last five had been Physician to the Hospital for Women in that town. He died on February 22nd of acute nephritis, after a few days' illness, at the early age of forty-four. Dr. Hickinbotham was a frequent attendant at our meetings and often took part in our debates. To our Transactions he contributed, in 1878, an interesting case of ruptured uterus, in which the accident occurred from a fall, the patient recovering; and in 1881 he sent us a case of placenta prævia, complicated by the presence of a large fibroid in the uterine wall. Both these cases contained much that was interesting and important. Two other papers by Dr. Hickinbotham I have also by me, one on missed labour and one on accidental hæmorrhage. These also contain thoughtful and original work.

Dr. John Hall Davis, formerly a President of this Society, and up to a short time prior to his death Obstetric Physician to the Middlesex Hospital, died on March 19th at the age of seventy-three. Dr. Davis was the second son of Dr. David Davis, the first occupant of the chair of Obstetric Medicine at University College and a distinguished London obstetrician. Dr. Hall Davis began early to turn his attention to obstetric work, succeeding his father on his death in 1841 as Physician to the Royal Maternity Charity, a post he held with much advantage to the charity and distinction to himself for thirty years. He also at one time gave well-attended private lectures on midwifery at his residence in Bloomsbury. In 1863 he was appointed Obstetric Physician to the Middlesex Hospital and Lecturer on Midwifery in its school. Of our own Society Dr. Davis was an original Fellow, and in 1867 he was elected to the presidential chair, fulfilling its duties with much ability, courtesy, and success. Dr. Davis was the author of one considerable systematic treatise of much value on difficult parturition and of several interesting communications to this Society. It was my good fortune to be associated in three several instances with Dr. Davis in public appointments. I was for a time his colleague on the Royal Maternity Charity, I was secretary of this Society during his presidency, and I was co-examiner with him at the University of London; and I am grateful for this opportunity of offering my sincere tribute to his professional capacity, his uniform courtesy, and his high personal character.

Another original Fellow, Mr. Richardson of Rhayader, died on Aug. 13th, from the result of an accident, at the age of fifty-five. Returning from a professional visit, he was thrown from his dog-cart and instantly killed. I do not remember Mr. Richardson's making any communication to our Transactions, but he evidently took a special interest in obstetric work, as quite recently before his death he read a paper at the Belfast meeting of the British Medical Association on "Uterine Hæmorrhage." He was held in the highest esteem in the neighbourhood in which he practised, his funeral being attended by many hundreds of attached patients and friends, it being, indeed, the largest ever known in Rhayader.

In the same month died Dr. Hugh Cuolahan of Bermondsey, a Fellow since 1867. I had the pleasure of a personal acquaintance with Dr. Cuolahan for many years, and knew him as an admirable specimen of the family practitioner. He was a frequent attendant at our meetings, and was himself an accoucheur of much expertness and ability.

In August also we lost Dr. Westmacott, at the age of seventy-three, and, although not an original Fellow, he, like myself, joined our Society in the first year of its existence, and was a most regular attendant at our meetings. He made but one communication to the Society, and that on the use of the whalebone loop as a fillet, of which he was a warm advocate. Dr. Westmacott's special loop had on one side of the handle a couple of screws with nuts, to permit one end of the loop being removed, so as to facilitate its slipping over the head of the child as it passed the vulval orifice in cases where the perineum was rigid. Dr. Westmacott, who was Obstetric Surgeon to the Paddington Maternity, appears to have generally used this loop in all minor cases of disproportion, and to have had with it a very considerable success. But it was as our draughtsman that Dr. Westmacott was best known to the Fellows of the Society. For twenty-five years he regularly drew for us the admirable woodcuts and plates which enrich our Transactions, and he did it for so modest a recompense that it might almost be spoken of as, on his part, a labour of love. We shall miss much his facile pencil, and the drawings in the first half of the forthcoming volume will regretfully remind us of "the touch of a vanished hand."

There are three other Fellows who passed away during the year of whom I am unable to find any record beyond the simple notification of their deaths. Mr. Malin Sharman of Birmingham died on March 10th. He was Surgeon to the Hospital for Sick Children at Birmingham. He became a Fellow of our Society in 1862. Dr. H. A. Aldred of Westbourne-park died on May 21st. He was a comparatively young Fellow of our Society, having joined us in 1878. On August 28th died Mr. Wykeham Lydall, of Mecklenburgh-square. Since 1869 Mr. Lydall had been one of our Fellows.

And here, gentlemen, I should, following the custom of past years, have concluded these brief obituary notices of those whose loss we deplore, but on Jan. 8th of this year, and so still during my presidency, died one of our Fellows, who was at the same time one of my most valued personal friends, and so, by the courtesy of my successor, I am permitted this evening to place one more wreath on the recent grave of Henry Thomas Lanchester.

[Dr. Gervis then gave a sketch of the career of Dr. Lanchester similar to that which appeared in THE LANCET of Jan. 24th.]

Before quitting this chair, gentlemen, two or three duties yet remain for me to fulfil. In the first place, I have to thank most sincerely all the Fellows of the Society for that uniform kindness and forbearance which they have shown me during the pleasant and not unprosperous two years in which it has been my high privilege to preside at its meetings. Secondly, I wish gratefully to acknowledge the courteous help I have received from the members of the Council and the officers of the Society, and more especially—and to an extent no words of mine can adequately

acknowledge—from our able and untiring secretaries. And yet further, and lastly, I have to congratulate the Society on the acceptance of the office of President by the gentleman who succeeds me. Dr. Potter is known to all here as a graduate of a famous university, as the Obstetric Physician and Lecturer on Midwifery at one of our London schools, and as having been for the three years during which he has held office our most admirable treasurer. In yielding this seat of honour to him I am assured that I shall be followed by a gentleman who is an experienced obstetrician and gynæcologist, who has an accurate knowledge of the affairs of the Society, and who has its interests thoroughly at heart. In quitting, gentlemen, this chair to-night I shall carry with me a hundred pleasant reminiscences, tempered only by the sincere regret that my services have been so inadequate to the presidency of this great Society.

THE QUESTION OF THE IMPORTANCE OF FLEXIONS AND DISPLACEMENTS OF THE UTERUS.

BY GRAILY HEWITT, M.D., F.R.C.P.,
PROFESSOR OF MIDWIFERY AND DISEASES OF WOMEN, UNIVERSITY COLLEGE; OBSTETRIC PHYSICIAN TO THE HOSPITAL.

(Concluded from p. 245.)

REGARDING the objections offered by Dr. Herman to my conclusions on the mechanism of the production of congestion, I would make some remarks. Not long since Dr. John Williams stated that the utero-sacral ligaments may catch and constrict the retroflexed fundus uteri and thus cause congestion of the uterus. As a matter of fact, I may point out that in the post-mortem specimen described by Dr. Williams there was evidence of constriction, but the evidence of congestion having been produced by this constriction is wholly presumptive. Dr. Herman appears to assume that congestion does not occur in the cases of retroflexion except under such circumstances. I have sought for evidence of this last occurrence, and do not for a moment deny that such an effect may be produced, but careful observation has convinced me that it is by no means a common event. A constriction of this kind would be capable of detection by a careful digital examination. Dr. Herman uses this as an argument against the possibility of acute congestion of a retroflexed uterus except in the manner above mentioned. This generalisation is, I feel certain, inaccurate, and does not in the least accord with my own clinically observed facts. He states that I have admitted the greater liability to congestion in retroflexion than in anteflexion cases. Quite true. But I also stated that severe congestion may occur in cases of anteflexion, and I wish here to insist on the point that severe congestion is very common in cases of anteflexion. But to continue the argument. Dr. Herman asks for an explanation of the greater congestion (I deny the greater frequency) in retroflexion cases. My idea is that it is due to the circumstance that the uterus may be more bent in the backward than the forward direction, as a rule at least, owing to Douglas's pouch allowing frequently of easy and considerable descent of the fundus in that direction, while the bladder offers a certain resistance to a great descent of the fundus anteriorly. Dr. Herman gives us the result of his post-mortem examination as to the anatomy of the utero-sacral ligaments. These results I do not undervalue, but I consider the information as to the shape, size, &c., of the back of the uterus in actual cases of retroflexion obtained by examination during life also valuable, and possibly even more valuable. I have tested the matter in this way, and I have failed to find confirmatory evidence of compression by the utero-sacral ligaments to any marked degree associated with acute congestion. Supposing, however, for the sake of argument, we admit that tight utero-sacral ligaments may increase uterine congestion in retroflexion, the same explanation would not be worth much in accounting for the occurrence of acute congestion in anteflexion. The congestion in anteflexion, as also in retroflexion, is, as I believe, largely connected with the shape of the uterus, and the clinical facts show that it is a mechanical congestion. The marked swelling of the posterior lip in retroflexion, the marked swelling of the anterior lip in cases of anteflexion, are some easily recognisable proofs of the truth of this.

There is a further point. Admitting the utero-sacral ligament theory, the flexion still plays an important part; for if the uterus were not retroflexed, it could not be caught by those ligaments or compressed in this particular way, at all events. So far as my experience goes, simple retroversion is unattended with acute congestion of the uterus. Thus the flexion would still constitute an essential factor, and one of great importance in cases of retroflexion *plus* congestion.

Dr. Herman finds cases of retroversion attended with suffering, relieved by pessaries. This is also my experience. But I have never stated that the uterus must be flexed in order to give rise to symptoms. The "position" of the uterus is, of course, the cause of the symptoms in cases of retroversion; and whether they are due to the pressure of the organ on the nerves, on the floor of the pelvis, or on the rectum, or on the utero-sacral ligaments, or some other cause, may be an open question. I should not attempt to apply the notion of strangulation of the vessels of the uterus to such a case, though in Dr. Herman's remarks he imputes to me such an attempt. In speaking of Dr. Herman's use of the utero-sacral ligament theory, I alluded to "congestion" of the uterus and the mechanism of such congestion in retroflexion cases, and no reference was made to "retroversion."

Although Dr. Herman thinks lightly of anteflexion of the uterus, that is not my view of the subject. I have seen numerous cases in which an obstinate acute anteflexion has proved a source of the greatest discomfort and suffering extending over many years, and occasioning an incapacity of various kinds as great as anything observed in severe cases of retroflexion. And the opinion formed as to these cases has been justified by the efficacy of treatment directed to the removal of the flexion or preventing the habitual exaggeration of such flexion on movement by well-arranged support of the fundus by means of a cradle pessary. Dr. Herman's statement as to his experience of the effects of the cradle pessary very widely differs from my own. When the uterus is hard and rigid, this pessary is, no doubt, incapable at the moment of its application of unbending the uterus, and in such cases the uterus must be straightened otherwise. But even repeated straightening of the uterus will have no permanent effect unless the fundus be supported continuously by a pessary such as this; while in other cases where the uterine tissues are not so rigid the pessary alone will, as I have found to be the case in my practice during the last ten years in very numerous instances, reduce the displacement and relieve the symptoms. I may remark that so recently as four years ago Dr. Herman published cases in which he had employed the cradle pessary, apparently with great success in some cases of anteversion. One fails to understand why this instrument should, if so very good for anteversion, be so entirely useless for anteflexion. As regards any difficulty in recognising *bonâ-fide* cases of anteflexion, there is none. The cases are common enough, especially in the middle classes of society; a careful double examination will always give a conclusive means of diagnosis. Anteflexion of a large uterus, even to the degree of a sort of impaction behind the symphysis, is now and then observable, the body of the uterus being with some difficulty pushed upwards. Anteflexion is by some authorities considered a normal condition of the uterus. But those who reject anteflexion as an abnormality inform us that as the bladder becomes filled the uterus rises up, and the uterus falling or rising according as the bladder is empty or full. This is possibly to some extent true. How are we, then, to regard cases when the fundus is constantly found low down behind the symphysis and the uterus much flexed and capable of being pushed upwards only by exercise of force? These cases cannot be considered normal, for in them assuredly there is no movement of restitution accompanying the varying condition of the bladder. These are the cases concerning which more requires to be known, and their clinical features more carefully considered, than has as yet been done. On the question as to retention of coagula and fluids in utero, due to flexion of the uterus, Dr. Herman urges that no sufficient evidence is adducible post mortem to show that the uterine cavity is increased in size in conjunction with flexions, and that drawings representing such dilatation are misleading. I would remark that careful double examination of the uterus during life, together with use of the sound, has convinced me that such dilatation is present in

many cases. It is not difficult in some instances to become convinced of this by the mere use of the sound, the point of which can be made to move freely while the uterus as a whole is quiescent. This pouched condition of the uterus is most marked in some cases of retroflexion, but is not by any means limited to retroflexion. Dr. Herman denies the escape of gushes of fluid from the uterus. I can only say that I took the greatest care to investigate this point a few years ago, and that I found repeated well-marked instances of "leucorrhœa with gushes," in which the only explanation was the accumulation of fluid in utero, due, as I considered, to the pouched state of the organ; a view of the case which was further substantiated by the cessation of the gushes on straightening the uterus. I think Dr. Herman is hardly correct in concluding that fluid may be retained in the vagina in ordinary cases in any quantity, unless the patient be in bed, while there is no such difficulty in supposing that gas might be retained in the vagina. Then, again, as to gushes of blood and coagula being expelled from the uterus in cases of flexion, the reality of such events is not to be questioned, and I have known them to occur in very many instances, about which there could not be the smallest doubt. A frequent sequence of events is: passage of coagula during menstruation; escape of gushes of blood, followed by a sanious, then puriform, leucorrhœa, the latter also coming away in gushes, gradually ceasing in the course of a week or two; repetition of the phenomena next menstrual period.

Dr. Herman's criticisms on my analysis of Vedeler's statistics on the subject of dysmenorrhœa must now be alluded to. He says that I have mixed up versions and flexions together. My object was not precisely to differentiate the two, but rather to follow Vedeler's own attempt—viz., the determination of the validity of the obstructive theory of dysmenorrhœa, including influence of flexions and versions. Dr. Herman points out a slight error I have made, which, however, tells against my own argument. In the next place, he admits that I have shown an error in Vedeler's method of reasoning on the general bearing of his cases, and considers my arrangement of Vedeler's figures forms stronger presumptive evidence in favour of the production of dysmenorrhœa by flexion of the uterus than anything that has yet been brought forward, the result being the conclusion that "decided flexions" were 7 per cent. more frequent in dysmenorrhœa than in non-dysmenorrhœal nulliparæ. Dr. Herman lessens this percentage of decided flexion by subtracting retroflexion to first degree, which still leaves a difference of 6 per cent. In his own series of cases he appears to have found the preponderance of flexion cases with dysmenorrhœa less than that observed in Vedeler's.

One of the chief objections Dr. Herman offers to the flexion-obstruction theory of dysmenorrhœa is the large percentage of cases in which the flexions are present without dysmenorrhœa. As bearing on the explanation of this the statistics of Dr. Emmet are very interesting. He, in speaking of anteflexions, makes a decided distinction between "flexures of the cervix" and "flexures of the body" of the uterus, and gives results of his observations. "When a flexure is found above the vaginal junction there is always pain during the flow, and a state of obstruction does exist beyond question; but with a flexure at the vaginal junction, caused by the neck being too long and thin to remain straight in the vagina, the angle at which it is bent is always more acute than it is with flexure in the uterine body. Notwithstanding this fact, and although the woman will probably be sterile, she does not necessarily suffer from painful menstruation."[1] His statistics show that in all the "unmarried," and in the greater part of the "sterile," anteflexures of the body of the uterus there was pain before or during menstruation. If these observations be correct, and there can be no reason to doubt their accuracy, they would, in part, explain the apparent anomaly of the uterus being much bent while dysmenorrhœa is absent. Another objection of Dr. Herman's is the alleged presence of pain in cases where the uterine canal is found to be straight or patent on use of the sound; and where, further, no blood followed the withdrawal of the instrument (in Schultze's and Burton's cases). Regarding the cases in question, they prove that there was no obstruction to the passage of blood, but there may have been clots or menstrual débris in the uterus, nevertheless, which the uterus was endeavouring to expel, and which were therefore the cause of the pain. Further, it is quite possible that when the examination was made the canal had become dilated by previous expulsive force. I have in general terms expressed my opinion that although not always dependent on flexion of the uterus, by any means, I have found dysmenorrhœa associated with this condition very frequently. In the last edition of my work I stated: "The condition [in dysmenorrhœa] is probably not always the same. In some cases there is present softness, flaccidity, and pouching of the uterus; here straightening from outlet for escape of fluid and the excitation of reflex contraction in the fundus by reflex action (Reil and Champneys) are beneficial. In some cases, again, there is a contraction and condensation of the tissues about the internal os uteri, due to flexion, perhaps, of some standing, and the dilatation and straightening of the canal relieve this, accomplishing the object by actual stretching of the condensed tissues" (p. 490). Of course there are some cases in which the dysmenorrhœa is ovarian in origin, and a few in which stenosis of the cervix is congenital. But the larger number seems to be cases in which dilatation of the cervical canal proves very efficacious in removing the dysmenorrhœa. It is certainly reasonable to associate the efficacy of dilatation in relieving dysmenorrhœa with the increased patency of the canal obtained by its means. It straightens the canal, which effect is only temporary, as is alleged by Dr. Herman; it also increases the diameter, and it remodels, so to speak, the canal as a whole, getting rid of contractions and indurations in its walls, and leaving the canal free for a time, at all events, from flattening such as is present in flexions. It is reasonable to suppose that it tends on the whole to secure a greater "circularity" of the canal than existed before. And on the supposition that the shape of the canal associated with flexion is a bad one, and is a cause of dysmenorrhœa, it is easy to understand that dilatation should be a good remedy for the disease, inasmuch as it will tend to alter that shape, and to recast the canal in a better form, and so ensure a greater patency. With reference to Dr. Herman's own statistics, the remarks I made in my former paper were not intended to throw any doubt on his accuracy of observation. I made a statement to the effect that the uterus sometimes undergoes a change in shape during menstruation, becoming sometimes less flexed at that time than at others. The converse is also sometimes observed to occur. I still consider this an important generalisation, and that it may affect, and ought to affect, the value of statistics on the subject of the frequency and importance of flexions. As to the statement having a "bewildering" effect, I do not think that this is an argument, for facts are facts, after all, and have to be dealt with, however perplexing their import at first view.

In the foregoing remarks I have limited the consideration chiefly to the arguments as regards the importance of alterations of shape and displacements of the uterus based on statistics, on considerations as to the phenomena of congestion of the uterus, and on the statistics and facts relating to dysmenorrhœa. There are many other phenomena relative to the uterus which, when examined clinically, give important evidence as to the disturbing influence of flexions of the uterus, such as unusual sensitiveness of the canal of the uterus, particularly at the internal os, the effect of flexions in producing sterility, primary and secondary, tendency to abortions, &c., and the large and important class of symptoms which are included under the term "hystero-neuroses." I have elsewhere recorded much clinical evidence bearing on these questions, and cannot enlarge upon them in this place.

In conclusion, if it be asserted that many women do not suffer who are the subjects of flexions, it is certain that women who do suffer and who also are affected with flexions become very decidedly relieved when the treatment, general or local, is in effect such as to lessen the degree of the flexion, and in many cases it is enough that the treatment prevents further aggravation of the flexion. Flexion implies a displacement as well as bending of the uterus, and to straighten the uterus is to remove the bend as well as often to replace the uterus. It is remarkable that the measures employed by some of those who deny the importance of flexions of the uterus should be more or less calculated to unbend the uterus; at all events, whether pessaries be employed, or whether the forcible dilatation of the uterus by bougies be put in requisition, the flexion is thereby diminished. This effect is disclaimed, and it is affirmed that these procedures are not beneficial so far as

[1] Emmet, second edition, p. 182.

they depend on the unbending of the uterus. All that can be said is that they are curiously adapted to produce the effect which it is urged is so unnecessary. Nothing will convince me, at all events, that the straightening of a severely flexed uterus is a useless procedure, for the reason that I have found this procedure, accomplished in a variety of ways in different cases, so invariably productive of relief to the patient, and so remarkably efficient in removing the congestion which so frequently accompanies the flexion in painful trouble-some cases. I am not unaware of the occasional difficulty in determining the precise therapeutic value of a particular procedure, and allowances must of course be made and sources of error in this respect guarded against. Dr. Herman thinks I have wrongly attributed benefit derived by my patients to treatment of the flexion of the uterus present in such cases, whereas that benefit was due to the general treatment pursued. I am not likely, as will be gathered from my writings, to undervalue the benefit of careful general treatment. It is just possible that I, having seen and watched these cases, may be a competent judge on this point. Cases are not very rare in which there has been a long trial of general treatment, most carefully adapted to the patient, with entire failure in procuring relief, while an immediate improvement has followed the adoption of local treatment. There is much to be learnt from the endeavour to relieve the suffering attendant on long-standing severe flexion of the uterus. One of the things I have learnt from some experience of such cases is that these cases cannot be cured without a judicious combination of general and local treatment, as I have fully stated on former occasions. But the real truth as to the flexion factor and its importance becomes evident in those cases where good general treatment doing its best for the patient, the difficulty in restoring the uterus to its normal state is unusually great. Then it is seen that the improvement is measured by the success of the local treatment, and that in proportion as the uterus is restored to its proper physical condition, the sufferings of the patient diminish.

Berkeley-square, W.

CASE OF

LARYNGEAL AND PULMONARY TUBERCULOSIS, ORIGINATING IN SIMPLE CHRONIC LARYNGITIS.

BY G. HUNTER MACKENZIE, M.D.,
SURGEON FOR THROAT DISEASES TO THE EYE, EAR, AND THROAT INFIRMARY OF EDINBURGH.

THIS case is thought worthy of record for the following reasons: 1. The priority in origin of the laryngeal as compared with the pulmonary affection. 2. The engrafting of a tubercular on an initial simple inflammation of the larynx. 3. The presence of the tubercle bacillus in the sputum and laryngeal secretion, and its aid in diagnosis and prognosis. 4. Certain toxic effects following the use of iodoform.

The patient, a male aged fifty-five, was first seen by me on March 28th, 1882. He complained of loss of voice, great pain in the ears, especially the left ear, inability to swallow properly, and cough. His throat affection had lasted for about seven years, and was supposed to have been due to a cold from sleeping under an open window. Hoarseness came on at that time, from which he had never been able to free himself, and which finally merged into aphonia. Family history was good. The man's previous history was uneventful, with the exception of a slight cardiac affection of rheumatic origin some twenty years previously. He was tolerably healthy in appearance, of the rheumatic diathesis, with no indication of constitutional disturbance. On laryngoscopic examination, the arytenoid cartilages were swollen (not the typical pyriform swelling of phthisis), the ventricular bands and general mucous membrane of the larynx were irregularly thickened, and the vocal cords could not be seen. Some ashy-white secretion coated the central third of each ventricular band. Faucial sensitiveness was unexaggerated. The pulmonary symptoms were prolonged expiration, a slightly impaired percussion note, and a dry bronchitic click at the end of inspiration at the right apex anteriorly. The sputum was purulent, with a slight admixture of mucus, and contained the bacilli of tubercle in fair abundance in every field of the microscope. The patient was treated by local applications of chloride of zinc and subsequently of nitrate of silver to the larynx, with at first considerable benefit to the laryngeal appearances and symptoms and to his general condition, for from being confined to the house he was soon able to go out of doors. The main indications for treatment seemed to be to endeavour to subdue the local affection by metallic astringents, but a return of pain in the throat, and especially in the ear, compelled an attempt to alleviate the local conditions by sedative sprays, inhalations, and insufflations. Sprays and inhalations proving comparatively ineffectual, recourse was had to an insufflation of morphia, at first alone, but subsequently combined with iodoform; these appeared to produce more benefit than any other local application. The course of the case tended gradually downwards. The laryngeal appearances and symptoms approximated more and more towards the tubercular, and signs of excavation at the right apex were detected towards the end of August. In January crepitant râles were abundantly present down the anterior surface of the right lung, with cavernous breathing at its apex. The pain in the throat and ear was occasionally very severe, especially on swallowing. The patient died on the 15th of February, 1884, of exhaustion from inanition.

A post-mortem examination of the throat only was permitted. There was considerable destruction of the tissues within the larynx. The arytenoid cartilages had undergone necrosis and dislocation, the mucous membrane in their vicinity was swollen and infiltrated, and the ventricular bands had disappeared from ulceration. The vocal cords were intact, except at their arytenoid attachments, where a loss of substance to the extent of one-sixth had taken place. The general mucous lining of the larynx was irregularly thickened, and at the posterior parts of the ventricles on both sides were deep excavating ulcers, leading to the necrosed arytenoid cartilages. Bacilli of tubercle were found in the following situations: (1) In a scraping of mucus from the lower part of thyroid and upper part of the cricoid cartilages. Here they were few, with an aggregation of about twenty in one field. There was no subjacent ulceration. (2) Underneath the anterior commissure of the vocal cords they were about as numerous as in the first situation. (3) In the secretion filling the laryngeal ulcers leading to the necrosed arytenoid cartilages they were from three to four times more abundant than in the other situations. Microscopical examination of sections from the region of the ventricular bands failed to show the presence of tubercle bacilli in the tissues.

As stated in the introduction, the features in the case worthy of notice are as follows:—

1. *The priority in origin of the laryngeal over the pulmonary affections.*—The history of the case undoubtedly points towards the larynx as being the part first affected. The commencement of a sore-throat, with hoarseness, could be traced to one particular evening when the patient, having placed himself in a draught, caught cold. He had hitherto enjoyed good health, and had no predisposition to tubercular disease. He was also assured by a medical practitioner whom he consulted about two years subsequently, in consequence of the persistent hoarseness, that his lungs were quite normal. The whole history and evidence pointed towards laryngitis, of a slow insidious form, as the starting-point of the disease. The examination on my first visit to the patient showed the laryngeal to be much more severe, and apparently of longer duration, than the pulmonary affection. A simple chronic inflammation of the larynx was undoubtedly the first link in the chain which led to such disastrous results to the patient.

2. *The engrafting of a tubercular on an initial simple inflammation of the larynx.*—It may reasonably be inferred that, not only at the commencement of the disease, but for some years subsequently, the condition present was one of simple inflammation of the larynx. Tuberculosis of the larynx lasting for seven years, and without being accompanied by extensive pulmonary changes, is, it is believed, quite unknown. In the present case a persistent chronic inflammation of the larynx disorganised and weakened the organ, and rendered it a suitable nidus for the reception and development of the tubercle bacilli, which readily reached it by inhalation. A progressive chronic inflammation appears to subserve this purpose more effectually than an acute inflammation, even where the latter leaves unmistakable traces of its presence in the form of permanent laryngeal changes. A case has been under constant observation during the last four years in which an acute laryngitis, at one time threatening suffocation, has played considerable havoc with the structures

and integrity of the larynx, but without evincing any tendency towards tuberculisation. On the other hand, several cases, mostly in men, have been noted where, as in the present instance, a slow, gradually progressive inflammation of the larynx has undoubtedly ushered in tubercular disease both of the larynx and lungs. It is impossible to state with precision when the simple inflammation merges into the tubercular unless careful microscopical examination of the sputa be made from time to time with a view to the detection of the bacillus of tubercle. This is undoubtedly the variety of laryngeal tuberculosis in which the laryngeal precedes and leads to the pulmonary deposit, and may therefore justly be called primary laryngeal tuberculosis.

3. *The presence of the tubercle bacillus in the sputum and laryngeal secretion, and its value as an aid in diagnosis and prognosis.*—Of the laryngoscopic appearances in the case the utmost that could be stated was that they indicated a severe form of chronic laryngitis. The chest symptoms showed a bronchitic condition, with probably slight consolidation at right apex. The temperature chart afforded small indication, for the average of fifty observations was, morning 98·2°, evening 98·6°. The discovery of the bacillus in the sputum supplemented in a most material way the other signs and symptoms, and afforded undeniable evidence that the case was of a more unfavourable character than was at first apparent. From March 28th, 1883, till the date of death (Feb. 15th, 1884), the sputum was examined on seventeen occasions, at about regular intervals, for the bacillus of tubercle, with the following results. On each occasion but one they were readily detected. In fair abundance in every field at first, their numbers afterwards seemed slightly to diminish, and in several fields they were not detected. They again slightly increased, and on Aug. 12th a very few were found in the laryngeal secretion on its removal by a brush. On Sept. 22nd, on testing the mucous and purulent portions of the same sputum, they were found from two to three times more abundant in the mucous than in the purulent portion. On Dec. 15th, after a hæmorrhage to the extent of one or two mouthfuls, marked signs of disease at both pulmonary apices, especially the right, and infiltration of the base of the right lung, they were present to the number of from fifteen to twenty in the field, rather isolated, but occasionally two lay in contact in a V-shaped arrangement, or three or four together, but not in contact. On January 16th, after steady persistent treatment by iodoform insufflation and inunction to the extent of inducing iodoform intoxication, the sputum, muco-purulent in character, contained as many as from forty to fifty in the field, generally not in contact. On Jan. 19th, under a continuance of the iodoform treatment, they could not be detected in the sputum, this being the only occasion when such was the case, but when the examination was repeated five days afterwards they were readily detected. It was probable, therefore, that some error in the preparation of the sputum interfered with their detection on the 19th. On Feb. 4th they were again found in the laryngeal secretion to the extent of fifteen in one field. The bacillary history of the case may therefore be shortly summarised by stating that these organisms assisted materially in the diagnosis, that they steadily persisted in the sputum, despite constant treatment by metallic astringents, antiseptic sprays, and iodoform insufflations to the larynx, and that their presence was not accompanied by febrile or other constitutional disturbance. Treatment by iodoform was pushed as far as was considered judicious, but without effecting any reduction in the number of the bacilli, although it diminished the putrefactive odour of the sputum. It is worthy of particular notice that on post-mortem examination, not only were they found in the secretion of the laryngeal ulcerations, but also in the mucus coating the crico-thyroid area, without subjacent ulceration. In the region of the ventricular bands and in the ventricles of the larynx, where they were from three to four times more abundant than in the crico-thyroid region, their presence was associated with deep destructive ulceration. This diversity may have been partly owing to the ventricles of the larynx affording a more secure nidus to these organisms, but probably partly also to the fact that the inferior regions of the larynx and the trachea are lined by a mucous membrane which is closely applied to the inner surfaces of the tube, and whose deeper layers (submucosa) contain strong bands of elastic longitudinal fibres. Whilst, in my experience, it is not uncommon to find erosion of the epithelium in the trachea and lower division of the larynx in phthisis, one can never detect the same destruction as in the neighbourhood of the ventricular bands and arytenoid cartilages. The cartilaginous framework of the larynx and trachea has a resistant power which the softer tissues do not possess, and though, as would appear from the present case, the bacilli of tubercle cling to the whole of the respiratory tube, it is only in the softer tissues of the larynx and in the delicate alveoli of the lungs that their presence leads to deep destruction of tissue.

4. *Certain toxic effects following the use of iodoform.*—This drug was applied by insufflation and by inunction over the larynx and in the axilla. The difficulty in swallowing hindered its administration by the stomach. The formulæ used were, for insufflation, from one to five grains of iodoform with one-sixth to half a grain of acetate of morphia twice daily, and for inunction one part of iodoform to seven parts vaseline, also twice daily. When the larger doses of iodoform were reached, the patient became violent and quarrelsome, and a condition of excitement closely resembling the first stage of alcoholic intoxication was induced, which subsided on the discontinuance of the remedy. Considerable benefit to the local symptoms was experienced at the same time, but though the remedy was pushed as far as was conducive to safety, it was found that no effect was produced upon the bacilli of tubercle, which continued still to be found readily in the sputum. Inunction without insufflation also produced slight excitement and confusion of ideas. In a previous communication to a contemporary[1] I had already directed attention to the toxic action of the drug, and though the views then expressed by me did not find favour with certain continental authorities,[2] further experience has confirmed me as to their correctness. Dr. Batty Tuke, who saw the case now under notice with me, has informed me that, soon after seeing my patient, he was called to another case, in which the free use of iodoform produced the same symptoms as those above described, which disappeared on the discontinuance of the use of the drug. M. Maitre[3] considers that, taken by man in doses of from five to six grains, it causes no notable symptoms; but my experience is that a smaller dose may readily induce toxic symptoms, particularly in weakly individuals.

With regard to the action of this remedy in laryngeal tuberculosis, although probably by its anæsthetic action it has a soothing effect on the throat, it does not seem to have any effect upon the disease. It does not diminish the number of bacilli in the laryngeal secretions, nor does it appear to promote the healing of the laryngeal ulcers. Little effect can, however, be expected from any remedies in such cases, unless use be made of them at very early periods of the disease, for its later stages are characterised by such an amount of laryngeal destruction and constitutional deterioration as invariably leads to a fatal termination.

Edinburgh.

A CASE OF LITHOTOMY WHERE THE NUCLEUS OF A LARGE PHOSPHATIC CALCULUS WAS THE WHALEBONE MOUTH-PIECE OF A TOBACCO-PIPE.

WITH REMARKS.

BY REGINALD HARRISON, F.R.C.S.,
SURGEON TO THE LIVERPOOL ROYAL INFIRMARY.

APART from the general interest attached to cases of this kind, which, curiously enough, are not very uncommon, there are, in this instance, two points upon each of which a few remarks may be made.

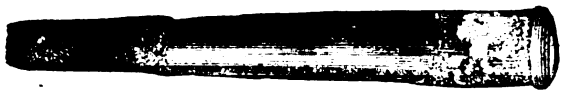
Robert H——, aged thirty-three, a seaman, was admitted on June 23rd, 1884, into the Liverpool Royal Infirmary suffering from symptoms of vesical irritation. The history elicited the following points:—Eight years previously the patient had gonorrhœa, from which he recovered quickly. In December last he had some scalding after micturition, and on the 13th of the same month he was admitted into a hospital in Wales with a fracture of the leg. Whilst in hospital he appears to have suffered from vesical irritation and passed two pieces of calculus; his symptoms continued

[1] Edinburgh Medical Journal, January, 1883.
[2] Centralblatt für klinische Medicin, 1883, No. 11.
[3] Wood's Treatise on Therapeutics, p. 384. See also British and Foreign Medico-Chirurgical Review, vol. xxxiv., p. 247.

on his return home to the Isle of Man. On admission into the Liverpool Infirmary I found him suffering from calculus in the bladder. Upon examining the calculus with the lithotrite it proved to be large, soft, and peculiarly shaped. The last-mentioned circumstance made me resolve to cut instead of to crush.

On June 27th I performed lateral lithotomy, and removed a large phosphatic calculus, which broke under the grasp of the forceps, and disclosed the whalebone mouthpiece of a tobacco pipe, to which a small piece of rotten string was attached. It was noticed that the smell of tobacco in the mouthpiece was quite distinct. As the phosphatic envelope crumbled under the pressure of extraction, it was impossible to estimate correctly its weight. It must have been very large. About an ounce of these fragments was collected. The exact size of the mouthpiece is shown in the drawing. The patient made a good recovery, and left the infirmary on July 28th.

On the fourth day after the operation I showed him the foreign body, and asked whether he could offer any explanation as to how it got into his bladder. He remarked that "he was glad to see it again. He had swallowed it whilst playing with some companions on board ship three years ago. He felt no pain at the time, nor until last December, when the symptoms of stone became manifest." He was frequently spoken to in reference to the improbability of such an explanation, but he would never admit of any other construction being placed upon the word "swallowed" than that usually adopted. In this statement of the patient will be found the first point of interest. Though so highly improbable, was it possible? The only case I know of which would at all substantiate the idea that a foreign body of this nature could find its way into the bladder from the intestines is one recorded by Sir Alfred Roberts, of the Sydney Hospital, who removed by



lithotomy a piece of slate pencil two and a quarter inches long, which it was alleged had been swallowed. Commenting on this case, the author says: "I have left no stone unturned to elucidate the truth in this very interesting case, and can only state that after much hesitation I have arrived at the conclusion that the pencil was swallowed by mouth and made its way by inflammation and ulceration into the bladder."[1]

The second point of interest is in reference to the circumstances generally which determine us in the selection of lithotomy or lithotrity. These can never be regarded in the light of hard-and-fast rules. In this instance, in the absence of all history, I had every reason to believe that I had to deal with a calculus which, though large, was still, by reason of its softness, quite within the limits of crushing. Had such an operation been attempted, the splitting of the nucleus into fragments would almost certainly have been attended with a fatal result. In this instance the peculiar shape of the calculus rendered me suspicious that I had something unusual to deal with; further, there was a consciousness that there was not that easy access, with the open jaws of the lithotrite, to all parts of the calculus, which is an important feature when crushing has to be undertaken. On these points I mainly relied in deciding in favour of lithotomy, a choice which was more than vindicated by the very unexpected discovery that was subsequently made. In a case previously reported,[2] where I extracted a pencil-case three and a half inches long from the male bladder with the lithotrite, the patient came under my notice within a few hours of the alleged introduction, by other persons, of this article up his urethra, and before sufficient time had elapsed to permit of the deposition of phosphates upon it.

Liverpool.

[1] Medical Times and Gazette, July 30th, 1859.
[2] THE LANCET, Aug. 11th, 1877.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The Library of the College will be closed on Friday (this day) till Monday, the 16th inst., for the purposes of the Hunterian Oration and Festival. The Oration will be delivered in the theatre by Prof. John Marshall, F.R.S., LL.D., on Saturday, the 14th inst., at three o'clock precisely.

CASE OF REMARKABLY SLOW PULSE WITH EPILEPTIFORM SEIZURES; AUTOPSY.

BY A. T. GIBBINGS, M.D. LOND.

THE following case, read in connexion with one reported by Mr. St. George Mivart, in THE LANCET of Jan. 3rd, seems to me of sufficient interest to be put on record.

J. B——, aged sixty-six, a tall spare man, with well-marked arcus senilis, had pleurisy as a young man, and presents the marks of cupping for the attack; he says that his pulse has been very frequently intermittent ever since he can remember; has worked rather hard at his office, and has had a good deal of anxiety and worry in domestic matters. There is no family history of any neurosis. He has never had syphilis, gout, or rheumatism, and has been strictly temperate. He consulted me in May, 1882, for weakness and difficulty of breathing, especially on exertion. He complained also of attacks of dyspnœa at night, lasting sometimes for a few minutes, sometimes for an hour or so; also of a troublesome noisy cough. Urine normal; heart and lung sounds normal; pulse intermittent, about 60. He attended more or less regularly for some two months, improving considerably under treatment, though not altogether losing his dyspnœa. From Oct. 21st to Nov. 21st he was confined to the house with an attack of bronchitis, attacks of dyspnœa occurring irregularly, chiefly at night. He returned to business on Nov. 21st, and attendance was discontinued until Dec. 2nd, when I was again sent for. I was struck by the slowness of his pulse, which was 44, and quite regular. He was ordered a mixture of arsenic and strychnia. He went in a cab to business, but had frequent feelings of faintness, for which he was obliged to resort to alcohol or ammonia. On January 3rd, 1883, he was seen in consultation with Sir Andrew Clark, having become steadily worse. He now complained of dyspnœa on the least exertion, and of frequent feelings of faintness. His pulse was now 34, regular and synchronous with the heart beats. Walking up and down the room did not increase the frequency of the heart beats. Sir Andrew Clark recommended that he should be kept in the recumbent position, be fed every three hours, and have six ounces of port or burgundy in the twenty-four hours. He continued to take considerable quantities of nourishing food, which he digested well. Notwithstanding this, the sensations of faintness became very frequent, the pulse steadily declined in frequency, and now a new symptom showed itself. This consisted in frequent epileptiform attacks. The face became deadly pale, the pupils dilated, and the eyes fixed; the pulse ceased to be felt at the wrist. After a few seconds it returned feebly; the face then flushed all over, and clonic convulsive tremors lasted for five or six seconds. The first indication of an attack was the non-recurrence of the usual pulse beat. Almost directly there was a moaning sound, and the face became pale and fixed. This sequence was observed repeatedly, so that with the finger on the pulse I knew that an attack was beginning a second or two before the face changed. He had generally an aura, consisting of a feeling of hot fluid at the back of the neck. On Jan. 20th he was seen in consultation with Dr. Moxon, when his pulse was 22, full and regular, his heart beats corresponding in time. Dr. Moxon could find no evidence of disease of the heart or lungs. The brain was active and clear, and there were no nervous symptoms. Dr. Moxon recommended a trial of nitro-glycerine and atropia. Matters did not mend at all. The epileptiform attacks became very frequent and distressing; rising in bed would generally bring them on, but they also occurred when at absolute rest in the recumbent posture. On the 26th Dr. Moxon again saw the patient, and it was agreed to try bromide of potassium in thirty grain doses, with the hope of checking the fits, which were now most distressing. This he took for two days, but became decidedly worse. The pulse fell to 13, then to 12 on January 28th. The nurse's journal says on the morning of the 28th, "Free from attacks for one hour during the night, all the rest of the night he passed from one fit into another." A considerable amount of albumen was found in the urine. I now decided to discontinue all medicine. He began again slowly to improve, and gradually by February 26th the pulse had reached 31; the albumen had soon cleared away. After this he got up every day and worked two or three hours at

his account books. He felt altogether better, but there was dyspnœa on exertion. He continued to take nourishment well, the pulse keeping over 30, and varying from that to 33 or 34. On March 6th, while at stool, he fainted, and died in two or three minutes. The temperature, taken occasionally, the last time on February 21st, varied between 96·6° and 97·4°. It never reached 98°. The respirations varied from 18 to 24. It should have been stated that the heart's apex was in the normal position, the impulse was normal, and the heart sounds distinct and without murmur. The infrequency of the beats was owing to prolongation of the diastole.

Autopsy.—Dr. Moxon, Dr. J. W. Hunt, and myself were present. The right pleura contained about one pint of serous fluid. Beyond that the appearances were almost entirely negative. The valves and muscular walls of the heart were healthy, the coronary arteries being pervious. The arteries generally were remarkably free from atheroma. The liver, kidneys, brain, and medulla oblongata were to all appearance normal.

Remarks.—Two questions suggest themselves in connexion with this case—1st, what was the cause of the gradual slowing of the pulse? 2ndly, what was the cause of the epileptiform seizures? The latter were evidently caused by sudden anæmia of the brain. The absence of the recurring pulse beat was always the first in order of the phenomena of the seizures. An intermission of the heart-beat when the pulse is only sixteen or twenty must cause a temporary deficiency of blood in the cerebral vessels. The patient, even in health, had very frequently suffered from intermittent pulse. The cause of the former is more obscure. Post-mortem examination gave nothing but negative indications, while Dr. Moxon's well known skill and experience in this department is a guarantee that no gross change was overlooked. I think there can be little doubt that we must look to the nervous mechanism regulating the heart's action as the factor in its causation. Physiology teaches that stimulation of the vagus will produce this inhibitory or slowing action. Czermak, as is well known, was able at will to stop the beating of his heart, by pressing his vagus against a small osseous tumour in his neck, and thus mechanically stimulating the nerve. In Professor Foster's "Physiology" it is stated that "stimulation of the vagus produces in the ventricle simple lengthening of the diastole without change in the force of the systole." But there is another way in which this retardation may be brought about, and that is by the bringing into abeyance the action of the intrinsic cardiac ganglia, the normal inhibitory action of the vagus being then unopposed. To quote Professor Foster again:—"If a ligature be drawn tightly round the junction of the sinus venosus with the auricles, or if the auricles be separated by an incision carried along the boundary line between the two, a standstill is produced closely resembling a very prolonged vagus inhibition." Probably, then, the cause of the gradual slowing of the pulse must be sought either in an irritative lesion of the vagus or in a degenerative lesion of the cardiac ganglia. Nothing at present is known of changes in these ganglia. The pleuritic effusion no doubt occurred during the last two or three weeks of life, when, finding the patient dressed at the time of my visits, I did not continue to make careful examinations of his chest, as I had done previously at frequent intervals.

Jan. 22nd, 5.20 P.M.: Pulse 22; temperature 97°. 23rd, 1.30 A.M.: Pulse 21. 7 A.M.: Pulse 20. 11.20 A.M.: Pulse 22. 8.30 P.M.: Pulse 20. 24th, 3.50 A.M.: Pulse 19. 7.30 A.M.: Pulse 20. 10.40 P.M.: Pulse 19. 12 P.M.: Pulse 18. 25th, 3 A.M.: Pulse 19. 26th, 9 A.M.: Pulse 23. 5.40 P.M.: Pulse 25. 27th, 3 A.M.: Pulse 22. 10.30 P.M.: Pulse 24. 12.45 P.M.: Pulse 20. 2.15 P.M.: Pulse 19. 5 P.M.: Pulse 17. 28th, 3.15 A.M.: Pulse 17. 10 A.M.: Pulse 13. 11 A.M.: Pulse 12. 12.20 P.M.: Pulse 15. 2.15 P.M.: Pulse 17. 29th, 12.30 A.M.: Pulse 15. 2.15 A.M.: Pulse 17. 7.20 A.M.: Pulse 21. 3 P.M.: Pulse 22. 30th: 12.30 A.M.: Pulse 20. 9.40 A.M.: Pulse 24. 2.20 P.M.: Pulse 24. 9.20 P.M.: Pulse 21. Quite free from fits all day. 31st, 8.50 A.M.: Pulse 20. 2.15 P.M.: Pulse 20. 6.30 P.M.: Pulse 22. Quite free from fits all day. Feb. 1st, 11 A.M.: Pulse 22. 6.30 P.M.; Pulse 22. One slight fit. 2nd, 9.30 A.M.: Pulse 22. 2 P.M.: Pulse 25. 8.30 P.M.: Pulse 21. Had several slight fits during the evening. 3rd, 9.15 A.M.: Pulse 24. 10.30 P.M.: Pulse 30. Had severe fits during the afternoon; ordered a mixture of solution of arsenic and solution of strychnia three times a day. 4th, 6 A.M.: Pulse 17. 8 A.M.: Pulse 24. 11.30 A.M.: Pulse 21. 11.30 P.M.: Pulse 18. Had several severe fits until 2.30 A.M., then slept an hour. 5th, 8 A.M.: Pulse 20. 3.30 P.M.: Pulse 22. 8.40 P.M.: Pulse 23. 6th, 9.30 A.M.: Pulse 25. 1.45 P.M.: Pulse 20. 6 P.M.: Pulse 18. Fits continued. 7th, 1.30 A.M.: Pulse 20. 9 A.M.: Pulse 25. 1.40 P.M.: Pulse 20. 8.30 P.M.: Pulse 25. 8th, 3.30 A.M.: Pulse 21. 9 A.M.: Pulse 24. 11 A.M.: Pulse 26. 5.30 P.M.: Pulse 24. 9th, 11 A.M., 3.15 P.M. and 6 P.M.: Pulse 25. 10th, 9.15 A.M.: Pulse 27. 11.15 A.M.: Pulse 24. 1.30 P.M.: Pulse 26. 12 P.M.: Pulse 24. 11th, 9 A.M.: Pulse 27. 5.30 P.M.: Pulse 26. 10.30 P.M.: Pulse 28. 12th, 9 A.M.: Pulse 24. 13th, 1.30 P.M.: Pulse 26. 14th, 8.30 A.M.: Pulse 28. 8.30 P.M.: Pulse 27. 15th, 9.40 A.M.: Pulse 28. 4.40 P.M.: Pulse 28. 16th, 8.40 A.M.: Pulse 26. 17th, 8.30 A.M.: Pulse 29. 18th, 9 A.M.: Pulse 29. 5.30 P.M.: Pulse 29. 19th, 8.30 A.M.: Pulse 27. 3.30 P.M.: Pulse 27; temperature 97·4°. 20th, 5.30 P.M.: Pulse 30. 21st, 8.30 A.M.: Pulse 30. 1.30 P.M.: Pulse 30; temperature 97·4°. 22nd, 9.30 A.M.: Pulse 30. 9 P.M.: Pulse 27. 23rd, 11 A.M.: Pulse 30. 3 P.M.: Pulse 30. 24th, 8.30 A.M.: Pulse 30. 7 P.M.: Pulse 31. 25th, 10 A.M.: Pulse 30. 7 P.M.: Pulse 31. 26th, 8.30 A.M.: Pulse 31. 12 A.M.: Pulse 31.

Richmond-road, Dalston, E.

ARTIFICIAL CIRCULATION AS A MEANS OF RESUSCITATION AFTER APPARENT DEATH.

BY CHAS. EGERTON JENNINGS, F.R.C.S.ENG.,
ASSISTANT-SURGEON TO THE CANCER HOSPITAL, ASSISTANT-SURGEON TO THE NORTH-WEST LONDON HOSPITAL.

CHLOROFORM POISONING.

(*Concluded from p. 247.*)

Experiment 8.—July 29th, 2 P.M.: One grain of morphia was injected into a terrier weighing 14·38 lb. The administration of chloroform was commenced at 3.34 P.M. When the animal was anæsthetised, a ligature was passed through the tongue. It was noticed that firm traction on this organ did not satisfactorily withdraw the epiglottis, which can be readily seen in the dog. A ligature of fine silk was passed through the epiglottis by means of a small curved needle, so that traction could be made on the epiglottis directly. Respiration stopped at 3.46 P.M. The pulse stopped at 3.51 P.M. The right external jugular vein was now exposed, and the cannula inserted. Depletion showed that the blood was not nearly of so dark a colour as that drawn in the previous experiments; doubtless owing to the access of air to the lungs afforded by traction on the epiglottis. Altogether 20 oz. of saline fluid (temp. 90° F.) with ten minims of liquor ammoniæ were injected. Artificial respiration was continued, and normal respiration returned at 4.2 P.M., the circulation being re-established first; in fact, very shortly after the saline injection was commenced. The blood lost by depletion was partly caught in a porcelain dish, but a considerable quantity escaped beneath the dog, and some also ran through perforated holes on the table to a shelf below. The experiment was therefore carried further than was necessary to restore animation, and afterwards, when the quantity of blood lost, which was in excess of the saline liquid injected, was examined, it was clear that sufficient had not been left within the vessels to maintain life for more than a short period. This experiment was performed by Dr. Boddaert and myself. At 6 P.M. it was reported by one of the laboratory porters that the dog had been "dead" for some time, probably for about fifteen minutes. The body was quite warm, but respiration and circulation had certainly ceased, and the forelegs were stiff. Half a minim of liquor ammoniæ with twenty minims of water were injected directly into the left ventricle through the chest-wall, and the injection was immediately followed by a return of pulsation. The tongue was drawn out of the mouth, and the epiglottis grasped with artery forceps. The laboratory porters were directed to perform artificial respiration whilst I prepared a saline solution. On exposing the left external jugular vein, that vessel was found much collapsed; twelve ounces and three drachms of saline fluid were injected. (Transfusion of blood was strongly indicated here, for the animal was dying from hæmorrhage, and the blood in the body was already very much diluted. Nevertheless it seemed better to inject saline fluid instead, and to watch

the result, rather than complicate the experiment further.) The hind-legs of the animal were bandaged firmly and elevated, in order to drive the blood towards the vital centres. At 6.30 P.M. the dog was placed before a stove, and half a drachm of brandy with an equal quantity of water, and $\frac{1}{15}$ of a grain of atropia were injected subcutaneously. At 7 P.M. the pulse was 96, and six deep inspirations were taken per minute. The dog died at 10 P.M. The autopsy made the following day showed that the left ventricle was firmly contracted. Not much blood was found in the vessels, and it was entirely fluid. There was a small extravasation (caused by the point of the syringe) beneath the visceral pericardium. Death evidently occurred from paucity of blood, and a comparison of this experiment with Experiment 15 fully justifies the opinion that had transfusion of blood been performed prior to 10 P.M. on the previous evening, life would have been saved.

Experiment 9.—To determine whether the intravenous injection of fluid (with simultaneous depletion) performed shortly after apparent death excites the heart to pulsation by stimulating the organ itself—either the intrinsic ganglia of the heart or its muscle fibres—or by stimulating certain ganglion cells in the medulla. July 30th, 2.30 P.M.: One grain of morphia was injected subcutaneously into a dog weighing 11 lb. At 3 P.M. chloroform was administered, the tongue and epiglottis were drawn forwards, and a cannula was inserted into the right external jugular vein towards the heart. The animal was then destroyed by pithing the medulla, and immediately afterwards saline fluid (with half a minim of liquor ammoniæ to each ounce) was injected into the vein, simultaneous depletion being practised, and artificial respiration being maintained. Altogether about 40 oz. of ammoniated saline fluid (temperature 90° F.) were infused, and three minims of liquor ammoniæ were injected by means of the syringe. The heart continued to beat till most of the blood had been expelled from the body. Inspection of the heart and vessels showed that they were filled with saline fluid tinged with blood. The experiment was unsatisfactory in this respect, that after the medulla was destroyed observation was not made as to whether the heart actually stopped. So that it cannot be asserted that the circulation was re-established by the infusion and depletion, but it can be said that, by the procedure, the circulation was well maintained. It is a physiological fact that after destruction of the medulla the heart's action does not instantly cease. But I do not think that in this experiment the circulation would have been maintained so long or so strongly without the saline injection. There was no violent action of the heart after the injection of the ammoniated fluid such as has been noted in some of the preceding experiments. Therefore this experiment indicates that, after apparent death, the infusion of a saline ammoniated fluid accompanied by depletion, if it produce reanimation at all, acts in a twofold manner—(1) by directly stimulating the heart—whether its muscle fibres only, its intrinsic ganglia, or both, are distinct questions; and (2) by stimulating certain ganglion cells in the medulla.

Experiment 10.—Infusion with depletion for chloroform poisoning. July 30th, 2.30 P.M.: One grain of morphia was injected subcutaneously into a dog of 15·2 lb. weight. 4.10 P.M.: Chloroform administered. The tongue and epiglottis were drawn forwards. Pulse 105 per minute. The anæsthetic was given freely with plenty of air. 4.24 P.M.: The respiration stopped. 4.27 P.M.: The pulse stopped. 4.32 P.M.: Infusion and depletion were commenced, and artificial respiration was performed. Altogether nearly 40 oz. of saline fluid (with a quarter of a minim of liquor ammoniæ to each ounce) were injected. Two minims of liquor ammoniæ were also injected by the syringe, and subsequently half a minim of liquor ammoniæ with a little water was injected directly into the left ventricle. No signs whatever of reanimation occurred. Some of the fluid was injected into the left common carotid artery, after the injection into the jugular vein had failed.

Autopsy.—The vessels and heart were moderately filled with blood and fluid. The ventricles were dilated.

Observations.—(1) The blood in this experiment was very thoroughly impregnated with chloroform; (2) the infusion and depletion were not commenced till five minutes after the pulse, and eight minutes after the respiration had failed; (3) only half the quantity of liquor ammoniæ had been employed in the saline fluid, as compared with that used in the other experiments.

Experiment 11.—August 1st, 10 A.M.: One grain of morphia was injected into a dog of 11·12 lb. weight. At 10.21 A.M. chloroform was administered, and the tongue and epiglottis were drawn forwards. 10.30 A.M: The pulse became intermittent. 10.34 A.M.: The pulse stopped entirely, and the respiration directly afterwards. After an interval of less than a minute the operation was commenced. Depletion and injection with artificial respiration were performed as in the other experiments. The pulse returned at 10.43 A.M.—i.e., after a cessation of nine minutes. Normal respiration recommenced at 10.47 A.M. At 11.7 A.M. the pulse was 52, and the respiration was 40 per minute. Altogether nine ounces of saline fluid, at 100° F. (with three-quarters of a minim of liquor ammoniæ to each ounce) had been infused, and one minim of liquor ammoniæ had been injected by the syringe. The depletion was considerably less than the infusion, for after the experiment the dog weighed 11·38 lb., and had therefore gained more than a quarter of a pound in weight. This animal recovered perfectly.

Experiment 12.—August 1st, 11.40 A.M.: One grain of morphia was injected subcutaneously into a dog weighing 7·05 lb. 11.58 A.M.: Chloroform was administered. The tongue and epiglottis were drawn forwards. 12.3 P.M: The pulse became intermittent. At 12.5 P.M. the pulse and respiration stopped; but returned after the performance of artificial respiration. Chloroform exhibited again. At 12.8 P.M. the pulse and respiration ceased, and did not return after the renewal of artificial respiration. Depletion, with injection of saline fluid into the external jugular vein, was made at 12.9 P.M. The pulse returned at 12.11 P.M., and normal respiration thirty seconds later. At 12.45 P.M. the pulse was 76, and the respiration was 60 per minute. This animal recovered. The quantity of saline fluid infused was nine ounces, and contained three-quarters of a minim of liquor ammoniæ to each ounce. One minim of liquor ammoniæ was also injected by the syringe. The infusion was in excess of the depletion, for after the experiment the dog weighed 7·35 lb.—i.e., it had gained about a third of a pound by the experiment.

Remarks.—The preceding experiments show that if depletion and intravenous injection be performed quickly after apparent death (i.e., before coagulation of the blood has commenced—and it commences early in cases of chloroform poisoning), pulsation will be restored. Experiment 2 has demonstrated, also, that if chloroform poisoning occur where the blood is in a diluted and *fluid* condition (and fluidity can always be attained by the exhibition of ammonia, as proved by Dr. Richardson), pulsation may be restored some minutes after apparent death by the operation. The only reasonable explanation of these phenomena is that the "vital centres" do not necessarily perish with the cessation of pulse and respiration; and if the circulation and respiration can be restored—a thing always possible, provided the blood be fluid,—the vital centres will often resume their functions, even after they have been suspended for a period of some duration. It was resolved to repeat the last experiment, allowing a lengthy interval to elapse after apparent death before attempting to restore the circulation; and in subsequent experiments to exhibit ammonia before the administration of chloroform, that the blood might be kept fluid after the signs of animation had departed.

Experiment 13.—Aug. 1st, 3 P.M.: Half a grain of morphia was injected into a dog of 9·8 lb. weight. Chloroform was administered at 3.49 P.M. The pulse became intermittent at 3.54 P.M.; it stopped completely once or twice, but was restored by artificial respiration. Finally, the pulse and respiration ceased at 4.2 P.M. The injection and depletion were commenced at 4.4 30 sec. or 4.5 P.M. In the interim M. Nuel kindly made an ophthalmoscopic examination, and afterwards wrote for me the following note:—"La choroïde était tout à fait exsangue. Les petits vaisseaux rétiniens n'étaient pas visibles (ils étaient vides). Mais les gros vaisseaux rétiniens renfermaient du sang; seulement les colonnes sanguines étaient interrompues à la périphérie de la papille." Altogether 30 oz. of saline fluid (containing 22 minims of liquor ammoniæ) were infused, and two minims of liquor ammoniæ were injected by the syringe. This was about three minutes after signs of life had disappeared. The blood which flowed from the vein was partly coagulated, and very dark in colour. No return of pulsation occurred.

Experiment 14.—August 4th, 9.40 A.M.: One grain of morphia was injected into a dog of 16·21 lb. weight. At 9.55 A.M. the pulse was 83 per minute. 9.57 A.M.: Hypodermic injection of three minims of liquor ammoniæ in a little water. 10.5 A.M.: Pulse 56 per minute. 10.10 A.M.: Injection of ammonia repeated. 10.30 A.M.: Pulse 50 per

minute. 10.39 A.M.: Chloroform was administered. 10.46 A.M: Irregularity of the pulse. 10.47 A.M.: The pulse stopped. 10.47 30 sec. A.M.: Respiration stopped. 10.49 30 sec. A.M.: Injection and depletion commenced; artificial respiration was performed, with the tongue and epiglottis drawn forwards. 10.56 A.M.: Pulse returned. 10.58 A.M.: Normal respiration returned. At 11.20 A.M. the pulse was 40 and the respiration 14 per minute. Thirteen and a half ounces of saline fluid at 96° F. (with three-quarters of a minim of liquor ammoniæ to each ounce) were infused. One minim of liquor ammoniæ was injected by the syringe. After the experiment the dog was found to have gained about ·15 lb., therefore the infusion was in excess of the depletion. The animal recovered.

Experiment 15.—Aug. 4th, 11.33 A.M.: One grain of morphia was injected subcutaneously into a dog of 27·09 lb. weight. 11.37 A.M.: Hypodermic injection of six minims of liquor ammoniæ in water. 11.49 A.M.: Administration of chloroform. The epiglottis and tongue were drawn forwards. 11.53 A.M.: The pulse became intermittent. 11.56 A.M.: The pulse stopped. 11.58 A.M.: The respiration ceased. 12.4 P.M.: Injection and depletion, with artificial respiration. 12.5 20 sec. P.M.: Pulse returned. (Therefore pulsation was absent during a period of 9 min. 20 sec.) 12.5 35 sec. P.M.: Normal respiration was established. At 12.35 P.M. the pulse was 36 and the respiration 20 per minute. Nearly 9 oz. of saline fluid were infused, with three-quarters of a minim of liquor ammoniæ to the ounce (temperature 96° F.). Ammonia was not injected by the syringe. After the experiment the dog weighed 25·77 lb.—i.e., it had lost 1·32 lb. The excessive loss of blood was due to two circumstances—first, considerably more blood flowed during the operation than was intended, and, secondly, hæmorrhage occurred from the jugular vein after the infusion and depletion, owing to the slipping of a ligature. From the figures which have been given it will be seen that though the dog had recovered from the toxic effect of the chloroform, yet its life was jeopardised by the quantity of blood which had been lost. In such a case as this nothing but transfusion of blood would prevent death (cf. Experiment 8). However, there was no immediate danger, and the operation of transfusion was therefore postponed till that time had elapsed which, in actual practice, would be required to obtain a blood-giver. In the afternoon a large quantity of blood with a little saline fluid—for the blood of the animal was already much diluted—was transfused into the left femoral vein. Ether and a little chloroform were employed for the receiver, and chloroform was administered to the giver during the operation. Ammonia was not added to the saline fluid, because the blood of the receiver was already highly ammoniated. After the transfusion, saline fluid was infused into the giver.

Giver, weight 30·39 lb.:—	Receiver, weight 25·77 lb.:—
3.15 P.M.: Hypodermic injection — morphia, 2 grs.; atropia, $\frac{1}{75}$ gr.	4 P.M.: Pulse 36 per minute; shivering. After the transfusion of blood and saline fluid the animal weighed exactly 27·09 lb., which was its original weight.
4 P.M.: Transfusion, followed by repletion with saline fluid. Weight after experiment 29·84 lb.; therefore loss = ·55 lb.	

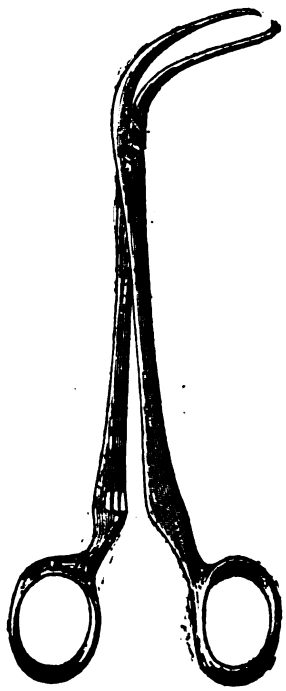
During the experiment 24 oz. 5 drs. of saline fluid (temperature 85° F.) were employed. Both animals recovered.

Experiment 16.—August 5th, 10 A.M.: A grain and a half of morphia was injected into a dog of 26·32 lb. weight. Six minims of liquor ammoniæ, in a little water, were also injected subcutaneously. 10.40 A.M.: Administration of chloroform. 10.50 A.M.: The pulse became intermittent. 10.50 30 sec. A.M.: The respiration ceased. (The tongue and epiglottis had fallen back, and were now both drawn forwards. Artificial respiration was performed till 10.58 A.M.) The pulse stopped at 10.55 A.M. 11.4 A.M.: Depletion and injection of saline fluid at 100° F. (with three-quarters of a minim of liquor ammoniæ to the ounce) into the right external jugular vein. There being no response to the injection—performed nine minutes after the cessation of the pulse,—the cannula was removed, and inserted into the left carotid artery (towards the heart) in order to inject the coronary arteries. No response. The cannula was then removed, and reinserted towards the cerebrum (11.34 A.M.), when muscular movements over the face and neck occurred. No other signs of animation.

Experiment 17.—Aug. 5th, 11.45 A.M.: A dog weighing 21·8 lb. Half a grain of morphia and five minims of liquor ammoniæ in water were injected subcutaneously. 12.9 P.M.: Administration of chloroform. 12.13 P.M.: Respiration stopped. 12.14 15 sec. P.M.: Pulse stopped. 12.22 P.M.: Injection of ammoniated saline fluid into the carotid artery, towards the cerebrum. Simultaneous depletion from the external jugular vein. Muscular twitchings over the face occurred. The jaws were closed, the eyelids were opened and shut, but no other signs of animation were observed.

Remarks.—All surgeons are aware that death from the administration of chloroform occurs either by asphyxia or by "paralysis of the heart." If death take place from asphyxia, the asphyxia is almost always an epiphenomenon. The tongue falls back, the laryngeal musculature is paralysed, the epiglottis drops over the superior aperture of the larynx. If the tongue be drawn forwards, and artificial respiration be now performed, a little air will enter the lungs, but not very much, for the epiglottis is flaccid, and at each inspiratory movement of the chest is drawn down like a valve. If the tongue be drawn out of the mouth forcibly with artery forceps, as advocated in Holmes's "System of Surgery" by Sir Joseph Lister, more air will enter the larynx, around the tip and edges of the epiglottis; but the access of air to the lungs is by no means free. This can be readily demonstrated on the dead body, if a vertical section be made of the head and neck; and the foregoing experiments have conclusively proved the accuracy of this statement. If, therefore, life be threatened by asphyxia during anæsthesia, and any impediment be noticed to the entrance of air to the lungs during artificial respiration, either tracheotomy should be performed or the epiglottis should be drawn forwards with forceps. On dogs the latter object can be easily effected with common artery forceps. Owing to the different configuration of the parts in man as contrasted with the dog, I have had forceps for the epiglottis made, which, as will be seen from Fig. 3, follow Sir Spencer Wells's forceps with regard to the handle, and artery forceps in respect to the point. Mr. Marshall has informed me that in one case he performed tracheotomy with success, for asphyxia consequent on anæsthesia; and the sudden rush of air into the trachea demonstrated the necessity for the operation. A similar rush of air is noticed when the epiglottis is drawn forwards under like circumstances, and the only superiority of tracheotomy over traction on the epiglottis is that it is perhaps more speedy, and a freer access of air would be gained to the lungs because the sectional area of the opening made in the trachea would be greater than that of the rima glottidis. The arguments to be adduced in favour of the choice of traction on the epiglottis are that by direct experiment the method has been proved successful, and that by it tracheotomy can be avoided. If death be imminent during chloroform anæsthesia from "paralysis of the heart"—true chloroform poisoning—when, as a rule, the circulation ceases before the respiration,—the maintenance of an artificial circulation is clearly the right line of treatment. Experiment 5 shows that if this plan be adopted within 2 min 40 sec. after apparent death, life can be saved. Further, if ammonia be exhibited prior to the administration of chloroform, life may be saved, as shown by Experiment 15, if the injection be made within eight minutes after cessation of the pulse, and six minutes after cessation of the respiration. Clearly, the practical point is to give a full dose of sal volatile before commencing the administration of chloroform, in order that, should an accident occur, time may be gained. The greatest danger exists when the patient, from dread of the anæsthetic, struggles and holds the breath for some seconds or

FIG. 3.



more, till the blood is carbonised, and then takes a few short, deep inspirations. Only too often a small but concentrated quantity of the vapour suddenly enters the lungs, and the pulse and respiration abruptly stop. Attention having been first paid to the access of air to the lungs, the external jugular vein should be instantly exposed and grasped in the lower angle of the wound with Wells's forceps. The vein can now be opened on the cephalic side of the forceps, so that artificial respiration can be performed without the risk of admitting air to the vein. The experiments embolden me to state that if this method be adopted promptly, reanimation would almost certainly follow the venesection. If the circulation be not re-established at once, the only remaining chance of safety would lie in the infusion of saline fluid, with or without the cautious use of ammonia. Since the dread of anæsthesia can always be prevented by the subcutaneous injection of morphia, it is difficult to understand why that alkaloid is not employed more frequently than it is, in a full dose, before the administration of chloroform. Atropia might be most advantageously combined with the morphia, since physiology teaches that atropia prevents inhibition of the heart through the vagus.

"Artificial circulation" having been treated by previous writers, I desire particularly to refer the reader to Dr. B. W. Richardson's paper on "Restoring the Life of Warm-blooded Animals,"[1] to a paper by the same author on "Death from Chloroform,"[2] and to Dr. Ringer's communication concerning the "Effects of Dilution and Concentration on the Action of Poisons."[3] And since the research which forms the basis of the present communication has been conducted apart from preconceived ideas, the opinions deduced therefrom will be found in some respects to confirm, and in others to antagonise, the views of the distinguished men who have already worked at the subject.

Park-street, W.

BULLET WOUND OF LUNG.

By C. B. MAITLAND,
OF HER MAJESTY'S BOMBAY MEDICAL SERVICE.

AT the present time, when pulmonary surgery is attracting a good deal of attention, the following case may be interesting as showing how comparatively slight the constitutional disturbance may be consequent on a severe injury to the lung.

On Sept. 7th, 1884, Heera, a low caste Hindoo aged sixty, in the habit of eating and drinking anything he could get, was admitted into the Staff Hospital, Deesa, with a recent rifle-shot wound of the chest. The rifle, a Snider, had been fired 150 yards to his front. The entrance was between the second and third ribs, two inches from the right edge of the sternum; the ribs were uninjured. There was no exit wound, but the fourth and fifth ribs on the same side were broken midway between the scapula and the spine, apparently a piece of each rib being knocked out. There was considerable shock, but scarcely any bleeding, so a little rum was administered. For ten days the man remained fairly comfortable, the tongue, at first furred, cleaning, and only occasionally coughing up a little rusty sputum. On the twelfth day his temperature was 99·5°, and on examination behind I found a swelling, fluctuating with the respiration, opposite the sixth interspace, in the same vertical line as the break in the ribs. On opening this, a somewhat flattened Snider bullet was extracted—it was lying outside the chest cavity—and about a pint and a half of offensive blood-stained pus let out. For three weeks the lung cavity was washed out daily with carbolic solution (1 in 40), the fluid latterly returning nearly clear. The patient all this time suffered from no inconvenience, except when being injected the syringe hurt the broken ends of the ribs. Air passed freely through the posterior wound when uncovered, and once a slough two inches long came away. The morning temperature was always normal, the evening temperature ranging from 99° to 99·5°; respiration averaged 40, and pulse 96. On Oct. 11th his temperature went up to 100°, so a drainage-tube was inserted in the sixth interspace without making a fresh wound, and some offensive pus let out. Next morning the temperature and pulse were normal, and the respiration 32. In a week the injected fluid returned clear, and in a month the tube was finally removed. Now, Dec. 17th, the man is apparently in perfect health, fatter than before the injury, and the lung performing its functions. His recovery will seem the more remarkable to those acquainted with the prematurely aged and shrivelled appearance of indigent Hindoos.

Bombay.

[1] Proceedings of the Royal Society, June 15th, 1865.
[2] Medical Times and Gazette, 1870, vol. ii., pp. 85, 86.
[3] THE LANCET, 1883, vol. i., pp. 628-629.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prœmium.

ST. MARY'S HOSPITAL.

STRICTURE OF THE URETHRA CURED BY EXTERNAL URETHROTOMY; SUBSEQUENT DEVELOPMENT OF EPITHELIOMA OF THE BLADDER AND GENERAL DISSEMINATION OF THE GROWTH; DEATH; NECROPSY; REMARKS.

(Under the care of Mr. A. J. NORTON.)

THE patient, a plumber, aged fifty-five, was admitted in March, 1884, suffering from impassable stricture of the urethra, apparently the result of a blow on the perineum received eighteen years before. No catheter larger than a No. 4 could be passed at the end of a month; the operation of external urethrotomy was then performed, and the patient left cured in the early part of June. At that time there was no evidence of malignant disease, though on one occasion the urine contained albumen and blood. He was readmitted on the 27th of October; and to better comprehend the sequence of the symptoms the post-mortem record of the case is first given. Lungs adherent to the diaphragm, and infiltrated with cancer. Abdomen: Intestines adhering together, mesentery infiltrated with cancer, peritoneum thickened generally with cancer. Peritoneal coat of intestines contained nodules of growth; main growth nearly as large as a cocoa-nut, connected with the summit of the bladder, spreading in an irregular nodulated mass around the rectum and lower part of the sigmoid flexure, which latter was bent in the growth at two acute angles, so as to produce total obstruction. The ureter and left external iliac vessels traversed the growth, but were not compressed. A section of the growth was soft and creamy-looking in parts, almost purulent, and in parts traversed by dense fibrous tissue. Lymphatic glands behind the bladder in the pelvis and the abdominal glands all generally affected. On opening the bladder an epithelioma not of large size, perhaps an inch and a half square, occupied the summit, and the mucous membrane of the bladder was remarkably thick, thrown into coarse folds and quite white in colour, but not infiltrated with cancer. In the urethra there was no sign of the former stricture, but in its place where urethrotomy had been performed was a conical dilatation with the apex towards the skin.

On his readmission at the above date, he was in a feeble state, unable to walk with any vigour, was pale, and seemed in pain. He said he had no irritability of the bladder, but his urine was red, containing a considerable quantity of blood, an enormous quantity of mucus, some albumen, and quantities of triple phosphate crystals. There was pain over the region of the bladder, and when the abdomen was examined there was found a mass in the left iliac fossa fixed firmly along the brim of the true pelvis, quite immovable, and extending back to the sacrum; it seemed to be raised about one inch from the bone, and was quite hard. Examined by the rectum nothing important was found. The prostate was normal, and as high as the finger could reach no growth could be detected. The excessive quantity of mucus suggested severe catarrh, but a tumour of the bladder could not with certainty be diagnosed. (It may be here mentioned, to show the subsequent rapidity of the growth, that the bowels were normally open.) Constitutionally the patient was ill; certainly the pulse was full and steady (71 per minute), and he slept well; but the tongue was thickly coated, the appetite impaired; he was pale and restless when awake. The

urine was ordered to be drawn off and the bladder to be washed out with a solution of Condy's fluid daily, using a soft catheter; and it was found on passing a No. 10 catheter that there was no return of the former disease, stricture. The patient, of course, remained in bed, taking milk diet only, and on Nov. 9th he stated that he was much more comfortable; the mucus in the urine had considerably diminished, and there was only a small staining of blood; the tongue was clean, and the pulse 72; the bowels comfortably open.

On Nov. 13th the notes suggest that the patient was rapidly improving, for the pain was subsiding. He expressed himself as greatly relieved. Tongue clean, temperature normal, and but little blood in the urine. This apparent improvement can only be referred to his complete rest in bed.

On the 15th, Mr. Norton's fourth visit, he found the patient complaining of great pain, aching and lancinating, in both loins and over the pubes; the pelvic growth had very distinctly increased in size, and the glands along left Poupart's ligament were enlarged. The bowels were still open normally. Temperature normal; pulse 76; but he could not sleep and his appetite was failing. He had literally no irritability of the bladder, never requiring to pass urine oftener than when in a state of health; it contained a large quantity of blood and mucus. A catheter was passed, and, after drawing off the urine, it was moved a little freely in the bladder, which bled rapidly. Examination by rectum disclosed no tumour within reach of the finger, but there was a gland behind the bladder enlarged to the size of a cob-nut but quite movable. It was concluded that there was a tumour of the bladder, which bled freely when touched, and which was the cause of the condition of the mucous membrane, and it was clear that the tumour was carcinomatous, and that the pelvic mass was secondary growth. From this time the disease made rapid progress; the tumour had increased visibly at each examination, twice a week; the bowels became confined; he suffered from tympanites and spasmodic or cramping pains in the upper abdomen, and from aching and lancinating pain in the pelvic region; the pulse was 90; the blood increased in quantity in the urine, and was of a florid-red colour; and the patient got no rest at night except under the influence of opium.

On the 19th the temperature rose to 101°; and on Dec. 4th he was jaundiced, and for a week previously the bowels had not been opened except by large enemata. The pulse was now 100, the temperature ranging between 100° and 102°. He was refusing food, and each day becoming sensibly weaker, the tongue brown and dry, and the breath fetid. On Dec. 9th he died.

Remarks by Mr. NORTON.—At my first visit there was no blood in the specimen of urine shown to me, but a very great quantity of mucus, and at the visit I recognised the presence of the growth at the brim of the pelvis. The mucus was evidence of severe catarrh, and I looked upon this as the result of a former stricture and of a dilated bladder unable to expel all its contents. I therefore made him pass his water, and then inserted a soft catheter to see if any were retained; but I found the bladder empty, a proof that there was no paralysis, a very common cause of catarrh, and one the presence or absence of which one should never fail to ascertain by the method I have mentioned in every case of catarrh of the bladder that comes under notice. The tumour in the pelvis I did not like to pass an opinion upon at my first visit; I thought it to be malignant, because he complained of pain, and manipulation did not cause the pain to arise at the moment of examination, and because the tumour was intensely hard and immovably adherent. At my third and fourth visits there was blood in quantity in the urine, and this blood was of a florid colour, evidently derived from a bleeding surface, and not smoky, as it appears when arising from passive congestion or a diseased condition of the kidneys. Now the blood came in quantity with the last four drops of urine. I therefore passed a metal catheter to sound the bladder, and found that hæmorrhage was produced by moving the instrument within the bladder. I had now no hesitation in asserting that the bleeding was from a growth in the bladder, and that the tumour in the pelvis was secondary deposit or in connexion with it. I say in connexion with it for this reason, that notwithstanding the condition of the urine there was absolutely no irritability of the bladder. He passed urine only three or four times a day, from which I inferred that the tumour was not situated near the neck, but at a distance from that region, probably near the summit of the bladder, and that the tumour was not large so as to be compressed when the bladder was empty, otherwise there would have been pain and irritability of the bladder. I now examined per rectum, and could not feel within the length of my finger any definitely marked growth. Now, if the tumour were at the summit of the bladder, as it turned out to be, it would be closed up to the region where the secondary growth, or extension of the same, was situated—namely, at the brim of the pelvis. We had now clearly diagnosed the case, and as it was malignant disease, there was no possibility of operative interference. We had, therefore, only to watch the case and treat or relieve symptoms. We had to give the patient rest by means of soporifics, and to relieve pain by anodyne injections into the bladder, and later on to overcome the obstruction in the bowels by laxatives and enemata.

LEITH HOSPITAL.

COMPOUND DEPRESSED FRACTURE OF THE SKULL; EXUDATION OF CEREBRAL MATTER; RECOVERY.

(Under the care of Dr. FINLAY.)

FOR the following notes we are indebted to Mr. C. Stein:—

The two cases of compound depressed fracture of the skull, each of which was complicated by wound of the brain and loss of cerebral substance, will be found very interesting, whilst the result in each proves the wisdom of the treatment adopted. In neither case do the symptoms appear to have been in anything like proportion to the amount of injury sustained. In the case under Mr. Spofforth's care there were no symptoms beyond those produced at the time of injury; and in the case under the care of Dr. Finlay, beyond twitching of the left hand, noticed seven days after admission, there were no symptoms of importance developed. In neither case was there any paralysis noticed, and in each the recovery appears to have been perfect.

J. S——, a boy eleven years of age, was brought to Leith Hospital on October 7th, 1884, at 4.30 P.M., his head having been crushed between the edge of the pavement and the wheel of a lorry. He was semi-comatose, though struggling and screaming, and had vomited freely. There was a scalp wound one-third of an inch long, situated an inch below the right parietal eminence, and the surrounding portion of the scalp was much bruised and swollen. Lying in the wound was a slight speck of a whitish substance resembling brain matter. Blood was oozing freely from the wound. On examining the skull, there was found an extensive depressed fracture involving a considerable portion of the right side of the skull. The pupils were equal. A light dressing was applied to the wound, and the boy was put to bed, where cold was applied to his head by means of an ice-bag. During the night he remained more or les unconscious, and was exceedingly restless.

Next morning (Oct. 8th), Dr. Finlay considered it advisable to examine the fracture more thoroughly. During the administration of chloroform the boy struggled considerably, and fully a tablespoonful of brain matter escaped from the wound. The wound was enlarged upwards and downwards, and an extensive V-shaped fracture was found extending downwards and backwards from the original wound. The apex of the fragment of bone was depressed to the extent of the thickness of the skull. Owing to the great extent of the fracture, Dr. Finlay considered any operative interference unwarrantable, and accordingly the wound was dressed with glycerine of carbolic acid and salicylic wool. During the course of the day the patient gradually became more conscious, but towards night he was again very restless and complained of pain in his head. After a hypodermic injection of morphia he fell asleep.

The patient continued to improve steadily, and by Oct. 18th he ceased to complain of pain in his head, was able to sit up in bed, and took his food well. The wound was at first dressed every two days, and afterwards at longer intervals, and was entirely healed by Oct. 27th.

On Nov. 7th the patient was allowed to leave his bed.

On the 24th he was discharged from the hospital. During the whole course of his illness his temperature only once reached 100° F., which occurred on the morning of the fourth day after the accident (Oct. 11th), while on the evening of the same day his temperature was 98·4°.

On Oct. 14th there was perceptible occasionally a slight twitching of the left hand.

On Dec. 5th the patient came to the out-patient room

with his father, who stated that he was as intelligent and active as before the accident, and quite able to go on with his school work. On examining the skull, there was to be felt a distinct depression about one inch long, and large enough to allow the end of the little finger to lie in it, situated nearly one inch below the parietal eminence, just at the position of the original wound. The boy was quite bright and intelligent, and there was no loss of power or sensibility in any part of the body, neither were any morbid sensations present.

KIDDERMINSTER INFIRMARY.

COMPOUND DEPRESSED FRACTURE OF SKULL; EXUDATION OF CEREBRAL MATTER; TREPHINING; RECOVERY; REMARKS.

(Under the care of Mr. SPOFFORTH.)

WE are indebted for the following notes to Mr. Frederic S. Barber, house-surgeon:—

Mary B——, aged twenty-five, was admitted on Nov. 11th, at 1.20 A.M. She was unconscious, much collapsed, and bleeding freely from the scalp. On examination it was found that over the left parietal region there was a large lacerated wound leading down to a depressed fracture of the parietal bone near its anterior inferior angle, the depressed portion being about an inch and a half in length at its free edge, and being driven in to the extent of about one-third of an inch. Behind this, and situated over the posterior inferior angle of the parietal bone (and over the lateral sinus), was an incised wound, leading down to a well-marked fracture of the bone, but with no depression. There was also another scalp wound and continuance of the fracture over the longitudinal sinus above the occipital protuberance. From the history, the above had all been produced by an assault with a hatchet. The wounds were dressed with carbolised oil, and restoratives given to the patient, who remained unconscious till about 5.30 A.M., when she became dreamily aware of her surroundings and able to answer simple questions. In this state she remained till the forenoon, when Mr. Spofforth proceeded to trephine. On removing the dressings, those coming from the anterior wound were found to be smeared with cerebral matter, and a quantity of cerebral matter was noticed beneath the scalp. In elevating the depressed portion (after removing a semicircular pledget), Mr. Spofforth found it necessary to use his whole force. The wound was loosely sewn up with silver, a small drainage-tube introduced beneath the scalp, having two free ends, and dressed with carbolised oiled lint and absorbent wool. The dressing was allowed to remain undisturbed for fifteen days, at which time the wounds were found to be quite healed (with the exception of the orifices for the tubing), perfectly dry, and a marked absence of purulent discharge. The tubing was withdrawn and a fresh dressing applied as before; afterwards it was freely oiled and lightly protected by a bandage. She complained of much pain at first, which was checked by a one-grain opium pill occasionally, and a calomel purge was given, otherwise she received no medicine. Her mental faculties were not impaired, and all her special senses were perfect. She had inability for voluntary micturition for a few days, but that has since become normal. The highest temperature reached was 100·8° on the fifth day and 100·6° on the eighth day, since which time it became quite normal.

Remarks.—We notice the position of the depressed fracture almost over the middle meningeal and of the posterior one over the lateral sinus; then the evidence of the membranes being ruptured and the cerebral matter exuding, and at the same time apparent absence of meningitis; the continued integrity of all the senses; and the rapid repair of the parts, with scarcely any suppuration.

THE Rivers Committee have presented a report to the Manchester City Council in which, after careful consideration of the question of the best method for the treatment and disposal of the sewage of Manchester, it is recommended that they be authorised to make inquiries and report as to the land which can be obtained at a reasonable rate for carrying out either the irrigation or precipitation system, and to report to the Council the result of such inquiries, together with particulars of the scheme to be adopted for the complete interception of the drainage of the city.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Displacement and Fracture of the Axis.—The Radical Cure of Club-foot.

AN ordinary meeting of this Society was held on Tuesday last, Dr. George Johnson, F.R.S., President, in the chair. The following gentlemen were elected Fellows of the Society: Drs. W. D. Halliburton, F. W. Mott, Theodore D. Acland, A. Haig, Messrs. James Berry, John Cahill, W. M. Collins, F. H. Hawkins, K. W. Millican, and J. Poland.

A paper on a case of Displacement and Fracture of the Axis was read by Dr. DAVID LOWSON. The paper was communicated to the Society by Sir Prescott Hewett, Bart. The injury occurred ten years ago to a man aged seventy-five, who fell on the vertex of his skull from a wall six feet high. After recovering consciousness, the patient experienced great pain in the neck. The head was bent back and carried stiffly. Nasal respiration was obstructed, and the mouth kept open to render respiration easier. Deglutition was difficult; the voice had a nasal intonation; and a hard swelling could be seen and felt projecting from the back of the pharynx. There was no paralysis or anæsthesia. The patient died in July, 1884, from a disease having no connexion with the injury. At the post-mortem examination it was found that the axis was bent back to an angle of 60°, the bodies of the second and third vertebræ were ankylosed, and the arch of the third was partially telescoped into that of the second, to which it had become ankylosed. The cord was gently bent opposite the site of the injury, and the spinal canal at this point was quite wide and roomy. The specimen was exhibited to the Society, and also a somewhat similar one from the St. Bartholomew's Hospital Museum. It appeared that Sir James Paget had discovered a specimen of displacement and fracture of the axis in a churchyard, and Sir Prescott Hewett had had two cases similar to the one here recorded.—The PRESIDENT referred to the rarity of this injury, and to the obstruction of the œsophagus caused by the projection of the displaced bodies of the vertebræ.—Mr. ADAMS asked whether any attempt was made to put the neck straight. There need be no fear of doing harm by straightening the neck in cases which were usually partial unilateral dislocations of the neck; symptoms referable to injury of the cervical nerves were generally present. Three cases were briefly related which had been treated by him by immediate extension and complete rest.—Mr. NOBLE SMITH said he had seen one case of this injury, and there was a projection in the region of the second or third cervical vertebra. The patient was placed under chloroform, and the neck was restored to its normal shape without disaster. Reference was made to certain specimens in the museums of the hospitals, showing the conditions resulting from caries of the body of cervical vertebræ.—Dr. LOWSON said, in reply, that his patient suffered but little, and so really required no surgical interference. His case was one of injury, and he had said nothing as to the consequences of disease of the cervical vertebræ.

A paper on the Radical Cure of Club-foot was read by Mr. RICHARD DAVY. The author arranged his subject under the following heads:—1. The line of thought that has induced operative procedures in cases of intractable club-foot. 2. The cases especially suited for operation. 3. The operation itself, the description of its details, and the instruments necessary for its performance. 4. The list of twenty-six cases operated on by the author, and notes of other cases operated on by other surgeons. 5. The exhibition of casts taken before and after operation, and also of living specimens or the results gained. Also six specimens of the blocks of bone removed by the operations. 6. General observations on club-foot, with conclusions. The author considered that his operation was founded on the experiment made on the dead body of freely opening the transverse joint, twisting the foot into varus position, and inserting into the transverse tarsal joint a wedge. This demonstration justified the removal of the cuboid bone on the living subject in 1874, and, in addition, the base of the fifth metatarsal bone in 1875. The instruments and splint used by the author were exhibited, and his method of operating and after-treatment described. The open-air

method of cicatrisation had been practised on all his cases. The mortality of this operation was less than 4 per cent., as only one of the twenty-six cases operated on had died. Nineteen of the cases were boys, and four were girls. Two cases were submitted to the double operation at one sitting. Fourteen were cases of talipes equino-varus, ten were cases of talipes varus, and two were cases of equinus. The oldest patient was twenty years old, the youngest fifteen months. The average stay in the hospital from the date of the operation to that of discharge was seventy-seven days. The results of the operation were most satisfactory. A shortened symmetrical foot is left, which is far preferable to a stump. The patients become plantigrades, dispense with instruments, and perform their ordinary duties. Six specimens of the osseous wedges removed (all in one block of bones), showed as component parts the individual bones of the transverse tarsal joint; one specimen showed portions of the astragalus, os calcis, the bases of four outer metatarsal bones, and the internal cuneiform bones, and the whole of the scaphoid, cuboid, and two outer cuneiform bones. Professor Ogston's operation of attacking the astragalo-scaphoid joint by operation was alluded to in relation to flat-foot, but up to the present the excision of an osseous wedge at the transverse tarsal joint had been restricted to equinus and varus cases or their combinations. Mr. Edward Lund's operation of removal of the astragalus was also mentioned. In conclusion, the author put this excision of an osseous wedge forward as mainly applicable to inveterate cases; he was inclined to plead for its adoption in young persons under certain circumstances. The author summed up in favour of this operation as follows:- In obstinate club-foot, where osseous distortion has occurred, a definite mechanical operation with definite surgical landmarks performed on the tarsal bones has led to definite results; these results, occurring in the experience of one surgeon, may help to obtain general recognition of the value of the operation as a means of remedying deformity.—Mr. W. ADAMS said that the relapse of cases of talipes after tenotomy was largely due to neglect of proper treatment by mechanical appliances after the tendons had been cut. He made certain objections to Mr. Davy's operation, which interfered with the important movements of the transverse tarsal joint, whilst Mr. Lund's operation interfered with the movements of the ankle joint, and left those motions dependent on the transverse tarsal joint.—Mr. R. W. PARKER said that for some time past he had been engaged in the study of the talipedic foot, and in conjunction with Mr. Shattock had embodied his observations in a paper which would be found in the last volume of the Pathological Society's Transactions. In the course of the dissections made for the purposes of the above paper, he had been struck with one or two anatomical points not referred to in books on the subject which appeared to him to have an important bearing on the treatment of these cases. With considerable opportunities he had not seen any cases of talipes in young subjects which had not yielded to very much milder measures than those proposed by Mr. Davy, and he could hardly imagine a case in which such an operation would even be justifiable in an infant of fifteen months. In adults who had been neglected, and in whom, in addition to the primary deformity, there had supervened secondary deformities from walking on the inverted foot, talipes became incurable by the ordinary means; but considering what such patients could do with their deformed feet, how they could and did tramp about, it was questionable whether any operation could do much to improve them, beyond, perhaps, improving the appearance of the foot. If this were all, it was not worth all the risk run, and all the time consumed. In saying this, he was not reflecting on the operation, but expressing his own personal view on the subject generally. In dissecting talipedic feet, he had found, though the astragalus was usually altered in shape, that this was not invariable; on the other hand, in all the cases, the ligaments were shortened, and in severe cases, even after the removal of all the muscles, the foot could not be straightened on account of this shortening of the ligaments. Thus, in one well-marked case, the anterior portion of the internal lateral ligament of the ankle-joint had blended with the talo-scaphoid and the calcaneo-scaphoid ligaments, and formed a strong unyielding capsule about the astragalo-scaphoid joint; this resisted all attempts to straighten the foot; even after this capsule had been divided the foot could not be put quite straight. It was necessary to divide also the capsules of the joints between the scaphoid and the internal cuneiform, and between the cuneiform and the first metatarsal bone. He was thus led to think that in the treatment of talipes more attention should be given to the ligaments than was usually done, and that many of the inveterate cases met with in practice were due to shortening of the ligamentous structures on the inner side of the foot. If the ligaments and muscles were equally stretchable—which was not the case—we should naturally expect more stretching in the muscles than in the ligaments, by reason of their greater length; it indeed appeared strange that so much should be made of the value of stretching and tenotomising structures like the muscles, while the short unyielding ligaments were left to take care of themselves. He exhibited some specimens illustrating this shortening, also another specimen showing that the ligaments could be divided without difficulty and without any damage to other important structures of the foot. He recommended this operation for all severe cases in young persons, and for inveterate cases in the adult before severer measures were adopted, and indicated the method of carrying it out.—Mr. NOBLE SMITH thought that the question raised was as to the comparative merits of osteotomy and the ordinary methods of treating cases of talipes. Much mechanical support was lost when all the tendons were divided at the same time. Osteotomy was no doubt far more serious than any of the other surgical measures usually employed in such cases.—Mr. WALSHAM believed that Mr. Davy's operation could only be required in very rare cases. He had seen but four or five cases which seemed to require division of the transverse tarsal arch. A description was given of the case in which he had performed the operation of removal of a wedge-shaped portion from the tarsus. A simple transverse division of the tarsus was an excellent plan of operation, and in one case this had to be supplemented later on by the removal of a wedge-shaped piece from the cuboid bone. In this case he also performed the operation on the opposite foot; the patient was two and a half years old; the result was decidedly good.—Mr. DAVIES COLLEY had performed the operation of removal of a wedge-shaped portion from the tarsus of the foot for talipes in October, 1875, so that there was an inaccuracy in Mr. Davy's statement that the operation was performed in 1877. He thought that the operation could be done perfectly with the aid of a raspatory and a fine saw, and without the employment of any special instruments.—Mr. JOHN CROFT had performed Mr. Davies Colley's operation four times for talipes varus in children. Tenotomy and mechanical apparatus were certainly insufficient for the cure of many of these cases. In all cases the wound had absolutely healed in three weeks, and if proper antiseptic precautions be adopted ten days were sufficient.—Mr. WILLIAM ROSE had done Mr. Davy's operation in two cases; the boys' ages were fourteen and nine respectively. No orthopædic treatment could have made those patients plantigrades. The results were very satisfactory, and the wounds were treated strictly antiseptically, with the result that healing was very rapid.—Mr. BRODHURST considered that osteotomy was a dangerous and unnecessary measure for any case of congenital varus.—Mr. RICHARD DAVY, in reply, said that in his paper he had credited Mr. Davies Colley as the first to perform the operation. With regard to his method of treating the wounds, he said that Dr. de Forrest Willard had collected statistics of seventy cases, and it came out that the mortality was greater than his (Mr. Davy's) was; so that, unless future experience proved that antiseptics were required, he should continue his mode of treating the wound. Casts were shown of a case on which Mr. Manby had operated. The deformity was of the most marked kind, and could probably only have been relieved, as it was by Mr. Manby, by some such operation as that which he had ventured to bring before the Fellows of the Society. The prolonged course of treatment necessary for such cases was, amongst other reasons, a very powerful argument in favour of further surgical procedure being employed than was usually adopted.

MEDICAL SOCIETY OF LONDON.

Discussion on Renal Surgery.

AN ordinary meeting of this Society was held on Monday last, Mr. Arthur E. Durham, F.R.C.S., President, in the chair.

Mr. HENRY MORRIS read a paper, opening the discussion. He said that certain definite surgical operations, such as nephrotomy, nephro-lithotomy, and nephrectomy were well

recognised as not only justifiable, but successful, in combating certain affections of the kidney. There remained much to be learnt with respect to the symptoms which should guide us as to these proceedings, also as to which of these operations is best adapted for particular cases, and as to how we could most safely and certainly find out the working power of the second kidney, or even if a second kidney existed. Two things were required before a surgical exploration of the kidney were undertaken. First, symptoms must exist which are regarded as characteristic of renal calculus; and, secondly, these symptoms must have shown themselves irremediable by medicinal treatment. These characteristic symptoms were the peculiar pain of renal colic, the presence of blood and pus in the urine not possessing constant characters, the absence of morbid conditions of the bladder and prostate, and frequency of micturition. Without doubt these symptoms were strongly suggestive of calculus, but were not positively characteristic of it. The absence of all symptoms was not, however, conclusive of the absence of calculi. He had in his possession a list of nineteen cases in which nephro-lithotomy had been done. He had also in his possession a list of sixteen cases typically indicative of renal calculus, in which there was complete failure to find the stone after surgical exploration. The lumbar incision was almost without danger to life, and this was a fortunate circumstance. Many morbid conditions existed which simulated stone in the kidney, and not unfrequently nephro-lithotomy relieved such conditions. Excessive mobility of the kidney was one of these conditions, and the relief of symptoms after the performance of a nephro-lithotomy may be readily explained by the fixation of the kidney, resulting from the changes which take place in the inflammatory exudation caused by the surgical interference. In other cases, as Mr. Annandale supposed, the division of some of the nerves in the neighbourhood of the kidney caused the cessation of the pain. We have analogous cases of relief of symptoms in the results of neurotomy, neurectomy, and nerve stretchings, and in those cases in which epileptic seizures have ceased after division of the scalp and after trephining healthy cranial bone. The lumbar incision may relieve the tension of cases of chronic perinephritis, just as happens in cases of periostitis after incision, and in cases of ostitis after drilling the bone. In a fourth set of cases in which intense pain is complained of, and a history of hæmaturia is given, the whole of the symptoms may be due to hysteria. An abnormally acid urine, or urine highly lithatic, may cause all the symptoms of a renal calculus. Again, though no calculus has been formed, a number of crystalline forms or calculous particles may simulate renal calculus. In a certain number of cases slight and early scrofulous disease of the kidney has been mistaken for a calculus, and relief has followed acupuncture or incision. A calculus may be present and yet escape detection, either because of the great toughness and thickness of the renal tissue, or because the stone has become displaced from the kidney and impacted in some part of the ureter. It is hardly likely that such cases would be relieved by surgical exploration. There is a great resemblance between the symptoms of stone and those of acid urine. In these cases the gouty diathesis may exist, and, though no actual pain is suffered, testicular tenderness is present. The value of alkaline treatment in such cases is paramount. Hæmaturia is looked upon almost as a necessary result of calculus. Renal hæmorrhage may occur without very obvious cause, as from congestion or increased blood pressure; and if this should occur in rheumatic, hysterical, or highly neurotic individuals, the symptoms of renal colic may be very closely simulated. When the lumbar or testicular pain is absent, frequency of micturition with pyuria and hæmaturia are insufficient for a correct diagnosis. Should we examine both kidneys from within the abdomen under these circumstances? If there be crystals in the urine and the case be in a bad way, and if digital examination of the vesical ends of the ureters gives a negative result, he thought we should. The differential diagnosis of early strumous disease from renal calculus was not unfrequently one of great difficulty; again, a calculus may be present with strumous disease. We need more accuracy of diagnosis as to the site of a calculus when it is present. Is it in the calyx, pelvis, or ureter? and, if in the ureter, at what part of its course? He had related a case of vesico-urethrotomy for the removal of a calculus from the vesical end of the ureter in the *American Journal of Medical Sciences* for October, 1884. The cases recorded by Drs. Agnew and Rawdon were quoted in illustration of the symptoms caused by impaction of a stone within the ureter. Dr. Cullingworth excised a calculus which had been impacted in the upper end of the ureter. The patient died, and the other kidney was found to be riddled with abscesses and the ureter blocked. The case, nevertheless, gives promise of good results from intra-peritoneal ureterotomy. The following propositions were given:—1. Although hæmaturia, associated with frequency of micturition and a small amount of pus in the urine, is, in the absence of disease in the lower urinary tract, strong evidence in favour of renal calculus, yet that pain either in the loin, groin, or testicle of one side is also needed to justify the surgeon in exploring the kidney through the loin. 2. That pain alone, when persistent or frequently paroxysmal, and giving rise to sickness and sweatings, or subject to exacerbations during perfect rest, justifies lumbar exploration when there is a history of hæmaturia without pus, or a trace of pus without a history of hæmaturia, associated with one-sided pain, the exploration ought to be made if alkaline treatment have failed. 3. That when the above symptoms occur in persons with acid urine, or of gouty tendency, or who lead sedentary or indulgent lives, alkaline treatment ought to have a prolonged trial before an exploratory incision is proposed. 4. That when the urine is alkaline from carbonate of ammonia, and not from fixed alkali, the alkaline treatment should be tried on the ground that urine very acid when secreted irritates and inflames the mucous membrane, and so causes the alkalinity which is found when the urine is discharged from the body. 5. That under certain circumstances an abdominal exploration in search of calculus in one or other or both kidneys is justifiable. 6. That if strumous, not calculous, kidney cause the above symptoms, the lumbar incision may give great relief by affording exit to pent-up pus. 7. That under the circumstances previously stated, digital exploration of the bladder in search of calculus in the ureter ought to be made, and if a stone is found in the vesical orifice it ought to be removed. 8. That removal of the calculus impacted in the ureter by intra-peritoneal ureterotomy is feasible, and in certain cases ought to be practised. 9. That exploration of the kidney should not be considered complete till incision of its substance has allowed of the thorough examination of the calyces, and that nephrectomy ought not to be entertained until after free incision of the kidney and digital exploration of the bladder have failed to disclose the calculus. 10. That exploration of the bladder in the female certainly, and in the male generally, ought to be made before nephrectomy is resorted to for hydronephritic and pyonephritic tumours. 11. A stone in one kidney may sometimes excite sympathetic pain and irritation in the opposite one; the pain is then aching, not spasmodic; the surgeon should, however, explore when pain is severe and frequent. 12. Experience suggests that after lumbar exploration the patient should be kept on his back, and a well-adjusted compress should be placed on the abdomen over the front of the organ explored, as there is, though rarely, a tendency for the kidney to fall away from the loin and delay in the completion of the healing of the wound. The next subject dealt with was as to which of the operations should be resorted to in certain cases, and whether any at all should be performed in others. Differences of opinion may arise as to what has to be done in cases of floating kidneys, wounded kidneys, cancer, strumous disease, and cystic enlargements and distensions of the kidney. Nephrectomy was considered to be not justifiable in cases of floating kidney. With regard to wounded kidneys many circumstances had to be taken into consideration; but if the indications of injured kidney, or pelvis of kidney, are marked and the gravity of the case is urgent, an incision should be made over the kidney at once, and drainage or nephrectomy performed according to circumstances. If primary nephrectomy has not been performed, and prolonged and profuse suppuration occurs, secondary nephrectomy should be practised. Median urethrotomy or lateral prostatotomy should be performed if clots of blood accumulate in the bladder or are forced into the urethra, giving rise to obstruction, pain, and distress. In cancer of the kidney nephrectomy is hardly ever justifiable. Nephrotomy may give relief to or even check the progress of strumous disease. Nephrotomy, followed by antiseptic irrigation and drainage, was still the operation where large abscesses have formed, and where perinephric suppuration has occurred. Nephrectomy must not be performed in cases

of tubercular disease if the system at large is affected. If the disease be limited to one kidney and there is danger of exhaustion from suppuration, nephrectomy may advantageously be performed after nephrotomy has failed. The greatest divergence of opinion has prevailed in cases of hydronephrotic and other cystic tumours of the kidney. Nephrectomy ought rarely, if ever, to be performed unless the tumour is of immense size and nothing but a cyst wall remains. Even then puncture or nephrotomy should have preceded nephrectomy. Hydronephrotic tumours may subside spontaneously; a single tapping, or a repetition of tappings, may cure some cases; nephrectomy has cured others, and some have gone on well for a long time after nephrotomy with a urinary sinus in the loin. Mr. Morris would say of renal cysts generally that as soon as the tumour has reached a size which causes inconvenience by pressure, not to say danger from rupture, it should be tapped, and that if it refill it should be cut down upon, punctured and emptied, and then incised, and the edges of the cyst should be stitched to the edges of the wound. If a fistula remain and prove troublesome, the question of nephrectomy may be considered, and the character of the fluid discharged should decide the question. If the kidney structure be functionally sound, and secretes several ounces of urine per diem, the remains of the organ should not be sacrificed on the ground that a kidney and part of another is much safer than one healthy kidney. Frequency of micturition may have something to do with the causation or increase of a hydronephrotic tumour. The arrangement of the vesical openings of the ureter, and of the muscles concerned in these parts, was demonstrated by diagrams taken from those given by Sir Charles Bell in the third volume of the Royal Medical and Chirurgical Transactions. The frequency of micturition should be controlled if possible, and a most powerful method of doing this was median urethrotomy. If it be performed, the vesical ends of the ureters should be digitally examined to see whether either of them is blocked by an impacted stone. Some reference was made to methods for ascertaining the character of the urine secreted by each kidney, and special mention was made of Tuschmann's instrument. Mr. Morris considered, however, that such plans were probably not likely to be of much value. In ascertaining the existence of a second kidney, instruments for closing the ureters might be more useful; but if allowance be made for cases of congenital malformations of the genito-urinary organs, there is an intrinsic improbability against either congenital absence or atrophy of the kidney. Out of 8068 autopsies there were but two instances of congenital absence, and one of congenital atrophy.

Mr. A. E. DURHAM felt great interest in the subject of the surgery of the kidney, and he said that he had predicted that in the surgery of the future the kidney would come much more into the hands of the surgeon. He believed that he was the first in this country to cut down on a kidney with a view of removing a stone; none was found on examination, though the symptoms were most characteristic. Another case was mentioned in which many calculi were removed, but the kidney was not excised. The patient died of peritonitis, and the evidence at the autopsy fully justified his not excising the kidney.

Mr. BRYANT said that he was chiefly struck by Mr. Morris's remarks on the diagnosis of renal calculi. Surgical interference must always in the first instance be of an exploratory kind.

Dr. TUSCHMANN thought the employment of an instrument for closing one ureter was most necessary in determining the existence of a second kidney.

Mr. KNOWSLEY THORNTON asked whether in the cases in which no stone was found there had been sufficient exploration. With regard to the good effects of fixing the kidney, he considered that then the stone did not move about as it did in the normal kidney, and so the relief of symptoms might be explained. He had found hæmaturia absent in one case of stone of the kidney under his care. Frequency of micturition was perhaps more frequently associated with scrofulous kidney than with calculus in the kidney. He asked whether digital exploration of the bladder was always a safe measure; suppression of urine had occurred in a case in which he had rapidly dilated the urethra. He considered that it could never be justifiable to perform nephrectomy for cancer of the kidney. He had advocated the bringing out of the ureter, and could not agree that to leave the ureter in its natural site was the best method of dealing with it. The danger from intestinal obstruction seemed to him to be infinitesimally small. He had now performed his operation in eleven cases, with success in all; but in the six in which he brought out the ureter the recovery was most rapid.

Mr. CLEMENT LUCAS related a case of strumous pyelitis in which all the symptoms pointed to calculus, but none was found. Exploration in every possible way had failed to detect a stone; later on phthisis developed. More than a year ago he had removed a calculus from the kidney, in which case there were no abnormal signs in the kidney. Mention was made of a case where in removing a kidney from a child the diaphragm was perforated, but the careful use of antiseptic agents and the catgut suture seemed to be followed by the best results, for the patient did not suffer from any symptoms referable to the lung or pleura.

Mr. WALTER PYE spoke of the extraordinary powers of resistance of the kidney to the presence of foreign bodies in its pelvis. Reference was made to the case of a man aged forty-two in whom suppuration existed in and about the kidney, and in which an operation for removal of the kidney was broached though never performed, and the patient, though discharging much pus, was still in good health. He confessed to a certain amount of belief that stones in the kidney would to a large extent look after themselves.

Mr. HENRY MORRIS, in reply, said that of the nineteen cases referred to the kidney was incised in three or four cases. He believed that an irritable bladder was much more frequently associated with scrofulous kidney than renal calculi. With regard to palpation of the ureters in the knee-and-hand position, he thought that the proportion of cases was small in which it could be of any value. He had never seen the slightest reason to forbid rapid dilatation of the urethra. Median urethrotomy was not unfrequently performed by him for the mere relief of frequency of micturition. In resorting to nephrectomy after nephrotomy, it should be our earnest hope that nephrectomy will not be needed.

Mr. J. STARTIN showed some cases of Lupus treated by caustics.

YORKSHIRE ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

THE annual meeting of this Association was held at York on the 27th ult., Mr. S. W. North, President, in the chair. After the transaction of routine business,

The PRESIDENT delivered an address, in which he enumerated the advantages caused by the formation of the Society and briefly reviewed the questions of legislation with regard to the sale of milk, over-pressure in education, and legislation affecting the care and treatment of infectious diseases in hospitals.

Dr. HIME (Bradford) read a paper on the Germ Theory of Disease, in which he showed the basis of belief for what is known as the germ theory, traced out the leading events in its history, and showed the position in which it stands at the present time as a scientific theory fully verified by facts. Having alluded to the work done by Robert Boyle, Henle, Pasteur, and Koch, Dr. Hime stated that it was in surgical practice that the truth of the germ theory first bore its fruits, and to England, in the person of Sir Joseph Lister, was due the glory of having established a method of surgical practice which had not only rendered familiar operations free from danger, but had made possible operations which a few years ago it would have been considered criminal to attempt. Dr. Hime said the bearing of that important theory upon public health was of very wide extent. If they really had ascertained the specific cause of consumption, anthrax, pneumonia, diphtheria, typhoid fever, and a number of other of the greatest plagues of humanity, more than the first step had been taken towards successfully combating those diseases. But they could not hope for rapid progress in this country while they were hampered by measures which entirely prevented the possibility of scientific research, and which, while it rendered perfectly legal the killing of rats and other vermin with the wanton intention of merely getting rid of them, rendered it a penal crime to inoculate a rat or a mouse with the object of saving human life.—A discussion followed, in which Drs. Low and Spencer and Mr. North took part, and Dr. Hime briefly replied.

WOLVERHAMPTON DISTRICT MEDICAL SOCIETY.

A MEETING was held in the Bell Medical Library, Wolverhampton, on Feb. 5th, the chair being taken by E. Crockett, Esq.

Dr. S. A. SMITH of Bilston read a paper on Puerperal Fever. After defining his terms, carefully enumerating the causes and graphically describing the varieties, he gave some interesting and instructive details of two local epidemics which occurred in 1873 and 1884. The discussion was maintained by Dr. Lycett, Mr. Crockett, and Mr. Jackson, and adjourned till the next meeting.

Mr. VINCENT JACKSON exhibited a girl who was able to walk six weeks after he had excised her knee; also an ossifying enchrondroma removed from the femur.

Dr. DINGLEY showed two Brains; one with a large hæmorrhage into the pons Varolii, and the other with an abscess in the temporo-sphenoidal lobe and meningitis from otitis in scarlet fever.

Reviews and Notices of Books.

Lectures on the Nervous System. By T. GRAINGER STEWART, M.D., F.R.S.E. Edinburgh: Bell and Bradfute. London: Simpkin, Marshall, and Co. 1884.

DR. GRAINGER STEWART'S lectures on the Nervous System, in their printed form, constitute a series of articles excellent alike in the manner in which they are written and in the matter which they contain. The qualified practitioner will find in them a pleasant means of passing a few hours whilst recalling the main facts in connexion with diseases of the nervous system. To the student not yet initiated into the mysteries of neurology these lectures will act as a faithful guide, whilst to the advanced student they will serve the purpose of helping him to discriminate between the main and subsidiary facts of the diseases of the nervous system. The first three lectures open naturally enough with the medical anatomy of the nervous system; then follow three more lectures dealing with aberrations of the sensory functions; the next two treat of the disorders of motion; the ninth lecture is taken up with the uses of electricity in diagnosis; whilst the tenth is concerned with the disorders of vaso-motor and secretory nerves, together with the examples of trophic disorders usually attributed to disturbances of some parts of the nervous system. The alterations in the cerebral and mental functions form the subject of the twelfth lecture. Language has a lecture to itself, which we have read with the pleasure of revived memories, for Dr. Stewart is an acknowledged master, so far as mastery is possible, of this most difficult subject. The thirteenth lecture seems at first sight not to follow the orderly succession of the previous lectures, but that does not detract from its value; it is a brief chapter on the general pathology of nervous diseases. The general treatment of nervous diseases is dealt with in the concluding chapter. There is no need to review the work at further length; it is a safe guide, and contains nothing which the student will have to unlearn. This notice cannot be concluded without reference to the numerous and most excellent illustrations.

The Public Health Act, 1875. Annotated, with an Appendix, &c., by W. G. LUMLEY, Q.C. Second Edition, edited by W. PATCHETT, Q.C., and ALEXANDER MACMORRAN, M.A. London: Shaw and Sons, Fetter-lane.

THE special feature about the second edition of this work consists in the detailed information given in the notes and annotations which are appended to the majority of the sections. A large number of these notes relate to matters which come more especially within the cognisance of those who act as legal advisers to sanitary authorities; but on looking at those clauses of the Act which relate essentially to work with which the medical officer of health is concerned, it is evident that the explanations given will be very useful to all who have to do with the sanitary administration of the country. The definition of the term "nuisance," as determined in the case of the Malton Urban Sanitary Authority *v.* the Malton Farmers' Manure Company, from which it may be inferred that it is not necessary to prove injury to health when offensiveness to the senses and consequent interference with the enjoyment of life is proved, is entered into, and it is a matter that needs to be more widely understood than it is. Useful explanatory comments follow sections 42 and 44, dealing with the different provisions as to removal of refuse, nuisances from animals, &c., and the reference to the unfortunate decision in the case of Heap *v.* Burnley Sanitary Authority brings the work up to the present date in the matter of distance bye-laws as to piggeries. In connexion with section 124 it is explained that the hospital or place to which patients may be removed compulsorily has been construed to apply to the infirmary or sick wards of a workhouse. Possibly this may be so, but we feel convinced that the intention of the clause was not to allow a person to be made a pauper against his will merely in the interests of communities that had failed to provide themselves with proper means of isolation, and we know of instances in which an attempt to procure removal to workhouses under this section has failed for the reason which we name. A somewhat similar point arises in a note to section 131, relating to hospital provision, where it is explained that the word "inhabitants" does not properly apply to paupers. This we think is an unfortunate comment, for although the guardians of the poor have certain definite responsibilities in regard to paupers whatever the nature of the sickness may be from which they are suffering, yet we know nothing that compels them to isolate the sick in the interests of the public health; and as a matter of fact the number of authorities who receive the inhabitants of their districts into sanitary hospitals quite irrespective of the question of pauperism is largely on the increase. Indeed, as is well explained in another portion of the annotation referred to, special statutory provision has been made for the transfer of hospitals for infectious diseases from the guardians to the sanitary authorities, so that the latter may undertake all the work of isolation. Some of the annotations extend over several pages, and will be found of extreme value both for the explanations they give and for the cases they cite, and on not a few much careful labour has evidently been expended. Following the Public Health Act, 1875, are a large number of other Acts, either in their entirety or in part only, which are referred to in the sections or annotations of the principal Act, and some notes are also appended to these latter. The index also appears to be well compiled. The volume exceeds a thousand pages, and this we suppose is an excuse for the entire absence of all orders issued by the Local Government Board under the Public Health Act. This absence is, however, a very considerable drawback to the work as a volume of reference for officers of health, but it is one that may be remedied in a future edition. Regarded as a whole, the work has exceptional merits; it supplies in one volume the statutes relating to health and local government, it gives explanations and quotes cases on obscure points with an amount of completeness and detail not heretofore attempted, and though it may not in every respect be perfect, it is unquestionably the best work of its sort which has as yet been published.

OUR LIBRARY TABLE.

The Journal of Anatomy and Physiology. Conducted by Professors G. M. HUMPHRY, W. TURNER, and J. MCKENDRICK. Vol. 19, Part 2. January, 1885. London: Macmillan and Co.—This part contains the following articles:—J. Bland Sutton: on Diseases of the Reproductive Organs in Frogs, Birds, and Mammals, with a plate. J. Duncan Matthews:

on the Oviduct in an Adult Male Skate, with a plate. Dr. James Davison: on the Influences of some Conditions on the Metamorphosis of the Blow-fly, chiefly dealing with the effects of different coloured lights and different temperatures. Dr. J. Charles: on the Sources and the Excretion of Carbonic Acid at the Liver. He thinks it proceeds from the decomposition of the proteids. Dr. A. M. Paterson: on a Method of Maceration. By the method described he finds that to make a jaguar's skeleton four months are required, and to make that of a zebra one month. David Hepburn: on Floating Kidney. Thomas Dwight: on the Movements of the Ulna in Rotation of the Forearm—an interesting paper in which the author contests Professor Heiberg's well-known conclusions. Alex. Hill: Dissection of a Double Monster. Professor Turner: on the Relation of the Alveolar Form of Cleft Palate to the Incisor Teeth and the Intermaxillary Bones; also, on the Dumb-bell-shaped Bone in the Palate of Ornithorhynchus compared with the Prenasal of the Pig; also, on the Infraorbital Sulcus; also, an additional note on the Oviducts of the Green Shark. Drs. R. T. Sutherland, R. J. Anderson, and J. C. Russell: Notes on Dissection.

A Statistical Chronology of Plagues and Pestilences, as affecting Human Life, with an Inquiry into their Causes. By CORNELIUS WALFORD. Pp. 151. London: Harrison and Sons. 1884.—This paper was read at the Statistical Society in 1883, but was not published in their journal on account of its length, and being in some other respects not suited for it. The title indeed seems a misnomer, for the paper is rather remarkable for the absence of information in a tabular form, and for the want of that precision of statement which is generally understood to characterise statistical investigations. As an instance of the latter defect, we may quote, from the chronological list of plagues and pestilences given in the Appendix, the notice of the cholera at Gibraltar in 1834: "*Gibraltar.* — Cholera attacked nearly everyone on the Rock," whereas official documents show that in a population of about 20,900 only 1686 cases occurred, with 414 deaths. The book, however, contains much curious and interesting information, especially on "the indirect causes, celestial and terrestrial," of plagues and pestilences, and on "plague prevention and remedies," the latter being divided into saintly and secular. The compilation of the book must have involved a great amount of labour, and it will doubtless prove useful to persons following out inquiries as to the prevalence of various epidemic diseases at different periods. The author informs us that this paper is to be followed by others on the Periodicity of Plague Visitations, the Spontaneous Origin of Disease, and on Pestilential Cyclones.

The Classified Directory to the Metropolitan Charities for 1885. Tenth Annual Edition. By W. F. HOWE. London: Longmans, Green, and Co.—This work contains full information of above 1000 metropolitan charitable institutions, all the religious, medical, educational, reformatory, preventive, relief, and other charities being grouped or classed under their respective headings, together with an appendix containing a list of similar institutions in England and Wales. To those interested in the removal of the troubles of their less fortunate fellow-creatures such a book cannot fail to be useful, for with its assistance the benevolent can with ease select the most suitable institution for their charity, or for any person whom they may wish to benefit, whether the case be blind, deaf, dumb, incurable, sick, aged, an orphan, homeless, &c.

New York Medico-Legal Journal. Pp. 200.—The December number of this periodical fully sustains the reputation obtained by previous issues. Besides an account of a number of miscellaneous subjects of medico-legal interest, we find some valuable contributions by well-known authors, home and foreign. Dr. T. Stevenson of London communicates a paper on Poisoning by Canned Foods, in which he argues that there is not sufficient evidence to show that the toxic symptoms hitherto observed are referable to ingestion of metallic compounds such as of zinc and tin. An exhaustive comment is given by Dr. Clark Bell, the President of the New York Medico-Legal Society, on the Relations of Madness to Crime. The author reviews the English and American Criminal Law on the responsibility of the insane in incisive but judicial terms. Quotations are given from the writings of leading alienists in England, whilst Sir Fitzjames Stephens' exhaustive work on the Criminal Law of England is laid largely under contribution. The cases of Gouldstone and Cole, tried at the Central Criminal Court in this country, are cited in support of the contention that the existing Acts of the Legislature are inconsistent with the present state of medical knowledge. Two cases are recorded where lunatics were brought before the Ecclesiastical Courts in America. In one of them a woman was expelled from church fellowship on account of apparent misconduct, but the verdict was eventually rescinded on the proof of insanity being established. An abridged but trustworthy report is given of the debate in the House of Lords in May, 1884, on Lunacy Reform in Great Britain. We are glad to see in the list of corresponding members the names of many British authorities on forensic medicine and insanity.

The American Journal of the Medical Sciences. Edited by J. MINIS HAYS, M.D. New Series, Vol. 89. Philadelphia: Lea Brothers and Co. 1885.—This bulky volume contains a large amount of information of a very serviceable kind. The original communications are fifteen in number. The section devoted to reviews of books and pamphlets is very lengthy. An admirable quarterly summary of the improvements and discoveries in the medical sciences constitutes the third division of the journal. The work thoroughly deserves support from English practitioners of medicine. Among the original articles we may mention the following:—A Contribution to Jacksonian Epilepsy and the Situation of the Leg Centre, by Wm. Osler, M.D., F.R.C.P.; Poliomyelitis Anterior in Adults, by Gustavus Eliot, M.D.; Psoriasis, Verruca, Epithelioma—a sequence, by J. C. White, M.D.; a case of Unilateral Spasm of the Tongue, by E. C. Wendl, M.D.

Zeitschrift für Biologie. Edited by W. KÜHNE and C. VOIT. Band 20, Heft 4. 1884.—The memoirs contained in this part are, Max Rubner: On the Action of Acetate of Lead on Grape and Milk Sugar. 2. On the Heat becoming Latent on Solution of Urea in Water, by the same author. 3. Professor Axel Jäderholm: Studies on Methæmoglobus. 4. Dr. K. Mays: Histo-physiological Researches on the Distribution of Nerve in Muscle. 5. W. Kühne: Reply to the Remarks of E. Du Bois-Reymond on Multiple Nerve Endings in one Fibre. 6. D. Th. Pfeiffer: On the Quantitative Estimation of Urea by the Litrimetric Method. Dr. W. Cameron: On the Metabolic Processes in Five Children varying in age from five to fifteen years.

Lectures on Nursing. Delivered to the Probationers of the London Hospital Training School for Nurses. By EVA C. E. LÜCKES, Matron to the London Hospital. London: Kegan Paul, Trench, and Co.—We heartily commend these lectures to all who are being trained for nurses. The spirit displayed and commended is of the very best, and the systematic treatment of the chief parts of nursing duty and the description of details are equally good. No part of the book is better than that in which Miss Lückes defines the duty and sphere of the nurse as distinguished from those of the medical man, and in which she warns nurses against all quackery and assumption of medical duties.

VACCINATION GRANTS.—Mr. William Dobson of Leeds (second time), and Mr. O. Lowsley of Reading (sixth time), have received the Government grants for efficient vaccination.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 14, 1885.

THE communication made by Dr. KLEIN at the last meeting of the Royal Society will excite widespread interest, for it contained in substance the results of the inquiry instituted by the Cholera Commission of which he was the leading member, and it came in anticipation of the detailed report. From the preliminary notices that have hitherto been published it can readily be imagined that the chief portion of Dr. KLEIN'S work has been directed to the question of the relation of Dr. KOCH'S now famous "comma bacillus" to cholera. And here at the outset it is well to remember that KOCH himself has expressed the belief that the organism known by that name more strictly belongs to the group of spirilla. Dr. KLEIN sufficiently showed that it is incorrect to speak of it as comma-shaped, for the curved body, forming a segment of a fully formed spirillum, is of uniform diameter throughout. Dr. KLEIN, however, thought it more allied to the vibriones; and here Professor LANKESTER differed from him. Professor LANKESTER advanced the opinion that Dr. KOCH had adhered to the term "bacillus" because in the first instance in Egypt he had discovered in cholera cases a bacillus like that of glanders—a straight, rod-shaped organism, and wholly different from the organism which he subsequently declared to be specific to cholera. Although, no doubt, it is desirable that nomenclature should be accurate, and that it should be based strictly upon morphological characters, it is perhaps the least important part of the whole subject. As to the constancy of these micro-organisms in the choleraic evacuations, Dr. KLEIN was in perfect agreement with Dr. KOCH, and he noted the great variations they exhibit in form and size, as well as in number, in different cases. An important and almost crucial divergence occurs between the statements of the German and English Commissioners as to the abundance of the bacilli in the intestinal contents and intestinal wall in cases observed very early after death. Dr. KOCH, it will be remembered, declares that the earlier the examination the more likely are these bacilli to be found in a state of purity in the rice-water fluid and in the tissue of the mucous membrane, where he figures them as penetrating within and around the tubular glands. In acute cases this freedom from admixture with other forms of bacterial life led him to aver that in such circumstances the lower part of the ileum contained almost a pure cultivation of comma bacilli. Dr KLEIN and his colleagues cannot confirm this statement, and have never observed any bacteria whatever in the mucous membrane and epithelium in cases examined a very short time after death. They contend, therefore, that the multiplication of the comma bacilli with their penetration into the mucosa is a post-mortem circumstance, and that in this respect no difference is to be noted between these organisms and other putrefactive bacteria; and they account for the difference in result of the two observations by the simple fact that Dr. KOCH'S examinations were made at a much longer interval after death than were theirs.

The absence of micro-organisms in the blood and tissues of the choleraic subject was noted by Dr. KOCH, and has been confirmed by the English Commission, so that both differ from the statement on this point made by the French Commission. This negative fact has been held as opposed to Dr. KOCH'S doctrine that cholera depends upon a specific organism; but his view that the action of the bacilli is limited to their production of a poisonous substance rapidly absorbed from the intestines into the blood is adequate to explain the fact. Of course, Dr. KLEIN does not admit this explanation, upon the ground that the comma bacilli are so very sparse in the early observed post-mortem examinations. Another and equally important difference upon a point of observation is as to the behaviour of the micro-organisms under cultivation. At a recent meeting of the Medical Society Dr. HERON exhibited cultures of the comma bacillus in gelatine, and pointed out how strikingly these differ from the cultures of the morphologically similar organisms discovered by FINKLER and PRIOR in the evacuations of cases of cholera nostras. Last summer Dr. LEWIS drew attention to the presence of similarly formed organisms in the buccal secretions, and more recently Dr. DENEKE has met with them in cheese. Dr. KLEIN has also found them in diarrhœa, and Dr. GIBBES is said to have found them "in astonishing numbers" in the intestines of cases of dysentery and phthisis; whereas Dr. KOCH said that although he had sought for them in such and other diseases he had never detected them except in cholera. There can be little doubt then that numerous micro-organisms exist having the same (or almost the same) morphological characters—spirillar rather than bacillary in type; and unless any more distinctive characters than those obtained by microscopical examination were established, the whole utility of the detection of their presence in choleraic stools, to say nothing of the alleged specificity of the comma bacillus of cholera, would fall to the ground. Dr. KLEIN has made cultivations of the comma bacilli from the mouth, and he exhibited them side by side with cultivations of the cholera bacillus, to show that the most critical inspection would fail to discriminate between them. In each case the funnel-shaped depression at the point of inoculation and the resulting limited liquefaction of the gelatine were reproduced with equal fidelity. Moreover, under altered conditions the cholera bacillus can show great variations in its mode of growth; and altogether the "culture test" has failed in the hands of Dr. KLEIN to establish any specific quality of the bacillus. Since returning to London, Dr. KLEIN has made further observations on this point, and has shown that when cultivated in agar-agar jelly the comma bacilli undergo a kind of longitudinal fission, so as to be converted into circular organisms, which eventually divide into two semicircular comma bacilli. Dr. DENEKE found in the cheese spirillum certain variations in the mode of development as compared with that of the cholera bacillus; but, in the face of these observations of Dr. KLEIN, it may be asserted that such variations are not greater than are to be observed with the cholera bacillus alone. So much stress has been laid upon this "culture test" that it is evident the subject will have to be again most thoroughly investigated. There is another point in

connexion with the growth of the comma bacillus in which these authorities are opposed, and, as upon this Dr. KOCH has based an explanation of the immunity of healthy individuals, it may be referred to. It is well known that some bacteria thrive best in alkaline or neutral media, others in acid. The comma bacillus requires the former, and does not grow at all in the presence of acid. But, as Dr. KLEIN pointed out, an inability to grow in a given medium is not the same thing as destruction by it, and he quoted experiments to the effect that after subjection to the action of acids the bacillus retained its power of growth when transplanted to appropriate soil. Again, in opposition to Dr. KOCH, Dr. KLEIN has proved that drinking-water contaminated with the presence of these bacilli does not cause cholera, as shown by his observation of the tanks of Calcutta recently published (*vide* THE LANCET, Jan. 31st, p. 221). The last point of difference lies in the results of inoculation experiments. It is well known that Dr. KOCH declared he was unable to communicate the disease to the lower animals either by feeding or inoculation; but since the success attending the experiments of NICATI and RIETSCH—viz., of intra-duodenal injection of the culture products,—the communicability has been alleged to be possible; and Dr. KOCH himself has repeated such experiments satisfactorily. Dr. KLEIN and his colleagues made many such injections in animals with nothing but negative results; and he explained that the only way he could account for this difference was that the climate favoured recovery from the injury done to the animal by the operation, an injury to which he attributes all the symptoms alleged to be choleraic and due to the introduction of the bacilli into the intestine.

Such, then, being the conclusions which the English Commissioners have brought us, it may be asked whether they have been content with the iconoclastic labour of dispelling the comma-bacillus myth? Have they anything to replace it—any addition to our knowledge? Well, it appears that they, too, have discovered a bacillus—straight and much smaller than the comma-shaped organism—in the mucous corpuscles found in the intestinal contents of a rapidly fatal case; but they failed to detect any specific characters in its cultures, or to find it in the blood, or to produce any effect by inoculation of animals with it. At the same time, Dr. KLEIN thinks that there is just as much reason for regarding this bacillus as the true cholera organism as there is in favour of the comma bacillus. He repudiates the notion that it should be so considered; for in the one case, as in the other, no characters are exhibited different from those presented by ordinary putrefactive bacteria. He incidentally mentioned that Dr. KOCH was about to proceed again to India to continue his researches; and we cannot help thinking it would be desirable that, instead of independent commissions from every country, there should now be formed an International Scientific Commission to investigate the subject anew. As the question now stands, there are in dispute not merely matters of inference, but essential matters of fact and observation; and so great are the interests at stake, and so important is it to arrive at the truth of the relation between Asiatic cholera and these bacterial organisms, that we trust a means will be provided for such further impartial and exhaustive inquiry. A distinguished Fellow, whose experience of disease in India is very large, expressed the opinion that the promulgation of Dr. KOCH'S doctrine had been most disastrous, and that it was responsible for the panic that attended the appearance of the disease in Europe last summer. We do not concur in this view; for if Dr. KOCH'S discovery had been substantiated, instead of creating panic it should have tended to allay it, for, as he has pointed out, it would strengthen the hands of those who know that in the early adoption of sanitary measures lies the greatest safety; and a sense of security would be felt if the actual cause of the disease could be known and combated. So many of the known facts concerning cholera harmonise with the germ doctrine that, in spite of the check administered to Dr. KOCH'S position by Dr. KLEIN, it would not be surprising if research eventually prove the views of the former to be very near the truth. The value of the work of the English Commission may then appear to lie in its having done much to clear the way for further research which it would be worse than folly now to neglect. Some talk and write as if the discordant results arrived at prove that it is vain to pursue the subject further; and others regard the results of the English Commission as having dealt a *coup de grâce* to a too hastily framed conclusion; but this is not the spirit in which the subject should be approached, and Dr. KOCH is no more likely to abandon his position at present than he was to submit to Dr. SPINA'S onslaught upon the value of the discovery of the bacillus tuberculosis. It is as ungenerous as it is unscientific to refuse to hear him, or to hastily declare that there is no room for further investigation of the matter.

FEW facts in reference to the sick and their welfare are more noticeable than the development of the art of nursing in recent years. Twenty years ago nursing was a luxury very much monopolised by hospital patients, and even in their case the luxury was somewhat of a coarse character. There were, of course, good, kind, and wise women in those days who had quick sympathies with the sick, and whose presence and ministrations in wards were like those of a mother or a good angel, but they were not plentiful, and the work done was often performed unskilfully and untenderly. It is not pleasant to recall what must have been the sufferings of the sick in earlier days in poorer hospitals, especially in Poor-law hospitals, when given over for the night to the care of a nurse not considered good enough for day duty, and who prepared herself for her nocturnal work by copious potations of beer. The cry for a cup of water or for a change of posture by a thirsty or restless patient was often unheeded, or only heeded to be rebuked. When kindness was not at fault, intelligence was often wanting, and superstition and ignorance had it all their own way. The best proof that this is not an exaggeration is to be found in the prejudice which still survives against professional nurses. There are large numbers of educated people who would not consent on any terms to have a "hospital" nurse. It can scarcely be imagined that their objection is to the training received in hospitals. It must be traceable to experience of the old order of nursing, or to the survival of some of its bad traditions. The old order of nursing is not quite extinct. Practitioners of any standing could still give instances of nurses whose coarse ignorance and unkindness brought discredit on the order who put the wrong end

of the clinical thermometer into the mouth, who seemed to think less of the patient than of themselves, who conceived of nursing as a calling requiring a large amount of stimulant, and who disgusted all the other members and servants of a household by the assumption of airs of superiority which neither their nursing powers nor their general intelligence justified.

It is well worth the attention of all persons interested in nursing as a calling and in the welfare of the sick to consider the reasons for the existence of a still great amount of prejudice against trained nurses. Some of it is to be explained by too hard a view of their function in coming into a house, and by the absence of sympathy, sometimes sympathy even with the patient, who is treated too mechanically, as a mere model requiring dressing or bandaging. But a more common fault is the want of sympathy with friends, and the exaction of too much service from servants who are probably already overtaxed. It would be unreasonable to expect perfection in nurses. The very training they are subjected to gives them that little knowledge and that familiarity with big words which are apt to spoil simplicity and to produce conceit. But after all this criticism—and it is neither ill-natured nor unjust—truth compels us to say that medical men owe very much of their greater success in treatment to the greater efficiency of nursing, and that that patient who with an acute or prolonged disease refuses the help of a good nurse, not only does an injustice to the members of his household, but sensibly diminishes the chances and the rate of his recovery; and that for one nurse who is selfish or inconsiderate or incompetent there are ten who are serviceable and sympathetic, and who add infinitely to the comfort of a sick-room and to the good chances of a patient. Every now and again one meets with a nurse whose art is in every sense a fine art, and in whose way of making the bed of a patient, preparing his food, or dressing his wounds, there is an element of genius that is missing in all the boasted art of men. That this is likely to be a more and more common experience it is quite reasonable to hope, seeing the number of capable and refined women who give themselves to this work and to the training of others for it; and to the help which earnest and distinguished members of our own profession afford in the education of nurses. Nursing must, in truth, be a fine art, or it is nothing. It is a calling in which coarseness is almost a crime and in which every duty should be done delicately and lovingly. The presence of heavy-headed and heavy-footed people with hard hands and harsh voices in a sick-room is the best illustration possible of an *error loci*.

THE official report[1] which has been prepared for the Local Government Board by Dr. PARSONS, on the extensive epidemic of enteric fever which took place last autumn at Kidderminster, has been laid before the Corporation. The epidemic is probably the most severe which has been met with in this country within recent years; indeed, from the 15th of August to November 14th, the period to which the report relates, the number of attacks is estimated as having been 1200, and the deaths, which were not specially numerous, amounted to 89. The report is one of very considerable length; it deals somewhat exhaustively with statistics and with the conditions in the town which might give rise to such an epidemic, and it specially points out the circumstances which came under suspicion in so far as the causation of the disease is concerned. During the thirteen years previous to 1884 the average annual "fever" death-rate for Kidderminster was somewhat under that for England and Wales as a whole. Up to August last only seven "fever" deaths were registered during 1884. In the first fortnight of that month twenty cases occurred in seventeen households, and then followed the outburst of disease, for in the ensuing fortnight 110 fresh households were attacked, the new cases being 141 in number. From that date the disease continued with striking force until the result we have already recorded had been brought about. Originally the outbreak had been attributed by the borough engineer to the nuisances in connexion with midden privies, and no words are too strong in which to condemn the filthy arrangements which have prevailed in Kidderminster in this matter, but they did not afford an explanation of the outbreak. The milk-supply as a vehicle of infection could also be set aside. Sewers and drains have largely come under suspicion, and grave defects attach to both. As regards the sewers, catchpits holding putrefying filth are, for some unaccountable reason, constructed in connexion with the manholes; heated liquids from factories may have afforded a state of sewer temperature specially favourable to the propagation of enteric fever contagium; no provision has been made to prevent the forcible ascent of air from the main sewer into the branches in the higher levels; the flushing arrangements have been defective; and having regard to the absence of arrangements for the relief of foul air on the entrance of volumes of liquid, the sewers must be regarded as of small capacity. The house drains are also defective, disconnexion and through-ventilation—the only safeguards against sewer poisoning—being but rarely carried out. Again, the question of water-supply as a cause of the epidemic came under consideration. The possibilities of a general contamination of the town water at the source, and also of local contaminations through reflux of foul matters into the terminal branches, are discussed at considerable length, and some lithographic plates are added, with a view of explaining some of the conditions which are considered. The sudden and severe character of the outbreak, the universal distribution of the fever over the area supplied by the ramification of the Kidderminster mains, and a dangerous proximity of one of the wells to sewage works receiving sewage which contained the excretions of cases of enteric fever in August last, go strongly to point to water pollution. There was also a large incidence of fever upon water drinkers, and indications of impurity in the supply were noticed at intervals. Chemical evidence was indeed arrayed against these points, and was adduced in support of the wholesomeness of the supply, but since the chemist has failed to detect both cholera and enteric fever stools when deliberately added to water, such evidence has little weight. But even on this point Dr. DUPRÉ, using a new test, showed that though the suspected water when judged by the ordinary tests was very good, yet the loss of free oxygen from the fully aerated water on standing twelve

[1] Sold by Knight and Co., Fleet-street, E.C.; Shaw and Sons, Fetter-lane, E.C.; Hadden, Best, and Co., West Harding-street, E.C.; and P. S. King and Son, King-street, S.W.

days in a closed bottle was very great, a result "strongly pointing to sewage contamination." And when measures had been taken to prevent the recurrence of any possible soakage of sewage into the well, a fresh sample exhibited "a very decided improvement" in this respect. The case was, however, not one in which the precise means of pollution could easily be detected and pointed out. Difficulties arose at several stages of the inquiry, and the defective conditions of sewerage and excrement disposal formed additional complications in so far as they tended to facilitate a diffusion of the infection. Dr. PARSONS, indeed, says "the cause of the outbreak cannot therefore be with certainty assigned; possibly it has not been one and the same in all cases." The conclusion is perhaps safe from a strictly scientific point of view, but it is the reverse of a bold one; and, judging from the report itself, we should have been inclined to conclude that contamination of the water-supply was the cause of the outbreak, and that the spread of the disease was materially facilitated, indeed ensured, by the sewers, drains, and privies. In so far as there are difficulties in adopting this view, we think those difficulties relate to points of minor importance. Had it been possible to clear them up the result would have been more satisfactory, but the fact that some points remain unexplained hardly suffices to throw material doubt on the pollution of the water-supply as the prime cause of the epidemic. The report is worth careful study and perusal, both from this and other points of view.

DURING the past ten days the movement for a Teaching University in London has made considerable progress. The proposals which were put forward at the first meeting by the provisional committee were withdrawn at the meeting on the 3rd inst., and the following objects of the Association were passed without a dissentient:—

"(1) The organisation of university teaching in and for London, in the form of a Teaching University, with faculties of Arts, Science, Medicine, and Laws. (2) The association of university examination with university teaching, and direction of both by the same authorities. (3) The conferring of a substantive voice in the government of the university upon those engaged in the work of university teaching and examination. (4) Existing institutions in London, of university rank, not to be abolished or ignored, but to be taken as the bases or component parts of the university, and either partially or completely incorporated, with the minimum of internal change. (5) An alliance to be established between the university and the professional corporations, the Council of Legal Education as representing the Inns of Court, and the Royal Colleges of Physicians and of Surgeons of London."

An executive subcommittee was formed, with full powers to draw up a scheme for the consideration of the members at a subsequent meeting. With the first, second, and third objects all will agree, and they will present no difficulty; but the negotiations which will be necessary to carry out the last two objects must obviously be very delicate, and we doubt very much if they will be successful. On the 8th inst. the special committee of forty members appointed by the Convocation of the University of London to consider the proposals published by the Association for promoting the establishment of a Teaching University for London met at Burlington-gardens, and on the motion of Lord Justice FRY, seconded by Sir JOSEPH LISTER, unanimously resolved—

"That in the opinion of this committee the objects of the Association for promoting a Teaching University for London would, if carried into effect by this university, add to its usefulness and importance."

A special meeting of Convocation will be called at the earliest opportunity, and the committee will ask for full powers to take action in the matter, either side by side with the Senate as the executive authority, or without its assistance, as that body may determine. This action of the committee almost necessarily compels the Senate to take some part in the movement, and we fear that this will be the "rock ahead." So far as the faculties of Arts and Science are concerned, it may be possible to give degrees in the same institution to candidates with special certificates of attendance on lectures and to those who have had no collegiate training, and to have different examiners for the two classes of students—viz., their own teachers in the one case, and external professors in the others; but the expedient seems to us most clumsy and unnecessary. The real difficulty is with the degrees in Law and Medicine. No action which the Senate of the University of London can take will satisfy the legitimate wants of the London teachers and students without seriously lowering the value of the present degree; and it is because we recognise this that we would urge the authorities of the University to go on with its own great work as at present, and leave the promoters of a Teaching University for London to establish a new institution. The demands which the University of London will be asked to meet may be seen by the following extract from a report which has been adopted by the Council of the Metropolitan Counties Branch of the British Medical Association.

"That, in the first place, the University of London be requested—(*a*) To modify its regulations and procedure, so as to adapt them to the requirements of the medical profession in England; (*b*) to reconsider and modify the two preliminary examinations; and (*c*) to admit upon the Senate, as members of the Senate, a certain proportion of representatives of the metropolitan medical schools."

It is difficult to suppose that the University of London will be inclined to grant such a request; and if the Teaching University movement be not kept apart from the existing University and be allowed to make its own conditions, it will be of no use to the medical profession.

THE Surgery of the Kidney formed the subject of a discussion at the Medical Society on Monday last, opened by an able paper by Mr. HENRY MORRIS. As far as possible he avoided the ground which has been recently traversed at the Medical and Chirurgical Society, and without discussing the relative merits of the lumbar and the abdominal incision for nephrectomy, he limited himself chiefly to a consideration of the surgical aspects of renal calculus. The first part of his paper was devoted to a discussion of the diagnosis of this affection, or rather to insisting upon the difficulties this problem may present. The results of exploration of the kidney for stone have brought this fact into strong relief, for Mr. MORRIS was able to refer to a long list of cases in which surgeons have cut down upon a kidney expecting to find a stone, and yet have found none.

No doubt in some of these the exploration has been imperfect, and a stone has been overlooked; and in view of the possibility of this occurrence, it is now recommended that the exploration be not regarded as satisfactory until the surgeon has made an incision into the kidney, and through this has thoroughly explored the pelvis and calyces of the kidney with his finger. The simple incision down to the kidney is an operation of no difficulty, and of little danger; the incision into the kidney substance adds somewhat to the difficulty and risk, but is chiefly of importance in that it prolongs the convalescence, and exposes the patient to the annoyance of urinary fistula. The condition which is most likely to be mistaken for renal calculus is early scrofulous disease of the kidney, and it is probable that an incision into the organ under this condition is of advantage, as it affords exit to pus and caseous débris. Unfortunately Mr. MORRIS was unable to give any new and certain guides in the diagnosis of these affections, or of the other conditions likely to be mistaken for renal calculus, and had to content himself with indicating the difficulties, and urging care and deliberation before deciding upon operative procedures. Mr. MORRIS pointed out the importance of searching for calculi impacted in the ureter. He has himself removed from the lower end of this tube a stone which was impacted just at its orifice in the bladder and to this operation he gives the name of vesico-ureterotomy—a name which forcibly reminds us that, however excellent modern surgical advances may have been, they have given birth to many ugly names. Reference was also made to a case, at present unpublished, in which a stone was removed from the upper end of the ureter through an abdominal incision; the patient unfortunately died from advanced disease in the opposite kidney. This brings us to a third point in Mr. MORRIS'S paper, upon which stress was again rightly laid—viz., the difficulty of determining the condition of the opposite kidney where an operation is required for the diseased organ. Dr. TUSCHMANN subsequently referred to an instrument he has used in very many cases for compressing the vesical orifice of one ureter and so allowing of the collection of the excretion from the opposite organ only. At present more experience of the value of this instrument is needed before full confidence can be placed in it, and we understood from Mr. MORRIS that he was not at present able to speak of it with confidence. Probably we shall receive more efficient help from chemistry, and shall be able to estimate from an analysis of the urine how far the existing kidney tissue is efficient for the purposes of excretion.

In regard to nephrectomy, Mr. MORRIS urged that this operation should only be undertaken when the failure of other measures to relieve has shown it to be the only means of curing the patient. In this we are confident he will have the support of every thoughtful surgeon. The removal of a kidney can never be anything but a very grave operation, and certainly for such a condition as floating kidney should never be undertaken until all means by which the organ can be preserved to the patient have been tried and found to fail. Similarly, hydronephrosis often admits of successful treatment by simple puncture of the tumour, and by drainage, either of which is greatly preferable to nephrectomy. In advanced strumous disease of the kidney the conditions upon which an opinion is to be formed are not so simple. The removal of the organ may be of value, both directly and indirectly, by relieving the patient from a source of general infection. But, on the other hand, this grave procedure can never be very successful in cases of advanced disease, where the morbid change is rarely, if ever, limited to one kidney. The success which has attended the simpler and less dangerous operation of nephrotomy seems to turn the scale decidedly in its favour, at any rate as a primary operation, nephrectomy being reserved for the cases in which it fails. The discussion which followed Mr. MORRIS'S paper, although interesting, added in no way to our previous knowledge of the subject. And, indeed, we appear to have reached a stage in this department of surgical practice at which discussion has done all it can, time for the acquisition of enlarged experience being required before we can mark further progress.

Annotations.

"Ne quid nimis."

MEDICAL INSPECTORS OF THE LOCAL GOVERNMENT BOARD.

IT is announced that, at the urgent solicitation of the Local Government Board, and mainly in view of the possibility of an extension of cholera to this country during the coming summer and autumn, the Treasury have sanctioned the appointment of six temporary inspectors to the Medical Department of the Board. We have already recorded that Dr. de Chaumont and Dr. Davies are engaged in port inspection; and we find that Dr. Arnold Royle, C.B., has made some inquiry into a prevalence of fever at Market Weighton, in Yorkshire. The majority of the appointments, if not all, are already filled up. The general survey of the sanitary conditions which prevail in different parts of the country, and which, if left undealt with, may add greatly to the risk of a spread of cholera in our midst, will be of great value from a preventive point of view, and we trust that sanitary authorities will profit by the advice which they may receive as the result.

ARMY MEDICAL SCHOOL.

IT is with feelings of regret that we record the retirement from the chair of Military Medicine in the Army Medical School at Netley of Professor W. C. Maclean, C.B., who has held the appointment there and at Fort Pitt for twenty-four years. Dr. Maclean was educated in Edinburgh, where he took his degree in 1833. He subsequently obtained an appointment in the Indian Medical Service, being posted to the Madras Presidency, in which he served twenty-three years. He was employed on active service in the China War of 1840-42, and was present at the capture of Chusan and of Ningpo. He was subsequently appointed superintendent of the Hyderabad School of Medicine, the first vernacular school of medicine established in India; an appointment which he held for ten years. On the establishment of the Army Medical School at Chatham he was selected by Lord Herbert to fill the chair of Military Medicine, to which he was gazetted in 1861, with the rank of Deputy Inspector-General, when he was placed on the retired list of the Indian Medical Service. In 1871 he was made a Companion of the Bath, and in 1873 was raised to the local rank of Inspector-General of Hospitals. During the long period of twenty-four years in which he has been connected

with the Army Medical School he has been distinguished for the ability, zeal, and regularity with which he has discharged the important duties entrusted to him, the warm interest he has ever taken in the candidates and junior officers, and the happy method he had of imparting knowledge and of stimulating the energies of his pupils. He now retires from his post, under, we presume, the age regulations introduced into the service. He has been a most popular teacher, and will live long in the memories of the numerous officers who have passed through his hands for his high qualities as a professor, a gentleman, and a kind personal friend. He is to be succeeded in his chair by an officer of the Indian Service, Dr. David Boyes Smith, who held the appointment of Principal and Professor of Medicine in the Calcutta Medical College for six years, and is highly spoken of as well qualified for the appointment. He has a difficult task before him to fill the place vacated by such a man as Professor Maclean; and we cannot wish anything better for him and for the school than that he may discharge the duties of the appointment as efficiently as his predecessor.

THE DWELLINGS OF THE PEOPLE.

WE have received the first Annual Report of the Mansion House Council on the Dwellings of the People. The work of the past year has consisted in a general investigation of the sanitary state of the poorer metropolitan districts, the formation of voluntary local committees for this purpose, the study of the action of various remedial measures now in use, and the correction of abuses in 2600 cases. As was to be expected, the members of committees have found much that is defective in the hygiene of the inspected areas. The ancient evils of broken or leaking drains, of intermittent water-supply, overcrowding, dilapidations unrepaired, neglected accumulation of filth, jerry building, and the like, occupy a prominent place in the report. Some difficulty has been experienced in collecting evidence from the occupants of unhealthy houses from their fear of resentment of defaulting landlords, a consequence which is not uncommon, and against which the committees have as a rule been careful to guard their informants. The sluggish action of many vestries in taking up complaints of existing nuisances is much regretted, while the prompt assistance rendered comparatively by a few is as freely acknowledged. In a former notice of the work and aims of the Council we referred to certain amendments of the Sanitary Acts suggested by them. These are set forth in connexion with the above details, and include provisions for the more efficient inspection of districts, for the correction of self-interested conduct on the part of vestrymen, for registration, for the treatment of disease, and for assuring a constant and sufficient supply of pure water to each tenement. With regard to inspection, there is ample evidence to show that the number both of sanitary inspectors and of medical officers of health should be considerably increased, in order that their administration may be an effective reality and not a mere idea. Not the least interesting part of the report is that which deals with various plans for the better construction of the dwellings of artisans. The best of these appear to be that designed by Mr. Booth for the Manchester and Salford Workmen's Dwellings Company, and that by Mr. Hoole for a similar association in Lambeth-road. Both have been tried by the test of experience and found to answer their purpose well. Ventilation, warming, light, and cleanliness are provided for. A point of some consequence is that the system of separate water-closets has been adopted on a cheap and sanitary principle. Among other plans that of "converted courts," and the scheme of Mr. Wynter Blyth, which aims at the institution of a healthy type of one-roomed accommodation, are noteworthy as affording to many of the now overcrowded poor a fairly wholesome halfway house to more convenient living. We have said enough to show that there is need of such work as is done by the Council, and that much good has been accomplished by that body. At the same time much of it is work which requires great tact as well as knowledge for its right performance, such as we think cannot in fairness be at all times expected from a voluntary agency. We would therefore urge the importance, under any new system of municipal government, of giving to sanitary work in its numerous ramifications a far more liberal official care than it now receives.

PROPOSED AMALGAMATION OF SOME OF THE DUBLIN HOSPITALS.

ON Tuesday last a deputation representing those hospitals in Dublin which participate in the Government grants waited on the Lord-Lieutenant with reference to the conditions under which grants are at present given to a considerable number of institutions in that city. His Excellency said that the grants were made with the special object of assisting the sick poor of Dublin, and also for the maintenance of important medical and surgical schools in that city. The governors of the House of Industry Hospitals had applied to the Government for grants to alter the buildings and improve their character, it having been proved that the sanitary condition of these hospitals was unsatisfactory. He had consulted, he said, some eminent gentlemen in Dublin, and there seemed to be but one opinion—viz., that if they could capitalise the principal sums now given by Parliament, they might induce some of the more important institutions receiving these grants to consolidate both their buildings and their management, and by that means not only get rid of the difficulty that now exists as to the House of Industry Hospitals, but do much towards improving the medical instruction which was considered so important when the grants were first made. Some members of the deputation having spoken in favour of the proposal and others against it, his Excellency said he did not expect that the subject could be settled without much consideration; there seemed to be a very considerable difference of opinion, but the Government would not let the matter drop, and perhaps he might shortly be able to make some other proposal to them.

THE BACILLUS LEPRÆ.

THE occurrence of a case of leprosy in the Elizabeth Hospital has afforded Dr. P. Guttmann the opportunity of studying the characters and distribution of the bacilli in the diseased tissue, and he recently gave a demonstration on the subject at the Berlin Medical Society (*Berlin. Klin. Wochenschrift*, No. 6, 1885). Portions of leprous nodules excised from the skin and transferred to alcohol were examined. He says that the detection of the bacilli is very easy, even in unstained fresh preparations; for they are endowed with a characteristic motility, at once apparent when the leprous tissue is teased out in a drop of distilled water and examined with an oil-immersion lens (650 diam.) and Abbe's condenser. Hansen originally observed these movements even within the cells, but of course it is essential that the preparation should be a moist one. These living bacilli are thicker than those which have been submitted to shrinking in the alcohol and stained preparations; in length they vary from a quarter to half or even three-quarters of the diameter of a red corpuscle. They mostly contain spores, which may be placed at the extremities of the bacillus or irregularly disposed in its substance. Koch discovered that the leprosy bacillus has the same colour reaction as the bacillus tuberculosis—i.e., it has a great affinity for methyl-blue in slightly alkaline and alcoholic solution, retaining this stain after the

object has been impregnated with other colouring agents—e.g., vesuvin. Dr. Guttmann confirms the statement of Baumgarten that the bacillus lepræ takes up the colouring matter more rapidly than the tubercle bacillus; but the resemblance between the two is very close. It is thought that the constancy with which the former are found lying transversely in the leprous cells, even in the teased-out preparations, may aid in distinguishing them; but in tubercle the bacilli are also to be found within cells, especially the giant cells. In the leprous nodule the cells are often thickly crowded with bacilli, and after double staining of the sections with fuchsin and methyl-blue the bacillary cells appear red, those free from bacilli being blue. The bacillary invasion commences in the upper layers of the corium, and but rarely attacks the Malpighian layer of the epidermis or the cells of the cutaneous glands. The organism has been found in the leprous tissue, in the mucous membranes of the mouth and larynx, in lymphatic glands, in the liver, spleen, testicle, and in the cornea and nerves. It has also been found in the blood, but it is probable that this observation, unconfirmed by many, is to be explained by the bacilli being pressed out of lymphatics into the puncture made for the purpose of obtaining the drop of blood for examination. There can be no doubt, adds Dr. Guttmann, that these bacilli are the cause of leprosy, although confirmatory evidence has not yet been obtained of the transmission of the disease by the inoculation of animals. Leprosy, however, has never yet been observed in animals.

POISONING BY COKE FUMES.

A CASE, which will probably become historical, has recently been investigated before the district coroner at Pendleton. It is one which introduces many points of interest both to the public and the medical jurist. On January 15th, James Malone, aged sixty-one, his wife, Catherine, aged fifty-one, and their married daughter, Honora Hill, aged thirty-three, retired to rest at 9.30 P.M. According to the evidence given by Hill, she awoke at about half-past four o'clock on the morning of the 16th and found the body of her dead father stretched partly over her. With difficulty she attracted the attention of her mother, who, when told of her husband's death, replied, "I know it; I am dying too; I am suffocated," and she shortly afterwards expired. Hill stated that she tried to obtain relief, but that for many hours was unable to extricate herself from beneath her father's legs, and in vain called and knocked for assistance. Between 4 P.M. and 5 P.M. she managed to leave the house, and, going to a chandler's shop, remarked that her father and mother were dead. From the first she asserted that the room was full of smoke. Dr. J. S. Bury, who made the post-mortem examinations, found some rather severe bruises on different parts of the body of James Malone; but the only one having any important bearing on the case was situated on the chest, and beneath this bruise the ninth, tenth, and eleventh ribs were fractured. Dr. Bury was of opinion that, from the supposed absence of repair of the broken bones, the injury had been inflicted quite recently, not more than two days. Struck with the freedom of the lungs from congestion, and with the absence of other usual signs of asphyxial death, he could come to no definite conclusion as to how the deceased persons lost their lives. Dr. Bury was undoubtedly actuated by a desire to serve inflexibly the ends of justice. At the same time, it is equally clear that he inclined to the belief that there might have been foul play, for we find him saying *à propos* of a suggestion of death from asphyxia, "I should like to know why the man vomited." The positive evidence of injury was present in his mind, and although he freely allowed that such injury was in itself inadequate to cause death, it may still have seemed an indication of the probability of other modes of violence having been resorted to. It was a pity that he was not called after the witness Hill, for then he would have had, to say the least, a very strong suggestion as to what had really happened. The woman's account of what transpired, and her description of her own sensations, form a striking picture of a comparatively rare but deadly form of poisoning. Up to the time of adjournment the theory of poisoning by charcoal fumes received little credit, unsupported as it was by scientific testimony. Before the court reassembled, Dr. Cullingworth was commissioned to conduct a further inquiry; and now a flood of light was let in upon the darkness and confusion. The ribs were shown to have been fractured at least a fortnight, as, although not united, they bore manifest signs of repair. Then came the analysis of the blood of the deceased, with its revelation that carbonic oxide gas had been absorbed in considerable quantity; and, lastly, the stomach presented no trace of liquid or solid narcotic poison. By this time no fact remained which was inconsistent with the theory of death by misadventure. It was proved that the refuse of coke had recently been burned in the grate, and that the chimney was blocked with pieces of wood fixed there by previous residents in the house. So far from vomiting being a rare symptom, it is asserted by Taylor and Stevenson to be of usual occurrence after inhalation of carbonic oxide. Then, *refuse coke* contains sulphur and unstable products of incomplete combustion, and it gives off sulphurous acid, sulphuretted hydrogen, and light and heavy carburetted hydrogen gases in quantity when burned in a close room. The combined action of these gases would explain why, although carbonic oxide was discovered in the blood, the skin and organs did not present the vermilion-red colour ordinarily found after poisoning by *charcoal* fumes. Air mixed with from 5 to 6 per cent. of carbonic oxide gas quickly destroys life, and it is more than likely that before the Malones expired this proportion was approximated. The predominant symptoms are "headache, pulsation in the temples, nausea, *vomiting*, prostration, insensibility and coma." It is a case of pure narcotic poisoning. The oxide is believed to act by preventing the arterial blood becoming venous, just the reverse of carbonic acid. The advanced age of the deceased, their bronchial affections and other infirmities, are amply sufficient to explain why they succumbed whilst their daughter recovered. Some years ago four seamen were taken in a state of stupor to Guy's Hospital. They had been shut up on board ship in a confined place heated with coke, and the chimney had been closed; circumstances exactly parallel to those observed in the "Pendleton mystery" now under discussion. Of these four, two died, aged respectively fifteen and forty; the other two, aged seventeen and twenty-one, recovered. In one of the fatal cases the lungs were congested, in the other not.

THE MEDICAL STAFF OF THE GOVERNOR-GENERAL OF INDIA.

SURGEON A. W. D. LEAHY, I.M.S., has been appointed by Lord Dufferin to be surgeon to his Excellency, as a temporary measure. The permanent incumbent is to be Surgeon Finlay, at present on the staff of the Governor of Bombay. The following officers have been appointed honorary surgeons to the Governor-General:—Surgeon-General W. R. Cornish, C.I.E., Madras Establishment; Deputy Surgeon-General A. J. Payne, M.D., Bengal Establishment; Deputy Surgeon-General W. J. Moore, C.I.E., Bombay Establishment; Brigade Surgeon G. Farrell, Bengal Establishment; Surgeon-Major G. C. Chesnaye, Bengal Establishment; Brigade Surgeon E. H. Roberts, A.M.D.; Surgeon-Major R. Harvey, M.D., Bengal Establishment; Surgeon-Major J. Hector, M.B., A.M.D.; Surgeon-Major S. E. Maunsell, A.M.D.

THE GRADUAL DECREASE OF THE POPULATION-RATE OF FRANCE.

THIS subject, on which we commented last week, continues to occupy the attention of the Académie de Médecine. M. Rochard stated that, if the rate of increase of the population of France continued to diminish in the same proportion as it had done during the present century, there would be no increase at all at the beginning of the twentieth century. France does not compare favourably with other nations in respect of the rate of augmentation of the population. In England the population grows at the rate of 13 per 1000 every year; in Germany the rate is 10 per 1000; whilst the Americans have increased tenfold since the beginning of the century. At the present time France constitutes the tenth part of the population of Europe, whilst two centuries ago it represented a third. If this numerical deterioration continue, the French people will number at the beginning of the next century only a fifteenth of the European population, and will fall into the position of the small States, and be no longer recognisable as one of the Powers. When the population of a country begins to decrease, we must suppose either that there is an excessive mortality, or else that the birth-rate is diminished. Now, the death-rate in France is asserted to be even lower than that of the majority of European countries or States; consequently the comparative depopulation of France must be due to decrease in the number of births. In that country the number of infants in proportion to adults is less than in any other European nation, excepting Ireland. M. Lunier accepted M. Rochard's principal proposition, that the progressive diminution of the rate of increase of the population was the outcome of a voluntary abatement of fecundity to be observed in all classes of society. He averred that abortion is very commonly practised in England and America; whilst in France "un avortement en quelque sorte primitif" is also much in vogue, for in certain parts the chemists supply what are known as "pessaires de fond," which are vaunted as effective preventives of conception. This practice is said to have augmented the number of uterine affections. It is asserted that in France a relation pertains between the number of stillbirths and that of infanticides. Many infants declared to be stillborn probably die after birth. The number of known cases of infanticide is certainly not less than 7000 to 8000 a year, and it is probable that a fiftieth of all cases of stillbirth are cases of infanticide. M. Le Fort, in his remarks on this question, said that the number of illegitimate births had largely increased, not only in France, but in all Europe. In London the number of illegitimate children amounts to 5 per cent. of the total number of children born in wedlock.

CYSTINURIA.

IT has been recently pointed out by Lépine and Guérin (*Comptes Rendus*) that there exists in the urine two forms of sulphur, apart from that which appears in combination with bases as sulphuric acid—viz., one that is easily oxidised, and a sulphur that is difficult to oxidise. The former can be oxidised by means of chlorine or bromine, whilst the latter requires fusion with potassium nitrate and hydrochloric acid. The greater portion of that difficult to oxidise is apparently derived from the bile by the reabsorption of taurocholic acid, but evidently not the whole of it; for when a dog with a complete biliary fistula was fed with bread and fat, the sulphur oxidised with difficulty amounted to 20 per cent. of the whole sulphur, and with horseflesh to 25 per cent. Moreover, it is shown that sulphur difficult to oxidise is present in many pathological conditions in which there is no reason to suppose that bile was reabsorbed. It would have been a matter of interest if MM. Lépine and Guérin had stated whether in these cases the amount of urea excreted was also diminished. In cystinuria, in which a considerable amount of unoxidised sulphur is discharged as cystin, the urea is nearly invariably diminished, pointing to deficient oxidation, and as some disorder of the hepatic function is generally found to exist, it has been considered that the seat of the impaired metabolism was in the liver. In fact, it has been stated that a small quantity of taurin is eliminated by the kidney in health (hence the trace of unoxidised sulphur originally discovered by Ronalds in healthy urine), but that under certain conditions this is increased, and cystin is the result. The observations of MM. Lépine and Guérin, however, make it probable that we shall have to extend our hypothesis, and to conclude that mere increase of taurin does not lead directly to cystin, but to an increase merely of the unoxidised sulphur, and that some other condition is required to cause the appearance of cystin in the urine. This condition will probably be found to exist in defective elimination by the kidneys. In ordinary cases the taurin, whether in normal or excessive quantities, reaches the kidneys and undergoes transformation into unoxidised sulphur and urea. If, however, there is disorder of the kidney function, the transformation is only incompletely carried out, so that the intermediate product, cystin, is the result. This supposition is strengthened by the fact that cystinuria is frequently met with in patients whose kidneys after death have been found to have undergone extensive disorganisation. The therapeutic considerations to be drawn from these remarks are that in cases where we may be led to suspect the presence of cystin in urine, and fail to find it, we should pursue our inquiries a little further, and endeavour to ascertain the amount of unoxidised sulphur eliminated by the kidneys. If this should be increased, as these observations of Lépine and Guérin show it not infrequently to be, our treatment should obviously be directed to promoting general and local oxidation.

MR. JUSTICE HAWKINS ON "INSANITY."

IT is satisfactory to find a representative judge like Mr. Justice Hawkins acknowledging that the rule laid down in connexion with the MacNaughten case—namely, that to constitute *insanity* in a legal sense, the doer of a wrong act must either be ignorant of its wrongfulness or unconscious of the act itself—is defective. This has long been evident to everyone except Her Majesty's judges. The candour rather than the astuteness of Mr. Justice Hawkins is therefore to be commended, on the score of the admission he made recently in his charge to the grand jury at Shrewsbury. We do not suppose anything will come of the admission, but it is satisfactory to have it made. Sooner or later there must needs be a complete reversal of the mode of procedure in reference to the adjudication of insanity. The state of the subject must be determined on medical grounds, instead of being decided, as is at present too often the case, by the nature of his conduct. A sane man may perform actions which have all the qualities of madness impressed upon them, and a madman may act with perfect reason and purpose. The question of responsibility growing out of the allegation of insanity is, in our judgment, an issue which needs to be placed on an entirely new footing. Mr. Baron Huddleston is right in his opinion, that not every person of unsound mind should be excused from the necessity of acting lawfully. There are, as Dr. Edgar Sheppard pointed out years ago, many cases in which a minimum of insanity is accompanied by a maximum of vice and criminality. Those who are struggling to have *every* subject of mental disease classed as irresponsible are doing much to facilitate the commission of crime. The insane—

so-called are, as a rule, quite cunning enough to perceive the advantages of their assumed "irresponsibility." Those who have any practical knowledge of the inmates of asylums must be well aware that many presume and encourage each other to do wrong on the ground that they cannot be legally punished. We shall be glad when this subject comes to be discussed fairly, by competent judges, on a full and clear basis. Mr. Justice Hawkins is of opinion that one attendant is not a sufficient custodian for some sixteen or seventeen "dangerous" lunatics. We entirely agree with him.

GENERAL GORDON.

IT is still, at the moment of our going to press, premature to assume the fate of General Gordon. Hopeless as the chance seems to be, he may have escaped up the Blue Nile on board one of the three steamers he is known to have possessed, but which are now missing. If Gordon, with his accustomed acumen, suspected the betrayal of the city by the pashas he had trusted, the discovery of their infidelity would, of course, relieve even his high sense of honour from the obligation of remaining at his post; and it is possible, if not probable, that he put into execution one of the two schemes he is known to have formed long ago for retirement from Khartoum in the event of a great emergency. We must wait with what patience we can command for the *dénouement* of one of the most tangled and miserable plots in British history. Nearly a year ago it would have been easy to do all that can be accomplished to-day at less than one tithe the cost, and with the certainty of rescuing the man in whose fate this country is mainly interested. Then Colonel Stewart would have been saved, and thousands of wasted lives spared to the service of a State which has not too many earnest and able defenders. It is the popular belief that the blunder, as it undoubtedly was, of not pushing on to the rescue of Gordon at that time was wholly and simply political, and that Mr. Gladstone and his colleagues are personally responsible for the mistake and its consequences. This is not the fact. It seems to be forgotten that at the moment when the question of advancing was in debate the Cabinet actually summoned Lord Wolseley to their Council and conferred with him. This was a most unusual course to take. It was certainly not the act of men who had a dogged determination to pursue a policy of their own. It was clearly an endeavour to obtain the best available advice under the circumstances. Unless it can be shown that Mr. Gladstone and his colleagues acted directly in opposition to the opinion of the military authority they had consulted in determining to allow General Graham to advance, it is fair to assume that the policy pursued on that occasion and since has not been so fatuous as the thick-and-thin opponents of Mr. Gladstone and his Government describe it. We would suggest that common justice compels the recollection of this strangely forgotten fact of Lord Wolseley's attendance at the councils, for that fact clearly cuts the ground from under the feet of many a carping critic who is now full of reproach for the political, while fulsome in his adulation of the military chief.

TRAINED NURSES' ANNUITY FUND.

THE Trained Nurses' Annuity Fund was founded in 1874; and its object, as stated in the prospectus issued by the committee, is to give a good-service pension of £15 per annum to superannuated or broken-down trained nurses who have served three years in a hospital and at least fifteen years as private nurses. Considering the wear and tear upon their constitution from disturbed rest, vitiated air, and the anxiety inseparable from their vocation, nurses are as a class extremely badly paid; and, as a rule, when they break down they are unfitted for other employment. The existence of such a fund as this, therefore, so far from pauperising, is frequently the means of enabling respectable women, who have worked hard and usefully, to spend the remainder of their lives in comfort with their friends or relations, whereas without it they would have no resource but the workhouse. Eleven annuities have been founded: ten paid from the interest of invested funds, and one from the annual subscriptions. The constant applications which the council receive from those eligible to share in the benefits of the institution have impelled them to appeal for further help, in the confident assurance that their appeal will not be in vain, but that the more the fund is known the larger will become the number of its supporters.

MEDICAL MISSIONS.

WE would fain extend and deepen the interest of the profession and the public in the support of medical missions. Imagination and experience alike help us to understand the important part which medicine is likely to play in conciliating the heathen of all countries and disposing them favourably towards Christianity. From the time of our Saviour downwards men have been lured to Him often in the first instance by the desire for physical benefits, notably for the cure of disease. The blind and the deaf, the halt and the maimed flocked to Him, while those who were in the pride of health kept away. It is so now in heathen countries. The "gifts of healing" are among the best gifts that the church can use in seeking the advantage or the conversion of the backward nations. The report of the Edinburgh Medical Missionary Society for 1884 will satisfy doubters as to the advantage of a medical missionary in every large missionary station. It seems to us that the great missionary societies have not yet fully realised these advantages. We have lately seen it stated by a good authority that the Church Missionary Society, for some reason or other, has not made full use of this great ministry. We feel persuaded that such a criticism will receive the attention of the authorities of this great society and be taken kindly by them. In the report to which we have alluded it is painful to see that after the formal consent of the Turkish authorities for building a new hospital at Nazareth various obstacles have been raised which seem to have little other meaning than a desire to exact "backsheesh." In the meantime lithotomies and other serious cases treated by Dr. Vartan have to be housed in what is little more than a temporary shed. This is a matter in which our Foreign Office might and ought to make its influence felt. We trust that our readers and their children will devote some of their missionary subscriptions either to the Edinburgh Medical Missionary Society, which has had the support of such men as Abercrombie, Alison, and Coldstream, or to other societies which employ the best medical servants they can obtain.

A CORONER ON DELIRIUM TREMENS.

A CORRESPONDENT writes:—The coroner for the West Derby District has recently held an inquest on a man who died from inflammation of the lungs and delirium tremens. The man and his friends failed to get medical advice until the day he died, when on that day he, along with his wife, visited the local medical man, who saw the danger he was in, and advised him to get home as soon as possible. The poor man died as soon as he reached the house. The medical man, having seen him only once, and the man dying under the circumstances, decided not to give a certificate of death until the coroner had inquired as to the necessity of an inquest. An inquest was held, and the coroner, following the remark of a juryman, did not know why the doctor had not certified. This was after the doctor's evidence; but he

added, delirium tremens is an alcoholic blood poisoning, and this was the reason he had determined to hold an inquiry. He thought in cases of delirium tremens it was the duty of the medical attendant not to certify, but communicate with the coroner of the district. This is a new reason for an inquest, and if this view be correct, inquests must be increased manifold. Inquests have been understood to be necessary in cases of sudden death or where there was any suspicion, not in cases of blood poisoning by alcohol, unless there was reason to believe some one had poisoned the deceased, or the deceased had taken the poisonous fluid with the intention of destroying life. In a case like this one the reason was manifest. There might have been neglect on the part of friends in not applying for medical aid, or there might have been injudicious treatment on his arrival home.

ANNUAL REPORTS OF MEDICAL OFFICERS OF HEALTH.

IN resuming our notice (see p. 312) of the annual and special reports of medical officers of health by comment on some of those which have reached us and which relate to the year 1884, we would point out how great is the advantage which attaches to the early preparation and issue of all annual reports. Some of them are hardly ever issued before the closing months, or even weeks, of the years following those to which they relate, and by that time much of the value which an early issue would have ensured for them has become lost, and nearly all interest in the matters they deal with has often passed away. An excuse is sometimes made that the preparation of statistics for large and multiple districts combined with the delay in printing necessarily causes considerable delay. With regard to this, we would point out that the reports for 1884 on which we comment on to-day are all printed documents; that one of them covers some forty pages, deals with a number of sanitary districts, and contains numerous tables, &c. which go to show that a considerable amount of time and labour must have been devoted to the compilation of statistical information; and also that all the reports were received by us before the expiration of the month of January. The official instructions to medical officers of health specially press upon them the desirability of making their reports as soon as possible after the expiration of the period with which they deal, and, as the result of our experience as to the reports forwarded to us, we are quite unable to see that any of them contain matter which justifies their being delayed beyond the first three months of the year.

THE RESULTS OF SPLENECTOMY IN THE RABBIT.

PROFESSOR GUIDO TIZZONI has experimented on this point, and remarks that after the operation of removal of the spleen in man, Crédé observed enlargement of the thyroid, an observation that led various experimenters alternately to deny and affirm the existence of functional relations between the two organs. Tizzoni satisfied himself that no such relation existed in the dog, and his present series of experiments were undertaken to determine whether it existed in the rabbit. The operation is more difficult to perform in the rabbit than in the dog. Eighteen rabbits were operated on and killed at intervals varying from 12 to 240 days. At the autopsy the epiploon, the red marrow of the bones, the thyroid and the thymus were examined with care histologically, partly whilst quite fresh, partly after the use of hardening agents. He arrived at the following conclusions:—Splenectomy practised on the rabbit produces no appreciable effect on the general health of the animal. The age of the animal is without influence on the results of the operation; no difference is observed in the condition of the animal after ablation of the spleen either in its general condition, its digestion, power of growth, or of assimilation. It exercises no influence on its fecundation or powers of reproduction. The young produced are perfectly sound and healthy, contrary to that which takes place in dogs. Splenectomy in rabbits does not cause any perceptible modification in the hæmatopoietic tissues and organs; no reproduction of the spleen takes place in the great omentum or other folds of the peritoneum. In old animals no alteration is observable in the marrow of the bones; it is only in young animals that a somewhat greater number than usual of red corpuscles and of the caryokinetic figures, indicating indirect nuclear fission, is visible. The thymus and thyroid appear to be unaffected by ablation of the spleen; it does not appear to influence in any way the involution and disappearance of the thymus, nor to effect any modification of the volume or structure of the thyroid. From all of this Professor Tizzoni concludes that the question of hæmatopoiesis ought to be studied separately in each species, and that results obtained from experiments conducted on any one species should not be regarded as applicable to all.

LUCELLE DUDLEY.

O'DONOVAN ROSSA having survived the desperate wounds he received from the bullets or bullet fired by the woman Dudley, and that worthy man having magnanimously intimated his intention not to prosecute his assailant, it is probable that no great difficulty will arise in the liberation of the prisoner. Looking at the matter from a general and public point of view this may be satisfactory; but there is another standpoint, and from that it certainly appears to be a matter of some moment that the future of this excitable female should be provided for. We do not affirm that it would be necessary, or even justifiable, to send her back to the asylum life from which she has been once liberated, but seeing that the story of her life is full of the most conclusive evidence of mental disease, with both suicidal and homicidal tendencies, it is manifest that she should be protected, and that society should be protected from her morbid impulses. We yield to none in the abhorrence of the victim of Mrs. Dudley's impulse, but we cannot on this account disguise the fact that she is neither more nor less than a person of unsound mind. It is nothing to the point that her utterances may be perfectly coherent, and the account she gives of herself entirely rational. The most dangerous lunatics are those who, while insane on some one point, or subject to impulses of violence, do not present, and, as matter of fact, do not possess, any morbid feature, except that which renders them dangerous to themselves or those about them, or, as would seem to be the case with Mrs. Dudley, to both. The method in madness is its worst feature. What Dr. Prichard called "moral insanity" is one of the most mischievous forms of mental disease, and, unfortunately, the most incurable. Like the man-eating tiger, a lunatic who has once committed an act of homicide is for ever afterwards dangerous. It matters nothing to the issue that, in this instance, the lunatic was excited to violence by the villany of her victim. What she did was an act of insanity. Had she been even a little less insane than she has shown herself, the bare facts that on more than one occasion she had attempted to commit suicide and that she had been in an asylum would have deterred her from regarding herself a fit instrument of public vengeance. The assumption of such a character by such a person is in itself conclusive evidence of unsoundness of mind. This is the view we are compelled to take of the mental condition and deeds of the woman of whom some unthinking or emotional folk are trying to make a heroine, if not a martyr. It is eminently desirable to put a stop at once to mistakes of this character. Nothing is less likely to serve the cause of

peace and safety in civilised society than turbulent emotion, whether the occasion of its outpouring be fear or gladness. If this woman be arraigned for her crime, it will be a duty to prove her irresponsibility, by showing that she has been and still is a fit subject for restraint in an asylum. That is the simple fact, and there is really no more to be said on the subject than that those who are concerned in the case must do their duty. Mrs. Dudley cannot be hanged, not because the deed was not worthy of hanging, but because she was a lunatic. The evidence of insanity in this case existed anterior to the commission of the offence she has committed; and the only serious question is, why a lunatic with destructive tendencies was let loose from salutary control?

A NEW METHOD OF TREATING ACUTE INTESTINAL OBSTRUCTION.

THERE has recently been advocated and successfully practised a method of affording relief in cases of intestinal obstruction, which may become widely applied. Dr. Kussmaul was the first to advance the view that free washing out of the stomach might prove efficacious, and already cases of marked success following this measure have been published. In one case, after eight days' complete obstruction, and in the other, after nine days, the symptom of fæcal vomiting being present in each, the washing out of the stomach, and consequent evacuation of large quantities of fluid fæcal matter from the upper part of the small intestine, resulted in complete relief from symptoms. The measure is compared by Cahn (*Berl. Klin. Woch.*, 1884, No. 42) to the effect produced by laparotomy above the site of an obstruction; and the good result is explained on the ground that the evacuation of the distended bowel affords an opportunity for a spontaneous reduction of a herniated or twisted loop. The relief from the inordinate abdominal distension is very great, and, moreover, the disappearance of this distension favours palpation for the purpose of diagnosis. Obviously, not every case of acute intestinal obstruction could possibly be relieved by this method, but the simplicity of the practice, the certainty of affording temporary relief, and the possibility of a cure are reasons for its sedulous adoption prior to proceeding to more serious measures.

SMALL-POX IN LONDON AND THE PROVINCES.

IN his last monthly report Dr. Dudfield states that twenty-four cases of small-pox have occurred in Kensington, nineteen of these being in South Kensington. Their relation to the area in which the small-pox hospital is situated is not stated. The epidemic as a whole shows no signs of abatement. On Jan. 3rd there were 1013 cases under treatment in the hospitals of the Asylums Board, on the 31st the number had risen to 1147, and on February 7th it was 1144. Some real difficulties are experienced in getting patients removed to private hospitals, such as that at Highgate, and Dr. Dudfield has urged upon the managers of the Asylums Board to undertake this duty. As yet they do not see their way to extend their operations in this direction, but we can hardly doubt that in time that Board will become the ambulance authority for the whole of the metropolis. Small-pox is also showing a tendency to break out in different parts of the country. Thus, near Banbury, one of the headquarters of the anti-vaccination party, cases are somewhat numerous, round about Taunton and Bridgewater the disease is prevalent, and several minor outbreaks have occurred. So far they appear to have been successfully met by vaccination, but we would warn vaccination authorities to be on the alert, for extension to the provinces is the ordinary sequel to a metropolitan prevalence.

THE LATE SIR THOMAS NELSON.

JUST before the Beaconsfield Ministry retired, we took occasion to point out that in their distribution of honours they had forgotten to recognise the great and most useful services of the man to whom, mainly, the people of London owed the preservation of Epping Forest and many other lasting benefits. The remonstrance we ventured to address to the advisers of the Queen on that occasion was, as we had reason to know, taken in good part, and immediately acted upon. The omission was repaired; and Mr. Nelson, the City Solicitor, to whose earnest endeavours for the public good so much was due, received the honour of knighthood, not as a mere routine compliment to the civic position he held, but as a gracious recognition of his personal merits and services. The gratification we experienced on that occasion is now merged in deep regret for the untimely death of Sir Thomas James Nelson, who expired after an attack of subacute gout, from which he appeared to be recovering, on the morning of Saturday last. By a large circle of personal friends, and by all who know the extent to which the people of London owe the preservation of Epping Forest to his enterprise and painstaking industry, Sir Thomas James Nelson will be long and lovingly remembered.

INCREASE OF REMUNERATION OF MEDICAL OFFICERS OF PROVIDENT DISPENSARIES.

WE are glad to notice that at the Reading Medical Dispensary a resolution has been passed to increase the payments of provident members of the dispensary, and so to give more adequate remuneration to the medical officers for the enormous amount of work they do. The attendances in 1884 have been 112,804, in place of 91,589 in 1883. We are not told what the medical men are paid for this great labour, but unless Reading is different from other places it is far below what they ought to be paid. The resolution passed was as follows:—

"To substitute the following Clause, in lieu of Clause 2 in Rule 17. 'Every member (except as undermentioned) shall pay one penny per week. For families, the payment shall be twopence per week, which sum shall include a man, his wife, and all his children under twelve years of age, and in the cases of widows and their children the payment shall be three-halfpence per week. The wives of members of a friendly society, with their children under twelve years of age, shall be eligible to become members at a sum of twopence per week, but such sum shall also include the husband if he elects to become a member. Applicants for membership after the 28th day of February, 1885, who shall exceed the age of fifty at the date of their application, and also any persons who shall be certified by their medical attendant to be suffering from chronic or incurable ailments, within one month from the date of their admission as members shall pay one penny per week extra, in addition to the payments above provided.'"

SANITARY CONDITION OF MARKET WEIGHTON.

MARKET WEIGHTON is an agricultural town in Yorkshire, and has since last September been invaded by an epidemic of enteric fever. Amongst a comparatively small population there have been seventy-four cases, and probably many others that have not come under the notice of the medical profession. A more insanitary town it would probably be difficult to find; scarcely a year passes that it is not the scene of some kind of epidemic; the population is consequently diminishing. The town is of great antiquity, and is placed on a thin layer of sand and gravel, in a basin of blue clay. The wells are shallow, and usually close to the cesspools and sewers, the latter being very old, and imperfectly constructed of bricks. The great drought of last

year caused the drinking-water to be much more highly charged with impurities than usual. This outbreak of fever followed closely on a similar one at the town of Beverley, about ten miles distant, and from there probably the infection was imported. The fever is of an unusually mild type. The Local Government inspector spent nearly a week at Market Weighton investigating the cause of this epidemic, devising means for limiting its spread, and for its prevention in the future, the result being that the town will shortly be supplied with pure water by a waterworks company, and that the rural sanitary authority will at once commence a new and complete system of drainage for the town.

OBSTETRICAL SOCIETY.

THE annual meeting of this Society took place on Wednesday last. The retiring President, Dr. Gervis, delivered the annual address, which will be found elsewhere. The vote of thanks to the retiring President was proposed by Dr. Graily Hewitt and seconded by Dr. Playfair in cordial terms, allusion being specially made to the courtesy and impartiality displayed by Dr. Gervis. The Society numbers more subscribing members than any other Medical Society, and its continued and even increased vitality is marked by a large increase in the total of papers contributed, as well as by a steady growth in the number of its Fellows. The list of officers and councillors proposed by the Council was carried by the meeting, which was a full one.

THE REMOVAL OF STRYCHNINE FROM THE ORGANISM.

PROFESSOR DRAGENDORFF (in a Russian medical journal) has lately published the results of experiments bearing upon the above subject, and carried out at his suggestion and under his guidance by P. von Rautenfeld upon men and animals. These results fail to confirm Plugge's conjecture, that strychnine is oxidised in the organism. It is stated that it is removed in an unchanged condition by means of the urine, this process taking place within a short time of the poison being taken. It is, however, considered probable that the liver for the most part retains the strychnine, only giving it off in small quantities.

THE FATAL BAYONET WOUND AT WOOLWICH.

AT the inquest held on the body of the unfortunate practical joker who was killed by his comrade in the strict exercise of his duty at the Woolwich magazine, the corporal showed, by request of the coroner, the exact position of the bayonet at the charge, pointing to a man's breast; and Surgeon Dodd, who made the post-mortem examination, stated that the weapon had penetrated about six inches, piercing the heart and the right lung.

DRUNK AND DYING.

AT an inquest held last week by Dr. Danford Thomas on the body of Annie Robinson, aged thirty-two, it was stated by the inspector of police that deceased was admitted into the police-station in a state of intoxication, and that he did not send for a doctor "as he knew it was a case of drunkenness." She was kept at the station in a state of insensibility for twelve hours before being sent to the infirmary. When, however, she was admitted to St. Pancras Workhouse, she was found by the medical officer to be "in a most horrible condition; and she had a scalp wound, and another on her hand. Erysipelas set in, and she died." It is far too readily supposed by the police and others that because a person is drunk he cannot require medical assistance; the fact being that, as in this case, a slight wound is much more likely to prove fatal in a drunkard than in a sober subject, and therefore specially requires prompt skilled attention. The Metropolitan Police Regulations provide for such cases as follows:—

"If prisoners are insensible, or appear to be ill or injured in any way, although they do not complain, the divisional surgeon is to be sent for immediately. This course relieves the police of responsibility, and is to be strictly observed. The Commissioner desires to impress most earnestly on the police the heavy responsibilities which they incur by deviation from this regulation, and to warn them that in every instance of wilful disobedience and neglect the officer will be visited with the severest punishment." (Prisoners, sec. 34.) And again: "In every case where a person is brought to a station in a state of insensibility, whether supposed from drink or any other cause, the officer on duty at the station is to send for medical advice as soon as possible." (Drunken Persons, sec. 7.)

There would appear therefore to be no excuse for leaving a drunken prisoner in the condition in which deceased was without sending for a surgeon. Had this been done at once the fatal result might have been averted.

IN response to a letter addressed to him by the committee of the Sunday Society respecting the proposed opening on Sundays of the Natural History Department of the British Museum, and requesting him to receive a deputation on the subject, Mr. Gladstone has replied that, having regard to the demands which the business of his office make upon his time and attention, he is unable to accede to the wishes of the committee.

WE understand that the *Quarterly Journal of Microscopy and Natural Science* will, in future, be published by Messrs. Baillière, Tindall, and Cox. This Journal, which is the official organ of the Postal Microscopical Society, has been enlarged, but the price will remain as heretofore (1*s.* 6*d.* per quarter). Mr. Alfred Allen will continue to edit the publication on behalf of the Society.

IT is stated that Dr. Green, who was appointed Vice-President of the Sanitary Board at Alexandria in succession to Dr. Sandwith, who was compelled to resign his office owing to the intrigues of his native superior, is likely to tender his resignation for the same reason as his predecessor.

IT is announced that Mr. Thomas Brock, A.R.A., has finished a marble bust of the late Sir Erasmus Wilson on a commission from Lady Wilson, and that he is also well advanced with a statue of the late Sir Erasmus, which is to be placed outside the Sea-bathing Infirmary at Margate.

THE death is announced, in his sixty-third year, of Surgeon-General Thomas C. O'Leary. He entered the service in 1847, and served with the 68th Light Infantry at the siege and fall of Sebastopol, receiving the Crimean and Turkish medals and the fifth Class of the Order of the Medjidieh.

NEARLY 5000 vaccination defaulters at Leicester are about to be prosecuted by order of the Local Government Board. The requisite notices and summonses which will have to be served will amount to 20,000.

THE Maharajah of Cashmere is said to be dying of nephritis. Visitors to the valley occasionally saw him when he was in good health, and many have partaken of his Highness's hospitality.

MR. BRYANT will deliver his inaugural address at the Clinical Society to-night (Friday).

WE learn that at the examinations which began on Monday last at the London University for appointments in the Military, Naval, and Indian Medical Services, eighty-six candidates presented themselves for competition for thirty-two vacancies in the Army Medical Staff, nineteen for five appointments in the Indian Service, and sixteen for eight in the Royal Navy.

DR. K. B. STUART, for many years Coroner of Calcutta, died in that city of Bright's disease on December 14th. Dr. Stuart was a M.D. of St. Andrews, a F.R.C.S. Edinburgh, and a Fellow of the Calcutta University.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Herefordshire Combination.—Dr. Sandford's annual report for 1884, on the combined urban and rural sanitary districts in the county of Hereford, is now issued, and it consists in the main of a series of separate reports to the several authorities concerned. As regards Hereford city, Dr. Sandford strongly urges the provision of means of isolation, and, writing on January 11th, he reminds the authority that small-pox was then prevalent in the district. He also urges upon them a stricter system of inspection as to diseased animals which are slaughtered, dressed for the food of man, and then brought into the city for sale. The general death-rate for the city was 18·3 per 1000, and the district was exceptionally free from any prevalence of dangerous infectious diseases. Into the Bromyard rural district small-pox was imported by hop-pickers. The patient, a woman, had five children with her, and under the circumstances a cottage was taken as a hospital, and to it both she and the children were removed, a nurse being hired to wait on them. By the aid of this isolation, together with vaccination, no spread occurred beyond the first case. Some of the separate reports consist mainly of statistical matter, with a mere enumeration of the current diseases. Perhaps it may be taken for granted that no sanitary works of improvement are needed in these cases, and hence the absence of any reference to the subject.

Torquay Urban District.—As the result of a house-to-house inspection during 1884 the few cases of real over-crowding in Torquay have been done away with, and it is proposed that at definite periods similar detailed inspections of special districts shall be undertaken. Such systematic work is of the highest value. Mr. Karkeek reports a great improvement in the arrangements for the water-supply of the town; a new reservoir has been constructed, and the prospect of an insufficient supply to meet the steadily increasing demands is now put off to a very remote date. The death-rate was 15·4 per 1000, but excluding the deaths of genuine visitors, it only reached 13·5 per 1000, and this in the case of an urban population of some 26,000. The only death from enteric fever occurred in a French sailor, who died within twenty-four hours of landing.

Marychurch Urban District.—This district is also within the area for which Mr. Karkeek acts as medical officer of health. Although the death-rate has been as low as 13·6 per 1000, and although the sanitary experience of the past twelve months has on the whole been exceedingly satisfactory, yet it is pointed out that, owing to the recurring importation of infectious diseases, the past year was one of considerable anxiety. Fortunately the main disease imported was small-pox, which is rarely secreted in country districts, and one of which vaccination affords a ready means of prevention. But had it been otherwise the need for some isolation arrangements would have been very urgent, and the report reminds the authority that this matter has before now been brought under their notice.

Gloucestershire Combined District.—Dr. Bond has submitted his eleventh annual report, for 1883, to the authorities of the eight rural and the five urban districts which form his combination. The birth-rate shows a tendency to fall, and is now only 28·5 per 1000, the death-rate stands at 17·5, and that for the principal zymotic diseases at 1·5 per 1000. Dr. Bond groups scarlatina, diphtheria, and croup under one head as scarlatinoid; scarlatina caused 78 deaths in 1883, diphtheria and croup causing 23 deaths. The diminution in the latter diseases, whilst the scarlatina has remained very prevalent, is contrary to Dr. Bond's previous experience, which has hitherto gone to show that an increase in the more diffusive of these two types of disease has always brought with it an increase also of the other. The deaths from fever number 24, which is six below the mean of the last ten years. One serious fever outbreak took place in the Watermoor district of the town of Cirencester, and was connected with a stoppage of one of the town sewers. In this case some forty attacks took place, eight deaths resulting during the year. The first cases were mild, and hence a considerable number had occurred before they were detected and removal to the infectious hospital could be carried out. The cause was the forcing by children of stones through a street ventilator, which resulted in a blockage of sewer contents and the fouling of wells and houses by soakage of filth and sewer emanations. The hospital was eminently useful on this occasion, and it is impossible to judge of the extension of disease which would have taken place had it not existed. Unfortunately, Cirencester is the only place in the combined district where hospital accommodation is available. As regards sanitary works, progress is being made by the borough and rural authority jointly as to sewer extensions into the Gloucester rural district; the sewer ventilation of Cirencester is being improved, and an excellent water-supply for the town is being provided. Considerable efforts have been made to secure combined action between the Gloucester urban and rural districts in the matter of hospital provision, according to a plan advocated by Dr. Thorne Thorne, of the Local Government Board. The difficulty seems to lie with the urban authority, who, having a very imperfect wooden structure which has been all but useless, propose making some alterations in it and resting content. This action is entirely opposed to the wishes of the majority of the medical profession in the city, and any step taken under such circumstances cannot be expected to produce the result desired—namely, the prevention of the spread of infection by early isolation.

Salford.—Considerable sanitary progress has during the last few years been made in the borough of Salford. The sewers have been materially improved, the dwellings of the poorer classes are steadily becoming better, scavenging arrangements have been considerably modified, a destructor has been erected, the infectious hospital has been enlarged, a steam disinfector has been provided, and public baths and open parks have been secured. The compulsory notification of infectious diseases has also been brought into operation, and Dr. Tatham takes an opportunity of acknowledging the uniform and prompt assistance which the medical profession have rendered him under the newly acquired powers. During the year 1883 as many as 365 cases of infectious diseases were admitted into the Wilton Hospital, including 14 cases of typhus which occurred in September and October. Unfortunately, the Wilton Hospital is, even now, not all that can be desired from a constructive point of view, and small-pox cannot be received on the premises. Cases of this disease are hence sent to Monsall Hospital. A permanent staff of inspectors is constantly engaged in endeavouring to prevent the spread of infection directly the cases are heard of, and under Dr. Tatham's superintendence the sanitary defects which are discovered are remedied and disinfection is largely carried out. The population of Salford is now 190,455, and the death-rate per 1000 during 1883 was 22·5, the lowest rate for eighteen years, except that for 1881, which stood at the same figure. The infantile mortality, though diminishing, is still high, and it is much to be feared that insurances effected in provident societies tend to increase it. Like all Dr. Tatham's reports, that for 1883 is very exhaustive and contains matter of much interest.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 6312 births and 3714 deaths were registered during the week ending the 7th inst. The annual death-rate in these towns, which had ranged between 24·0 and 24·9 per 1000 in the first four weeks of this year, fell to 21·8 in the week ending the 7th

inst. During the first five weeks of the current quarter the death-rate in these towns averaged 23·9 per 1000, against 24·5, the mean rate in the corresponding periods of the five years 1880-84. The lowest rates in these towns last week were 15·1 in Birkenhead, 16·2 in Blackburn, 16·6 in Salford, and 16·7 in Sheffield. The rates in the other towns ranged upwards to 27·5 in Norwich, 29·1 in Manchester, 30·4 in Bristol, and again, the highest, 32·2 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 372 and 396 in the preceding two weeks, declined to 356 in the week ending last Saturday; these included 104 from whooping-cough, 53 from measles, 53 from scarlet fever, 46 from small-pox, 37 from diphtheria, 34 from "fever" (principally enteric), and 29 from diarrhœa. The lowest death-rates from these diseases, in the aggregate, were recorded last week in Oldham and Blackburn, and the highest in Cardiff and in Sunderland. Whooping-cough caused the greatest mortality in Bristol and Preston, measles in Cardiff and Sunderland, scarlet fever in Sunderland and Wolverhampton, and "fever" in Hull, Cardiff, Plymouth, and Norwich. The 37 deaths from diphtheria in the twenty-eight towns included 19 in London, 3 in Birmingham and in Liverpool, and 2 in Manchester and in Newcastle-upon-Tyne. Small-pox caused 63 deaths in London and its outer ring of suburban districts, 3 in Birmingham, 1 in Liverpool, and 1 in Cardiff. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had been 1009, 1092, and 1146 on the preceding three Saturdays, were 1144 at the end of last week; the admissions further declined to 223 last week, from 287 and 253 in the previous two weeks. The Highgate Small-pox Hospital contained 99 patients on Saturday last, 14 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had ranged between 609 and 513 in the preceding four weeks, fell to 421 last week, and were so many as 226 below the corrected weekly average. The causes of 81, or 2·2 per cent., of the deaths in the *twenty-eight* towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Leicester, Nottingham, and in three other smaller towns. The largest proportions of uncertified deaths were registered in Hull, Halifax, and Leeds.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 28·5 and 30·2 per 1000 in the preceding two weeks, declined to 26·6 in the week ending the 7th inst., but exceeded by 4·8 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 14·9 and 19·9 in Perth and Edinburgh, to 33·0 in Dundee and 33·4 in Paisley. The 649 deaths in the eight towns included 34 which were referred to whooping-cough, 24 to measles, 10 to diarrhœa, 9 to scarlet fever, 8 to diphtheria, 6 to "fever" (typhus, enteric, or simple), and 1 to small-pox; in all, 92 deaths resulted from these principal zymotic diseases, against 85 and 98 in the preceding two weeks. The deaths attributed to acute diseases of the respiratory organs in the eight towns numbered 189.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 31·9, 31·9, and 35·5 per 1000 in the preceding three weeks, further rose to 36·2 in the week ending the 7th inst. During the first five weeks of the current quarter the death-rate in the city averaged 33·2 per 1000, against 23·2 in London and 22·5 in Edinburgh during the same period. The 245 deaths in Dublin last week showed a further increase of 5 upon the numbers returned in recent weeks, and included 18 which were referred to the principal zymotic diseases, against 23 and 22 in the preceding two weeks. Of these 18 deaths, 5 resulted from scarlet fever, 5 from measles, 4 from "fever," 1 from whooping-cough, 1 from diarrhœa, and not one from small-pox. These deaths were equal to an annual rate of 2·7 per 1000, the rate from the same diseases last week being 1·9 in London and 2·7 in Edinburgh. The fatal cases both of measles and of scarlet fever exceeded the numbers returned in recent weeks, while those of "fever" showed a decline of 5 from the number in the previous week. Three inquest cases and 3 deaths from violence were registered within the city; and 70, or nearly a third, of the deaths were recorded in public institutions. The deaths of infants showed a further increase upon recent weekly numbers. The causes of 38, or nearly 16 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

THE ARMY MEDICAL SCHOOL.

Deputy Surgeon-General D. B. Smith, of the Indian Medical Department and of the Calcutta Medical College, has been selected for the appointment of Professor of Military Medicine at the Army Medical School at Netley, in succession to Inspector-General Maclean, who has relinquished that position.

CHANGE IN THE UNIFORM OF MEDICAL OFFICERS.

The scarlet tunic hitherto worn by medical officers is now changed for a blue one, ornamented with gold lace and braid. The cocked hat ceases to be worn by officers below the rank of brigade surgeon, except when employed at army headquarters or on the staff of a governor or general officer. It is replaced by a helmet of the home pattern, with the gilt ball in a leaf cup, and a helmet plate in gilt metal. Officers of the Militia Medical Staff will wear the same uniform as those of the Medical Staff, except that the letter M. will be worn below the badges of rank on the shoulder. Medical officers of Militia battalions who have not elected to serve on the departmental list, will continue to wear the uniform of their regiments, but with cocked hats, plumes, belts, and pouches, as for officers of corresponding rank in the Medical Staff. So few of the new uniforms are as yet in use that we have not heard many comments from the wearers. Some object on sentimental grounds to the change from the traditional scarlet of the main part of the British army. The patrol jacket, which is almost the same as that worn by veterinary officers, has been complained of because of the inconvenience of the heavy front loops, which are likely to get in the way during operations.

The following surgeons have been appointed to the Medical Staff Corps, and are now at the depôt and training school at Aldershot undergoing a course of instruction, which is being pushed forward as rapidly as possible, so that these officers may be speedily available for active service:—Surgeons J. R. Forrest, M. W. Russell, W. R. de Momini, B. F. Zimmerman, A. F. Stace, A. Stables, J. F. E. McGrath, E. A. C. Smith, G. E. Moffett, A. M. Hewson, H. A. Hawes, J. B. Moir, R. Crofts, F. M. Dobson, A. T. J. Lilly, R. Caldwell, A. C. Reilly, S. E. Duncan, J. Maher, A. Perry, H. W. James, R. Trevor, H. D. Innes, A. Turner, and B. O. W. Norton.

Orders were received at Woolwich on the 9th inst. by the Medical Staff to prepare medical stores for 10,000 men.

Assistant Commissary-General J. S. Young, who was despatched to Egypt in October last as special commissioner of the National Society for Aid to the Sick and Wounded in War in connexion with the Nile Expeditionary Force, has been fortunate in acquiring a steam launch which draws only 2ft. 6in. of water, and which can steam five to six miles an hour against the stream. The launch will ply on the Nile under the superintendence of Mr. Young, and under the medical charge of Mr. E. F. White, F.R.C.S., of St. Thomas's Hospital. The aid to be rendered will take the form of transporting on the upward journeys comforts for the use of patients in hospitals on the line of communications, and on the downward journeys conveying invalids, for whom there is every requisite provided on board.

Deputy Surgeon-General R. Wolseley, Sanitary Officer, Aldershot Division, has been appointed Principal Medical Officer, North British District, Edinburgh.

WAR OFFICE.—Army Medical Staff: Surgeon-Major James Henry Jeffcoat to be Brigade Surgeon, vice John George Faught, promoted; Surgeon-Major John Mackenzie, M.D., to be Brigade Surgeon, vice William Henry Muschamp, promoted; Surgeon-Major John Davidge to be Brigade Surgeon, vice Fitzgerald Edward Scanlan, granted retired pay; Surgeon-Major Samuel Archer to be Brigade Surgeon, vice Stewart Aaron Lithgow, promoted; Surgeon-Major Patrick Walter Stafford is granted retired pay, with the honorary rank of Brigade Surgeon.

INDIA OFFICE.—The Queen has approved of the promotion of Surgeon-Major James Ross, of the Madras Medical Establishment, to be Brigade Surgeon.

ADMIRALTY.—Dep.-Inspect.-General Edward S. Mortimer has been appointed to Haslar Hospital.

Correspondence.

"Audi alteram partem."

"CONGENITAL DISLOCATION OF THE HIP."

To the Editor of THE LANCET.

SIR,—In your issue of Feb. 7th Mr. Brodhurst takes me to task for my criticism of his published opinions on congenital dislocation of the hip, which formed part of my address in opening the session of the surgical section of the Academy of Medicine in Ireland.

With your permission I will reply to his attack. His first assault is on my competence to express an opinion on the subject because of my inexperience. "These are the cases on which Dr. Bennett founds his judgment"—namely, the recent dissection presented by me to the meeting, and the case published by Hutton in 1835. He has overlooked the fact that I exhibited at the meeting, beside my own dissections (two cases), four examples dissected and preserved by Harrison. The pathological verity of these specimens is vouched by the names of Hutton, Harrison, Adams, and R. W. Smith. My own cases agree in every detail with them. May I ask how often has Mr. Brodhurst dissected the deformity? I have dissected it twice with before me the specimens and experience acquired by my predecessors in office, but apparently Mr. Brodhurst will not permit me the right to form an independent judgment because of his overwhelming knowledge derived from "forty cases under his care." He says of these cases; "So far as I have been able to learn, with one exception only, all occurred in preternatural labours. The other was the result of violence immediately after birth." We may put aside "the other," for it has no right to a place among congenital dislocations, except it be to swell Mr. Brodhurst's cases to the round number forty. "So far as I have been able to learn" is poor evidence on which to make the positive assertion: "This dislocation never occurs except with preternatural labour, and it occurs especially with presentation of the nates." In my address I quoted this passage, and met it by the statement: "The specimen before the section was obtained from the body of a child which I have positive evidence was delivered six years before her death by perfectly natural labour, head foremost." Mr. Brodhurst is fond of relying on single facts; he relies on such in his rejection of Guérin's theory. In his letter to THE LANCET he admits the value of this evidence, for he says: "It is said that one fact is worth a hatful of theory." If this be so, my case, complete in its history and pathology, confirmed by a well-attested series of preparations, is worth the whole hatful of his forty cases unverified by dissection. But Mr. Brodhurst would put my case and Hutton's alike out of the category of congenital dislocations, I suppose because their facts weigh heavily against his description of the deformity, and against his reasoning.

In reference to my recent dissection, he must needs twist my description of the pathological wasting of the fibres of the gluteal muscle into a proof that the muscle had been ruptured. He says that I "was struck with the destruction of the fibres of the gluteus maximus muscle; indeed, they had almost disappeared in places." He has overlooked the word "almost," and most curious is his deduction from this sentence. "Now, because there was no arrest of development, dislocation must have occurred through violence, and the violence must have been such as to rupture the fibres of the gluteus maximus." No one but Mr. Brodhurst could have extracted such a meaning from my words, and certainly but few could be guilty of a conclusion so illogical, even supposing his interpretation of the meaning of my words to be correct. Whoever heard of the fibres of the gluteus maximus being ruptured in a dorsal dislocation of the hip, congenital, pathological, or traumatic? And yet Mr. Brodhurst does me the favour to attribute such nonsense to me. "That has been left entirely for Dr. Bennett; and I doubt if anyone will contest the honour of the discovery with him." The discovery exists only in the fertile imagination of Mr. Brodhurst. I suppose he avoids the question of the position of the head of the femur as demonstrated by Hutton because it does not tally with his own published statements. He dismisses the case with a sneer, merely: "a hemiplegic idiot of thirty-one years." How comes it that every recorded dissection reveals facts identical with those seen in this specimen? Mr. Brodhurst ends with this wish: "I hope I may persuade Professor Bennett that my facts are worth more than his theory." If anyone will read the report of my address, he will find that I have avoided formulating any theory. I have merely said: "Although we might not arrive at the whole truth, it is better to know our ignorance than blindly to adopt a dogmatic assertion and say it is the truth."

If Mr. Brodhurst will honour me with a visit I shall show him my facts, and he may build any theory he pleases on them, so long as he does not put into my mouth statements so absurd as that the great gluteal muscle is ruptured in dorsal dislocation of the femur.

I am, Sir, your obedient servant,

Fitzwilliam-street, Dublin, Feb. 10th, 1885. EDW. H. BENNETT.

DOES COCAINE ACT UPON DEEP-SEATED PARTS?

To the Editor of THE LANCET.

SIR,—I note in a recent annotation the expression of an opinion that cocaine would not act upon deep-seated parts, and you mention the iris as an illustration of your meaning. As this is a question of great importance to all practitioners, especially to ophthalmic surgeons, I trust you will permit me to place on record some observations I have made on the subject. When solutions of atropine, eserine, or cocaine are applied to the surface of the conjunctiva, by a process of endosmosis they, to speak plainly, soak through the cornea and become diffused in the aqueous humour; they are thus brought into actual contact with the iris, and the extent of their influence upon that membrane depends entirely upon the strength of the solution, the frequency of the instillation, and the time that has been allowed to elapse from the date of the first application. I have frequently demonstrated this fact to students and medical practitioners by applying the aqueous humour—when it has been necessary to tap the chamber—of an eye thus treated to the fellow eye of the same patient, with the invariable result that the specific effect of the drug has been at once induced. On a recent occasion I applied the aqueous humour of a patient, who had been placed under the influence of cocaine in order to facilitate paracentesis of the chamber, to the eye of another patient from which I was about to extract a foreign body. Anæsthesia was induced, but we were surprised to find the pupil contracted, a circumstance that was only explained by referring to the first patient's prescription, when we found that he had been using a weak solution of eserine ordered elsewhere.

For years past I have been in the habit of operating upon a large proportion of my cases of senile cataract without any anæsthetic. First, because of the danger of chloroform, and secondly, because of the excitement, vomiting, and other inconveniences attending the administration of ether. Now, the critical part of the ordinary operation for cataract upon a conscious patient is the excision of a portion of iris after the preliminary incision has been made, and you are no longer able to control the eyeball or obviate the sometimes disastrous result of a sudden squeeze. I used to escape the peril attending this stage of the operation by accomplishing the incision of the cornea and excision of a portion of iris, *uno ictu*, with the knife as it crossed the anterior chamber, but since the discovery of cocaine I have been able to perform the iridectomy more deliberately with scissor forceps, and I may say, when the solution has been of sufficient strength and the application frequent, absolutely without pain. Take the following two cases as illustrative of the extraordinary results to be obtained from cocaine when applied in the manner described:—

J. S——, aged sixty-seven. This man was one of the most difficult patients to deal with I ever had to treat. He was a drinker, and used to get terribly excited in his "cups," and was so abnormally sensitive that it was impossible to touch his eye without an anæsthetic. Chloroform induced collapse, and ether had the same effect as alcohol. I became acquainted with these facts when extracting for cataract on the right eye six years ago, an operation which was completed without misadventure, but ended disastrously, because the patient tore off his bandage and squeezed out the contents of the globe in a fit of drunken excitement (induced by ether) after his removal from the operating

table. He was nearly blind in the left eye when the right was operated on, and gradually got worse, and for years was led about blind, obstinately refusing all treatment. After I had operated upon a few patients with cocaine, I sent for S—— and told him that I could remove his cataract without pain and without administering either ether or chloroform. After some demur he consented to submit, and I operated upon the 20th of last month. Iridectomy and all was completed without the slightest misadventure, the patient exclaiming, "I never felt you. I never felt you." "Why did you roll about, then?" I said. "I don't know," he replied; "but I never felt you."

The other case was that of a very delicate, nervous, and feeble woman, aged seventy-six, whose right eye had been lost by accident eight years ago, and the left had been blind from senile cataract for a year. Cocaine had been freely applied to the left eye with a view to extraction of cataract, and I requested the patient to lie down on the operating table. "You must chloroform me," she said. "It won't be necessary," I replied. "I shan't be done; I shan't be done if you don't give me the stuff," she said, getting excited. I had special reasons—into which I need not enter here—for withholding a general anæsthetic in this case, so I said, "Very well, you shall have your own way; lie down," at the same time applying an Ormsby mask without any anæsthetic to her face, directing her to breathe deeply. After a few minutes she said, "I get no forwarder." I said, "You will soon feel nothing," and directly afterwards applied the speculum. "I'm not gone!" she shouted. "Yes, you are," I said; "see, you don't feel," at the same time fixing the eyeball with forceps. She seemed literally struck dumb with amazement, made no further remark, and the cataract was extracted, iridectomy and all being performed without the slightest manifestation of pain. At the conclusion of the operation she said, "That is queer stuff. I thought one went to sleep." I replied, "I gave you only enough to send the eye to sleep, it was not necessary to do more." "Well," she said, as she was led away, "I felt no pain, that's certain."

Both these patients recovered excellent sight without subsequent pain or other bad symptom, and the former certainly could not have been operated on but for Dr. Köller's splendid discovery. I may add that I have now extracted in twenty-five cases of senile cataract, cases in which iridectomy has formed part of the operation, under the influence of cocaine, that in each case the operation has been completed without misadventure, and that all have made excellent recoveries.

I am, Sir, your obedient servant,

CHARLES BELL TAYLOR, M.D., F.R.C.S.E.,
Surgeon to the Nottingham and Midland Eye Infirmary.

February, 1885.

ANTISEPTIC SOLUTIONS OF COCAINE, ATROPINE, AND OTHER ALKALOIDS.

To the Editor of THE LANCET.

SIR,—It is quite evident that cocaine is destined to be used very extensively in all parts of the world, and therefore some attention should be given to the best means of preserving the activity of its solution. Already, too, it has been pointed out (*Dental Cosmos*, December, 1884) that after the lapse of only two weeks a fungous growth appeared in a solution, which is thought to have destroyed its efficacy. Such a result might of course be anticipated, knowing as we do how quickly such growths appear in vegetable solutions if in warm situations or exposed to the atmosphere.

More than six years ago I wished to discover what would prevent such changes taking place in atropine solutions, and I got Messrs. Corbyn and Co. to prepare for me a number of specimens of liq. atrop. sulph., P.B., each containing some antiseptic substance—amongst others thymol, camphor, salicylic acid, carbolic acid, chloroform, &c.,—the ultimate result being that I found, after allowing them to stand some months, that the preparations containing camphor or thymol still remained clear, whilst fungus had started to grow in the others. Camphor being as a rule more frequently at hand, and being otherwise convenient and suitable, I decided to employ it. I have therefore, during the last five years, in my prescriptions always directed that atropine or eserine be dissolved in camphor water. Upon considering the subject again in reference to the preservation of cocaine, I referred to those of my specimens which still exist, and I found that the one which had undergone the least apparent change is that containing thymol (half a grain to one ounce). It is still quite clear, colourless, and to the naked eye free from growth. On testing, however, its physiological effects, I find it produces no dilatation of the pupil, even after several instillations; whereas the camphorated solution (two grains of camphor to one ounce of liq. atrop. sulph.), which was made at the same time (1878), although a little turbid, is free from mycelium, and acts almost, if not quite, as quickly as if recently prepared. Having repeated the experiments with these solutions several times, and always with the same results, I conclude that, although camphor does not, in small quantities, prevent the advent of organisms in atropine solutions for an indefinite period, yet it preserves them free for one or two years, and at the same time it does not interfere with the mydriatic properties of the alkaloid. This fact will be appreciated by both surgeons and chemists; and, as it is probable that camphor will act in the same manner with solutions of other alkaloids, I would suggest that, until we have more definite knowledge, camphor in powder or as spirit of camphor be added to the solutions of cocaine. My experiments with eserine were commenced two years ago, but are not yet completed; but I may state here that, though camphor does not prevent the change of colour which nearly always takes place in its aqueous solutions, yet it is a good preservative; and that, when thymol is added, the eserine soon becomes inert. At some future time I hope to publish some observations on the preservation of both eserine and cocaine solutions, but some months must elapse before those in reference to the local anæsthetic can be of any value.

In 1881 M. Krœmer[1] pointed out that during the time he had used carbolised solutions (1 in 1000) atropine conjunctivitis, which previously had been of frequent occurrence, had not been seen in the clinic at Basle, and my own experience during the five years I have used atropine with camphor fully corroborates his statement. The solution made for me in 1878, however, with one part of carbolic acid in 500 did not long keep free from aspergillus, and I have no doubt carbolic acid is inferior to either camphor or thymol for this purpose. Judging from what I have seen, the conjunctivitis in these cases is not due to the "drops" containing too much acid, as I have failed to produce it with guttæ atropiæ to which three or four drops of dilute sulphuric acid had been added, or to any impurity of the drug, as cases occur where the irritation follows the use of a few only of the solutions prepared from the same stock and distributed widely. Nor is it due, I consider, to the visible forms of vegetable organisms, but rather to bacilli or micrococci which gain admission to some of them, and readily develop owing to the absence of any germicide, and it is therefore easy to surmise how camphor or carbolic acid is useful and necessary. Any collyrium containing camphor causes no extra pain or unpleasant sensation when applied to the conjunctiva, and as fungi after a time grow freely even in alum, borax, or zinc solutions, camphor or thymol may with advantage be added to these. In consequence of the absence of such a preparation of atropine in our Pharmacopœia, some years ago, when I prescribed gutt. atrop. sulph. with direction for it to be made with atropine and distilled water, I found subsequently on several occasions that the chemist had given liq. atrop. P.B., which, containing as it did some spirits of wine, produced considerable smarting, much to my own and the patient's annoyance. Besides the advantage to surgeons in having a solution of atropine always active and ready for use in ophthalmic cases, I might point out that even the atropine drops dispensed at hospitals, and therefore possibly made every few days, should contain some preservative.

Since writing the above I have read Mr. Fenwick's remarks in this week's LANCET, and I think he will find that ultimately the fungus will appear even in his 20 per cent. solution of cocaine, and that it is only delayed by the larger proportion of acid which the stronger solution contains.

I am, Sir, yours truly,

Tunbridge Wells, Jan. 31st, 1885. GEORGE ABBOTT.

COCAINE IN CHRONIC CYSTITIS AND IRRITABLE BLADDER.

To the Editor of THE LANCET.

SIR,—Any suggestion on the application of the new local anæsthetic is of value. After some experience of its efficacy in rectal and urethral operations, I was induced to try it in

[1] Corr—Blatt f. Schweiz Aerzte, xi.

those troublesome and often seemingly intractable cases of irritable bladder with spasmodic contraction of the sphincter vesicæ. The surgeon is often led to think that he is dealing with an absolute stricture, so sensitive and contracted is this portion of the canal that it hardly yields under an anæsthetic. I had made some small bougies of gelatine about three inches long, charged with one quarter of a grain of hydrochlorate of cocaine, of about the calibre of the normal urethra. These were pushed down the urethra to the irritable neck of the bladder by an ordinary elastic catheter, the result being that the patient in the first instance almost immediately expressed the opinion that he is "going to get control" over his bladder; and, secondly, that the surgeon was enabled at once to make a most thorough examination without his patient suffering any pain whatever. Of course the treatment must be continued; but in these most vexed cases, if the patient at the outset of fresh treatment experiences any relief, even for a limited time, he is on the high road to further improvement, and no doubt eventually to a cure. I am, Sir, yours, &c.,

Wimpole-street, Feb., 1885. EDWARD BELLAMY.

DEATH DURING ANÆSTHESIA.

To the Editor of THE LANCET.

SIR,—In your issues of Nov. 15th, 1884, and Jan. 24th of the current year two deaths during anæsthesia are recorded, the anæsthetics employed being methylene and ether respectively. In these cases a point of so much practical importance is raised that I venture to draw attention to it. A dangerous and misleading view, which the anæsthetist is apt to fall in with, is that which assumes that the danger to the patient and the degree of narcosis rise and fall *pari passu;* that the smaller the margin of vitality the less ether &c. should be given. I have often seen operations performed upon "unfavourable" cases, when the patient never became fully under, but came round time after time, the anæsthetist fearing to produce complete narcosis. But the truth is that the two "dangerous" points are the "half-under" and the "half-round" degrees of narcosis; but especially the former of these—when, that is, the energy of the respiratory and cardiac centres is lowered, whilst reflex susceptibility is not yet abolished, but rather intensified, a condition analogous to the irritability of exhaustion, when the breathing is irregular and the pulse rapid and feeble. To this succeeds, after a few inhalations, the quiet regular breathing, and fuller, slower pulse of complete narcosis. In the former condition (of semi-narcosis) any operative measure takes the patient at the greatest disadvantage. The deaths that I have seen, and some that I have read of, seem to me to have indisputably occurred during semi-narcosis, and to have followed with marked suddenness upon some operative proceeding. I have seen two deaths occur at the commencement of colotomy (a child and an old woman being the patients), both such feeble subjects that narcosis was not fully established. At the first skin incision the child's pulse ceased suddenly, almost as though it had been shot through the heart. The woman's case was strikingly similar; she had partially come round during a momentary delay in commencing, and was sick. As the first incision was made in the skin the woman gave a couple of gasps, and the pulse and breathing ceased together. In the case you record of death under methylene, narcosis was "with difficulty induced"; "the pulse was good," but "at the commencement of the operation the patient became rapidly cyanosed, and the heart's action suddenly ceased." What was the cause of death? Not some peculiar susceptibility of the system, for the patient had taken methylene on a previous occasion without difficulty; not his general condition of health, nor special cardiac condition, for both were good; evidently not the operation (division of the ulnar nerve). I think one must conclude that death was due to a fatal inhibitory impulse, excited by the incision, acting upon the heart during semi-narcosis. In the death during ether, the man "had partially come round," and the bag was put over his face without any more ether, whilst reduction of the dislocation was effected; in a minute or so he was observed to have become very pale, and the breathing very feeble; all attempts to revive him failed. Here, apparently, the shock of forcible reduction during semi-narcosis, acting upon a condition of great vital debility, was the cause of death. Apologising for occupying so much of your valuable space,

I am, Sir, yours, &c.,

Feb. 9th, 1885. J. PHILIP GLOVER, M.B.

RALPH WALDO EMERSON.

To the Editor of THE LANCET.

SIR,—It may interest some of your readers to know that Ralph Waldo Emerson (whose biography Dr. Oliver Wendell Holmes has just written) suffered during the last ten years of his life from well-marked symptoms of aphasia. According to Mr. Conway, "There was something striking in the kind of forgetfulness by which he suffered. He remembered the realities and uses of things when he could not recall their names. He would describe what he wanted or thought of. When he could not recall a 'chair,' he could speak of that which supports the human frame; and 'the implement that cultivates the soil' must do for a 'plough.'" This account of the ailment of the great American essayist is interesting from a medical standpoint, showing, as it plainly does, how an active brain will overcome apparently insurmountable physical difficulties due to localised disease of its substance. In the present instance I take it that this result was effected by utilising circuitous efferent nerve tracts in the healthy tissue around the lesion.

I am, Sir, yours truly,

Brighton, Feb. 5th, 1885. W. AINSLIE HOLLIS.

MANCHESTER.

(*From our own Correspondent.*)

THE MANCHESTER MEDICAL SOCIETY.

THIS Society has now completed its fiftieth year of existence, and at the meeting held on the 4th inst., Dr. Walter Whitehead took the chair as President for the ensuing year, in succession to Dr. Leech, who retires after having held that office for two successive years. Both financially and numerically it is in a very flourishing condition; it numbers 240 members, possesses the largest medical library in the provinces, and has had £500 bequeathed to it during the past year. It has lost two of its oldest members, Dr. Noble and Dr. Joseph Stone.

THE ROYAL INFIRMARY AND THE CORPORATION.

The dispute already noticed as having arisen between the Royal Infirmary and the Corporation, concerning the excessive charges of the former for cases of fever treated at their hospital, has resulted in the former paying in full the charges in dispute; and at the last meeting of the Infirmary Board certain proposals were brought forward and approved for submitting to the Health Committee of the Corporation: they are, briefly, that the Fever Hospital must be extended if the Corporation desire to continue the use of it; that the cost of such extension will be £20,000, of which sum the infirmary will provide about £3000, being the profit they have made by the treatment of the Corporation patients during the past three years, and that they will advance the remainder of the money as a loan to the Corporation, the latter to pay interest on such loan; that the infirmary will contribute £500 a year towards the maintenance of the hospital, the remainder to be found by the Corporation; and that the management of the hospital shall be retained by the authorities of the infirmary. These proposals have been submitted to the Health Committee, and their decision is now awaited before any further steps are taken.

SANITARY MATTERS.

At the last meeting of the City Council several matters of much sanitary interest came up for consideration. The Rivers Committee submitted a report upon their inquiries and investigation as to the best means of the disposal of sewage, with a view to the non-pollution of the river by sewage matters. The three systems of irrigation, intermittent filtration, and precipitation were described and their respective merits pointed out. The same committee are to make further inquiries and report again prior to the whole matter being gone into. Manchester has at present in operation over a very large area the pan system of closets with weekly removal, so that the problem here should present less difficulties than in towns where all sewage is turned into the sewers. The Parks Committee submitted a proposal for the purchase of a large open space in one of the suburbs, known as the Ardwick Polygon, and the Council sanctioned an expenditure of £20,000

for the purpose, some £9000 being promised as gifts towards the same object. A resolution also was passed that immediate steps be taken to remedy insanitary and dilapidated dwellings, especially with a view to the demolition of crowded and narrow passages, blind streets, and culs-de-sac, and the providing of open spaces in crowded districts; and these matters have led to some amount of correspondence in the daily newspapers, urging that this latter work is much more pressing than the providing an additional large space in Ardwick, which already possesses a small park or green, and that the £20,000 should be devoted to this purpose rather than the former.

SCHOOL HYGIENE.

The arrangements for holding a conference on Education under Healthy Conditions are progressing. The date fixed is April 14th and following days. At the last meeting of the Executive Committee, Lord Aberdare (who has consented to be President) was present, and the programme fixed upon included over-pressure, cheap dinners for poor school children, science teaching in schools, gymnastics and physical exercises, health lessons in schools, health requirements in the construction and fitting of schools, and evening schools.

ILLNESS OF PROFESSOR WATSON.

A profound feeling of grief was produced by the sudden and serious illness of Professor Watson on the 4th inst., the Dean of the Medical School. He was lecturing as usual on that day, and at the conclusion of his lecture was seized with an apoplectic attack. He was unable to be removed home, and has had to remain at the College, where he still lies in a very critical condition.

LIVERPOOL.

(From our own Correspondent.)

THE LIVERPOOL GYMNASIUM.

AMONG its other public institutions Liverpool possesses one of the finest gymnasia, if not the finest, in the kingdom, and seeing how greatly it contributes to the physical well-being of its members it may be considered partly a medical institution. For years its financial position has been unsatisfactory, but within the last few days it has been freed from debt, and there is every reason to hope that it has a long and prosperous career before it. It is most interesting to observe the effects of the various dumb-bell, bar-bell, and Indian club exercises upon boys and youths with narrow chests and ill-developed muscles, the difference being in the course of twelve months most remarkable. In this large city, where so many young men have to spend the best part of the day in offices and shops, often in a stooping posture, the gymnasium affords an excellent mode of correcting in the evening the ill effects of the work of the day. Many ladies also have derived considerable benefit from attending the class provided for them on certain days at special hours, and in many cases, other than those specified, there could not be a better prescription than twelve months at the gymnasium.

THE ROYAL SOUTHERN HOSPITAL.

In 1841 the south end of the town had extended so much that hospital accommodation was required, and the old Southern Hospital was built and opened. Being found quite inadequate for the demands made upon it, the present hospital was erected about twelve years ago with all the modern improvements of hospital construction. The annual meeting was held on the 9th inst., when it was reported that the total number of patients treated during the past year was 893, and the daily average number of beds occupied was 165; the wards were frequently quite full. In the annual report a graceful allusion was made to the late Mr. Alfred Higginson, who had been connected with the hospital since 1857, for ten years as honorary surgeon, and since then as honorary consulting surgeon.

THE SEAMEN'S DISPENSARY.

At the annual meeting of the Sailor's Home, Dr. Bernard, surgeon, reported that during the year there had been 801 new cases treated at the Seamen's Dispensary, and that the total number of visits made by patients during the year was 2401.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

NEWCASTLE INFIRMARY.

THE annual meeting of the Newcastle Infirmary was held last week, and the proceedings were full of interest. I need not refer again to the subject of overcrowding and the proposed new building, as this has been already dealt with in this correspondence. The statistics of the past year, as the report says, "show an amount of effort on the part of the professional officers of the house which is truly gratifying, and indicate an amount of relief given to human suffering which must afford much satisfaction to the supporters of this noble institution." The total number of patients treated in the infirmary during the year has been 31,714. The number of in-patients has been 2576, being an increase over that of the previous year of 490. Of the ten patients operated on for stone in the bladder all recovered. Twenty-nine cases of fracture of the skull had been treated, with eighteen recoveries; and fifteen cases of concussion of the brain, with only one death. Ovariotomy has been performed eleven times, with three deaths. The report also refers to compound fracture of the leg, which was so frequently fatal before the adoption of the antiseptic methods, but seventeen of these fractures had been treated, with only one death. With regard to the introduction of working men to the committee, now under consideration, one result would, it is thought, follow this arrangement—namely, an increase in the contributions made by the working classes to the funds; for at Sunderland, where the average number of patients is less than one-half of the number received by the Newcastle Infirmary, but where representatives of the working classes hold office, the workmen's contributions continue to form the most important item in the income of the institution. At this meeting a proposition was brought forward that a small charge be made for every casual case seeking medical aid at the infirmary. It was pointed out by the house-surgeon, Dr. Limont, that the casuals included all classes of patients, from tramps and persons in the lowest position, to persons who were well dressed and well able to pay. Dr. Philipson stated that the Medical Board were opposed to the making of a charge; he thought it would not deter many of the better classes seeking assistance, while the sick and suffering poor might often be prevented from doing so. This opinion of the Medical Board appeared fatal to the project, for it was dropped.

NEWCASTLE DISPENSARY.

This old-established and valuable institution had its one hundred and seventh annual meeting last week. The committee's report stated that there had been a decrease of 957 letter patients during the year as against the previous year, and a decrease of 2176 in the number of casual patients, but the number of patients treated during the year reached the large total of 18,717. The tables compiled by Dr. Beatley, the resident medical officer, show that the percentage of deaths was much lower than in 1883, in the proportion of 2·8 against 3·1. Dr. Beatley's tables show also that there has been a gradual falling off in the number of casuals yearly since 1882. The casuals pay a small sum before being admitted to treatment, but as the Newcastle Infirmary, and other charitable institutions in the city, see patients free when work is bad, a large number will naturally gravitate to them. It should be explained that at one time the pressure of casuals became so great that it promised to take up the whole time of the staff, and the charge was put on as a check, and as such it has proved itself to be an effectual one. It might, however, become a question for the committee as to whether at a time like the present it might not be expedient, or even humane, to remove the small payment, for which the institution has no pressing need, seeing that it has an invested capital of about £30,000, and a well maintained list of subscribers.

DEATH OF DR. ADRIAN BLAIKIE.

Our papers notice with regret the death of Dr. Adrian Blaikie, Her Majesty's Inspector of Alkali Works for this district. Dr. Blaikie, although not a member of our profession, was intimately connected with it by his education and duties. He was a son of the Rev. Dr. Blaikie of Edinburgh, and was well known in the University by some important

investigations he conducted there with Professor Crum Brown. He was a Doctor of Science and Fellow of the Chemical Society of London. His loss will be severely felt by many personal friends he made here since his appointment last session; he was only twenty-eight years of age.

Newcastle-on-Tyne, Feb. 11th.

PARIS.

(From our Paris Correspondent.)

DEATH OF DR. MALLEZ.

IT is with much regret I have to report the death of Dr. Mallez, which took place at his residence in Paris, in the fifty-eighth year of his age. The deceased gentleman had an attack of apoplexy on Friday, the 30th ult. (this being the third attack within a few months), which resulted in paralysis, and he remained unconscious to the day of his death, on Wednesday, the 4th inst. After having completed his classical studies he entered the army as an assistant-surgeon, which he left in 1851, and in 1858 he took his degree as doctor of medicine, the subject of his thesis having been on "Hæmatocele of the Vestibule of the Ear in Wrestlers, Lunatics, and School Children." Nothing, however, indicated his inclination towards the specialty he afterwards adopted—viz., diseases of the urinary organs, a branch in which he excelled, being considered one of the most competent authorities on the subject. The first indication that he gave of his aptitude for the practice of this particular branch was a work he published many years ago on the value of the introduction of powdered bismuth into the urethra in gonorrhœa, when he at the same time founded a dispensary for gratuitous consultations at his own expense, which was well attended by patients, medical students, and even by qualified practitioners from all parts of the world. His private practice was a very lucrative one, and he has left behind him a very large fortune. He was never married. Notwithstanding his busy practice, he found time to write, and among the works published by him was a memoir on the permanent cure of strictures of the urethra with the chemical galvano-caustic, for which he was awarded a prize by the Paris Academy of Medicine in 1867. In 1872 he brought out a work on the diseases of the urinary apparatus, and in 1883 his formula of diseases of the urinary organs appeared. Dr. Mallez was a very able practitioner, and was much sought after in society, as he was in every sense an artist in physique, in taste, and in manners. He was a Chevalier of the Legion of Honour. His funeral took place in the midst of a large concourse of friends and grateful patients in the church of St. Roch, which, although a building of the first class in size, could scarcely hold the numbers who flocked thither to pay their last respects to the memory of the deceased. After the funeral service the body was removed to Valenciennes, his native town, for interment.

Paris, Feb. 10th.

MAHOMED MEMORIAL FUND.

THE following additional subscriptions have been received:

	£	s.	d.
W. A. Crosse, Esq.	1	1	0
E. G. Dutton, Esq.	1	1	0
A. Withers Green, Esq. ...	1	1	0
R. L. Knaggs, Esq., M.B.	1	1	0
T. B. Luscombe, Esq. ...	1	1	0
H. Kellock McKay, Esq., 32nd Pioneers...	2	2	0
Laidlaw Purves, Esq. ...	10	10	0
John Rand, Esq.	1	1	0
Mrs. Henry Roberts, per Dr. Arcedeckne Duncan	1	1	0
Dr. Swain Scriven	1	1	0
C. Caldecott, Esq.	1	1	0

A meeting of the Committee will be held very shortly, and the treasurer or honorary secretaries will be glad to receive the names of any gentlemen still intending to contribute to the fund.

ARTHUR E. DURHAM, Treasurer.
JAMES F. GOODHART, } Secretaries.
W. H. A. JACOBSON, }

SANITARY ASSURANCE ASSOCIATION.—The fourth annual meeting of the members of this Association was held on the 9th inst., when the annual report and financial statement for 1884 was read. The report, which was adopted, was a most satisfactory one, and pleasure was expressed at the steady progress which had been made during the past twelve months.

Obituary.

COSTANZO MAZZONI.

A GREAT surgeon, a great teacher, and an exemplary citizen has been lost to Italy in Costanzo Mazzoni, who died in Rome, almost at his patient's bedside, on Thursday, the 5th inst. It was no secret that he had for a long time been labouring under organic cardiac disease; but his devotion to his profession was such that no admonition of impaired power could ever make him decline or postpone any summons to the ailing. On the morning of his death he had gone with an assistant to attend a patient in the Palazzo Fiano, and in mounting the stairs felt ill; his companion advised him to rest a little, but he insisted on going on till he entered his patient's house. In a moment he was seized with the most agonising præcordial pain, and then the heart's action stopped. He was no more.

He was born at Ascoli-Piceno in the Marches in 1823, and came up with a solid classical training to Rome, where he highly distinguished himself as a student of medicine. He finally concentrated all his energies on surgery, in which he graduated; then started on a tour through the chief European medical schools, and for some time made Paris his headquarters. On his return to Rome he worked assiduously with his learned teacher and friend, Antonio Baccelli, with whose still more distinguished son Guido he formed the fraternal relations which only ceased with his life. In private practice he soon rose to eminence, but never lost touch with contemporary science in its manifold developments. His chief recreations were his visits to the great European schools, and his attendance at the Congresses periodically held at them. On these occasions he never failed to contribute, as well as to carry away, valuable knowledge, and from the experience thus acquired he formed the conception which he lived to mature, but not to realise, of founding in Rome a model medical school, while converting his old hospitals into institutions for the treatment and study of special diseases. He was in frequent communication with the men of light and leading among his contemporaries, and numbered as his correspondents many surgeons of the first rank, from Lister to Billroth. It is hardly possible to over-estimate what clinical teaching in Italy owes to him. In Rome especially he continued to train from year to year an ever-increasing phalanx of young surgeons who flocked to his prelections and operations from all parts of the Peninsula. Not Acquapendente, not Scarpa insisted more impressively than he on the importance of anatomy as the basis of surgical proficiency, while on all his academic deliverances rested the mellow afterglow of scholarship, the chastened light and colouring of a mind imbued with the best spirit of the antique. Virgil and Horace he knew as a humanist of the Renaissance might have known them, and he took special pleasure in relieving from time to time the closeness of clinical work by a lecture on some of the great fathers of medicine, from Hippocrates to Galen, from Oribasius to Alexander of Tralles.

As Professor of Clinical Surgery in the Roman University he issued yearly reports of the chief cases of scientific and practical interest in the wards of the San Giacomo Hospital. These volumes are a rich mine of observation and suggestion, and form excellent reading not only for the student, but for the practitioner. In all of them an impression of thoroughness is conveyed—the characteristic of a mind not only well instructed but well educated. His papers read before the Accademia Medica di Roma are marked by the same features, and their speedy publication in an accessible form will be the pious duty of his colleagues and executors.

The funeral took place on Saturday, the 7th, and many incidents in the life of the deceased combined to make it a singularly impressive demonstration. He had served in the movement which led up to Italy's unity—had been surgeon, in fact, to the Garibaldian forces in the brilliant, if unsuccessful, expedition of Velletri in 1849, and so the survivors of the campaigns of independence were conspicuous among the mourners. He had found time, though at the

head of his profession in Rome and the surrounding provinces, to give gratuitous advice daily to the poor—his house in the Via Mario dei Fiori being on these occasions a kind of dispensary, often of other aid than medical only; and so the funeral cortège was swelled by many humble and grateful recipients of his bounty. Add to these his colleagues of the Senatus of the Roman University, the students of every faculty in that seat of learning, the leading physicians and surgeons of the city, representatives of the various Universities and of the learned and scientific bodies, not only in Rome, but throughout the Peninsula, and the Ministers of the Interior and of Public Instruction on the part of the Government, and some idea may be formed of the solemn procession which moved slowly through the Via Frattina, the Corso, the Via Condotti, the Piazza di Spagna, till it reached the Baths of Diocletian. There it paused before resuming its progress to the cemetery, and among the pall-bearers were Prof. Maurizi, Rector of the University; Prof. Galassi, President of the Faculties of Medicine and Surgery; Prof. Guido Baccelli, President of the Roman Academy of Medicine; Signor Mercatili, the parliamentary representative of Ascoli; the Senator Gravina; the Senator James Moleschott, Professor of Physiology in the University; and the delegates of the Town Council and the Government. Several delivered brief and touching orations over the surgeon, the savant, and the citizen lost to Rome and to Italy. Then the cortège dispersed, all but his immediate relatives and friends and his students, who accompanied his body to the Campo Verano, where it was laid to rest under wreaths of spring flowers.

On Sunday, the 8th inst., the ordinary meeting of the Roman Academy of Medicine suspended its programme, the President, Dr. Guido Baccelli, referring in a few well-chosen words to the loss it had sustained. The following resolutions were thereafter proposed and carried:—1st. To hold a conference in the grand hall of the University in honour of their lamented colleague's memory, inviting the attendance of the urban and provincial authorities, the leading citizens, the medical faculties of the kingdom, and the medical societies, Italian and foreign. 2nd. To place a marble bust of him in the University at the expense of the Academy of Medicine. 3rd. To withhold for one year the nomination of his successor in the membership of the Academy. A committee—composed of Drs. Galassi, Pasquali, Durante, Tassi, Francesco Scalzi, Filippo Scalzi, Brunelli, Bertini, Laurenzi, and Gaetano Mazzoni—was charged to co-operate in compiling a memoir of their late colleague as surgeon and teacher, man of letters and citizen.

As we write, Dr. Giordani, of the San Giacomo Hospital, the scene of his colleague's most brilliant operations, sends us the following note:—"Professor Mazzoni suffered of late years from difficulty of breathing, accompanied by painful spasms along the left arm. These symptoms were due to long-standing atheroma of the aorta and consequent hypertrophy, with fatty degeneration of the heart. The proximate cause of death was cardiac paralysis." The body was embalmed by Professors Durante and Postemski, assisted by Drs. Bonanno, Crespi, Braggio, and Tricomi. It is to be hoped that Professor Mazzoni's own method of embalming, of which he is understood to have preserved the secret, and the highly successful results of which brought him much distinction, will not be allowed to die with its author.

FRANCIS GRIERSON, M.B., C.M.

IT is with great regret that we record the death of one who, although but a young member of the profession, gave every promise of a distinguished career. He was one of the many victims of overwork. After five years of patient study at Edinburgh University, Mr. Grierson graduated with honours in August, 1883; and at that time he proposed to devote himself to mental diseases, for which his special aptitude for microscopical work and pathological research would have stood him in good stead. All his plans were, however, altered by the symptoms of incipient consolidation showing themselves, and in the hope of recruiting his overtaxed strength he took a voyage to Sydney. Shortly after his arrival a vacancy occurred among the residents in the Prince Alfred Hospital, for which his love of the profession induced him to compete at a time when he was physically unable. For nine months he manfully filled his post, and then resigned, being compelled to do so by the advancing nature of his complaint. He was on the eve of leaving for the more congenial Cape, when death overtook him on the 8th ult. In him are realised the words of the wise man, "For honourable age is not that which standeth in length of time, nor that is measured by number of years."

FREDERICK ANTHONY MILLS.

MR. MILLS, whose death in the eighty-fifth year of his age occurred on the 29th ult., was born at Pulham St. Mary, in Norfolk, where his father practised for many years. He received his early education at the Norfolk Grammar School under Valpy, and afterwards prosecuted his professional studies at Guy's Hospital. After a short period of study at the Paris School of Medicine, Mr. Mills commenced the practice of his profession in Norwich, where he was speedily successful. On his retirement he located himself first at Horning and afterwards at Surlingham, where he died. Two years before his death Mr. Mills had suffered from strangulated hernia, for the relief of which he underwent, without anæsthetisation, a severe operation, recovering perfectly. Then and since, however, he suffered from prostatic enlargement and cystitis, to which of late was added stone in the bladder, and, gradually exhausted by these accumulated troubles, he at last succumbed.

SURGEON G. S. LEWIS, M.A. CANTAB.

WE learn with regret the death of Surgeon G. S. Lewis, Medical Staff, which occurred on the 6th inst., at Davos Platz, after a lingering illness. Born in Tasmania in 1852, and educated at the High School, Hobart, Mr. G. S. Lewis left home never to return in 1868. He became attached as a medical student to Guy's Hospital, and subsequently to Gonville and Caius Colleges, Cambridge. During his few years of service he was stationed at Gosport, Aldershot, and Gibraltar, and finally at Ramleh. The energy with which he devoted himself to his onerous duties during the cholera epidemic in Egypt probably laid the foundation of the disease to which he succumbed. His kindness of heart, his generosity, and his genuine but unobtrusive cheerfulness will long be remembered by those who knew him best.

Medical News.

BRITISH MEDICAL SERVICE.—The following are the names of the successful surgeons on probation for Her Majesty's Army, in order of merit, and with the number of marks obtained by them. In the instances of these gentlemen the marks gained at Netley are not counted, and they retain the places taken by them in the competitive examination at London.

	Lond. Marks.		Lond. Marks.
*Forrest, J. R.	2175	Johnson, C. W. ...	2110
Russell, M. W.	2395	Berryman, W. E. ...	2100
†De Morinni, W. R. ...	2370	Lilly, A. T. J.	2080
Zimmermann, E. F. ...	2355	Caldwell, R.	2075
Stace, A. F.	2340	Reilly, C. C.	2065
Stables, A.	2295	Duncan, S. E.	2060
M'Craith, J. F. E. ...	2285	Maher, J.	2030
Smith, E. A. C. ...	2265	Perry, A.	2030
Hewson, W. M. ...	2210	Cardozo, S. N.	2010
Moffet, G. E.	2210	‡Scanlan, A. de C. ...	2000
Haines, H. A.	2180	James, H. W.	1990
Moir, J. D.	2175	Trevor, R.	1930
Crofts, R.	2150	James, H. D.	1990
Dobson, G. M.	2140	Turner, W.	1970
Hale, G. E.	2130	Norfor, B. O. W. ...	1960

*Gained the Director-General's Prize in Pathology.
†Gained the Montefiore Medal and Prize of 20 guineas.
‡Gained the Parkes Memorial Bronze Medal.

INDIAN MEDICAL SERVICE.—The following is the list of candidates for commissions as surgeons in Her Majesty's Indian Medical Service, in order of merit, and with the total number of marks gained by them at both the London and Netley examinations:—

	Comb. Marks.		Comb. Marks.
*Leslie, J. T. W. ...	5521	Mukerji, U. N.	4961
Prain, D.	5411	Price, W. L.	4798
Bown, A. T.	5285		

*Gained the Herbert Prize of £25 with the Martin Memorial Gold Medal, and the Montefiore Second Prize.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 5th inst.:—

Cattell, George Trew, Guy's Hospital.
Constable, Samuel, St. George's Hospital.
Fernandez, Lawrence J. Baptist Paul, Medical College, Calcutta.
Goulden, Henry William, Charing-cross Hospital.
Hunter, George Holbrey, University College.
Price, Arthur Edwin, Guy's Hospital.

The following gentlemen also on the same day passed the Primary Professional Examination:—

Walter Loades, Middlesex Hospital; John Eugene St. George Queely, Meath Hospital, Dublin; Alfred Hobart Sturdee, King's College.

AT the Sorbonne, where micro-biology has recently been raised to the rank of a recognised science, M. Duclos, one of the most distinguished of M. Pasteur's pupils, has been appointed the first Professor of Bacteriology.

THE total receipts since the inception of the Hospital Saturday movement in Melbourne have amounted to £73,195. By the last collection nearly £8000 was raised, an increase of about £800 over the receipts for the previous year.

THE Committee of the Ladies' Sanitary Association have arranged for the delivery of a course of lectures on "Physiology and the Laws of Health," to commence on the 26th inst., and to be continued every Thursday, with the exception of the Easter vacation, until twelve lectures have been given.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—The subscription list of this Hospital Saturday Collection has just closed. The amount realised for the year 1884 is £2191, being an increase of £41 over the year 1883, and of £30 over the year 1882. The expenses of collection have amounted to 2½ per cent.

FRENCH HOSPITAL AND DISPENSARY.—The seventeenth annual dinner in aid of the funds of this institution was held in Willis's Rooms on the 7th inst., M. Waddington, the French Ambassador, presiding. The report, which was read by the secretary, showed that during the past year the receipts had been £2616, and that the expenditure had amounted to £2300. A list of subscriptions and donations was afterwards read, showing that over £2000 had been received during the evening for the funds of the institution.

THE PARISIAN SEWERAGE SYSTEM.—The sewerage scheme for Paris devised by Dumont contemplates the construction of a drain about 100 miles long from the city to a covered reservoir below Herblay, and the establishment of pumping stations at Eragny and Serifontaine. The cost of construction is estimated at £2,400,000. For nine months in the year almost all the sewage will be utilised for the purposes of irrigation; and it is expected that the pumping stations will be fully maintained by the sales of the sewage.

A MORTUARY FOR PADDINGTON.—The Paddington vestry having recently decided to erect a public mortuary and coroner's court, a committee was appointed to select a plan. At the last meeting of the vestry, however, when the decision of the committee was brought up for approval, it was resolved that only a mortuary, and not a coroner's court, should be provided, one of the grounds assigned being that, as the Home Secretary had announced his intention to reintroduce his London Government Bill, it was undesirable to expend more than was necessary.

BEQUEST.—The late Dr. Bholanath Bose, formerly Civil Medical Officer of Faridpur, has left to the Calcutta Medical College all his scientific instruments and medals and a sum of 1000 rupees. The instruments are to be placed in the library for the use of students; the money is to be invested, and the interest is to be awarded annually to the fourth-year's student who shall show the greatest proficiency in the bedside diagnosis of disease, the prize being awarded for medical and surgical diagnosis in alternate years.

THE PARKES MUSEUM OF HYGIENE.—At the annual meeting of the members of the Parkes Museum in December last, the report of the Council gave indications of a financial crisis in the affairs of the museum, and the meeting unanimously resolved, on the motion of Mr. Mark H. Judge, "That the report be printed, with a detailed statement of the financial position of the museum, and sent to the members, and that a special meeting of the members be convened within two months to consider the same." This special meeting was held last week. Captain Galton, C.B., F.R.S., presided, and the meeting entered thoroughly into the work of doing the utmost to preserve the institution for the benefit of the public. To do this at least £1000 will be required by the end of February. A committee was appointed to assist the Council in obtaining the necessary funds to enable the museum to purchase the lease of the present premises in Margaret-street, and to make the necessary improvements to accommodate the great increase in the library, owing to the presentation of 1500 volumes just made by the Council of the International Health Exhibition. The joint committee of members and Council have arranged to hold a public meeting at the Mansion House to-day (Friday, Feb. 13th), at three o'clock.

CAMBRIDGE UNIVERSITY.—At a congregation on the 5th inst., the following were, on the recommendation of the General Board of Studies, appointed electors to the undermentioned Professorships until February 20th, 1893:—Chemistry: Mr. G. F. Cobb. Anatomy: Professor Newton. Botany: Dr. Phear. Zoology and Comparative Anatomy: Mr. F. Darwin. Surgery: Dr. D. Macalister. Downing Professorship of Medicine: Professor Liveing. Pathology: Professor Humphry.—The degree of Bachelor of Medicine was conferred on John Yates Bostock, Pembroke.

OVER-PRESSURE IN BOARD SCHOOLS.—A large number of answers have been received by the General Association of Church School Managers and Teachers, in response to certain inquiries on this subject issued by them to their various branches throughout the country. All, with the exception of two, state that over-pressure exists, and manifests itself in the ill-health of the children. The remedies suggested are an increase of the fixed grant, a relaxation of the excessive requirements of the Code, and a greater liberty in the matter of withdrawing delicate and backward children from examination. A letter embodying the above proposals has been sent to Mr. Mundella.

MANCHESTER ROYAL EYE HOSPITAL.—The total number of patients registered on the books of this institution during 1884 was 15,427, an increase of 725 on the year preceding. About £5000 is still needed to make up the amount the Board of Management asked for last year for the building and furnishing a new hospital, and a circular has been issued to the residents in the neighbouring towns, which furnish about three-fourths of the in-door patients, the maintenance of whom makes the largest item in the expenditure of the institution, calling their attention to the inadequate aid they give in proportion to the benefits they receive from the charity.

VENTNOR CONSUMPTION HOSPITAL.—At the annual meeting of the governors of this institution held this week, it was stated that the hospital, which consists of sixteen houses, has been fully occupied during the past year, and that there were constantly fifty or sixty applicants waiting their turns for admission. Three more houses have been erected during the past year, and will shortly be occupied. The ordinary receipts amounted to £9295, and the expenditure to £9816. The Earl of Rosebery has been chosen President, in succession to his late Royal Highness the Duke of Albany. The meeting was afterwards made special for the purpose of receiving the grant of a Royal Charter of Incorporation, which was submitted and approved.

MANCHESTER MEDICO-ETHICAL ASSOCIATION.—The annual meeting of this Association was held on Jan. 30th. The report of the committee showed continued prosperity, with a steady increase of members and funds. The retiring president, Dr. Lloyd Roberts, gave a very able and interesting address, after which the following gentlemen were elected office-bearers and members of committee for the year 1885:—President: F. H. Walmsley, Esq. Vice-Presidents: G. Bowring, Esq.; C. H. Braddon, M.D.; C. J. Cullingworth, M.D.; S. Woodcock, M.D. Treasurer: D. Lloyd Roberts, M.D., F.R.S.Edin. Secretaries: J. Broadbent, Esq.; A. Wahltuch, M.D. Committee: W. Armstrong, Esq.; W. H. Barlow, M.D.; F. H. Collins, M.D.; A. Emrys-Jones, M.D.; J. Foster, Esq.; W. J. Mallett, M.D.; S. H. Owen, M.D.; J. A. Palanque, Esq.; F. M. Pierce, M.D.; S. Rains, Esq.; A. E. Sutcliffe, Esq.; W. Walter, M.D.

NEW UNIVERSITY MEDICAL SCHOOL AT SYDNEY.—With the assistance of the New South Wales Government, a Medical School is to be established in connexion with Sydney University, and plans for a suitable building, in the Gothic style, have been prepared by the colonial architect. The length will be over 200 ft., with a depth of 115 ft., and walls 60 ft. high. In the main portion of the ground-floor are rooms for lecturers on pathology and medicine, an anatomical museum, medical class museum, and pathological, histological, and private physiological laboratories. The right wing is set apart as a class-room for practical pathology, with smaller rooms for a materia medica museum, laboratory, and lecturer's room. In the left wing are provided rooms for chemical physiology, physiological class museum, instrument and balance room, experimental physiology, physiological workshop, and a large room for the practical histological class. The dissecting-room is situate on the upper floor. A large theatre of anatomy, also one of surgery, and museum, each measuring 36 × 44 ft., surgical class-room, surgical lecturer's room, midwifery class museum, midwifery lecturer's room, anatomy professor's room, anatomical laboratory, demonstrator of anatomy room, small theatre of anatomy, and prosectory, occupy the main portion of this floor. In the right wing there is a theatre of pathology and materia medica, and one of midwifery and medical jurisprudence, each 36 × 45 ft. in measurement. The dissecting-room and theatre of physiology, measuring 51 × 41 ft. each, are in the other wing. The basement-floor is set aside for quarters, students' reading-room, coffee-room, injecting-room, medical jurisprudence lecturer's room, experimental physiology and pathology; large minto-tiled corridors, 10 ft. wide, running the whole length of the building. The estimated cost is £20,000.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

AITKEN, JOHN S., L.F.P.S.Glas., L.R.C.P.Ed., has been appointed Medical Officer for the Orton District of the East Ward Union, vice Durand, deceased.

BAILEY, W. H., M.R.C.S., L.S.A.Lond., has been appointed a Resident Clinical Assistant to the City of London Hospital for Diseases of the Chest, Victoria-park.

BATMGARTNER, JOHN RICHARD, M.R.C.S., L.S.A.Lond., A.K.C., has been appointed Police Surgeon to the City and County of Newcastle-upon-Tyne, vice Septimus W. Rayne, F.R.C.S.Eng., resigned.

BENNET, B. G., M.B., C.M.Ed., has been appointed Medical Officer of Health for the Fettercairn District, vice Walker, resigned.

BENTLIF, P. B., M.R.C.S., L.S.A.Lond., has been appointed Surgeon to the s.s. *Australia*, taking troops to the Soudan.

CARTER, EUSTACE G., M.R.C.S. & L.R.C.P., has been appointed House-Physician to the Bradford Infirmary, vice H. W. Phillips, M.B. resigned.

CASSEL, CHARLES E., F.I.C., F.C.S., has been appointed Public Analyst for the Parish of Kensington.

COLLIER, WILLIAM, M.A., M.B.Cantab., has been appointed Honorary Physician to the Radcliffe Infirmary, Oxford.

EVANS, OWEN, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Llanrwst District and Workhouse, Llanrwst Union, vice Hughes, deceased.

GALLIMORE, THOMAS AUSTIN, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Lymm District of the Altrincham Union, vice Brabazon.

GELSTON, J. S., L.R.C.S.I., L.K.Q.C.P.I., has been appointed House-Surgeon to the Doncaster Infirmary, vice J. G. Marshall, M.B.Cantab., M.R.C.S., resigned.

HARLE, WILLIAM J. V., M.R.C.S., L.S.A.Lond., has been appointed Resident Dispensary Surgeon to the Bradford Infirmary, vice Carter, promoted.

JEFFERIES, HORACE, M.R.C.S. & L.S.A.Lond., has been appointed House-Surgeon to the Bridgnorth Infirmary and Dispensary, vice R. D. Kirby, M.B., resigned.

MORGAN, GEORGE, L.R.C.P.Lond., M.R.C.S., has been appointed House-Surgeon to the Royal Alexandra Hospital for Sick Children, Brighton, vice Ryding Marsh, M.B.Lond., resigned.

MOSLEY, REGINALD LAWSON, M.B.Dub., L.R.C.S.I., has been appointed Medical Officer for the North Elmham District of the Mitford and Launditch Union.

NEILL, JOHN, L.K.Q.C.P.I., L.R.C.S.I., has been appointed Resident Surgeon at Steevens's Hospital, Dublin, vice Myles.

NORMAN, CONOLLY, M.K.Q.C.P.I., F.R.C.S.I., has been appointed Resident Medical Superintendent at Monaghan County Lunatic Asylum.

PASTEUR, WILLIAM, M.D.Lond., M.R.C.P.Lond., has been appointed Medical Registrar to the Middlesex Hospital, vice J. J. Pringle, M.D., M.R.C.P., resigned.

PHILLIPS, HENRY W., M.B., C.M.Ed., & M.R.C.S., has been appointed Senior House-Surgeon to the Bolton Infirmary, vice T. G. Stonham, M.D.Lond., resigned.

PINCOTT, ROBERT, M.R.C.S., has been appointed Health Officer for the Port of Geelong, Victoria, vice Mackin, deceased.

ROBERTSON, GEO. J., M.B., C.M., has been appointed Honorary Surgeon to the Oldham Infirmary, vice Dr. McGowan, resigned.

SMITH, HENRY, M.B.Lond., S.Sc.Cert.Camb., F.C.S., has been appointed Public Analyst for Woolwich. Also for the Plumstead District.

STACEY, W. H. WATERHOUSE, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Eastern District and Workhouse of the Freebridge Lynn Union, vice Alexander.

WESTLAKE, ALGERNON, M.B., C.M.Ed., has been appointed House-Surgeon and Secretary to the Hertford General Infirmary, vice Oakley.

WHEATLY, A. W., M.B., S.Sc.C.Dur., M.R.C.S., L.S.A.Lond., has been appointed Assistant-Surgeon to the Western Ophthalmic Hospital, vice T. W. Carmalt Jones, F.R.C.S.Ed., promoted.

WILLIAMSON, ALBERT VAUGHAN, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Howden District of the Auckland Union.

Births, Marriages, and Deaths.

BIRTHS.

COOKE.—On the 30th ult., at Warrior-square, St. Leonard's-on-Sea, the wife of John Cooke, M.B.Lond., of a son.

DAVIES.—On the 3rd inst., at Abercarn Fach, near Newport, Mon., the wife of Francis Joseph Davies, F.R.C.S., of a son.

DIMMOCK.—On the 3rd inst., at Shikarpur, Sind, India, the wife of H. P. Dimmock, Indian Medical Service, of a son.

KIDD.—On the 4th inst., at Brook-street, Grosvenor-square, the wife of Percy Kidd, M.D., of a son.

LAMMIMAN.—On the 8th inst., at Elleray, Tunbridge Wells, the wife of Cleland Lammiman, F.R.C.S.Eng., of a daughter.

MACQUEEN,—On the 7th inst., at Clarendon-crescent, Edinburgh, the wife of Daniel Macqueen, Deputy Surgeon-General, Army Medical Department, of a daughter.

STRUGNELL.—On the 10th inst., at Highgate-road, the wife of F. W. Strugnell, L.R.C.P., M.R.C.S., of a son.

MARRIAGES.

FORBES—YOUNG.—On the 4th inst., at Hailes Cottage, Kingsknowe, by the Rev. James Morrison, Free Church, Corstorphine, and by the Rev. W. R. Gray, D.D., Liberton, Alexander Forbes, M.B., C.M.Ed., Northfield, Liberton, third son of Alexander Forbes, H.M.'s General Register House, to Maggie Fortune, daughter of John Young, merchant, Edinburgh.

PILKINGTON-LOW—HUTCHINSON.—On the 11th inst., at St. George's, Hanover-square, by the Rev. W. Smale, Vicar of St. Philip's, Kensington, Richard Marsden Pilkington-Low, M.B., to Marianne Neville, widow of J. D. Hutchinson, late M.P. for Halifax.

SALTER—BROWN.—On the 9th inst., at St. Martin's Church, Salisbury, George Herbert Salter, L.R.C.P., M.R.C.S.Eng., of Malmesbury, to Edith Mary, second daughter of Jas. Brown, Southview, Salisbury.

SMYTH—DOBSON.—On the 4th inst., at the Parish Church of Little Saling, Essex, Wm. D. Smyth, M.D., Staff Surgeon R.N., to Cecilia, daughter of the Rev. R. S. Dobson, Vicar of Little Saling.

UPPLEBY—LYLE.—On the 10th inst., at the Mayfield-road Wesleyan Chapel, Dalston, by the Rev. G. C. Mayes, brother-in-law of the bride, assisted by the Rev. J. H. Morgan, John George Uppleby, L.R.C.P. and M.R.C.S.Ed., only son of Geo. Uppleby, of Port Elizabeth, to Edith Elizabeth, youngest daughter of the late Dr. Lyle, of Ashburton, Devonshire.

DEATHS.

DAVIDSON.—On the 3rd inst., at Sandown, Isle of Wight, W. A. Davidson, M.D., formerly Surgeon 65th Regiment, aged 54.

NIVISON.—On the 10th inst., at 161, Ledbury-road, Bayswater, London, W., Thomas Renny Strachan Nivison, M.D., aged 42. Deeply regretted.

O'LEARY.—On the 3rd inst., at Bath, Thomas Connor O'Leary, M.B., Surgeon-General (retired), aged 63.

RIGDEN.—On the 16th inst., at 231, Brompton-road, S.W., Mabel Cecilia, only child of Walter and Cecilia F. Rigden, aged 6 years.

SMITH.—On the 5th ult., at Waltair, Vizagapatam, India, Margaret Milroy, the beloved wife of James Smith, Surgeon-Major, Her Majesty's Madras Army.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, February 12th, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
Feb. 6	29·79	S.W.	43	40	...	49	36	·03	Cloudy
,, 7	29·61	S.W.	46	44	...	52	41	·06	Cloudy
,, 8	29·82	S.	50	48	...	52	42	...	Cloudy
,, 9	29·65	W.	40	37	...	48	37	·11	Bright
,, 10	29·96	S.W.	39	39	...	51	35	...	Foggy
,, 11	29·97	W.	51	50	...	56	38	...	Overcast
,, 12	30·13	W.	49	48	...	54	45	...	Overcast

Medical Diary for the ensuing Week.

Monday, February 16.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Finlay: A Case of Progressive Anæmia in a man aged forty-five.—Dr. Beevor: Cases of Paralysis Agitans without Shaking.

Tuesday, February 17.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 P.M., and Thursdays at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M., and on Fridays at 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M., and on Saturday at the same hour.
ROYAL INSTITUTION.—3 P.M. Prof. S. Colvin: Museums and National Education.
PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Norman Moore: Cases of New Growth in the Intestine.—Mr. Lane: Spondylolisthesis and other results of Pressure in connexion with the Spinal Column.—Mr. Sutton: Lung Disease in Wild Animals.—Dr. West: Cases of Mediastinal Tumour.—Dr. Percy Kidd: Sudden Death from Infarction of the Trachea by a Bronchial Gland.—Mr. Lockwood: Large Malignant Growth of Forearm in a Child a year old.—Mr. Bilton Pollard: Renal Cancer associated with Calculi. Dr. Gulliver: Syphilitic Ulceration with Cicatricial Constriction of the Trachea (card).—Mr. Clutton: Large Vesico-vaginal Calculi (card).—Mr. Sheild: Blood-clot from the Surface of the Brain (card).

Wednesday, February 18.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour. Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.
HOSPITALS ASSOCIATION.—8 P.M. Dr. P. Murray Braidwood: Hospital Ships.

Thursday, February 19.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Dewar: The New Chemistry.
HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Mr. J. H. Morgan: On the Operative Procedures in cases of Cleft Palate, and their Effects upon the Voice.—Dr. C. Theodore Williams: Cases of Emphysema treated by the Compressed Air Bath.

Friday, February 20.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
SOCIETY OF MEDICAL OFFICERS OF HEALTH.—7.30 P.M. Mr. William Weaver: Sewer Ventilation and House Sanitation.
ROYAL INSTITUTION.—9 P.M. Dr. W. Huggins: Solar Corona.

Saturday, February 21.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. G. Johnstone Stoney: The Scale on which Nature works, &c.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

GLYCERINE FOR DRYNESS OF TONGUE AND THIRST IN FEBRILE STATES.

SURGEON-MAJOR S. K. COTTER, in a recent number of the *Indian Medical Gazette*, relates the case of a patient suffering from enteric fever who was awakened every ten minutes by the dryness of his tongue, which was parched and covered with sordes. The tongue was painted with glycerine frequently, and the result was that at the first trial the patient slept almost comfortably, waking up about every two hours with the tongue feeling dry, but not really dry to the touch; after renewed application of the glycerine he at once slept again. In six other cases it has been tried and found satisfactory. Surgeon-Major Cotter does not attempt to decide whether it acts by increasing secretion from the mucous membrane, dissolving the sordes, or making an artificial coating. But, in whatever way it acts, its benefit is vouched for when the tongue is parched during any disease.

G. V. A.—We do not think any danger need be feared, provided the ground be properly kept.

CAFFEINE.

To the Editor of THE LANCET.

SIR,—The use of caffeine in cases of sick headache and other neuroses is not particularly novel—in fact, there is a preparation of it (Bishop's granular effervescent citrate) sold in the shops for such purposes. What is new, and appears to me to have received less attention in this country than it deserves, is the investigation into its action on the heart, which has led Prof. F. Reigel (*Berliner Klin. Woch.*, xxi., 19, 1884) to the following conclusions:—1. Caffeine is a heart-regulating drug, with the same mode of action as digitalis. 2. In suitable cases it increases the power of the heart, slows the pulse, and increases arterial blood-pressure. 3. It produces a rapid increase in the excretion of urine. 4. The indications for its use are the same as those which govern the use of digitalis. 5. Caffeine is most efficacious in frequently repeated small doses. 6. Its action differs from digitalis in that it is much more rapid and entirely free from the cumulative action which often complicates the results of digitalis. 7. Even in cases where digitalis has proved of no service caffeine is nevertheless indicated, and its employment will often be accompanied by favourable results. 8. The simultaneous use of narcotics, especially morphia, with caffeine is not to be recommended. 9. Caffeine, especially in the form of the easily soluble double salts, got by combining it with soda, salts of benzoic, cinnamic, or salicylic acids, is better borne than is digitalis. I will only add that I have found the combination with salicylate of soda an excellent one for exhibition of the drug in cases of cardiac debility following rheumatic fever.

I am, Sir, yours obediently,

Feb. 9th, 1885. H. NELSON HARDY.

X. Y. Z.—There are in existence a large number of institutions for the benefit of the destitute blind. Perhaps the institute situate at No. 2, Young-street, High-street, South Kensington (secretary, H. R. Knipe, Esq.), or that in Somers-town (secretary, Mrs. Stacey, 53, Hilldrop-road, N.W.), would suit the case mentioned. (See Charities Register, Longmans.)

AMENORRHŒA.

To the Editor of THE LANCET.

SIR,—In every case of amenorrhœa in which I have used permanganate of potash the result has been satisfactory, the number of pills given varying. A painless flow always ensued. One of the patients had not menstruated for a period of four months. In the first instance I consider it prudent to correct the general tone of the system, and to stop the drug directly the catamenia appear. The pills used are made by Messrs. Richardson and Co. of Leicester, those containing one grain being quite strong enough to have the desired effect.

I am, Sir, your obedient servant,

Desford, Leicester, Feb. 11th, 1885. R. DURDIN.

COCAINE.

THE *Chemiker Zeitung* remarks that this agent produces in small quantities an excitement of the nervous centres, while in larger doses its effects are of a paralysing character. Aschenbrandt attributes to it very salutary properties for strengthening patients weakened by diarrhœa. E. von Fleischl and Freund have given particular attention to the employment of cocaine in connexion with the cessation of administering morphia. It gradually restores a normal condition in cases of atonic weakness of digestion and nervous stomachic derangements. M. Grasset, in the *Comptes Rendus*, gives various reasons in support of his theory as to the contingent employment of cocaine preparations for bringing about a condition of insensibility unaccompanied by sleep or unconsciousness.

Verax should read Sir James Simpson's book on Homœopathy, or the article in the current edition of the Encyclopædia Britannica, vol. xii.

House Surgeon.—1. No.—2. Yes.

AN EASY METHOD OF APPLYING THE FORCEPS.

To the Editor of THE LANCET.

SIR,—For the last two years I have been in the habit of applying the upper blade of the midwifery forceps in a manner which I have not seen mentioned in any of the text-books, and which is not, I think, generally known to practitioners. All friends to whom I have shown it have stated that the idea was new to them. The usual rule laid down in works on midwifery and taught to students is to bring the patient's hips well out to the edge of the bed previous to applying the forceps; and, indeed, it is frequently necessary to have the hips projecting *over* the edge before the handle can be sufficiently depressed to effect the introduction of the upper blade with any degree of ease. Now, in many cases patients object to this. They do not like to move or be lifted, think they are unduly exposed, or are afraid of falling out of bed altogether, and perhaps when the accoucheur thinks he has his patient nicely arranged, and is proceeding to introduce the blades, she will shuffle away from him into the middle of the bed, and, of course, have to be brought out again. To obviate this inconvenience I proceed as follows:—The patient lies in the usual position in the middle of the bed (if she likes). Having introduced the lower blade in the usual manner, I make an assistant, or the patient herself, separate the legs a little; then, holding the upper blade in my right hand, and bringing the handle well forward between the patient's thighs, I introduce the blade, with its concavity directed forwards and a little downwards, into the posterior part of the vagina, then upwards along the curve of the sacrum until it passes the posterior lip of the os. By now depressing the handle and drawing it gently backwards the blade glides along the head into its proper position, and may be locked. No force is required, no pain is caused, and I have never known any harm result. I recently applied the upper blade in this manner with ease in a case of transverse narrowing where a skilful practitioner had previously failed by the ordinary method.

I am, Sir, yours faithfully,

Dromahair, Ireland, Feb. 9th, 1885. WM. C. LUCAS, B.A., M.B., &c.

Mr. Henry Burwell.—We do not prescribe.

J. F. W.—Patients subject to fits are, we believe, ineligible for admission to idiot asylums.

MEDICAL CERTIFICATES.

To the Editor of THE LANCET.

SIR,—I beg to forward you a copy of a letter I have this morning received from Somerset House in reply to one similar to that which I sent you. It may be of interest to other junior members of the profession.

I am, Sir, yours faithfully,

Chatham Intra, Kent, Feb. 10th, 1885. PERCY F. MONEY.

"General Register Office, Somerset House, London, W.C.,
"9th February, 1885.

"SIR,—With further reference to your letter of the 29th ultimo, I am directed by the Registrar-General to inform you that he has pointed out to the registrar (Mr. Whitehead) that he must not make any objection to a medical certificate of the cause of death because the certifying medical practitioner has inserted therein the words 'as I am informed' in a case where he does not feel justified in stating positively that the death took place on the day named in the certificate. I am to add that the cause of the death in the case of F. M. P—— was entered by the registrar in his register book as 'certified by P. F. M——,' &c.

"I am, Sir, your obedient servant,
"WM. CLODE, Secretary.

"Percy F. Money, Esq., M.R.C.S.E., &c."

MEDICAL PRACTICE IN QUEENSLAND.

A CORRESPONDENT, "*Bread Tray*," desires information in reference to the chances of obtaining a practice in Queensland, and hints as to salaries, &c.

"THE LITTLE NEW ZEALANDER."

To the Editor of THE LANCET.

SIR,—Will you allow me to thank those among your readers who so kindly responded to my appeal in your issue of Dec. 6th, and to inform them that enough money has now been raised to place "the little New Zealander" in the Wanstead Orphan Asylum, where his brother had been already elected. The grandmother also desires me to express her grateful thanks to you and to the many kind friends who have rendered her sympathy and assistance.—Your obedient servant,

Elgin-road, W., Feb. 10th, 1885. STAMFORD FELCE.

THE PREVENTION OF YELLOW FEVER.

G. H. J.—There is nothing new in the information given in a morning paper concerning the prevention of yellow fever by vaccination with an attenuated virus. All that is known on the subject will be found in the last volume of THE LANCET, pp. 545 and 970.

J. J. Monteith.—There does not seem to be the slightest ground for believing that the supposed injury a fortnight previous to the fatal occurrence had any part in its causation. In the absence of history of stricture, pelvic suppuration, or fracture of the pelvis, we can only say that the probable explanation is that the deceased met with some injury by a fall or other mode of violence. The absence of bruising of the skin over the abdomen does not at all prove that the supposed injury was not inflicted in the immediate neighbourhood of the bladder. It does not require much force to rupture the bladder when greatly distended.

"CROWDED OUT."

To the Editor of THE LANCET.

SIR,—Is there a charitable man amongst us? Can adamantine hearts be touched by sympathy for such advertisements as appear from week to week in your columns? Does it not occur to the governors and teachers in hospitals, and to the authorities who are responsible for the admission to our ranks, that there is already a plethora of doctors and doctors' assistants? As one who can speak with authority on this subject, having seen thirteen years of the life of an assistant and locum tenens, I believe there never have existed so many highly qualified men out of employment as there are at the present time. An eminent surgeon writes me:—"I know many well-educated members of the profession who would be very glad indeed to get an appointment of £150 a year. But, alas! I do not know of any such appointments to which I can recommend them." Men have to be content with £100 a year, and find their own rooms and board, nowadays; whereas ten years ago, I remember well, an unqualified assistant could secure £120 and rooms. The gentleman to whom I refer goes on to say: "Would it not be your best plan to go to one of the colonies, where there is less overcrowding than there is in this country and more scope, taking a passage out as medical officer to an emigrant ship?" This good-hearted and courteous gentleman is unaware that at the present time the Earl of Derby has on his books hundreds of doubly qualified men who would indeed be glad to avail themselves of this opportunity. And, again, a premium would be required for an emigrant ship of any other kind than a Government one; and berths are not so easy to secure in the colonies as they used to be before they had their own universities. Capital also is necessary to hold out, even if one managed to pay one's own passage. No; the cry appears to be, Create new universities; keep adding to the ranks of professional men; keep on driving countrymen into the towns, so that the country doctors can hardly exist; and set at nought the fearful poverty that already exists amongst the educated classes, until Communism, dynamite, and revolution shake the very foundation of all civilisation.

I am, Sir, yours faithfully,

Jan. 21st, 1885. SYMPATHY.

CASCARA SAGRADA.

A. G. C. asks if any *confrère* who has had practical experience of the drug can inform him where to procure a really trustworthy preparation of the cascara sagrada, the remedy so much vaunted and advertised for habitual constipation, as the drug in his hands has most signally failed, although prescribed in every way as recommended.

CASES OF CARBUNCLE IN RAILWAY PORTERS.

To the Editor of THE LANCET.

SIR,—During the past twelve months three cases of carbuncle have fallen under my notice, each of these occurring in a railway porter. The patients were all young, healthy-looking, and robust men, and had not been subjected to any very hard work previously; they gave no history of gout, nor had they been tippling. In the case of one, from being a day porter he had recently been placed upon night duty. In each instance the carbuncle was situated upon the nape of the neck. The treatment adopted was merely the routine poultice with tonics, and all speedily recovered. The curious point is that the carbuncle should have appeared in these three men of the same calling, living, as they had been, mostly in the open air, and having plenty of exercise, with good food. Could a strain from carrying heavy weights, bags, &c., in both hands have been the primary cause? Or, perhaps, friction from heavy trunks held upon the back? Or, possibly, some irritant from the hairy coverings of these multifarious packages getting into some slight abrasion upon the neck? Or can it be that there is something peculiar in a railway porter's work which renders him more prone to such attacks?

I am, Sir, yours truly,

Thetford, Feb. 5th, 1885. ALLAN MINNS, L.R.C.P.Lond., &c.

"A CASE OF CÆSAREAN SECTION."

To the Editor of THE LANCET.

SIR,—The short account sent to THE LANCET in statistical form (Jan. 24th, p. 155) was altered in type so that it would appear as if I alone had performed the operation. Perhaps you would kindly allow me to correct this. I was assisted by my senior, Mr. H. Wright, and after I had made the primary incision down to the peritoneal covering of the uterus he completed the operation; so that it was a divided one.

I am, Sir, yours truly,

Hoxton House, Halifax, Feb. 5th, 1885. TH. M. DOLAN, M.D.

SANDEFJORD SULPHUR BATHS.

A RESORT for invalids afflicted with disorders of the gouty and rheumatic type, which appears, from a pamphlet recently published, likely in time to gain the confidence of the medical profession, is the beautifully situated Sandefjord, lying at the extremity of the fjord of that name in the southern districts of Norway. The place is chiefly noted for the existence of a spring of sulphur water, a thousand volumes of which contain rather more than twelve of sulphuretted hydrogen and one of free carbonic acid, together with a large proportion of sodium chloride and other salts of magnesium, potash, and lime.

Dr. Voight.—The paper has been forwarded according to request.

Dr. R. E. Carrington.—The announcement appeared in our last issue.

SANITARY ADMINISTRATION IN IRELAND.

To the Editor of THE LANCET.

SIR,—In your comments on Dr. Flynn's paper read before the Dublin Sanitary Congress you trace the defective carrying out of the sanitary laws in Ireland to the fact that the Poor-law medical officer is also the officer of health. Now, I venture to think that the evil does not rest here at all, as I hold that the dispensary doctor, being constantly brought into contact with the poorer classes, will more often have sanitary abuses brought directly under his notice than would be the case with a special sanitary officer; because the people, looking on him merely as the dispensary doctor, forget his second position, and thus take no pains to hide those sanitary defects which they would certainly do did they remember that he was the sanitary officer. No; I think the real evil lies in fettering the sanitary officer's efforts by subjecting them to the control of an unsympathising board, many of whose members—and especially in small country towns—are themselves the offenders, and who have thus a direct interest in consigning to the waste-paper basket a report which, if it saw the light, would act as a condemnation against themselves, the persons responsible for the carrying out of the sanitary laws. I am, Sir, yours truly,

Feb. 9th, 1885. C. HALY.

FALSE TITLES.

L.S.A.Lond.—The title would not be quite warranted in the circumstances. Our correspondent is well on the way to the legitimate use of it, and should wait. That other men use titles unwarranted by the nature of their diplomas is no satisfaction to those who do not like to sail under false colours.

Executor.—We think not; but it is a legal point we are unwilling to attempt to decide.

LOS ANGELES COUNTY, CALIFORNIA, FOR INVALIDS.

To the Editor of THE LANCET.

SIR,—Having practised my profession near Los Angeles for the last ten years, and having read the letter of the British Vice-Consul of Los Angeles in your last issue, I beg to say I shall be happy to answer any inquiries relative to that country if any of your readers will send a stamped envelope to me. I am, Sir, yours truly,

11, Camden-street, Oakley-square, N.W. JAS. ELLIS, M.D.

Feb. 10th, 1885.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Durdin; Mr. Nelson Hardy, London; Mr. F. F. Caiger, London; Mr. Mark Judge, London; Dr. W. Ewart, London; Surgeon-Major Knox, Bareilly; Mr. Rickets, London; Mr. Thorpe; Dr. Grally Hewitt, London; Dr. Andrew Duncan; Dr. Harris, Oxford; Dr. Handford, Nottingham; Mr. C. E. Jennings, London; Mr. Fisher, London; Mr. Burwell; Mr. Voight, Bury; Mr. S. Felce, London; Mr. Cadge, Norwich; Mr. P. F. Money, Chatham; Dr. H. Mackenzie, Edinburgh; Dr. Gervis, London; Mr. Taylor, Cottingham; Mr. Symons, Dumfries; Mr. Ranson, Stafford; Mr. Eberle, Thirsk; Mrs. Turner, Bewdley; Mr. W. Kimpton, London; Messrs. Holbutt and Sons, Portsmouth; Dr. Bonthron, Surat; Miss Johnston; Mr. Gibson, Bromley; Mr. Elliott, Carlisle; Mr. Brewster, York; Mr. Morton, Horncastle; Mrs. James, St. John's-wood; Mrs. Higginsbotham, Glasgow; Surgeon-Major Gribbon, Manchester; Dr. Maurice G. Evans; Dr. Gibbings, London; Dr. E. H. Bennett, Dublin; Mr. J. Startin, London; Dr. Naismith, Ayr; Colonel Shervinton, London; Professor Marshall, London; Mr. S. Davies, London; Mr. Philipson, Newcastle-on-Tyne; Mr. E. Hartland, Cheltenham; Mr. Hope Grant; Mr. Sandy; Mr. Burcombe, Lincoln; Messrs. Beal and Son, Brighton; Mr. Williams, Brixton; Mr. Heron, London; Mr. Norman; Mrs. Quayle; Messrs. Wood and Co., New York; Messrs. Lynch and Co., London; Mr. Wallis, London; Mr. Holtby, York; Dr. R. Reynolds, London; Mr. Linney, Southbourne-on-Sea; Mr. Rowlands, Great Crosby; Dr. Buchanan; Mr. Jeafferies, Margate; Messrs. Cuthbert and Son, Mangiesham; Dr. Atkins, Toronto; Mr. Smyth, Glasgow; Messrs. Collins and Son, London; Mr. Juler, London; Dr. Foley, Middleton; Mrs. Pratt, Cardiff; Mr. Dolan, Halifax; Mr. Fraser, Middlesbro'; Dr. Tomkins, Manchester; Messrs. Beck and Co., London; Dr. Bristowe, London; Dr. V. Sandford, London; Mr. S. B. Farr, Andover; Dr. Donald Hood, London; Mr. C. Hoey, Dublin; Dr. J. W. Anderson, Glasgow; Mr. W. Mathews, Bristol; Dr. R. J. Lee, London; Mr. Bellamy, London; Messrs. Poingdestre, Mesnier, et Cie; Mr. Abbott, Tunbridge Wells; Dr. E. T. Tibbits, Bradford; Dr. Dingley, Wolverhampton; Mr. Lloyd, London; Messrs. Bullock and Reynolds, London; Mr. Jones, Plymouth; Dr. Herbert Snow, London; Mr. Bramwell; Mr. J. J. Sharp, Seychelles; Mr. Wheeler, Darlington; Mr. Dartnell, Liverpool; Ajax; F. C.; Verax; G. V. A.; Medicus, Westbourne-park; Medicus, Durham; Rejected; Bread Tray; A. G. C.; Observer.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Heelas; Mr. Paine; Miss Holme; Mrs. Ernst, London; Mr. Barrow, Nottingham; Mr. Williams, Brixton; Mr. Cairns, Wakefield; Mr. Hawthorn, Uttoxeter; Messrs. Maclachlan and Co.; Messrs. Young and Co., Glasgow; Messrs. Widenmann and Co., London; Messrs. Hobson and Co., Berkhampstead; Mr. Heatley, Ventnor; Messrs. Mackay and Co., Edinburgh; Mr. Bilney, Yoxford; Rev. A. J. D'Orsey, London; Mr. Jenkins, Risca; Mr. Fayer; Mr. Ferguson; Mr. Islop, Ventnor; Mr. Sergeant, London; Mr. Carter, London; Dr. Latham, Cambridge; Mr. Harnison, Allandale; Mr. Russell, Birmingham; Mr. Walker, Newcastle; Mr. Peter, Notts; Mr. Kershaw, Middleton; Mr. Shark, Walsall; Mrs. Turner, Liverpool; Dr. Thompson, Wardlington; Surgeon-Major McKenzie; Mr. Kolkman, Leicester; Mr. Kent, Middlesboro'; Mr. Grant; Mr. Rigden; Messrs. Savory and Moore, London; Mr. Douglas, Sunderland; Mr. Stutter, Wickhambrook; Mr. Porter, Stroud; Dr. Brown, Wansford, Messrs. Mackay, Edinburgh; Mr. Norris, Weston-super-Mare; Miss Coates, Prescot; Mr. Sutherland, Fence Houses; Dr. P. Kidd, London; Dr. Andrew, Shrewsbury; Messrs. Heal and Son, London; Messrs. Boake and Co., Stratford; Mr. Spencer, Basford; Mr. Bennett, Otley; Dr. Pattinson, Sidmouth; Mr. Shemmonds, Bournemouth; Mr. Llewellyn, Bridgend; Hakim Bashi, Newark; The Matron, Bedford Infirmary; Medicus, Dublin; Ease; The Matron, Stafford Infirmary; F.S.A., Wye; A.B.; Medicus; Spes; R., Hindley; Medicus, Preston; Lady Superintendent, Northampton; M.B., Devizes; Richmond; Treasurer, Royal College of Physicians; G.; A. T., Dover; D. D.; Lady Superintendent, Cambridge; Matron, Portsmouth Hospital; J. S. C., Keighley; Medicus, Wavertree; S. H., Clapton; M.B., Elmsley; Alpha, Sydenham; F.S.A., Wye; Alpha; G. H. S., Harborne; H.; Sanitas; Gordon; Alpha, London; Immediate; Alpha, Croydon; M.D., Lincoln; E.; B., Bradford; F.R.S.; Medicus, Guildford; M. E., Great Crosby.

Andover Advertiser, Woodford Times, Reading Mercury, New York Voice, Methodist Times, Lincoln Gazette, Liverpool Courier, Diamond Fields' Times, Manchester Examiner, The Owl, &c., have been received.

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Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

The Hunterian Oration

DELIVERED AT THE

ROYAL COLLEGE OF SURGEONS OF ENGLAND,

On Saturday, Feb. 14th,

BY JOHN MARSHALL, F.R.S., F.R.C.S.,

PAST PRESIDENT OF THE COLLEGE.

MR. PRESIDENT AND GENTLEMEN,—John Hunter—the object of our profound homage to-day—bore a name which, especially when uttered within these walls, excites the remembrance of many great achievements. Whilst therefore that name by itself forms a most appropriate introduction and close to an oration to be delivered in his honour, it suggests such a superabundance of material for occupying the brief but important hour which lies before us, and so many details wherewith to embellish the sentences which must be fitted in between the Alpha and Omega of this discourse, that even the most skilled and intrepid orator might well quail before the task.

Before, however, I attempt to grapple with the difficulties of the undertaking, I will, in obedience to time-honoured example, express, in terms I fear too brief, our common regard for the memory of those recently deceased associates, whose special relations to the College entitle them to attention on this occasion. Not that I would willingly ignore the labours of the many Members or Fellows of the College, who, in their respective careers, now closed for ever, have maintained the character of the surgical profession; but the time at my disposal is short, and the claims upon it, as we shall find, are urgent. I must, therefore, content myself with an honourable mention of Robert Druitt, a well-known author and earnest coadjutor in surgical educational work, and proceed to linger a little longer on three special memorial notices of Allen Thomson, Cæsar Hawkins, and Erasmus Wilson.

Professor Allen Thomson was a member of the board of trustees of the Hunterian collection, to which office he was appointed in succession to his friend and former colleague in Edinburgh, William Sharpey. Familiar, from his thirty years' occupancy of the chair of Anatomy in Glasgow, with the splendid collection, chiefly composed of William Hunter's Museum which was purchased for that University, Allen Thomson felt a special interest in our own collection. His inherited scientific tastes, his intimate acquaintance with anatomy, human and comparative, his devotion to embryological research, and his wide knowledge of physiology, made him a true sympathiser with the work and spirit of both the brothers Hunter.

A better-known member of our board of trustees was the veteran London surgeon, Cæsar Henry Hawkins, the latest representative of a family whose name is indissolubly connected with the history of this College. His grandfather, Mr. Charles Hawkins, the son of the celebrated surgeon, Sir Cæsar Hawkins, was chosen the first Master of the Court of Assistants, when the College was incorporated under the Charter of 1800; and he was re-elected to the same office in 1805. The grandson, the subject of this notice, became a member of the College in 1821, was enrolled as a Fellow in 1843, was elected into the Council in 1846, and an Examiner in 1849. Twice after that he occupied the presidential chair—viz., in 1852 and 1861. From 1865 to 1870 he represented the College in the General Medical Council; and from the year 1872 to the day of his death he was, as already stated, a trustee of the Hunterian collection. Thirty-six years ago to-day he delivered in this theatre an admirable Hunterian Oration, and now it has fallen to my lot to record on the present occasion his great usefulness as a councillor, his strict judgment as an examiner, and his exceptional services as twice President of the College.

Begun only five years after John Hunter's death, Cæsar Hawkins's long life of nearly eighty-six years almost bridges over the space of time which separates us from that occurrence. He was partly trained in the famous Hunterian school in Great Windmill-street, and later in life himself gave lectures there. At first a pupil and then for many years assistant surgeon and surgeon at St. George's Hospital, he was acquainted in the early part of his career with Sir Everard Home, John Hunter's brother-in-law, assistant, and literary executor; and, at a later date, with George Babington, who edited Hunter's treatise on the Venereal Disease. A most distinguished member of a distinguished surgical family, who, like himself, had been connected with Hunter's hospital and been honoured by holding Court appointments, Cæsar Hawkins was widely esteemed for his experience and diagnostic skill, his calm and excellent judgment, his high principle, even temper, and urbane manner. He was a favourite in society and an ornament to our profession; and it is both a duty and a pleasure to express here to-day the universal opinion that he was an honour to our College.

As the name of Hawkins has been linked with the annals of the College for nearly the whole of the fast-waning century, so the future history of the College will, humanly speaking, be associated for centuries to come with that of Erasmus Wilson. That active surgeon, the incidents of whose life are generally known, received the diploma of Member of the College in 1831, was made a Fellow in 1843, took his seat on the Council in 1870, and was chosen President in 1881. The story of his early humble means and moderate prospects, of his marked intelligence, industry, perseverance and success, culminating in the acquisition of such vast wealth, and in the exercise of such unparalleled generosity, will assuredly attract much notice from posterity, and will probably strike future generations with greater astonishment than it does ourselves. We, his contemporaries, can scarcely realise the importance of his unexampled bounty to our College. Its influence for good lies concealed in the future; and the responsibility of administering so grand and absolutely unshackled a bequest will be felt to be by no means slight. That its transfer to our charge may be long delayed is a wish we may all express, together with the hope that Lady Wilson may long be spared, to feel pride and solace in the contemplation of her husband's munificence.

It would be selfish and unjust to the memory of this large-hearted man to restrict our regard on this occasion to his splendid donation to the College; for Margate, Epsom, Swanscombe, and distant Aberdeen will continue in remote times to bear witness to his generous thought; many charitable societies, and countless destitute persons, have felt the touch of his benevolent hand, and the whole nation owes to his liberality the actual possession of the great monolith now standing erect on the banks of the Thames. But to revert to what may truly be designated his colossal gift to the College which he loved so well: it may be an idle fancy, but I am fain to imagine that Sir Erasmus Wilson's mind was, consciously or unconsciously, influenced by his familiarity with Egyptian studies, and that he resolved, not indeed to rear an almost imperishable monument for the preservation of his body, but to secure by what we trust may be an equally enduring design for the benefit of his profession and mankind, the perpetuation of his name and fame.

But what concerning the name and fame of John Hunter? for to that theme it is my business now to turn. Happily, under no conceivable conditions of feebleness or failure in these biennial orations can Hunter's brilliant reputation suffer damage or eclipse; but this does not lighten the responsibilities of the orator, who finds himself embarrassed with a multiplicity of subjects, perplexed by the difficulties incidental to selection, arrangement, and comment, and oppressed by the sense of competition with the eloquent and learned addresses which, dealing with the same topics, have preceded his own.

It might seem easy to pursue the well-trodden course of beginning with a sketch of Hunter's career from his cradle to his grave. But, for my part, I have often imagined that there might sometimes be an advantage in reversing the usual order of biographical research and narrative, and, instead of pursuing the downward and smoother course, to follow an upward and more rugged path. As in tracing the history of mankind or the origin of things, the historian or the philosopher employs this retrograde method of investigation, so, at least in an inquiry into the history of a single individual, we might pass from the later and better-known periods to the earlier less known or even unknown moments of his existence. And again, although, as in the case of a river, so in that of a life, it may be more easy, when it has been fully explored, to glide down its unceasing current, yet, in the upward struggle against the stream, with its halts

and delays, we have larger opportunities of becoming familiar with its peculiarities, its shoals and rocks, its rapids and cataracts, its swift strong currents, its gentle windings, its resting-places, and its sluggish pools.

John Hunter's story may, I think, be said to lend itself readily to this mode of treatment, permitting itself to be broken up into successive and variable stages, one very exceptional incident being noticeable even after his death. Thus, just sixty-six years after his lamented decease in the sixty-sixth year of his age, we find his ashes laid, with fitting reverence, in their final resting-place beneath the stones of Westminster's venerable Abbey, in a pilgrimage to which we may read inscribed on perennial brass his distinguishing title, "The Founder of Scientific Surgery." Thence we pass back to the unostentatious obsequies held at his parochial church, St. Martin's-in-the-Fields, and then again, by way of his house in Leicester-square, to that sad and tragic scene at St. George's Hospital, where, upwards of ninety years ago, to the dismay of both friends and opponents, he so suddenly expired. Transferring our views from the inanimate body to the living man, crossing, as it were, the bar between the ocean and the river, I might, did time permit, trace the many fluctuations of Hunter's life and fortunes, and follow these upwards to his humble cot at Calderwood, the place in which he was born.

In regarding the lives of all great men, we naturally marvel at the extraordinary results which flow from such small beginnings, especially when, standing at their graves, we reflect that as living and working entities they exist no more. There also it is that science sees nothing but the lifeless remains, and, divorced from faith, has no further word to utter. But, on the other hand, when science turns her gaze beyond the cradle into the remote past, she perceives an endless chain of living organisms, and, now independent of faith, wonders by what mysterious ordinance—call it creation, call it evolution, call it what men will—an apparently casual protoplastic unit shall grow up to be a man, who, by force of his innate power, and under certain surroundings, shall come to exhibit such pre-eminence amongst his fellow-men, and leave so deep an impress on the world.

The physical and mental qualities which enabled Hunter to accomplish more than any member of our profession has done before or since were not attributes or possessions peculiar to him alone, but his success was achieved by the mode in which he used them. Some men take opportunities, and others make them: it may be said of Hunter that he did both. I do not here propose to analyse the intellectual and moral character of Hunter, or to pass in review his professional, social, and domestic relations. I need not further particularise his work; for this stands revealed in the museum, or is recorded in the museum catalogues, and in his own writings. Neither will I attempt to vindicate his claims as a discoverer, seeing that the task is most difficult in his case, and that very frequently such discussions still remain open to be rediscussed; nor, lastly, shall I endeavour to assert that, in this or that instance, he has anticipated any later views or doctrines, for such suggested anticipations have often to yield precedence to those of some earlier heralds of coming thought. If it be not too presumptuous a method to adopt, I will rather imagine Hunter to be with us in presence this day; and, judging him by his own deeds and declarations, I will try to point out the mental attitude he would probably assume, in regard to the active work and salient opinions of our own times.

Let me first, with this view, direct attention to the Hunterian collection; for it cannot be doubted that Hunter himself would first wend his way to discover what had become of it. We may trust that he would be satisfied that this College should have become the depository of his fine museum, and would feel gratified at the efforts which have been made for its due preservation and extension. He would appreciate the zeal of its successive conservators and their able coadjutors in perfecting its special departments, osteological, craniological, and otological, in opening out fresh fields of observation and in seeking new forms of illustration. He would realise the value of the palæontological specimens added since his day, and the advantage or necessity of arranging side by side extinct with recent animal forms. He would admire the skill displayed in the new articulated and dissected preparations. He would recognise with special thankfulness the labours of our late conservator, Professor Flower, and his assistants, in the preparation of efficient catalogues of the museum. Nor, finally, can we doubt that Hunter would hail with pleasure the prospect that no inconsiderable portion of the Erasmus Wilson bequest will be devoted to increasing the accommodation for the unique collection, of which his own museum was the foundation. I ask pardon for the simplicity of these assumptions, but we must not forget Hunter's affection for his museum. Remembering this, too, I will add, parenthetically, that the increased number of such collections, and their steady improvement in recent times, would not fail to secure the approval of so great a museum-maker.

Speaking of himself, Hunter says, "I do not read many books;" perhaps, therefore, we might suppose that he would be comparatively apathetic as regards the extension of our library; but, nevertheless, I will credit him with the assumption that he would not be wholly indifferent to the interests of that department of the College.

If we next regard John Hunter as an accomplished human anatomist, it needs only briefly to be said that he could have no difficulty in keeping pace with whatever advances have been made, since his time, in the knowledge of the ordinary structure of the human body, as well as of the numerous varieties in arteries, muscles, and other parts, to which it has been shown to be liable.

The immense progress which has been made in the science of comparative anatomy since Hunter's days could not fail to excite the liveliest satisfaction even in his well-stored mind. Countless as are the facts which have been brought to light by the combined efforts of succeeding comparative anatomists, from the time of Cuvier down to the present moment, they would all be welcome to him. To one who had spent thirty years in this field of study, and had himself dissected and described about five hundred species of animals, vertebrate and invertebrate, the diversified new forms and structures which would be presented to his notice could not of course be accepted by him otherwise than as facts. Parts possessing functional significance would be promptly assigned by him to their respective places in his great physiological series. Special structures would be studied by him with even deeper interest, whilst he would quickly learn to appreciate the many novel and unexpected forms which would lie outside his experience, and even beyond his conception.

So, likewise, the wonderful, and, to Hunter, unforeseen revelations of microscopical research, the growth of that new department of anatomy, histology, the insight we have obtained into the origin and development of the tissues and organs of animals and plants, and the extensive acquaintance which has been made with the existence and characters of innumerable minute independent organisms, both in the animal and vegetable kingdoms, would fill Hunter's mind with amazement and delight. It is true that although he employed magnifying glasses in some of his own investigations, he doubted, and even discredited, the results recorded by other observers. Nor is this surprising, for whilst the microscope had even then realised some important discoveries, there were many announcements made which were either perplexing or absurd—the effects of irradiation, diffraction, and dispersion, being sometimes seriously regarded as indications of minute structure. Besides this, Hunter had so large a field of observation in the obvious conformation of the organs of animals open to his reach by the aid of scalpel, scissors, and forceps, assisted occasionally by magnifying powers that he could well afford to disregard the less trustworthy information afforded by the imperfect microscopes of his day. We may be sure, however, that he could not, and, indeed, would not, resist the evidences of structure and organisation displayed by our powerful and exact modern instruments; and we can easily imagine his acquiescence in the truth of a modified cell-theory of the formation of tissues, and in the doctrine of the protoplasmic origin of animal and vegetable life. He would also find much in modern microscopic discovery which would correct, elucidate, or confirm his own guesses at truth. More especially would this be true as to his accounts of the blood-globules, of the growth of bone, of the structure and sensibility of the teeth, the structure and action of muscular fibre, the muscularity of the arteries, the nature of the digestive process, the commencements of the absorbents, and the developement of the chick.

As a physiologist, Hunter was so zealous, unwearied, and accurate an experimentalist that we may be assured of his sympathy with the present refined and stringent methods of research. He cogitated new experiments whilst in his carriage; he had recourse to them in almost every inquiry; he spared no expense in their execution; he planned them

so carefully, and limited them so in their intention, as to avoid failure or fallacy; he modified them so as to adapt them to new occasions; and he endeavoured to learn something from them even when they yielded unanticipated results. He proposed himself to perform many experiments which he did not live to undertake; he suggested to others certain inquiries which he thought worthy of being carried out; and, lastly, he declared that no experimental results could be depended upon which had not been obtained by duly qualified observers. In all these respects, he would be in accord with the best investigators of our time. We may read with a smile his simple experiments on the effects of a decoction of bark, opium, or calumba on the coagulation of the blood, and be amused at the pleasure he expresses at receiving Ramsden's small thermometer, "measuring only one-sixth of an inch wide in the stem," for the prosecution of his experiments on animal heat; but we may be sure that he would be struck with admiration at the complex mechanical and electrical appliances, and at the variety of chemical agents, employed in the well-furnished laboratories of modern physiologists.

It is needless to observe, to those who are familiar with Hunter's writings, that not only as a physiologist but as a pathologist he was a great vivisector; and we may here take it for granted that he would rank himself with those who now claim the right of man, for beneficial purposes or even in the pursuit of knowledge, to attempt to discover the processes of animal life by tests and trials on living animals. Hunter's own numerous experiments certainly threw light on many of these processes. Amongst others may particularly be mentioned those on absorption by the veins, on animal heat, on the effects of heat and cold on animals, on the injection of various solutions into the veins, on artificial respiration with the view of recovering drowned persons, on the ligature of arteries, on the growth of bones, on the division of tendons, on the effects of extirpation of the ovary, and on the transplantation of living parts into other living parts. All Hunter's experiments were necessarily performed without anæsthetics; but we may be sure that he would now approve of their use on every possible occasion. His large views of the unity of the "principle of life," and of the community of organisation and of action throughout the whole animal kingdom, would lead him to disregard the objections of those who insist on the uselessness of experiments on animals, so far as concerns their application to man. On the contrary, I can conceive that Hunter would contend that every fact ascertained concerning the processes of life, whatever the quarter from which it was derived, whether from organisms high or low in the scale, or from animals in health or in disease, must contribute its quota towards the attainment of more perfect knowledge; and that it is to the sum of these efforts at discovery, and not to individual results, that we must look for a scientific justification of this method of inquiry. Hunter distinctly denounces a physiologist who, "like all mere experimenters," "is not satisfied with those [experiments] which are clear and decisive, but multiplies them unnecessarily"; and he adds, "I think we may set it down as an axiom that experiments should not be often repeated which tend merely to establish a principle already known and admitted, but that the next step should be the application of that principle to useful purposes." It may accordingly be inferred that, whilst Hunter would contend for the fullest right of research, he would not be opposed, either on scientific grounds, or (as he was fond of animals, and certainly not desirous of encouraging cruel propensities amongst men) on moral grounds also, to due restrictions in the exercise of this right. Lastly, in reference to this subject, it should be stated that Hunter did not spare his own body, but subjected himself to an inoculation experiment of a very grave character, in order to test opinions on a pathological question, and to put to proof the efficacy of certain variations in treatment. As a consequence of this, he was not completely cured until the expiration of three years. Indeed, it is not impossible that he incurred still later injurious sequels.

In referring to Hunter's physiological experiments, it is certainly remarkable to find that he never performed any with the view of determining the functions of the nerves and of the nerve centres. Yet it is in this branch of inquiry that, since his time, physiology has made such great strides, almost exclusively by means of experiments. Nevertheless, Hunter was not unmindful of the momentous questions herein involved. Thus, in many instances, he touches very closely the doctrine of reflex nervous action; and yet, notwithstanding the significance of his remarks, I will, in accordance with my settled plan, refrain from a suggestion of discovery or anticipation; but I would ask, Would not Hunter be prepared, would he not be delighted, to listen to the explanations which, thanks to Bell, Marshall Hall, Brown-Séquard, and their numerous followers, could now be given him of the mechanism of the various forms of cerebral and spinal sensory and motor reflex phenomena? Even as regards the higher manifestations of action of the great nervous centres, it is certain from various expressions that Hunter would rise to the level of the most advanced physio-psychology of our time.

But I must next proceed to consider the position that we might suppose Hunter to occupy in regard to the zoological, morphological, and biological questions and doctrines of the present day.

Although Hunter's comparative anatomy collection was avowedly made in the laborious search after the relations between structure and function, and was arranged by him accordingly in a grand physiological series, yet he was a practical zoologist, for he had not only formed a large separate zoological series of specimens, but, studying carefully each subdivision of his collection, he observed not only the uses but the gradations of form which the various organs assume in the different groups of animals with which he was acquainted. Seeing how readily Hunter employed his knowledge of the comparative anatomy of the digestive, circulatory, respiratory, and reproductive organs, and also that of the nervous system, in his attempts at the scientific classification of animals, we may easily conceive that he would have accepted the more advanced Cuvierian arrangement founded on wider knowledge than his own, and how truly he would appreciate the various modifications of that system found necessary by succeeding zoologists.

Regarded as a morphologist, we find that Hunter, very early in his career, repudiated the "idea" of confining himself to the description of a single animal; and, as he accumulated his great wealth of facts, he handled them from a morphological point of view with the boldness and ease characteristic of a master. Thus, he not only speaks freely of the "hearts" of insects, the "lungs" of the snail, and of the "brains" of both, and compares the "median nerve cords" of the former to the "medulla spinalis" of the vertebrate animals, but he writes of there being "ten thousand animals without a brain and nervous system to one with them"; and he furthermore indicates the possibility of a nervous substance being diffused throughout the body of the very lowest animals without any visible aggregated centre. He traces the digestive apparatus from its most complex stomach downwards in the animal kingdom to a simple sac, and in describing the comparative anatomy of the fish's ear, he says, "he is inclined to consider whatever is uncommon in the structure of this organ in fishes as only a link in the chain of varieties displayed in its formation in different animals, descending from the most perfect to the most imperfect, in a regular progression." Again, in his estimate of the character of the strong muscular stomach of the Gillaroo trout, he says, it is as "difficult to determine the exact limits of the two different modes of construction to which the names of gizzard and stomach specifically belong, as in any other case to distinguish proximate steps in the slow and imperceptible gradations of Nature." From all this, it is very evident that Hunter could not fail to perceive the bearing of the multitude of facts pointing to similar conclusions, which have been recorded since his time.

But, further still, there is the oft-quoted passage, written in reference to his developmental researches on the embryo of the chick, in which he says, "If we were capable of following the progress of increase of the number of the parts of the most perfect animal, as they are first formed in succession, from the very first, to its state of full perfection, we should probably be able to compare it with some one of the incomplete animals themselves, of every order in the creation, being at no stage different from some of those inferior orders; or, in other words, if we were to take a series of animals from the most imperfect to the perfect, we should probably find an imperfect animal corresponding with some stage of the most perfect." Here he has expressed, in laboured phraseology, a current doctrine of development; and Hunter elsewhere applies a similar train of reflection to the development of tissues.

I now pass naturally to the consideration of the view

which Hunter would, I believe, entertain, as a biologist, concerning the prevalent doctrines of evolution; and I will commence by citing what I think will be admitted to be some noteworthy passages from his writings.

On the general question of the occurrence of varieties in animals, Hunter, in one place, states as a general fact that "Nature is found deviating from general principles." In another place (in reference, however, to sexual adaptations), he observes that "an animal has the power of improving its parts, so as to make them susceptible of such stimuli as are adapted to the disposition of the parts." Again, he states that "as far as my knowledge has extended, there is not a single part of an animal body which is not subject to an extraordinary formation. Neither," he proceeds, "is this a matter of mere chance; for it may be observed that every species has a disposition to deviate from Nature in a manner peculiar to itself." It is true that these latter remarks are applied by Hunter especially to deviations which he says are "more or less monstrous;" but he afterwards, as we shall see, qualifies that term, and the whole context shows Hunter's genuine appreciation of the natural plasticity of animal organisms. More to the present purpose, however, is the following passage: "The propagation or continuance of animals in their distinct classes is an established law of Nature, and in a general way is present with a tolerable degree of uniformity; but in the individuals of each species varieties are every day produced in colour, shape, size, and disposition. Some of these changes are permanent with respect to the propagation of the animal, becoming so far a part of its nature as to be continued to the offspring."

Contrasting again, in another place, the phenomena of variation as they occur in wild and in domesticated animals, to which he obviously paid close attention, Hunter says, "Animals living in a free and natural state are subject to few deviations from their specific character; but Nature is less uniform in its operations when influenced by culture. Considerable variations are produced under such circumstances, of which the most frequent are changes in colour." In a note, he adds, "From the variations produced by culture it would appear that the animal is so susceptible of impression as to vary Nature's actions; and this is even carried into propagation." Still more striking is a note in which, speaking of extreme variations as monstrous, he reflects, "Perhaps the word monstrous is too strong or not exactly just"; and then, he adds this remarkable passage, "It certainly may be laid down as one of the principles or laws of Nature to deviate under certain circumstances. It may also be observed that it is neither necessary, nor does it follow that all deviations from the original must be a falling off; it appears just the contrary; therefore we may suppose that Nature is improving her works, or at least has established the principle of improvement in the body as well as in the mind." Given the additional factor of the advantages bestowed upon individuals by such improvements in the "struggle for existence," and Hunter would have discerned the Darwinian doctrines of "modification in descent," and "the survival of the fittest."

Nor did the question of reversion to the original type, which Darwin so freely discusses, fail to attract Hunter's notice; for in regard to varieties arising from cultivation, he says, "Whether, if left to themselves, they would in time resume their original appearance, I do not know"; and elsewhere he remarks, "I am inclined to think there never is in the wild state a variety in any species of animal in the same country." Furthermore, he makes the important reflection in regard to reversions, that "it would be difficult to prove whether in many of the gradations they are progressive or retrograde." Lastly, he alludes to the necessary adaption of some insects to uniform, and of others to variable climates; and he reflects on the differences of habit which must thus be brought about.

It will be recollected that Darwin employs the term "correlation," as descriptive of certain constant and associated peculiarities and changes in an animal, which may or may not be capable of further explanation; and it is interesting to find that Hunter, without using that general term, which, after all, is only a term, points out as a "general principle" a constant correspondence between the colour of the pigmentum of the eye and the colour of the eyelashes, not only in quadrupeds, but in birds, even when the colour of the skin, hair, or feathers is different. The occurrence of such correlated sexual characters in animals was recognised by Hunter; and his paper on the peculiarities of a hen pheasant which had acquired the plumage of a male is full of reflections and suggestions conceived in the true Darwinian spirit.

The preceding quotations show at least that had Hunter lived now he would have been a staunch evolutionist. We may picture him devouring with eagerness the writings of that school of naturalists, and especially those of Darwin. There is, indeed, in many respects a similarity between him and Darwin; and as during the lives of these two great searchers after Nature's laws the economy of Earl's-court and of Down Cottage bore a certain resemblance, so, in death, it has been the fate of both naturalists to lie in the same consecrated soil.

But it is time that I considered Hunter's mental attitude towards the present conditions of the sciences of morbid anatomy and pathology, and towards that of the modern practice of surgery. A single sentence will suffice to point out that the comprehensive character of our present morbid anatomy collection, which completely overshadows the thousand and eighty-four specimens which Hunter left, the pains which have been taken to make it illustrative of every known form of disease, the labour of love undertaken by our distinguished colleague, Sir James Paget, towards the completion of the corresponding catalogue, and the promise of future extension of the museum would not escape Hunter's appreciative recognition.

Hunter took care to distinguish between morbid anatomy, or the study of diseased structures, and pathology, or that of diseased action, for he correctly defines "pathology" as the "physiology of disease," and it is needless to say that in regard to both of these closely allied branches of knowledge he would admit the important and indispensable service rendered by microscopic research. Moreover, I will assume that he would accept as great generalisations some modification of the "cellular pathology," and the still more recent views on the influence of protoplasmic action in the production of disease.

In his brief but interesting discussion on Tumours, Hunter defines a "true tumour" as an "entirely new part," so that to him the terms "new formation," "new growth," and "neoplasia" would be quite intelligible; nor would he be slow to perceive the scope of the term "metaplasia," the title of a paper read by Virchow at Copenhagen, in which Hunter's name received early and honourable notice. Although the clinical distinctions between a "cancer," a "fungated sore" (probably a sarcoma), and a "scrofulous enlargement" were pretty clearly distinguished by Hunter, yet he expresses himself not always able to decide between them, and he would doubtless acknowledge the help afforded by the inspection of a few of our every-day microscopic sections; whilst many of his other pathological difficulties would be as rapidly dissipated.

As regards the complex phenomena of inflammation, which Hunter had so long and so carefully thought out, it may be said in a word that the modern microscope, whilst adding so much to his knowledge, would elucidate and confirm almost all his sagacious conceptions. Those important agents in the inflammatory processes, the white blood-corpuscles, though perhaps not altogether unknown, were not sufficiently distinguished in Hunter's time. The existence of these being granted, their amœbiform properties, their emigration through the softened walls of the small vessels, their further action on the tissues, their presence in lymph, and their identity with pus-corpuscles, would fill up the details in the Hunterian sketch.

As a clinical observer, Hunter would undoubtedly, as occasion arose, avail himself of every modern method, physical or chemical, and of every new instrument or test, employed in the investigation of disease. In the use of the thermometer he was far advanced; thus, he says, "the standard heat of the human body is about 99°," and he adds, "I believe that degree is pretty regular;" he found that it differed according to the distance from the centre of the body, that it varied between morning and evening, and was diminished at night. He found in a special case that local inflammation could raise the local temperature from 92° to 98·7°, or upwards of 6°, but he correctly concluded that this local elevation could not reach "the standard heat of the constitution" at the time, "nor even to it in parts far from the centre." He observed on one occasion, the fluid of an inflammatory dropsy at a temperature of 104°, and heard, he says, of a temperature of 112° being found in fever. He believed that "nothing can increase that natural heat," "but some universal or constitu-

tional affection;" but he felt that the question was "worthy of inquiry," and he added, "our measurement ..... can be brought even nearer to the truth than is absolutely necessary to be known in disease." How interested he would be in the detailed temperature charts of the present day, as indicating the vicissitudes of the febrile state.

Hunter's list of specific poison diseases contains a rather incongruous assemblage. But that he would seize with avidity the exacter knowledge of the present day, and thereby extricate himself from this confusion, is quite certain. In speaking of the specific fevers due to miasms, he utters this reflection: "It may, perhaps, in time happen that the human race shall be exterminated by poisons alone; but it is more probable that many poisons are extirpated, and that new ones may arise in their stead every day." How this sentence chimes in with modern questionings as to the recent origin of scarlet fever and typhoid, cholera, and diphtheria! How it suggests the sight of Hunter endeavouring to grasp the possibilities of the issues involved in it, gradually gathering up the now well-ascertained facts concerning the organisms which are associated with anthrax and cattle plague, with tubercle and cholera, listening to the suggestions as to the possible modifiable or self-adaptive nature of these organisms, hoping for the means by which they may be checked, or, as he says, "extirpated," and, in short, gazing into that vista of conceivable triumphs over "living contagia," which seem to promise such grand prospects for the future of medicine and surgery!

In now taking leave of Hunter as a general pathologist, I cannot withhold the comment that, as in physiology, so in pathology proper, his views passed beyond the apparent limit of his subjects. Indeed, he associated the two sciences, and, as it were, blended them at their conterminous borders. He said that disease taught us what was health, as well as that health informed us what was disease; and he distinguished a healthy from an unhealthy inflammation. Besides this, he included all animal life in his pathological speculations, as when, for example, he speaks of the vessels at work in the process of absorption having "more of the polypus in them than any other parts of the body;" and it is certain that he recognised the occurrence of morbid processes in plants, as indicated by specimens preserved in his museum, and which he was accustomed to exhibit in his lectures. We may be sure that Hunter would approve the close relations which have recently been established between physiological and pathological investigations, and would applaud any assistance which the College may hereafter offer towards the establishment of laboratories devoted to scientific research.

In the study of one special disease Hunter showed his usual acumen, and, in spite of the changes and subtleties of modern opinion, will rank with the foremost authorities of the present time. After long and continued study and grave experiment, he adopted the view of the unity of the venereal poison, including not only the soft and hard chancre, but even gonorrhœa, in its effects; and now, although the dual theory has for a time held its sway, he would find a strong inclination in the minds of many surgeons to regard the two kinds of sores and their markedly different respective consequences as different manifestations of one poison, in different states or under different conditions. Speaking of the poison of the lues, which is his equivalent for syphilis, Hunter says, "it produces fever which is of the slow kind." "In the first stage of the disease, before it begins to show itself externally, the patient has all the symptoms of an approaching fever. These symptoms, continuing for some days, and often for weeks,..... show that there is some irritating cause, which works slowly upon the constitution." He further suggests that this fever might "exist without the presence of local symptoms." Hunter, furthermore, describes exceptional cases, more or less resembling lues, in which peculiar and aggravated symptoms occur, such as extensive and obstinate sores, and falling of the nails, and which may even end fatally. These, he says, "show as much as possible that new poisons are rising up every day, and these very similar to the venereal in many respects, though not in all." In reference again to syphilitic affections of the bones, he remarks: "Cases sometimes occur in which, after the venereal disposition has been corrected, another disease takes place in the bone, the nature of which will be explained when we shall consider the effects remaining after the disease is cured, and the diseases sometimes produced by the cure." His explanation is that "new diseases" may arise from the mercury alone, or from "different combinations" of the mercurial irritation, the venereal disposition, and the natural disposition, which he assumes may itself not be healthy. In many cases, he suspects that this natural disposition may be of a scrofulous nature; but he would not exclude gout.

Considered as a practical surgeon, present with us to-day, Hunter would find his capital operation of ligature of an artery high up for the cure of aneurysm, in some degree superseded by the improved method of compressing the artery in the same situation. He mentions having, in one of his cases, tried compression, he does not state where or how, but he gave it up on account of the pain produced by it. His own successive improvements in the actual operation, by the more limited exposure of the artery, the non-inclusion of the vein, and the use of one ligature more firmly drawn instead of four applied more loosely and with graduated force from above downwards—all steps calculated to minimise the necessary accompanying suppuration, the evil effects of which he had to deplore—show how gladly Hunter would have adopted the non-irritating silk or the absorbable catgut, cut short and left in a non-suppurating aseptic wound.

As a general rule, Hunter's treatment of wounds was as simple as possible. He employed very few local applications. His advocacy of scabbing by the drying up of all superficial sores was one indication of this, for it commended itself to him as arresting the suppurative process. It is easy to understand how pleased he would be with the modern practice of skin-grafting; and the more serious operations of transplanting, under aseptic conditions, pieces of bone, and recently even of a whole muscle from one animal to another, would have struck Hunter as interesting advances on his own successful attempts to make the cock's spur grow in the comb, and to transplant human teeth.

Hunter's view that surgical operations were often a "tacit" admission of our inability otherwise to accomplish a cure, and that they should always be approached with "a sacred dread and reluctance," would assuredly be qualified now, when in so many new and bold operations so great a measure of success is obtained, and that without the suffering Hunter had to witness, destitute as he was of the welcome aid of anæsthetics.

The great number of novel operations which have been devised since Hunter's time would, no doubt, astonish him; but, on the other hand, it is interesting to find that some of these would be more or less familiar to him. Thus, in reference to external herniotomy, he directs that in congenital hernia the sac should not be opened; he advises the "extirpation" of varicose veins as "very proper, unless the disease is too extensive"; of course, the tunica vaginalis was cut open for the cure of simple hydrocele; he describes minutely the steps of an operation for the cure of unyielding urethral strictures, without or with false passage or urinary fistula, by laying open the distended urethra through the perineum behind the seat of constriction, then passing a fine probe forward through the stricture, dividing this, and afterwards passing a full-sized instrument along the whole canal into the bladder. Acting on a belief, which is shared by many, that cancer is a local, not a constitutional, disease, that it is not hereditary, and only contaminates the system by spreading into it, he advocated as a duty the removal of every enlarged and hardened gland which could be detected in the axilla, in cases of cancer of the mamma, whenever that could be safely accomplished, even those which, he mentions, are often detected when some have been taken away. Lastly, he alludes to lumbar abscesses from which a urinary calculus had been removed, thus justifying a recourse to actual nephrotomy.

As is well known, in reference to the operation of ovariotomy, Hunter says, somewhat brusquely, "There is no reason why women should not bear spaying as well as other animals. It would simply be opening the cavity of the abdomen, which we often do without inconvenience in healthy constitutions." In speaking of peritoneal wounds generally, and the mode in which they are healed, Hunter drew upon his experience as a military surgeon, often alluding to the healing of sword wounds and gunshot wounds of the abdominal cavity, more especially in cases in which no viscus had been wounded. He advised that the stitches of the abdominal suture should not "pass through into the cavity of the abdomen, as they would interfere with rendering the cavity perfect; for, as these continue, suppuration

of the wounds will come on, they acting as a seton, by which exposure of the cavity will be greater, though, perhaps," he continues, "from the irritation they would occasion, adhesions would be formed at the bottom of the wound before this suppurates, which might prevent the admission of air." We perceive here the natural dread which Hunter had of that exposure of a wound or compound fracture to the air which, his whole experience taught him, led to the dangerous suppurative, instead of that milder adhesive, inflammation which ensued in a perfect cavity, or in a simple fracture, or in a subcutaneous or completely covered wound. The full precautions of the antiseptic method being explained to him, he would now have less fear of passing sutures through the whole thickness of the abdominal walls. Supposing suppuration of the peritoneal cavity to have occurred, Hunter observes, "How far in such cases it might appear desirable to make an opening into the abdomen, and throw in warm water repeatedly to wash away the matter, I will not at present determine."

The whole tendency of Hunter's teaching in regard to wounds being to prevent suppuration if possible, it was evidently a sorrowful confession on his part to say, "It appears very difficult to give a true and clear idea of the whole of the chain of causes leading to suppuration." After mentioning ordinary instances of suppuration following exposure to air, he states "these effects might appear to be due to the influence of air"; but, he points out, that air in emphysema of the areolar tissue does not do this, unless the skin be wounded, nor does it do so in the air-spaces or hollow bones of birds, unless these are laid or broken open. "Air, therefore," he continues, "is not the cause of suppuration." Yet Hunter was aware that, before the opening of large abscesses, "patients are generally pretty well, but immediately after that time they become unhealthy and hectic, which continues till death." He recognised that the mischiefs—viz., of hectic and dissolution (i.e., of pyæmia and septicæmia), which followed large wounds, compound fractures, and amputations, appeared "more in hospitals than in private practice, more in large towns than in the country," "often without apparent cause," "frequently in the most healthy persons," "and were rapidly fatal, a result not "due to the sore as an immediate cause," but certainly assisted by it, as the symptoms never occurred "when the sore is healed." For the cure of such cases, he adds, "I do not find anything that has any effect." Yet Hunter saw clearly that "air could convey most poisons," that the air of "warm, moist places was the most impure," and that "the effects of an impure atmosphere are found in gaol distempers and hospital diseases; very few of the former places are ever free from foul air, and most hospitals are more or less affected with it." If, therefore, Hunter had now demonstrated to him that whilst mountain air contains minute organisms in units, country air in hundreds, town air in thousands, and hospital air in tens of thousands, and furthermore had explained to him the relations of organisms of this kind to the fermentative and putrefactive processes, the dangerous or fatal results of the entrance of septic matters from the surfaces of exposed wounds into the blood, and the established efficacy of so-called antiseptics in destroying such organisms, and arresting the decomposition associated with their presence, he would hail the discoveries of Pasteur and the triumphs of Lister with the gratitude they deserve.

In three places in Hunter's writings I find that he uses the now well-worn term, "antiseptic," twice in reference to internal remedies, and once to external applications. In the treatment of hectic, he says, "strengtheners and antiseptics are recommended. Strengtheners are proposed on account of the debility which has evidently taken place; and antiseptics, from the idea of absorbed pus going into the blood and tending to putrefaction." Again, in connexion with the treatment of hectic, he says, "Antiseptic substances have also been employed, such, for instance, as preserve dead flesh; but this is very absurd." The allusion to the external use of antiseptics is in relation to the local treatment of mortification. "Scarifications," he says, "have been made down to the living parts, that stimulant and antiseptic medicines might be applied to them, as turpentine, the warm balsams, and sometimes the essential oils." Such local treatment, however, he regards also as absurd; and, although the agents thus enumerated are all antiseptic, from the point of view of perfect antiseptic surgery, this is true; for putrescence would already have set in. Yet Hunter speaks of tar water and turpentine as often productive of great good as local applications in certain cases, and laments that these and other remedies "sometimes fail, and that we do not possess a sufficient number for the variety of constitutions we meet with." His felt want could now be easily supplied.

There is one feature of the modern practice of surgery which could not fail to be noticed and commented on by Hunter; and at first he would probably disapprove of it, as a departure from the simplicity of the art which he practised. I mean the growth of specialities. But this he would soon find is a necessity as well as a cause of the immense accumulation of facts since his time; and he would become reconciled to it, with all the special instruments and other appliances which modern ingenuity has devised. There is, however, one speciality which, as a great surgeon as well as a great experimentalist, he would be doubly prepared to receive with acclamation—viz., the discovery and use of anæsthetics as one of the greatest boons ever conferred on sensitive beings, whether animals or man.

There are other topics and suggestive passages in John Hunter's writings on which some comment might here be made, but I have selected those most suitable to my purpose. Others necessarily contain certain erroneous statements and conclusions, due to want of more full and accurate knowledge, and occasionally to defective reasoning. Nevertheless, there is hardly a chapter from which some information might not be taken, or some benefit derived. It is also evident that the commentators, in the collected edition of his works published in 1835 that is, just fifty years since — are not unfrequently in error. These works themselves deserve to be re-edited.

How is it that we can look back over the intervening century since Hunter was in his prime and find him so at one with us and ourselves so in harmony with him? This unison neither implies a supreme prescience on his part nor a standstill in science and practice, continuing to our day. On the contrary, there are hosts of facts familiar to us which he did not know, and there have been evolved many opinions and conclusions in advance of his speculations and doctrines. It is, as I have endeavoured to show, because our work and thought to a great extent pursue the lines which he has laid down. The issues in which we join were his; the instruments and weapons may have improved, but the strife and the method are the some. We believe in observation and experiment, and Hunter devoted his whole active life to both; he waited for long years to complete his labours and to mature his reasonings; and though unfortunately interrupted by his sudden death, the main results of his labour are secured. He followed Nature, and endeavoured to detect her ways, for the benefit of mankind. We, in our time, are aiming at the same grand end.

It has often been held as a matter of reproach, in regard to John Hunter's philosophy, that he too palpably personified Nature, looked always for "final causes," and attributed to the living organising principle, or "principle of life," or even to parts of the body in which it acts, a consciousness of its own actions and intentions. The instances in which Hunter does this are very numerous; but when duly considered, his language on these occasions must be regarded as largely figurative, and springing from a craving and a struggle to divine the motives of Nature; and, at all events, they should not be taken as meant for explanations of the vital processes concerned. If, indeed, we consider the most direct evidences of his adhesion to the then prevalent doctrine of "final causes," we discover proof that his thoughts were only partly entangled in the teleological net, and that his mind struck out freely to investigate the modes of action by which the end or final cause was to be obtained. If, for example, in his morphological and physiological studies he sought to explain form by use and structure by its adaptation to function,—and if, in his pathological researches, he accounts for the coagulation of the blood, the occurrence of the adhesive process in inflammation, the formation of pus and its tendency to the surface, the growth of granulations and of new cuticle, the occurrence of eruptions in fever, and other diseased actions, by a reference to their occasionally beneficial effects or salutary ends,— all this did not prevent his admitting that not infrequently these same morbid processes are sadly detrimental in their results, that he often failed to detect what the intention of Nature might be, and that, sometimes, it would have been better if she had acted differently. Here, again, though he sought diligently for final causes to satisfy one want of his mental constitution, yet he never rested there. He desired to know the

"how" as well as the "why," and he therefore occupied himself digilently and constantly in the observation of Nature's ways, and in experiments on her living products and their actions. "It is astonishing," he says, "to see what little curiosity people have to observe the operations of Nature, and how very curious they are about the operations of Art;" and he clearly discerned in all his proceedings that no perception of the end arrived at by Nature really afforded any explanation of the processes she employed. His chase after final causes meanwhile gave a zest to his inquiries, but a close acquaintance with Nature's actual work was needed to find food for his intellectual appetite. If, too, we reflect on his modesty in the expression of his opinions, as when he uses such phrases as "I conceive," "I suspect," "I do suppose," "I am apt to suppose," and others of a like character, and on his horror of definitions, which, he says, "of all things on the face of the earth are the most cursed," on his occasional avowal of ignorance and candid statement of facts adverse to his opinions, and on his incessant promises to satisfy himself by experiment,—I think we may conclude that in the fields of both science and practice, his mental constitution was as philosophical as the work he performed in the world is far-reaching and gigantic.

I have now, Mr. President and Gentlemen, almost fulfilled the duty assigned to me; but I have as yet said not a word of John Hunter's personality. He is described to us as having been "about the middle stature, of a vigorous and robust frame, and free from corpulency; his shoulders were high and his neck short, his features were rather large and strongly marked, his eyebrow projecting, his eyes were of a light colour, his cheeks high, and his mouth somewhat underhung. In dress he was plain and gentleman-like, and his hair, which in youth was of a reddish-yellow and in his latter years white, he wore curled behind." In Reynolds's fine portrait, which, as is usual on these occasions, is placed before you, he is represented sitting, self-contained, abstracted from all his surroundings, absorbed in pleasurable thought. Looking at his face, we may well agree with the great master of physiognomy, Lavater, who said, "that man thinks for himself;" and we may feel that he appears equal to the conception and accomplishment of all he actually did. About a century has elapsed since that picture was painted; and Hunter at one time, when engaged in observing the effects of cold on animals, indulged, like some others, in the fancy that a man might be frozen for a time, and then, as he says, "by getting himself thawed every hundred years, he might learn what had happened during his frozen condition." "Like other schemers," he adds, "I thought I should make my fortune by it; but this experiment undeceived me."

I have to-day endeavoured to revive him, not in body, but in spirit, conversant with our present position in science and in practice, and supposed to be studying a vast crowd of additional facts, contemplating fresh generalisations and putting new methods to the test. Our acknowledged teacher, he would find much to learn; but what true teacher is not eager to be taught? Hunter would be an apt student, in harmony with us in thought and plan, hand to hand with us in work and deed. His fitness to understand all that we have since discovered, and to co-operate with us in all our novel doings, constitutes, in truth, his best claim to the grand title, recorded above his grave, "The Founder of Scientific Surgery."

And, now let me repeat, before I retire, that I recognise our presence here to-day as an act of homage to our great predecessor. I desire also to express the pleasure which I have experienced in the preparation, and, I may add, in the delivery, of this oration. The hour at my disposal is rapidly expiring, and the moment is at hand when the ever oncoming future, traversing the imaginary film of time, which is the only real present, will be for ever merged beyond it in the past; and I am well content that my last utterances from this place, spoken between the two eternities, should be the name of that great biologist, that illustrious master in our noble craft, John Hunter.

THE HEALTH OF WELLINGTON.—The report by Dr. Mereslith, medical officer of health, on the urban district of Wellington for 1884, states that the year was, like the one before it, marked by a considerable prevalence of illness of diphtheritic nature. The rate of mortality was 20·59 per 1000, and of births 27·35 per 1000.

ON VISCERAL SYPHILIS.[1]

BY J. S. BRISTOWE, M.D., F.R.S.

CASE 1. *Tertiary Syphilis; Obstruction of Abdominal Vena Cava, with great Dilatation of Veins in the Walls of the Chest and Abdomen; Large and Nodulated Liver; Affection of Left Elbow and Knee; Incomplete Recovery.*—On the 8th of last November, Rachel W——, a woman forty-two years of age, was sent to me by Dr. Shackleton of Norwood, and received under my care into St. Thomas's Hospital. She was married about twenty years previously, and some little time after attended as an out-patient at St. Bartholomew's on account of ulcerated sore-throat, which was of considerable duration. Her first child was born two years after marriage, and three others at successive intervals of two years, all four having reached the full term, but dying either in the act of delivery or within a few minutes after birth. The fifth and only subsequent child was born eight years ago, and is in good health. There is no definite history of syphilis or of any cutaneous eruption. For the last seven years she has suffered from ulcerated legs. About three years ago her abdomen became enlarged, and after a time shrank again. Two years ago she had what she calls an attack of rheumatic fever, and about the same time began to suffer from pain in the epigastrium, increased by food, and attended with vomiting, and then she first noticed that the veins in the abdominal and thoracic walls were enlarged. How long they had been enlarged, or enlarging, she did not know; but it was at this time her attention was first specially attracted to them, and thinking they were not natural, she compared herself with one of her female friends. The attack of so-called rheumatic fever lasted some few weeks, and several joints were inflamed. All of these got well excepting the left elbow, which has remained painful, tender, and swollen ever since. The pain in the epigastrium, the loss of appetite and sickness, have also continued, and indeed have gradually got worse; the epigastrium, moreover, has become swollen and very tender, and latterly a tumour has been recognised in it. About three months ago she vomited a good deal of blood. Six weeks before admission the left knee became swollen and painful. The swelling, she says, has diminished, but the pain in it and tenderness have been getting more severe. On admission, she was a thin, dark-complexioned, pale, cachectic, anxious-looking woman, complaining of weakness, loss of appetite, sickness, pain, and tenderness in the epigastrium, pain and tenderness in the left elbow, and pain, tenderness, and swelling in the left knee. On looking at the anterior surface of the abdomen and chest I was at once struck by the large development of the subcutaneous veins. Tracing these from below there were two large ascending tortuous veins (the epigastric), of which the right was the larger, and fully equalled an ordinary cedar pencil in diameter; these, somewhere about the level of the umbilicus, divided into branches, and at least seven such branches (having the average diameter of an ordinary quill pen) ran up tortuously, but diverging, so as to be disposed fan-like all over the anterior surface of the upper part of the abdomen and the chest, as high as the clavicles. It was assumed that the ascending cava had been obstructed, and that the blood returning from the lower extremities was carried mainly through the epigastric veins to the internal mammary and intercostal, and so conveyed into the superior cava. A strong venous hum could be heard through the stethoscope in most of the dilated veins contained in the walls of the thorax. The abdomen was full, especially in the epigastric region, and for the most part soft. But the epigastrium itself was occupied by a large, hard, and very irregular tumour, which descended to within an inch and a half of the umbilicus. This appeared to be continuous with the liver, and moved very slightly with the respiratory movements. The liver did not rise higher into the chest than normal. The epigastric region was extremely tender. The spleen appeared to be somewhat enlarged. There was no evidence of intra-thoracic disease. The left elbow-joint was fixed in the semiflexed position; it was hot and slightly swollen, from thickening of the soft parts only, very tender, and the attempt to move it caused much pain. The muscles of the

[1] A paper read before the West Kent Medico-Chirurgical Society on Feb. 6th, 1885.

upper arm were distinctly wasted. The left knee was also kept partly flexed; it was swollen, hot, and tender, and could not be moved without provoking extreme pain. The swelling, which was considerable, was mainly of the tissues around the lower end of the femur. There did not appear to be any effusion into the joint. Tongue clean and moist; pulse 100; respiration 24; temperature 99·8°. Bowels regular. Urine containing a trace of albumen. Catamenia absent for five years.

When I first saw her I assumed that the patient was suffering from some form of malignant disease, probably sarcoma. Although my view did not fit in with all the facts of the case, it seemed to explain the more important of them. I thought that the primary tumour had taken its origin among the retro-peritoneal glands and obstructed the vena cava, and so led to the dilatation of the superficial veins; that in the course of time it had grown into the mass which was occupying the epigastric region, and so had caused the pain and tenderness in that situation, together with the loss of appetite and vomiting; and that the recent affection of the bone, limited as it seemed to be to the lower end of the femur, indicated a secondary growth in the bone. With respect to the epigastric tumour, I did not venture to express a decided opinion as to whether it was all a mere outgrowth of the deep-seated glands, or in part due to secondary implication of liver or stomach, or both. My view did not account for the rheumatic attack of two years previous, or for the condition of the left elbow, which from the little enlargement it had undergone could scarcely have been the seat of sarcoma. Taking this unfavourable view of the case, I treated the patient with sedatives, such as bromide of potassium, opium, and cannabis indica, tonics, and dieting. Little change took place in her condition during the next six weeks. She often complained of epigastric uneasiness and pain; but her sickness was very variable, and intermitted at times for a week or more. She never vomited blood, and she took food on the whole fairly well. Her elbow neither improved nor got worse; but some effusion took place into the knee-joint, which remained immovable and extremely tender and painful. But at the end of this time she was still apparently quite as well in her general health as she was on admission, and there was no evidence that the epigastric tumour had increased in size; she had certainly not lost flesh. On Dec. 21st my young and able colleague, Mr. Pitts, saw the case with me. He examined the joints with extreme care, and came to the conclusion that there was no affection of bone, that the swelling was due to inflammatory thickening of the soft parts, and suggested that this affection might be syphilitic. He pointed out, moreover, as adverse to the opinion I had formed, that secondary malignant disease of long bones occurs for the most part in the shaft, and not in the joint ends. It was now, for the first time, that we elicited the suggestive fact that her first four children had all died at birth, and that she had formerly suffered from ulcerated sore-throat for a long time. The progress of the case hitherto had led me more and more to question the sufficiency of the view I had taken of its nature, though I had not yet definitely discarded it, and I hailed Mr. Pitts's suggestion, which seemed to me applicable to the whole series of lesions, and to be approved by the recognised facts of the case. Moreover, as I shall presently show, the adequacy of the explanation was proved to me by my own previous experience of constitutional syphilis. I at once prescribed ten grains of iodide of potassium and forty minims of solution of perchloride of mercury, to be taken three times a day. Nearly seven weeks have elapsed since my patient has been subjected to the new plan of treatment, and I think the results confirm the correctness of the amended diagnosis of the case. The elbow and knee have slowly but uniformly improved, and are now practically well. The tumour in the epigastrium has appeared to me to have become somewhat, smaller and softer, and certainly less painful and tender, and the superficial network of veins has undoubtedly become less marked. Also she has improved remarkably in flesh, strength, and spirits; but she still suffers from occasional vomiting. I may mention here that on the day on which she was ordered to take mercury and iodide of potassium she was, during the morning, unusually low-spirited, could not collect her thoughts, and said she saw double, and in the evening had a fit, in which she was rigid and insensible for a couple of minutes, and on which followed severe headache and rigidity of the right leg, continuing for some hours. She has had no cerebral symptoms since. I need scarcely add, perhaps, that according to my present view the patient has had some gummatous growth in the neighbourhood of the vena cava ascendens, and involving the vein either by pressure or directly, and that the epigastric tumour is probably due to a series of gummatous tumours developed in the substance of the liver. The reasons which had prepared me readily to alter my views of the nature of the case just narrated, and to accept as a general explanation the suggestions made by Mr. Pitts in reference to the affection of the joints, have already been given. But the reasons which decided me were partly my personal knowledge of the occasional abundant diffusion of the later syphilitic lesions, and their tendency to ape the characters of disseminated cancer or sarcoma, partly my vivid recollection of some remarkable cases which collectively presented an almost exact counterpart of this woman's case, and something more.

I now proceed to give the details of the more important of the cases to which I refer. The first of them is one in which a syphilitic patient was attacked with symptoms of mediastinal tumour; from which, under suitable treatment, he recovered. The point of special interest, however, is that he had as one of the signs of tumour temporary obstruction of the superior cava, or of both innominate veins.

CASE 2. *Tertiary Syphilis; Symptoms of a Mediastinal Tumour, with Obstruction of Vena Cava or both Innominates, removed under Influence of Antisyphilitic Treatment.*—Liberty V——, a labourer, forty-three years of age, came into St. Thomas's Hospital, under my care, on May 5th, 1880. He was a sailor for some years, then a navvy, and has drunk hard. He had syphilis in 1857, but was not treated for it. In 1869 some bone exfoliated from the hard palate; and in 1870 several of the upper teeth came away with their alveoli. Three years ago he fell from a building in course of erection, and injured one of his testicles, which was removed a year later. For twelve months he has had a cough, at first dry, latterly attended with expectoration. But in other respects he was well up to about three weeks ago, when he observed some swelling of the neck and eyelids, which came and went, but on the whole increased, and dilatation of veins in the neck and chest, and blueness of the ears. In a short time these symptoms were followed by difficulty of breathing and dysphagia. He has complained of a sense of heat in the head and neck, but of no pains or uneasy sensations referable to the chest. He is a spare and in many respects a healthy-looking man. He is suffering from dyspnœa; has been unable to lie down for two or three nights, and now has to sit up in bed. He states that he could not swallow at all yesterday, and now he can only swallow fluids, and these with difficulty. His face is swollen and congested, especially the eyelids, which, with the conjunctivæ, are livid. The ears also are livid, and the lips, though in a less degree. The neck is œdematous, and the veins, especially those on the right side, are much dilated. They do not pulsate. The superficial veins of both arms are a good deal dilated, but there is no œdema. There is great enlargement of the veins over the back and front of the chest, as low as the nipples. The larger ones form a prominent and coarse network, very visible and full at all times, but starting into strong relief whenever he coughs. There are also over the chest many pencils or groups of smaller veins, and knots corresponding with their points of union, or with the points at which the deeper veins become superficial. No venous dilatation and no dropsy appear below the waist. There is no sign of cardiac affection, and no definite proof of disease of the lungs. Fairly good resonance exists everywhere, excepting that it is thought there is slight relative dulness at the right apex; but there is no abnormal vocal fremitus or resonance, and the breath sounds (which are somewhat prolonged during expiration) are in other respects fairly healthy. There is no tubular breathing, rhonchus, or crepitation. The cough, which comes on at times in paroxysms, is loud and metallic, and attended with scanty expectoration. There are no physical signs of tumour or of aneurysm in the chest and no enlarged glands in the neck. The abdominal viscera seem free from disease, excepting that the urine presents a trace of albumen. The inguinal glands are somewhat large and hard. The soft palate and part of the hard palate have been destroyed, leaving a large triangular gap of communication between the mouth and nose, in consequence of which his voice is nasal and indistinct. It was evident that the patient was suffering from obstruction either of the inferior cava or both innominate

veins, and that the affection causing this was, directly or indirectly, causing difficulty of swallowing and orthopnœa. An intra-thoracic tumour was the obvious explanation. My former experience would have led me to suspect the presence of a malignant growth or of an aneurysm, even though I could not detect any local evidence of one or the other; but the clear evidence he presented of having suffered from constitutional syphilis made me hope that the intra-thoracic tumour might prove to be syphilitic, and I at once ordered him to take ten grains of iodide of potassium three times a day. For a couple of days there was no change for the better; in fact, if anything, he got worse. He was unable to lie down; he was hungry, but could only with difficulty swallow fluids in small quantities; the lividity and œdema of the face and neck were considerable; and his paroxysmal cough was frequent and distressing. Then he began gradually to improve. The lividity and swelling of the face first diminished; then his dyspnœa and cough became less and less severe; then he began to swallow with increasing facility; and, lastly, the dilated veins seemed to shrink and become less visible. Marked diminution of lividity was noticed on the 8th and 9th, and no lividity whatever remained when he left the hospital. About the same time his breathing and cough began to improve, although there was for a time a liability to paroxysms of dyspnœa and of cough. On the 17th it was noted that he was much better in these respects; and there was no trace of anything of the kind when he was discharged. About the 12th or 13th he was able to swallow soft solid—for instance, bread-and-milk; and on the 17th was taking fish without much difficulty. The dilated veins also gradually shrunk; and at the time he left the hospital the knots and pencils of small veins had almost completely disappeared, and the larger veins in the thoracic walls were scarcely noticeable, except when the patient coughed, at which time they started into well-marked relief, and formed a network in front and behind, the vessels measuring perhaps from an eighth to a sixth of an inch in diameter. He left the hospital on May 31st, at which time he expressed himself as feeling perfectly well, and better than he had done for years. The only apparent trace of his malady was the persistence of dilated vessels. I may add that during his illness he had some extravasation of blood into one of his conjunctivæ; and that on the 15th and 16th he was observed to perspire pretty freely on the right side of the face, while the left remained dry. At this time, too, the left pupil was larger than the right, though both acted to light. A day or two later the surface temperatures were taken on the two sides, when it was found that that of the right temple was 95°, and that of the left 96°; that of the right axilla 93°, and that of the left 94°. On the 25th the temperatures on the two sides were equal. Throughout his illness his temperature was normal or a little subnormal. The patient has called on me frequently since. I have seen him within the last few months. He has never had a recurrence of the above symptoms; and when stripped no one would, under ordinary circumstances, observe any enlarged veins in his chest walls. When, however, he coughs, they start out at once into relief, just as they did at the time of his leaving the hospital.

(To be concluded.)

ULCERATION OF THE APPENDIX VERMIFORMIS, FOLLOWED BY PYÆMIA.

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IN his extremely interesting clinical lecture, published in THE LANCET of December 6th, 1884, Dr. Fenwick makes the statement that in ninety-five cases of ulceration of the appendix vermiformis which he has collected "abscess of the liver was only found to be present in one;" and further on remarks that "when we remember how commonly pyæmia takes place in cases of deep abscess of the limbs, we cannot but be surprised at the small number of cases recorded as following perforation of the appendix." I hope, therefore, that the following notes of a case which recently came under my care, and in which pyæmia was a prominent feature, may be interesting. I may remark that in many respects it will be found to closely resemble the first case described by Dr. Fenwick as occurring in his own practice.

Private W. Y——, aged nineteen, a recruit of only two months' service, was admitted to hospital on October 24th, complaining of great pain in the abdomen, accompanied by nausea, shivering, pains in the back, and headache. He was in a very weak condition, and stated that he had felt ill for the previous three days, but had not reported himself sick, as he was about to purchase his discharge from the service, and was anxious, therefore, not to be sent to hospital. He had never been in India or elsewhere abroad, and had had neither ague nor dysentery. There was no history of syphilis, and no family history of tubercle. On examination the tongue was found to be very foul in the centre, with red tip and edges; skin hot and dry, though at times there were copious perspirations; bowels constipated. The temperature on the evening of admission was 101°; pulse 110, hard and jerky. He complained of pain and tenderness on palpation over the whole of the abdomen, but chiefly over the epigastric region; this, however, was not markedly increased by pressure. Slight gurgling was noticed in the cæcal region, but there was no dulness or induration. The abdomen was distended and tympanitic. Hepatic dulness was slightly increased in front, and there was marked dulness posteriorly up to the angle of the scapula, with tubular breathing, and increased vocal resonance. There was, however, no further trace of lung disease elsewhere. Splenic dulness was not increased. The patient was ordered half an ounce of castor oil (to be taken immediately), a saline mixture (an ounce to be taken every four hours), and fomentations. His condition remained unaltered till the 31st, constipation continuing obstinate, and the temperature showing very irregular rises and falls, accompanied by rigors and sweating. Pain was referred more to the head than the abdomen, and little sleep was obtained.

On the 31st (eight days after admission) jaundice supervened, the urine was high coloured, and the motions (which were few and scanty) were very pale. The following day the temperature, which was 99·8° in the morning, rose to 106·2° in the evening, being accompanied by increased violence and number of rigors. The pulse was only 104; the patient lying on his back in a drowsy condition, but without delirium. There was increased headache, but little abdominal pain, and the legs were not drawn up. There was no dyspnœa or other lung symptom.

March 2nd: Jaundice more marked; frequent attacks of nausea, with vomiting of bilious matter. Temperature fallen to 102·8°. Quinine in two-grain doses, with saline mixture every fourth hour, light linseed poultices to abdomen, and milk and soda water were ordered.—5th: Symptoms remain the same, but are less severe; jaundice subsiding; temperature and pulse lower.—6th: Temperature has fallen to 101°; pulse very weak (100); respiration 36. Tympanites less, and little or no pain in abdomen. Urine increased in quantity, less highly coloured, and containing some albumen. Bowels have not been moved since the 3rd. Ordered six drachms of castor oil.—8th: Last night violent purging set in (without the oil being taken), bowels acting twelve times. The motions are small in amount, of pale colour, and very offensive. Temperature reduced to 100°, pulse 120, respiration 36. Rigors, followed by copious sweating, occurred several times in the twenty-four hours. Very little sleep at night. Ordered two ounces of brandy in small quantities.—Evening: Much weaker. Temperature at 3 o'clock rose to 101°, and at 6 o'clock it was 104·4°; pulse 140; respiration 46. Tongue dry and brown; sordes forming on the lips; purging, which was less during the afternoon, is recurring. Ordered a mixture of sulphuric acid with opium, one ounce three times a day; brandy (half an ounce) every second hour.—9th: Rallied somewhat during the night, obtained some sleep, and says he is much better; no headache, and but slight pain in abdomen. Temperature fallen again to 100·4°; pulse 120, soft and compressible; skin dry and harsh. There is nausea, but no vomiting since yesterday evening. Bowels moved four times in twenty-four hours; motions of pale-yellow colour, and containing curdled milk. Jaundice appears more marked to-day. General condition is drowsy, but when aroused he will answer questions intelligently; there is no delirium. Takes nourishment well. Brandy continued.—10th: Passed another good night, and appears brighter. Temperature 100·8° (last night 104·4°); pulse 112, and improved in character; respiration 32. Bowels acted

five times since yesterday; stools contain more bile and are less offensive. Vomiting has ceased.—11th: Condition unaltered; passed a bad night, but there is no increase of weakness. Temperature keeps down (100·8°); pulse 108; respiration 28. Diarrhœa is again troublesome; bowels moved eight times, chiefly in the night. Takes quinine in three-grain doses thrice daily; also the acid and opium mixture.—12th: Condition less favourable. Obtained little sleep last night. Temperature 102·8°; pulse 120; respiration 32. Bowels moved six times since yesterday morning; motions yellowish-green and containing mucus, but no blood. Urine is less highly coloured, slightly acid, and containing some albumen. One ounce of brandy every third hour. Takes milk, beef-tea, and soda water well.—14th: Condition unaltered; little sleep at night, but obtains some in the daytime. Temperature 100°; pulse 116; respiration 40. Bowels moved eleven times; abdomen much less distended, and there is but little pain; rigors continue, and are of increased duration and severity, the cold stage lasting about ten minutes. The following figures show the fluctuations of temperature noted in the course of the twenty-four hours:—At 9 A.M. 101·8°; at 3 P.M. 99·8°; at 6 P.M. 101°; at 7.30 P.M. 102·8° during the cold stage of a rigor; 8 P.M. 104° during the hot stage; at 9 A.M. 99·8°. Ordered quinine in five-grain doses three times daily and ten grains of kino and opium powder at 8 P.M.—15th: No alteration in symptoms, but increased weakness. Pulse 120, small but regular. Diarrhœa and sickness less. Passed a good night.—16th: Weakness and emaciation are increased; drowsiness more marked. The patient lies on the right side chiefly and does not appear in any pain.—17th: Steadily sinking; slight delirium.—18th: Died quietly at 5 A.M. this morning.

Autopsy, thirty hours after death.—The body was emaciated and jaundiced, but well developed. Lungs: Some old pleuritic adhesions together with recent lymph over the lower third of the right lung, which was congested. No abscesses and no trace of tubercle in either lung. Heart natural. Abdomen contained about half a pint of straw-coloured fluid. Evidence of subacute peritonitis of some duration throughout, but most marked over the cæcum. Intestines bound together rather firmly, and omentum and mesentery much thickened. Examination of intestinal tract showed ulceration within the appendix vermiformis, which was much thickened, congested, and of a dark colour. It was dilated into a small abscess cavity the size of a walnut, near its termination, and perforation appeared to have occurred about the middle. No foreign body could be detected. Cæcum and ascending colon were congested, but there was no ulceration. Small intestine also slightly congested and the glands were thickened, but without ulceration. The mesenteric glands were enlarged, and the seat of numerous small abscesses. Liver was studded throughout with abscesses, varying in size from a pea to (in one case) a small orange. The largest one contained about two ounces of thick creamy pus, and was seated in the posterior and inner part of the right lobe. This portion of the liver was enlarged in comparison with the rest of the gland, which was only slightly increased in size. Gall-bladder empty and contracted; on passing a probe (with some difficulty) this condition was found to be due to an abscess pressing on the duct, and thus preventing the flow of bile. Stomach much distended and containing a large quantity of bilious fluid. Spleen and kidneys slightly congested, but otherwise healthy.

Kensington Barracks, W.

ON OTOLOGY IN RELATION TO GENERAL MEDICINE.[1]

BY H. FRENCH BANHAM, M.A., M.D. CANTAB.

IN calling attention to ear symptoms and ear diseases as they occur in connexion with ordinary medical practice, I shall first deal briefly with those cases in which, the organ of hearing being perfectly healthy, the well-known ear symptons of tinnitus, giddiness, and deafness arise. By tinnitus is to be understood subjective sounds having no relation to any external cause. In regard to auditory hallucinations I need say but little; they form frequently the prelude to, or exist as symptoms of, serious psychical disease; they occur also as auræ epilepticæ, and in the latter case they are said to begin as crude sensations of a confused noise, which soon resolves itself into musical sounds or vocal utterances. I have of course met with cases where auditory auræ have been complained of, but of the interesting mode of development that I have just mentioned I have met with no confirmatory evidence. There are certain persons of a highly sensitive neurotic temperament in whom ear disturbances arise as the result apparently of simple excitement. I was called lately to a case of this kind, occurring in a person of more than ordinary intellectual culture, and who had previously been under my care (as had also other members of her family) for neuralgia. On returning from church one Sunday evening, the service having been one of more than ordinary interest and excitement to her, she was seized with a ringing in the ears and with giddiness of such a pronounced character that she was unable to ascend the staircase without assistance. She told me that she had had previously similar, but less severe, attacks. When I saw her the only peculiarity that I could detect was undue distinctness of hearing on the affected side. She had slept badly for a day or two previous to this seizure, but was by no means in an exhausted condition. She benefited greatly by bromide of potassium, and the only similar attack that has occurred since was a few days back, when she was excited by the unexpected visit of an old friend.

In reference to the causes producing tinnitus, quite apart from any actual disease of the ear, it may be said that their name is legion, although a great many are no doubt due to disturbances of the circulation. This is illustrated by the circumstance that cardiac diseases, aneurysms of the arteries, and especially those in the immediate neighbourhood of the ear, the pressure of tumours upon the internal jugular vein (influencing indirectly the discharge of blood from the labyrinthine veins), and the wearing of garments constricting the neck, will frequently give rise to noises in the head. Mr. Field called attention to its existence in some cases of Bright's disease, and attributed it, and perhaps with truth, to increased arterial tension. It is also occasionally present in anæmia, gout, in lithæmia independently of gout, and in cases of nervous prostration accompanied with phosphatic alkaline urine. Some cases are reflex in origin, and are due to irritation of the digestive organs or of the pharynx, gums, and teeth, &c. Tinnitus assumes a vast variety of characters, such as hissing, ringing, cracking, buzzing, rushing; and these sounds are sometimes rhythmical, synchronous with the pulsations of the heart, and often closely resembling cardiac bruit. The rhythmical variety is no doubt due to some form of arterial disturbance, but it is not necessarily a symptom of any gravity, and may arise temporarily from excitement, errors of diet, and especially the indiscreet use of alcohol.

The question of deafness apart from ear disease is one of great interest and importance, and should find a conspicuous place in such a paper as this. The subject, however, is one that cannot be satisfactorily dealt with in a few words, and therefore I shall be compelled to content myself with little more than an enumeration of the conditions under which it arises. It may be of interest to mention that it was present and formed an important symptom in a case of glioma of the pons that I brought before the members of the Sheffield Medico-Chirurgical Society last winter, and upon which a post-mortem examination was afterwards made; and it exists also in a man with a cerebral tumour now an in-patient at the Sheffield General Infirmary. It is confessedly difficult to distinguish between labyrinthine and cerebral deafness; but in the cases just referred to the diagnosis was aided by concomitant symptoms, and the presence of optic neuritis. Without any primary disorder of the labyrinth deafness may occur from disease affecting the brain and its membranes, involving the acoustic centres, the nucleus, root or stem of the auditory nerve.

I wish now to call attention to those cases of ear disease occurring in the course of other maladies, or which arise as a consequence of certain morbid conditions of the system. We might perhaps classify these disorders in the following manner according to their causation: (1) Reflex; (2) extension of morbid (inflammatory) processes; (3) certain constitutional conditions, as syphilis, tuberculosis, which lend to the structures of the ear a special vulnerability.

1. Under the first of these heads may be named acute catarrh of the tympanum, which is liable to arise in infancy and often in association with painful dentition. It is not

[1] A paper read before the Sheffield Medico-Chirurgical Society on Nov. 20th, 1884.

unlikely that the connexion of the otic ganglion with the inferior dental nerve on the one hand, and the carotid plexus on the other, by which the blood-supply to the tympanum is influenced, may explain the frequency with which the morbid conditions that I have referred to are associated the one with the other. In many cases, in strumous or otherwise unhealthy subjects, the ear disease, brought about in the manner I have stated, plays only an intermediate part, and the inflammation passes from the muco-periosteal lining of the tympanum to the dura mater which is continuous with it through the petro-squamosal fissure, a fissure which although more or less closed in later life is patent in infancy. This extension that I have named may possibly go far not only to explain many of the eclampsic seizures of infancy during dentition, but also many of the inflammatory ear attacks by which one or both ears are practically destroyed. Cases are also recorded of sympathetic hyperæmia of the ear in sympathy with the digestive organs and the uterus.

2. There is probably no more frequent cause of disease of the tympanum than that of extension to it of inflammatory processes from the pharynx to the Eustachian tube. Any one of the diseases of the middle ear may originate from pharyngitis occurring in association with measles and scarlet fever. The most obstinate purulent diseases of the ear arise from scarlet fever, in which frequently the tympanic membrane is destroyed and the functions of the labyrinth so far affected as that the patient is rendered deaf in one or both ears, and with the dreadful possibility also at any time of mastoid disease, caries, pyæmia, or severe cerebral complications arising. I may here add, as showing the serious importance of these suppurating diseases of the ear, that of seventy-six cases of cerebral abscess collected by Gull and Sutton, twenty-seven, or more than one-third, were traceable to ear disease.

3. In regard to the important part which is played by various constitutional conditions, the strumous, the tubercular, the syphilitic, and the gouty, in the causation of ear disease, time will not allow me to say much. Birch-Hirschfeld, in his article on Scrofula in Ziemssen's "Cyclopædia of Medicine," remarks that "scrofula is at the bottom of the largest number of cases in which weakening and destruction of the function of hearing have taken place during the age of childhood," and that "the large number of scrofulous individuals found in deaf and dumb asylums is to be explained by these facts." There is, I think, no doubt that a very large proportion of the intractable cases of ear disease following scarlatina and measles are due, in the main, to a scrofulous diathesis. Syphilis may affect the organ of hearing in many ways. Condylomata or ulceration of the external auditory meatus may be due to it, or a mucous catarrh of the middle ear may result from an extension of the throat affection along the Eustachian tube.

Let us for a moment consider in a general way of what the sensory nervous supply to the ear consists. The auriculo-temporal division of the fifth distributes branches to the external canal and the outer layer of the tympanic membrane, and the auricular branch of the vagus also ramifies in the external meatus. Within the tympanum is situated the tympanic plexus, composed of fibrils from the glosso-pharyngeal, sympathetic, and fifth nerves, and the chorda tympani passes through the drum cavity in a more or less exposed condition. It requires only the recognition of the elaborate nervous connexions of the ear to see at once that it is an organ disease or irritation of which might be most prolific in the development of reflex phenomena. At present we have little data to guide us to the actual frequency with which nervous reflex symptoms in infancy and adult life are due to affections of the external auditory meatus, the middle ear and the labyrinth. Cases, however, have been recorded of epilepsy and other disorders depending on such affections, and I can add to the number from observations of my own. The attention of the profession generally has scarcely been sufficiently directed to this subject. While speaking of the effects transmitted to the ear from difficult dentition I incidentally drew attention to the close relation existing between the dura mater of the brain and the muco-periosteal lining of the tympanum, a relationship which, though always intimate, is especially important in early life while the petro-squamosal fissure exists. It is essential that this anatomical connexion be borne in mind in this part of my paper, while I am dealing, however cursorily, with the secondary effects of ear disease. Under any circumstances the dura mater is separated from the lining of the tympanum by a very thin layer of bone, so thin as to be almost transparent, and perforated abundantly for the passage of vessels. Again, lying in close proximity, and separated only by thin osseous walls from the tympanum, are the internal carotid artery, the lateral sinus, the internal jugular vein, and the superior petrosal sinus; and here again the thin bony septum is alike perforated by vessels. The last anatomical fact that I will mention is that the upper part of the tympanic space communicates directly with the mastoid cells. The facts that I have alluded to painfully suggest that disease once established in the middle ear must expose the sufferer to risks of such terrible complications as embolism, thrombosis, phlebitis, septicæmia, cerebral abscesses, purulent meningitis, and acute tuberculosis. That these serious, and indeed fatal, complications arise in connexion with suppurative disease of the middle ear is well known, but whether the fact is recognised sufficiently is, I fear, doubtful. What proportion of cases undiagnosed, or regarded from the want of fuller knowledge as being typhoid or brain fever, are really due to some of the foregoing? The question, from its nature, cannot be answered; but I surmise that the proportion is not an inconsiderable one. These cases are no doubt often very obscure, and even when pyæmia is recognised the connecting link of ear disease is often overlooked. In the last report of the Clinical Society eight fatal cases are recorded of brain disease arising from disease of the ear.

I cannot help thinking that even a partial consideration of ear symptoms and ear diseases brings with it the reflection that the ear is by common consent too much removed from the general practice of the physician and surgeon. Specialism has advantages and disadvantages, and I desire to be no more alive to the one than to the other. In certain departments we are indebted to specialism for many valuable instruments of diagnosis and treatment; but it has the drawback of obscuring the far-reaching influences which bear upon the organ to which the specialist devotes himself, and of closing the eyes of the general practitioner to the initial cause of many of the serious secondary and reflected symptoms that he is called upon to treat. It is a serious thing to lose sight of the fact of the integrity of the human body and of the mutual interdependence of all its parts. Error of the kind I allude to is excusable on the part of the ignorant; but the medical profession (enlightened students, and observers of nature, as we ought to be) should be scrupulously careful in no way to foster such mistakes. For many operations no doubt fingers and eyes untrained to the special work are a disadvantage; but if we travel too far along the lines of specialism we risk more serious dangers. The more general the knowledge the more accurate should be the diagnosis; the whence and whither of any disease should be better traced out before the eyes of the man whose vision is not too limited. It is, however, of vital moment to the advantageous employment of this wide-spread knowledge that there be a dexterous manipulation of every instrument for ascertaining the precise nature and extent of the local mischief; and so long as there is failure here, the specialist will be still supreme. I have already inferentially intimated the fact that I believe in specialism, so far as regards those operations where peculiar manipulative skill is necessary, and roughly speaking where very small instruments are required to be handled. Specialism to this extent is necessary, but beyond this it need not extend. According to the bent of a man's mind he may naturally have a special liking for certain subjects, but for anyone deliberately to confine himself exclusively to a small specialty, and for the profession to encourage him in this, is to sanction a system fraught with danger to the best interests of the public. Whence arises what I may venture to call the evil of a mischievous specialism, and how is it to be met? The ignorance of the public is largely the pabulum on which it fattens, but who is responsible for its existence?

I would respectfully submit that I think in our medical schools the specialties are too far separated from the ordinary routine work of the hospital. Diseases of women and children, of the skin, of the eye, ear, and teeth are so far removed that a student may obtain all his certificates and present himself for his final examination without ever having attended in any way the practice of these departments. Again, I would venture to express the opinion that the examining boards unduly favour specialism by eliminating most or all of these subjects from their examinations, and at the Colleges of Physicians and Surgeons I believe a candidate would feel himself hardly dealt with if he were called upon to diagnose a case requiring the use of the ophthalmoscope, the laryngoscope, the tuning fork, or ear speculum.

ON THE

TREATMENT OF URETHRAL STRICTURE.[1]

BY F. SWINFORD EDWARDS, F.R.C.S. ENG.,
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SINCE the time of John Hunter and Sir Everard Home the rational treatment of stricture of the urethra has steadily but surely advanced. This I think will be readily allowed after perusing a work on "Strictures in the Urethra" by the latter surgeon, published in the beginning of this century. Then in cases where the passage of a bougie was an impossibility, it was the practice to cauterise the stricture with nitrate of silver by means of a bougie armée. One case is recorded where this procedure was repeated 1258 times in the space of fifteen years, ending singularly in a fortunate result—i.e., the passage of a bougie into the bladder. But this treatment was an advance upon the method which preceded it, and which consisted in pressing a bougie against a stricture, the object being to cause ulceration followed by perforation.

[The views of Otis on the calibre of the normal urethra were here reviewed, the author stating that he entirely coincided with the conclusions of this surgeon. Attention was drawn to cases of chronic urethral discharge depending upon a small or contracted meatus in which all the symptoms had cleared up after freely incising the orifice. The fact of a penile fistula being due to a stricture which readily admitted a No. 22 French bougie, and which consequently had not been diagnosed, was instanced as showing how important was the recognition of anterior strictures of large calibre. In classifying strictures, Dittel's was mentioned as being one of the best, though for practical purposes the following was recommended. Setting aside contractions due to spasm, organic strictures were divided into two chief classes: anterior and posterior, or strictures of the penile and of the fixed urethra, these being either of large or of small calibre; passable or impassable, eccentric or concentric. Traumatic, complicated, and congenital were mentioned as subvarieties. The so-called "temper" of strictures was dwelt upon as greatly influencing the subsequent treatment.]

The vast majority of stricture cases which come under notice are submitted, at all events, I suppose, in the first place, to gradual interrupted dilatation, and rightly so, as this is the simplest and safest of all methods. There is no doubt that a cure follows in a certain proportion of these cases, and relief in many more. In private practice most cases are amenable to this treatment; in hospital, however, one meets with more aggravated examples of this disease, so that the percentage of cases in which other means have to be resorted to is larger. Recent strictures, when not at the meatus, are most benefited by this. When the obstruction is due to a wart or bridle—Dittel's first class of stricture—one or two passages of a bougie may suffice for a cure. Some years ago a gentleman came to me with the following symptoms: narrowing and twisting of the stream, increase in frequency of micturition, and gleet. I passed a bougie very gently, but this was followed by two or three drops of blood; after repeating this once or twice, all his symptoms disappeared. I suspect his trouble was due to what old writers called a caruncle; in other words, a wart or outgrowth of granulations, which was broken down and removed by the passage of the bougie.

Respecting the treatment by gradual interrupted dilatation a good deal of one's success will depend upon the kind of bougie used and the way of using it. For this purpose there is no better instrument made than the French bougie olivaire.

In cases of stricture of large calibre in the penile urethra I am now trying Otis's method. With his dilating urethrotome the contracted parts of the canal are dilated and cut until it is restored to its normal dimensions, which have been previously ascertained by means of the urethrometre. Should there be a stricture at the bulbo-membranous junction, it is left for future treatment if necessary. I say advisedly "if necessary," for this subpubic stricture which may be impassable is sometimes due to spasm dependent upon the anterior strictures. Otis and his followers believe that this is usually the case. I am not prepared to go so far as this, but I certainly think that before we subject a patient to the risks—for though small they are real—of a cutting operation in the fixed urethra, we ought to eliminate all chance of this being spasm due to co-existing anterior contractions. I have had two or three cases where this treatment has been attended with the best results, others which are still under treatment are making satisfactory progress, though in one case epididymitis and in two urethral rheumatism has been set up. It must be borne in mind, however, that these cases were treated as out-patients.

So much, then, for strictures in the penile urethra. Concerning those in the deeper portion, which are often of small calibre, with the orifice situated eccentrically—accompanied, perhaps, by a good deal of fibrous thickening—they are frequently impassable to most varieties of instrument. To treat such cases successfully one needs a selection of fine filiform gum elastic bougies, either straight or with the ends spirally twisted. It is to this little instrument I would especially direct attention. Armed with one or two of this form of bougie, one may enter almost any stricture, however eccentric or tortuous it may be. These bougies are made with a screw attached in order to act as pilots or conducting bougies to catheters or some form of urethrotome or divulsor. Having in a given case succeeded in passing a guide, several courses are open to one. It may be left in for a time until the stricture dilates, admitting a larger instrument; this being the method known as continuous dilatation. Personally I do not mind leaving a bougie in the urethra for an hour or two when it is necessary to dilate a stricture for the purpose of passing a urethrotome; but to treat a stricture by tying in a bougie for days does not commend itself to me. I have seen it set up cystitis, which has at once been relieved by performing an internal urethrotomy. It also not unfrequently causes urethritis, abscess, and epididymitis, accompanied by considerable constitutional disturbance. Again, a catheter having a screw attached may be made fast to the "pilot," and pushed on into the bladder, thus giving relief in cases of retention. If the stricture be of long-standing, and at all extensive, the guide bougie being *in situ*, I think it is as well to perform an internal urethrotomy at once, after the manner to be described immediately; but if there is any reason to believe that the stricture is a dilatable one, or for the sake of procuring immediate relief without having recourse to a cutting operation, Harrison's modification of Holt's divulsor might with advantage be employed. By this instrument is accomplished what may be called "rapid dilatation," neither the stricture nor the urethra being ruptured, as is the case with Holt's instrument. I used this dilator quite recently in the case of an old man who came to St. Peter's with incontinence, dribbling by day and night. He could only micturate in drops. There were several strictures, one being subpubic. Through this I could pass nothing, until I took a fine corkscrew guide bougie which fitted Harrison's dilator. There was no doubt that the sooner this old man was able to empty his bladder the better for him, so the pilot being in position I screwed on the dilator and passed the three smallest bolts without causing much pain. On removing the instrument I asked the patient to pass urine. He was delighted to find that it came in a stream; though small, it was a better performance than he had accomplished for many a long day.

[The method of performing internal urethrotomy by means of Teevan's modification of Maisonneuve's urethrotome was here described, and the practice of tying in a catheter after the operation condemned.]

I have performed internal urethrotomy between twenty-five and thirty times, and have assisted in about a hundred more. The results I have obtained have been very good, as all my patients have been able to micturate in a good stream, other symptoms which before had troubled them being completely relieved. I am not content unless I can pass a No. 22 bougie or catheter after the operation through the deep urethra; and this size must be maintained, or sometimes increased. If there are anterior strictures large in calibre, they are, as before said, best dealt with by means of dilating urethrotomy. I find, on looking through the register, that since I have been attached to St. Peter's Hospital—i.e., for the last three years—we have had 142 cases of internal urethrotomy, with three deaths only. Two of these cases died from causes, not likely to occur again; and in the third I do not think that death was due to the operation, at least not directly. I will briefly narrate these cases.

In the first case, that of a man aged thirty-five, who had

[1] Read before the West London Med.-Chir. Society, Jan. 2nd, 1885.

suffered from stricture for fourteen years, and had undergone both supra-pubic puncture and perineal section, there was some difficulty in passing a catheter after the urethrotomy, so an instrument with a larger blade, No. 26 instead of No. 22, was used for the second time. A rigor followed soon after the operation, and the patient died collapsed on the following morning. The second fatal case was one of traumatic stricture from which the man, aged forty-four, had suffered for twenty-six years. In this case also difficulty was experienced in passing the catheter after the section, in fact it is doubtful whether an instrument was passed into the bladder after the urethrotomy. A severe rigor occurred after the operation, followed by suppression of urine. From this he recovered sufficiently to get up daily. This was a fortnight after the operation. Four days afterwards he suddenly died. The post-mortem revealed suppurative nephritis. The third case—the only fatal one out of sixty-five operations during the departed year—died from shock due to hæmorrhage which was severe enough to call for external urethrotomy. How this arose I cannot say. It is the only case in which I have seen bleeding worth mentioning follow the use of this instrument when the blade is of a size to cut to 22 of the French scale.

Let me here mention a fact which has struck me, and which is that in the three cases just recorded some difficulty was met with in the after introduction of a catheter; I have also noticed that this has been the case nine times out of ten where suppression has followed. I would suggest that where the catheter does not pass easily, it is better to desist or even reinsert the urethrotome than use any force or prolonged manipulation. Immediately before or after the operation it is a useful practice to give two grains of quinine in a little hot brandy-and-water, in order to prevent shock and rigors. Harrison of Liverpool recommends three minims of aconite for this purpose, but although I have given it an extensive trial, I have not found it of much use. Anæsthetics are not as a rule required, though, if the stricture is likely to be difficult to cut through, ether should be given.

Cocaine bids fair to be of great use in urethral surgery; at present its high price precludes its being generally employed in hospitals.

After the operation it is important that the patient should be kept warm between blankets, with hot bottles to his feet; the sooner a free diaphoresis is established the better. The chief thing to guard against is urethral fever, ushered in by rigors, and accompanied sometimes by suppression. There is generally a rise of temperature after this operation, but if the kidneys are acting no alarm need be felt. I have known the temperature to run up to 104° more than once, and yet be normal after the lapse of twenty-four hours. If, however, suppression occurs, prompt remedies are necessary, together with careful and assiduous nursing. There is a patient of mine in the West London Hospital at the present time who is recovering from this complication, thanks to Mr. Menzies, the house-surgeon, and to the careful nursing he has had. The best means at present known for combating this condition is the hot-air or vapour-bath, with large doses of digitalis. Dry cupping to the loins and turpentine enemata have also proved most useful. The patient's strength must be supported, for which the half-hourly administration of brandy, &c., may be necessary. The diarrhœa and vomiting which are sometimes present should not be stopped unless excessive; the alimentary canal is simply doing vicariously the work of the kidneys.

The instrument the use of which has just been described cuts from before backwards, as do also those of Voillemier, Hill, Maisonneuve, Gouley, and Harrison. As I prefer Teevan's, I will not take up time by describing the others. Of the instruments which cut in the opposite direction the best are Watson's and Civiale's, the latter, or Sir Henry Thompson's modification, being the better known of the two. In his recent lectures at the Royal College of Surgeons Sir Henry extolled its use. It has, however, certain drawbacks, some or all of which have been recognised by the following authorities—Coulson, Gouley, Berkeley Hill, Teevan, and Harrison.

Touching the splitting of strictures by Holt's method, my experience has been limited to cases which have relapsed after this treatment, and of which I have met with not a few. Of these I may say that the strictures are of a more severe form than those which have not been submitted to operation. Between the years 1870 and 1880, 115 cases were split in the Westminster Hospital, with three deaths, according to Mr. Davy. Comparing these statistics with those I have given, internal urethrotomy as performed at St. Peter's undoubtedly carries off the palm, although Holt's method bears favourable comparison with internal urethrotomy as performed at University College Hospital; for Erichsen in his new edition mentions that in seventy-six cases during five years there were four deaths, eight cases of perineal abscess, besides extravasation in one and epididymitis in four cases.

As to external urethrotomy, I will here only say that as this is a more serious operation than that of internal, it ought to be limited—except possibly in some cases of traumatic stricture, accompanied or not by urinary fistulæ—to cases of impassable stricture, which ought nowadays to be but few and far between, looking to the great improvement which has of late years taken place in bougies and other urethral instruments.

In conclusion, I would direct attention to the importance of being able to recognise the presence of slight strictures—i.e., strictures of large calibre situated in the penile urethra,—such a condition being quite sufficient to keep up a gleet, to cause irritability of the bladder and other urinary troubles, not forgetting spasmodic stricture in the deep urethra. If this anterior stricture of large calibre admits of treatment by bougie—i.e., if we are able to restore the urethra to its normal size by this means,—well and good. But if not, no harm, but immense benefit, will be derived from dilating urethrotomy in careful hands. For organic strictures in the deep urethra, where dilatation either cannot be resorted to or does not succeed, I would recommend internal urethrotomy with Teevan's urethrotome.

A CASE OF CHOREA OF FIFTEEN YEARS' STANDING IN A MAN AGED FIFTY-SIX.

BY J. C. M'LEARN, M.D.,
MEDICAL SUPERINTENDENT, HOLBORN UNION INFIRMARY.

SOME attention having been lately given to the subject of chorea in the aged, I hope that the following case may be of interest.

T. M——, aged fifty-six, a gardener, was admitted into this infirmary on June 3rd, 1884, suffering from chronic chorea. His parents, brothers, and sisters were all healthy, and there appears to have been no rheumatism or nervous disease in the family. He is a widower with two sons, aged respectively fourteen and twenty-two years. The elder is healthy, but the younger is said by the friends to be fidgety and to have involuntary movements of the feet and shoulders, especially noticeable whilst sitting reading. He has not had rheumatism, has the heart sounds normal, and is to all appearance in good health. The patient, although born in Scotland, has resided about London for the greater part of his life, and has never been abroad. He had always enjoyed good health, has been a very temperate man and a non-smoker. He has not suffered from acute rheumatism, fits, or gout, but had been troubled with muscular rheumatism, which took the form of lumbago. About fifteen years ago he became "nervous," walked staggeringly, had startings of the hands, and, when sitting, shuffling of the feet, but in a slight degree. These symptoms, the onset of which was very gradual, and for which no cause has been assigned, continued with but slight increase until about four years ago, when his wife died somewhat suddenly after three days' illness. This event caused him to appear dazed for a time, and greatly aggravated the symptoms—so much so that he has never been able to work since, and has from that date continued to get worse. The patient is a man of medium height, fairly nourished, with greyish beard and bald on the top of his head. On looking at him as he lies in bed, he presents the appearance of constant irregular movements which are typically choreic. These movements affect the arms and head more than the trunk and legs. The head is turned from side to side, and frequently lifted from the pillow as though he were trying to look at his feet. The facial muscles, especially those around the mouth and the occipito-frontalis, are frequently in action. The arms, particularly the right, are constantly in motion, being pushed down and retracted, the wrist and elbow being lifted from

the bed, and the pronators and supinators brought into action. The fingers are extended and flexed in turn, the thumbs also performing these movements in the same jerky manner. The shoulders partake in most irregular motions, and are, with the upper part of the trunk, frequently lifted off the bed. The legs and feet are also affected, but in a less degree. All these movements, which in character are irregular, jerky, fidgety, and often seem half purpose-like, may occur in a few seconds, many of them being synchronous, and they are almost incessantly repeated while under observation. They stop only during sleep, but are lessened in frequency and severity when no one is near, and are increased again when any one notices him or speaks to him. He generally lies during the day with a handkerchief over his face, so that he may not be disturbed nor have the movements increased by seeing the other patients walk about. On asking him a question he tries hard to reply, but some little time usually elapses before he can articulate, and then not at all distinctly, though sometimes he will pronounce several words well and rapidly. His tongue is not protruded involuntarily, and when put out is not withdrawn with a jerk. He answers questions rationally, but his memory is not good. He is also rather irritable, and gets greatly excited at trifling things, but he has no dementia. He is somewhat deaf, but his eyesight is good, and he reads a great deal. Ophthalmoscopic examination showed the discs to be normal, but the veins were swollen. He perspires frequently and profusely, and complains of being made warm by the movements, so that he only wears one blanket whilst his fellow patients use three. His temperature has been often taken, but has only reached as a maximum 99·6°. The tongue is clean, and he eats his diet, an ordinary meat one, fairly, feeding himself, but should anyone speak to him whilst doing so a mishap is almost sure to occur. His bowels are regular, and he has not been sick or had vomiting since his admission. He has perfect control over both bladder and rectum. The pulse is about 80, and there is no cardiac murmur, the heart sounds being normal. The respiration ranges from 14 to 18 per minute, and is broken and irregular. He cannot stand alone, and when trying to walk with assistance his gait is shuffling, jerky, and halting, the heel usually touching the floor first. He has diminished plantar reflex on tickling the soles. Ankle clonus is absent, but the patellar reflexes are exaggerated. He often complains of headache, and of slight pains in the calves of the legs, and suffers from a feeling of weariness from the muscular movements, which otherwise are painless. The cutaneous sensibility is not impaired. His urine averages about twenty-two ounces per diem, and has a specific gravity of 1034. It is turbid, which microscopical examination shows to be due to urates. It is acid in reaction, has no albumen, only a trace of sugar, and no indican. The urea is diminished in quantity, being only 242 grains per diem. The movements have not improved under treatment. He has had arsenic and iron for some months, followed by bromide of potassium and tincture of conium, and lately sulphate of zinc was ordered in three-grain doses. The ether spray has also been applied over the spine.

Remarks.—The case seems to carry out the view of Charcot that this form of chorea is incurable, but is at variance with his opinion that it is always associated with dementia. The following points may be noticed:—1. The movements have existed for fifteen years. 2. The movements were much increased by an emotional cause—i.e., the shock caused by his wife's death. 3. The absence of heart disease and of rheumatism, except the muscular variety. 4. The diminution of urea, though the profuse sweats might partly account for the small quantity present in the urine. 5. The probability that the son may at some future time be attacked by chorea in a marked form.

Holborn Union Infirmary.

CITY OF LONDON TRUSS SOCIETY.—The annual general meeting of the governors of this Society was held on the 4th inst., when it was stated that the number of patients relieved in 1884 was 9248, the highest ever recorded by the Society, and 122 more than the number relieved in 1883, bringing up the total of patients relieved at the close of last year to 405,426. The number of instruments supplied was 9305. The income amounted to £5810, exclusive of the balance brought forward from 1883, as against £3990 in the previous year.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

MANCHESTER ROYAL INFIRMARY.

TWO CASES OF SPINAL INJURY.

(Under the care of Mr. THOMAS JONES.)

THE two cases of spinal injury which Mr. Thomas Jones records will be found very interesting. The first case, one of dislocation in the lumbar region with paralysis of the lower extremities, was apparently unaccompanied by fracture, no evidence of it being obtained from manipulation of the part under anæsthetics, either before or after reduction; nor was there the line of hyperæsthesia commonly found in fracture at the junction of the paralysed and unparalysed parts, and which was noted in the second case of injury to the cervical region, where from the form of the vertebræ, dislocation, though rare, is more often uncomplicated by fracture than in any other region of the spine.

CASE 1. *Dislocation of the Spine in the Upper Lumbar Region; Complete Paraplegia; Extension of the Spine under Chloroform; Recovery; Remarks.*—William B——, aged twenty-three, was admitted on May 8th, 1884. While unloading timber, some heavy pieces came violently in contact with the posterior and lower part of the neck. At first he was driven into a sitting posture, and then the back was bent to such an extent that the forehead touched the knees. When extricated from this position, a deformity of the back existed, and the patient was not able to move his legs. He was taken to the infirmary without delay, and within an hour of his admission Mr. Jones saw him with Mr. Pollard, then the resident surgical officer. On examining the back, a large, soft, fluctuating swelling was found occupying the lumbar region. Through this swelling the spines of the vertebræ could be detected on deep pressure. By tracing them from below upwards an abrupt depression between the first and second lumbar vertebræ was found, and at the bottom of the depression the spines of the vertebræ above could be felt. The continuity of the column was therefore interrupted in the upper part of the lumbar region by separation of the first from the second lumbar vertebra. It was also noted that the patient bore unmistakable evidence of severe shock, and that there was complete motor and sensory paralysis in both lower extremities. The upper limit of the paralysis was not well defined. From the symptoms it was concluded that a partial dislocation had been produced by extreme flexion of the spine, and it appeared very desirable, if possible, to reduce the deformity and restore the suspended functions of the cord. With this object the patient was placed under the influence of chloroform and gentle extension of the spine made. This was done by means of two long towels fixed to the thighs immediately above each knee, while an assistant steadied the chest and upper part of the spine. During the progress of the extension the patient was lying upon his left side, so that any change in the position of the vertebra could be more readily witnessed. After a few seconds' extension a sudden jerk was experienced, and the vertebra regained its position with an audible click. When the action of the anæsthetic had passed off, it was found that motion and sensation in both legs had been restored to a considerable degree. The restoration was more complete in the right limb. The patient complained of much pain in the region of the injury, which was decidedly relieved by a quarter of a grain of morphia hypodermically administered.

May 9th.—The patient is able to move both legs; sensation very good. There are, however, patches of numbness, which are more extensive on the left than the right side. Retention of urine; catheter consequently employed, and urine drawn off three or four times in the twenty-four hours.

11th.—Area of impaired sensation on the left side reaches as high as the middle of the thigh. The urine is alkaline and

ammoniacal; bladder washed out daily with a weak solution of boracic acid. Several bullæ have made their appearance on the dorsum of the left foot. These may possibly be attributed to the application of strapping and bandage, with the view of applying a weight to steady the limb, or they may be indicative of trophic changes.

14th.—No more bullæ have appeared. Numbness, less marked, is now confined to the left thigh. Has much greater power in the limbs, and is now able to lift the left leg off the bed. Has considerable pain when the bladder is distended. Troublesome constipation, with pain in the rectum.

June 15th.—Gradual improvement since the last report. A Sayre's plaster jacket applied. While this was being done patient felt faint, and in the evening the temperature rose nearly two degrees. Urine, now faintly acid, contains a small amount of albumen.

20th.—Faradaic current to the legs, muscles react readily. Patient got up for the first time, but could not stand without assistance.

22nd.—Complains of headache and pain in the back. He looks ill. The temperature reached 102° in the morning, and 103° in the evening.

25th.—Faradaism continued. The muscles supplied by the anterior crural nerve on the right side, and by the sciatic on the left, do not react so readily as the others.

July 1st.—The febrile attack, which has lasted for nearly ten days, has subsided; the patient expresses himself as feeling much better, and as being free from pain.

12th.—Each time the limbs are galvanised pain of a severe character is experienced, especially in the legs.

15th.—Has had another relapse, the temperature again reaching 103° on two occasions. The galvanism is suspected of being the cause of this attack. Plaster jacket removed; spines of second and third lumbar vertebræ prominent.

23rd.—The patient has passed a good night. The temperature normal. For the first time he is able to pass a small quantity of urine, but this can only be accomplished by the employment of considerable force. Daily washing of the bladder is continued.

Aug. 2nd.—Still another relapse, and this time no likely cause can be discovered. This attack lasted five days, and during its progress the highest temperature, 103·4°, was recorded. He complained of intense headache and some sickness; the face was flushed and the pulse very rapid (130); there was also pain in the lumbar spine, extending into the dorsal region; great hyperæsthesia over the same parts, and very severe pain in the lower limbs, especially in the knees. His urine contained phosphates and a considerable quantity of pus.

8th.—The temperature again normal. The pain has ceased, except in the sole of the left foot, where he has very intense shooting pains and great hyperæsthesia.

16th.—Renewal of the pain in the back; temperature last evening 102°; is normal again this morning. The electric reactions of the muscles of the legs were as follows:—The right thigh (anterior half)—weak current: Vastus internus, rectus, and sartorius contract less strongly than vastus externus. Left thigh (anterior half)—weak current: Rectus and vastus externus contract powerfully; sartorius contracts readily; vastus internus also contracts readily, but not so well as the vastus externus. Right thigh (posterior half)—weak current: Semi-tendinosus and adductors contract very feebly; semi-membranosus and biceps contract moderately. Left thigh (posterior half)—weak current: Semi-tendinosus and adductors contract fairly well; semi-membranosus and biceps only weakly. Right leg (anterior half)—weak current: Extensors and peronei contract readily. Left leg (anterior half)—weak current: Tibialis anticus contracts only slightly; peronei and extensors less than right leg. Right leg (posterior half)—weak current: Flexors contract moderately well. Left leg (posterior half)—weak current: Flexors contract feebly. There is slight anæsthesia behind the left external malleolus and in the sole of the left foot. Tactile sensation delayed in the outer side of the middle and lower thirds of the left thigh. Pressure on the sole of this foot causes pain. There is hyperæsthesia of the three outer toes of the left foot. Along the front and inner surface of both tibiæ near the anterior edge there are hairless patches. These are about an inch and a half in length by a quarter of an inch wide. Previous to the disappearance of the hair some redness had appeared.

24th.—Temperature last night rose to 102·2°, while the pain and tenderness in the back returned. There was also pain of a shooting character in the left leg and foot. There has never been any girdle pain. Temperature this morning 98·6°.

Sept. 8th.—Has been quite free from pain the last few days. With a little assistance he is now able to stand, and to walk a few yards. Has had a poroplastic felt jacket made to fit the back. This gives him great support. Hyperæsthetic spot in left foot still present. Complains of a feeling of constriction in the left leg on flexing the foot.

16th.—A relapse last night. Temperature 103°. Had distinct rigors. Return of the shooting pains in the back and left leg. This, which was the last febrile attack, lasted two days. From this time the patient began to make a more decided improvement, which has steadily and uninterruptedly continued up to the present time. On Oct. 15th he left the infirmary, after a stay of five months, and went to the convalescent hospital at Cheadle. Since his discharge he has made periodical visits to the infirmary.

Remarks by Mr. JONES.—In this case the spinal displacement was produced by extreme flexion of the spine, the result of a heavy weight falling upon the upper part of the column. The effect of this would be to rupture the ligaments between the spinous processes and the neural arches, and so allow incomplete separation of one vertebra from another. The ease with which replacement took place was certainly remarkable, and the sound which accompanied it was so distinct as to be audible to all the bystanders. The alkalinity of the urine became apparent on the third day, and it was thirty-five days before it regained its acidity. The expelling power of the bladder is still wanting; even now, eight months after the accident, he is compelled to employ a catheter. It is difficult to offer a reasonable explanation of the recurrent febrile attacks; they may possibly have been occasioned by a slight transient inflammation of the spinal meninges at the seat of injury. The trophic changes observed were not numerous. The bullæ began to appear at the end of forty-eight hours, and it is quite possible the error we committed in applying the plaster to the legs for the purpose of extension may have been instrumental in their production. The same may be said of the patches devoid of hair. They corresponded in position and extent to the redness produced by the pressure of the bandage. When seen a few days ago, the patient had regained his strength to such a degree that he could walk with comfort, without support of any kind. The bladder condition remained the same, so did the anæsthetic spot on the sole of the left foot. There is some thickening in the upper lumbar region, and the spines of the first and second lumbar vertebræ are closer together than they should be normally.

CASE 2. *Dislocation with Fracture of the Fifth and Sixth Cervical Vertebræ; Reduction; Death; Necropsy; Remarks.*—Thomas W——, aged twenty-seven, was admitted on June 7th, 1884. The patient was wrestling when he fell, striking his back against a large stone, while the head was jerked violently backwards. At the same instant he experienced great pain in the back, and discovered his inability to move any of his limbs. When first seen he was exceedingly pale and cold; pulse very slow (31 per minute) and compressible; pupils equal and rather dilated; breathing entirely diaphragmatic and very laboured; the limbs were quite flaccid and remained in any position they were placed; no response to stimuli applied to either arms or legs. On examining the cervical part of the spine, a very marked depression involving the fifth and sixth vertebræ, with swelling of the soft parts in the vicinity, was found. He was at once placed on a water-bed, with hot bottles near the feet to hasten reaction. By the next morning the patient had rallied, and he now could give a rational and connected account of the accident. His face was flushed. Temperature 100°, pulse full and rather bounding. No changes in the state of the breathing, nor in the condition of the limbs. He complained very much of the pain in the lower and back part of the neck, which was increased by any movement and pressure. Sensation quite normal in the head and neck; entirely absent in the lower limbs and in the trunk as high as the third intercostal space on each side. There is also anæsthesia of the upper extremities as high as the middle of the deltoid; above the anæsthesia there is an ill-defined zone of hyperæsthesia. There is complete loss of motion in all four extremities. Retention of urine.

Mr. Wright saw the case with Mr. Jones, and it was decided that an attempt at reduction would be justifiable.

The patient having been gently rolled over to his left side Mr. Jones grasped the occiput with the right hand while the left pressed against the chin. He then slowly and deliberately flexed the neck, and while doing so the deformity disappeared with a decided crepitant sensation. The head was then placed on a pillow, with a sand-bag on each side to steady it. As the result of the reduction, it was observed that the right arm had regained the power of motion; no change in the sensation was produced. These manipulations were carried out about 11 A.M. Late in the afternoon the breathing became more embarrassed, and was accompanied by very evident distress. He complained of great thirst, and the temperature inclined slightly upwards. The dyspnœa increased, the lips and face became livid, unconsciousness followed, and the patient died in the evening.

Post-mortem examination.—There were the usual signs of death from asphyxia. Some extravasation of blood among the muscles of the back. On opening the spinal canal there was found some extravasated blood around the cord in the cervical region and some in the lower dorsal. The cord opposite the lower cervical vertebræ was much bruised, and blood had been freely extravasated into its substance. There was fracture through the body of the fifth cervical vertebra, with free destruction of the capsular ligament between the fourth and fifth. No displacement.

Remarks by MR. JONES.—The injury to the cervical spine was no doubt produced by over-extension of the neck, which caused a forward displacement of some of the vertebra, in all probability the fifth and sixth. From the first the case appeared to be a very hopeless one; still, having seen the good effect of extension in another example of spinal dislocation, we were sanguine enough to believe that some benefit would result from the proceeding adopted. Had the injury to the cord been less extensive and its destruction less complete, the replacement of the bones might have been attended by a very different termination. It is always a very anxious question to decide in cases of spinal injury whether the surgeon is justified in carrying out any active treatment. Judging from what we saw in these cases, it would appear that when the injury has been produced by over-extension or a too free flexion of the spine, then interference is right and proper and may be attended by the best possible result. It might be suggested that in the attempt to reduce a displaced vertebra, we may very easily inflict additional injury on the cord. To avoid this we must always take care that the treatment is conducted with great discretion and gentleness, for rough handling can only end in disaster.

ROYAL UNITED HOSPITAL, BATH.

A NEEDLE IN THE BLADDER SIMULATING STONE; REMOVAL BY LITHOTOMY; RECOVERY.

(Under the care of Mr. HENRY W. FREEMAN, F.R.C.S.I.)

A LITTLE boy, under four years of age, was brought to the out-patient department of the hospital by his mother on Nov. 26th, 1884, suffering from bladder irritation, with symptoms of stone. The history elicited by Mr. Roberts, the house-surgeon, ran as follows: Difficult micturition, with screaming; pain commenced in August, 1883, accompanied with blood, sometimes more, sometimes less; and this condition of things continued for a year, when the bleeding ceased, and micturition, although painful, became bearable. The child had been sounded frequently for stone during this period, but nothing had been discovered, and as the symptoms were thought by the medical man in attendance to be due to phimosis, the boy was circumcised twice, but no relief in any way resulted.

On admission into the hospital Mr. Freeman, in conjunction with his colleague, Mr. Ransford, explored the bladder, under chloroform, and on passing a sound into the bladder a grating noise was heard when the instrument was held horizontally and in contact with the posterior portion of the fundus of the bladder, as if a phosphatic calculus were embedded in its coats; but when held vertically, and the curved portion rested on the most inferior portion of the organ, a distinct chink was heard, as if a smooth stone were struck. This, however, was very limited in extent, and it was noticed that the point of the sound could not be got round the foreign body to determine its size or shape. It was fixed. Digital examination of the rectum revealed nothing. The general consensus of opinion was, that a phosphatic calculus had become embedded in the walls of the bladder, and accordingly lateral lithotomy was performed by Mr Freeman on Dec. 6th. On opening the bladder, a sharp body was felt sticking in the anterior portion of the prostate, lying obliquely over the trigone, and resting against the posterior surface of the fundus, and encrusted with calcareous matter. A long pair of flat-pointed dressing forceps were introduced, and, after a little manœuvring, a small-sized "darning needle," measuring 1⅛ in. in length, and covered for more than an inch with phosphatic deposit, was extracted. The deposit was ⅛ in. in thickness, and included the sharp point, which was as thickly covered as the rest of the shaft; but the eye—blunt end—of the needle, for three-eighths of an inch, was smooth and free of deposit. There was no hæmorrhage. The child passed his urine by the urethra on the thirteenth day after operating, and, at the end of a fortnight, the urine, becoming excessively ammoniacal—due, as pointed out by Dr. Ray Lankester, to the presence of bacteria—and with a temperature of 102°, he was put on quinine, which speedily settled the thing in forty-eight hours; and, besides stating that the external wound was healed at the end of the third week, and that he contracted measles at the end of the fourth week, there is little to record, as he left the hospital well before the sixth week had expired.

Remarks by MR. FREEMAN.—Cases have been recorded where lithotomy has been done in boys where portions of slate pencil have found their way into the bladder by the urethra, but a needle in the bladder of a child, by whatever route it may have got there, followed by lithotomy for its removal, is of rare occurrence. The position of the needle in this small bladder seemed to me as if that portion sticking in the prostate dammed up in a measure the internal meatus, and the little constant whirlpools of urine around this portion of about half an inch explains why it was bright and gave the metallic ring when struck with the sound. We knew nothing of the needle history until after the operation had taken place, but the mother was positive that a "darning needle" such as we extracted had been swallowed by this child before her own eyes on Whit Sunday, May 13th, 1883. The needle, according to the mother's statement, was in the child's body about eighteen months, and the question arises how it found its way into the bladder. My first impression was that the needle had been thrust along the urethra by some precocious nurse girl, but the mother asserts that the child had never been out of her hands. Then came the history of its being swallowed, and if this was the identical needle, how did it get into such a receptacle as the bladder? Did it pass into the bladder by the rectum or by the small intestine; or, bearing in mind the anatomical relations of the ascending and descending colon to the kidneys, did it pass through the bowel into the pelvis of the kidney and thence by ureter into the bladder?

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

New Growths in Intestines.—Spondylolisthesis and other results of Pressure on the Spinal Column.—Lung Disease in Wild Animals.—Sudden Death from Impaction of Trachea by a Bronchial Gland.—Malignant Growth in the Forearm of an Infant.—Renal Cancer associated with Calculi.

AN ordinary meeting of this Society was held on Tuesday last, Dr. J. S. Bristowe, F.R.S., President, in the chair. Mr. Bland Sutton's communication on Comparative Pathology was warmly applauded.

Dr. NORMAN MOORE read a paper on Cases of New Growth in the Alimentary Canal. The first case was one of carcinoma of the cæcum spreading to the duodenum by direct contact in a woman aged forty-four, who was under Dr. Moore's care in St. Bartholomew's Hospital. There was ulceration over an extent of four inches in the cæcum, and the ileo-cæcal valve was invaded. A deep opening led from the inner part of the colon to the sixth inch of the duodenum by way of firm adhesions; this part of the duodenum was also infiltrated. The vermiform appendix was adherent to the cæcum, and also infiltrated. The subjacent organs were not affected. Only one small gland near the front of the cæcum was diseased. The patient had been ill since January, 1883,

and wasting from October till April, 1884. Pain in the right side, vomiting, diarrhœa, anæmia, and a slightly movable tumour lying between the ribs and iliac crest were the symptoms and signs noted. In two months the tumour became a little larger and rather less movable. The only constant symptom was general diarrhœa. There was no melæna. She died suddenly in August, and an adherent clot was found in each pulmonary artery. The second case was one of carcinoma of the descending colon spreading in direct continuity to the stomach of a woman aged forty-six, who was under the care of Dr. Gee. The new growth affected the middle part of the descending colon, and it was ulcerated at its base. The stomach was affected for about three inches, and there was a very large ulcerated hole in the stomach leading directly into the descending colon. The cancer was adherent to the parietes, and the fascia had begun to be penetrated. There were no secondary deposits. There had been pain in the left lumbar region since August, 1884, and the swelling appeared soon after, and continued to increase till death in Feb. 1885. Anæmia, slight melæna, and diarrhœa, and occasional sickness were the signs noted. Both these cases were remarkable as carcinoma spreading by direct continuity only, and both illustrated the difficulty of exact diagnosis in such cases. The age of the patient and the characters of the tumour were similar in each case, as were also the slight rise in temperature and the intense anæmia. Spread by direct continuity was only present in six instances out of twenty-four post-mortem examinations of cancer of the intestines made from cases in the medical wards of St. Bartholomew's Hospital during the past three years. In one case the new growth had opened from the stomach to the transverse colon. The third specimen was one of sarcoma of the descending colon taken from a man aged twenty-five; the symptoms were those of obstruction. There was a ragged new growth which included the whole intestinal wall of the upper part of the descending colon. It was a round-celled sarcoma of loose structure, and seemed to have grown in from the peritoneum. There were no secondary deposits. The illness lasted but a few weeks. The fourth specimen was one of sarcoma of the descending colon and ileum, spreading by direct continuity, taken from a man aged forty years. The new growth began about the middle of the colon, and there protruded as a pink and white mass without ulceration. The peritoneum and rectus abdominis were penetrated and a sinus opened externally. The ileum was adherent to, and penetrated by, the new growth. No glands and no remote organs were affected. The patient was under observation for one year. The sinus was due to surgical treatment. Acute peritonitis closed the scene. These two cases of sarcoma of the intestine resembled one another in the fact that both terminated in peritonitis, due to the rupture of the loosely-formed growth. In their continuous infiltration their natural history was similar to that of the two cases of carcinoma. These were the only two cases of sarcoma out of twenty-six cases of new growth of the intestines recently examined by Dr. Moore. These specimens show that a new growth may spread by continuity only, irrespective of its pathological nature. They illustrated the difficulty of determining in what direction and over what area any new growth may spread. Dr. BRISTOWE asked what Dr. Moore meant by spreading in direct continuity. (To this the reply was a spread of the growth in a *right* line.) Dr. Bristowe then said that sarcomatous tumours were particularly rare. He had seen many cases more or less resembling those described by Dr. Moore. A male and a female case of malignant disease of the cæcum were referred to. There were no secondary growths; the spread was by continuity. After some pain a movable tumour appeared, which, in the case of the woman, might have been mistaken for a kidney. There was no disturbance of the bowels. Emaciation was progressive. The tumour was punctured, but nothing more than gas and fæcal matter escaped, and a superficial abscess formed. The case of the man was almost similar. A puncture was also made here, with the result of the formation of a superficial abscess. In other cases the colon and the stomach communicated directly as the result of the ulcerative disease.

Mr. ARBUTHNOT LANE described some of the changes produced by Pressure in the Spinal Column. He referred to a paper on spinal deformity produced in labourers by carrying heavy loads (Medico-Chirurgical Transactions, 1884), and showed that in most of these cases the weight was supported in great part by the much enlarged and thickened lumbar spinous processes, which articulated with one another by broad surfaces, surrounded by a capsule. The weight was supported also by the articular processes, which increased in size, and articulated by flattened extremities, with deep depressions in the opposing laminæ, especially in the case of the sacrum and last lumbar vertebra. As there was little tendency to forward displacement, the articular surfaces were simply flattened, and retained their inward and outward direction. In many cases osteophytic growth took place from the adjoining posterior margins of the sacrum and lumbar vertebræ. This might touch the enlarged sacral articular process, and sometimes almost obliterate the intervertebral foramen, probably causing irritation or destruction of the fifth lumbar nerve. In other cases, especially in those that are produced by carrying weights on the back, there was a marked tendency to forward displacement of the lower lumbar vertebræ, the fifth more particularly. In early cases this produced an alteration in the direction of the articular processes from a lateral direction to one looking forwards and backwards. The reason of this was obvious. The articulation between the body of the fifth lumbar vertebra and sacrum was rendered loose, so that by pressure forwards displacement could be produced. In more advanced cases, besides increased changes in the articular processes, permanent forward displacement of the fifth lumbar vertebra or spondylolisthesis ensued. In some cases there was an articular cavity between the two bones, while in others their opposing surfaces were irregular and were connected by dense ligamentous tissue. In these, by the approximation of the laminæ of the fifth lumbar and the posterior margin of the sacral facet, the intervertebral foramina were encroached on or obliterated, and the fifth nerve more or less destroyed. He showed two well-marked cases of spondylolisthesis produced in this way. One, in which there was no synovial space in the lowest fibro-cartilage, presented synostosis of both sacro-iliac articulations, distinctly caused by pressure. He had shown a similar specimen last year. He referred to two other instances of spondylolisthesis, which he had described in the last volume of the Transactions. In the dissecting-room this condition was not infrequently met with in the early stage. Dr. Neugebauer collected descriptions of seventeen specimens from various Continental museums, one of which, "Bassin de Praqua," closely resembled three of those that he (Mr. Lane) had described. This condition was certainly not so rare as Dr. Neugebauer supposed.—Mr. SHATTOCK said that Mr. Lane's arguments proved that there were other causes than that given by Neugebauer for spondylolisthesis. Neugebauer visited all the museums, and found only one specimen, which had come from a patient under the care of Dr. Hewitt. Neugebauer believed that there was a congenital defect of union between the arch of the fifth lumbar vertebra and its body. Mr. Lane's specimens showed that there was a want of continuity between the lamina of the fifth lumbar vertebra and its body; spondylolisthesis might be due to bending of the bones which were softened from senile atrophy.

Mr. J. BLAND SUTTON made an elaborate communication on Pulmonary Diseases in Wild Animals, in which he gave a general account of the zoological distribution of certain forms of lung disease among wild animals dying in the Zoological Society's Gardens during the past three or four years. The opinion held by the medical profession and the world at large that wild animals in captivity die from pulmonary tuberculosis lacked foundation, and was certainly erroneous. The conclusions drawn were founded on the following series of cases. From October, 1881, to December 31st, 1884, the total number of deaths was 2779, made up of 583 mammals, 1408 birds, and 788 reptiles. Of the 583 mammals there were 303 quadrumana, including 7 anthropomorphous apes. Of these mammals five died from pulmonary tuberculosis—namely, a tree-porcupine, eyre, kinkajou, lagotis, and an agouti; only one case of general tuberculosis was seen, and that was in a coatimondi. It was remarkable that all these tuberculous animals came from South America and the tropical portions of North America, a region named by zoologists the "neo-tropical region." It differs from all the great zoological divisions of the earth's surface by the almost unequalled extent and luxuriance of its forests, its delightful climate, and the richness and variety of its animal life. It was also the home of the guinea-pig. Pneumonic phthisis had been seen in twelve cases, of which five

were monkeys and the rest carnivora. Even if these cases, by the utmost elasticity of the term "tubercle," be included, tuberculosis was a very infrequent cause of death in wild animals. The lungs in many of the cases of tubercle were examined by Dr. Heneage Gibbes for bacilli, and he found them present, not in thousands merely, but in millions. Dr. Gibbes has worked out some very important facts in connexion with these micro-organisms, but this part of the research was left entirely in his hands, and the results will be published in a separate paper. Since mammals in confinement did not die from tuberculosis, it became necessary to give an account of their fatal diseases. It might be broadly stated that each group of animals had certain forms of chest affections common to the group. Thus primates, excluding man, suffered from bronchitis, atelectasis, and lobular pneumonia. Carnivora were exceedingly liable to double pleurisies, lobar pneumonia, and bronchitis; whilst ruminantia had the peculiar disease known as "Perlsucht" (the so-called bovine tuberculosis), bronchitis, and "worm" bronchitis. It will be seen that bronchitis, zoologically speaking, was widely diffused, and this was to be accounted for by the vicissitudes of the English climate, in contrast to the tropical climate, to which many of these animals were accustomed. Although birds had been excluded from this report, so far as tuberculosis was concerned, yet there was one pathological condition peculiar to them which was of great interest. It was well known that in birds the bronchia were in communication with a series of membranous cavities known as air sacs. It happened, with especial frequency in waterfowl, that the lining membrane of these sacs inflamed, giving rise to exudation. This inflammatory matter coagulated, and often formed a covering half an inch in thickness, which formed an excellent nidus wherein the mould penicillium might luxuriate and form a thin layer throughout the entire series of these air chambers. Hunter, Owen, Müller, Robin, and others had noted the presence of mould in the air sacs of birds, but they all seemed to have overlooked the exudation. The interest of this condition lay in the fact that this mould did not confine itself to the air sacs, but even permeated the intercapillary air spaces of the bird's lung, which corresponded to the alveoli of the mammalian lung. In view of these facts, was it a matter for wonder that, in the human lung, vegetable organisms, a fraction of the size of the spores of penicillium, requiring similar conditions for existence, occurred, such as were recognised under the name of bacilli. It was impossible to narrate all the details of the numerous cases of pulmonary affections which were to be observed. The "field of work" such an inquiry opened up to those who had the leisure and opportunity was immense. —Dr. CARRINGTON remarked on the manner in which the tabulation of the kinds of diseases was made, as though the diseases perfectly differentiated; he would like to know more of the clinical history of these diseases.—Dr. BRISTOWE asked whether bacilli were found in cases of pneumonic phthisis and lobular pneumonia, to which Mr. SUTTON replied that the bacilli were not present in merely pneumonic cases.—Dr. CHURCH asked what proportion of the 303 quadrumana were subject to lung disease; the reply to this was 30 per cent.—Dr. COUPLAND inquired whether the bovine tuberculosis was identical with the tuberculosis of other animals.—Mr. SHATTOCK said that the bacillus was a vegetable; we might study the distribution of vegetables in relation to disease, just as Mr. Sutton had studied the distribution of animals in relation to disease.—Dr. PERCY KIDD did not understand whether the bacilli were present or not in pneumonic phthisis.—Dr. GOODHART asked for more information on "worm" bronchitis.—Mr. BUTLIN hoped that there would be more arrangement of the statistics when they were published.—Mr. SUTTON replied that he considered bovine tuberculosis to be different from human tuberculosis. Dr. Klein had shown that morphologically in the distribution of the lesions the bovine tuberculosis was different from that of man. With regard to "worm" bronchitis, this was a recognised affection of animals which was prevalent in young calves in wet weather, and had obtained the name of "hoose" from the curious cough. It was due to an immature worm which gets into the trachea and penetrates as far as the alveoli of the lung. The specimens of pneumonic phthisis contained more bacilli than those labelled simply tuberculosis.

Dr. PERCY KIDD showed a specimen of Caseous Gland impacted in the trachea and causing sudden death. The specimen came from the body of a boy aged seven. He was observed to have a croupy cough and somewhat stridulous breathing during life. No physical examination had been made. One night, after running about in the daytime and having complained of no urgent symptom, he suddenly awoke, screaming, coughing, and struggling for breath. He died in about ten minutes. At the autopsy the mediastinal glands were all enlarged and caseous; the enlargement was most marked in those glands lying in front of the trachea. The lower end of the trachea was blocked up by an oval partially softened caseous gland, which had been extruded through an ulcerated opening in the anterior wall of the trachea just above the origin of the left bronchus. The perforation led into an encapsulated space in front of the trachea, which contained caseous débris and traces of gland tissue. The lungs contained a few miliary tubercles in the upper lobes, but were otherwise healthy. The heart was firmly contracted and practically empty; it was quite healthy. All the other viscera were healthy. It was remarkable that, although the child evidently died of asphyxia, there was no distension of the right side of the heart after death.—Dr. GOODHART had seen a precisely similar case, and had published it with other cases of mediastinal gland disease. The child was younger. He thought that he had seen another case, but an autopsy was not made. In both cases there was antecedent bronchitis.

Mr. LOCKWOOD showed the specimen of a Malignant Tumour of the Forearm, taken from a child ten months old, which grew rapidly, and the child died from hæmorrhage three days after rupture of the new growth. The tumour appeared when the child was six months old. There was no enlargement of the lymphatic glands, liver, or spleen. The tumour seemed to grow from the interior of the radius; it was composed of embryonic tissue of the round-celled variety of sarcoma; no myeloid cells were seen. Congenital sarcomata of a similar nature had been described by Mr. Timothy Holmes as occurring in the orbits and head, but none had been put on record in this situation at so early an age.

Mr. BILTON POLLARD showed a specimen of Carcinoma and Dilatation of the Kidney, from which he had removed a large number of calculi during life. The patient was a man aged forty, who had had symptoms of renal colic for six months and had lost flesh. When first seen there was a tumour in the left lumbar region, in one part of which fluctuation could be detected, and the urine had an acid reaction, contained pus, but no blood. The kidney was sounded from the loin, but no stone was detected; nephrotomy was, however, performed, and forty-five calculi removed, together with a quantity of purulent urine. Much relief followed the operation, but the general condition of the patient did not improve, and the renal tumour did not shrink, as would have been expected if it had been merely dilated. Malignant disease was therefore suspected, and all idea of nephrectomy abandoned. The patient died of exhaustion two months after the operation. The left kidney was enlarged, due to cancerous infiltration of it and to dilatation of its cortical substance into numerous cystic cavities. In these cysts numerous calculi were found. The specimen was shown partly on account of the rarity of carcinoma of the kidney, and partly on account of its bearing on the etiology; the calculi appeared to be the primary pathological product, and the carcinoma a secondary one, probably resulting from irritation. The frequent absence of profuse hæmaturia in new growths in the kidney was insisted upon, and attention was drawn to the failure of an attempt to feel the calculi with a needle introduced from the loin, notwithstanding the great number of the calculi. The wide implication of the lymphatic glands and the extension of the primary growth beyond the kidney showed that any attempt to remove the entire diseased structures would have been futile and unwarranted.—The PRESIDENT said that the question as to whether irritation of the calculi could set up cancer of the kidney was important.—Dr. HADDEN had made necropsies of three or four cases of malignant disease of the gall-bladder, in which calculi were present and appeared to have induced the disease.—Dr. GOODHART said that there seemed to be but little doubt that cancer of the liver could be caused by gall-stones. In the Pathological Transactions, cases of this sort had been recorded, and also one of cancer of the bladder by Dr. Fagge, where the irritation of a stone seemed to be causative. Frequent catheterism was also alleged as a cause of cancer of the bladder.—The PRESIDENT said that it was well known that renal and biliary calculi were associated with cancerous disease of the viscera.—Dr.

NORMAN MOORE thought there must be some other factor in the production of the disease. There was chronic inflammation of the bile passages and neighbouring intestines, but nothing like cancer, in a chronic case of gall-stones which he had observed.—Dr. LONGHURST made some remarks on the relation of direct irritation to cancer of the lip and elsewhere.—The PRESIDENT said that the lining membrane of the kidney still remained entire; the cancer appeared to infiltrate the whole organ; there was no prolonged history of renal colic, and it was uncertain what the relation of the association was.—Mr. BUTLIN said that there was a difference between the direct irritation causing cancer of the lip and tongue and that of a calculus acting on the tissue of the liver or kidney; for, in the latter case, the seat of the irritation was at some distance from the point where the cancer first appeared.—Mr. BILTON POLLARD, in reply, said that the cancer apparently commenced at that part of the kidney from which the calculi had been removed during life. It seemed certain that the calculi preceded the cancer; probably the tumour was almost solely pyonephrotic until the time of the operation.

The following card specimens were shown:—Dr. Gulliver: Syphilitic Ulceration, with Cicatricial Constriction of the Trachea. Dr. S. West: Specimens of Mediastinal Tumours. Mr. Clutton: Large Vesico-vaginal Calculi. Mr. Sheild: Blood-clot from the Surface of the Brain. Mr. D'Arcy Power: Typical Adenoma of Breast. Dr. Hale White showed a recent Specimen of Suppurating Hydatid Cyst about the Liver, and also a Hydatid Cyst in Process of Healing, which opened into the duodenum, as well as externally through the abdominal wall.

CLINICAL SOCIETY OF LONDON.

President's Address.—Myxœdema.—Sudden Death in Phlegmonous Pharyngitis.

AN ordinary meeting of this Society was held on Feb. 13th, Mr. Thomas Bryant, F.R.C.S., President, in the chair. The President, on taking the chair for the first time, read an inaugural address, of which the following is a brief abstract:—He said that the Society had already done good work, but it was allowable to hope that that to be achieved in the future may be still better. He thought that our ideas were so constantly nothing more than the assimilation of the thoughts and observations of other men, that it was almost impossible to be original. The next point discussed was the want of care in the use of terms. "Strumous" disease was a term the meaning of which was probably very different, according to the beliefs of the individual. It would be interesting to have in writing the definitions of these phrases from the individual members of the Society. Then, with regard to the phrase "antiseptic precautions," what did it mean? To some, no doubt, it implied the "spray and gauze" system; to others it meant some sort of antiseptic irrigation, whilst to yet others it signified the use of some antiseptic either as a dry or moist dressing. He considered, further, that sufficient discrimination was not made between cases of intestinal strangulation and those of intestinal obstruction; the two conditions were widely different from one another. Again, is it not most important that we should have clear views on such general and elementary subjects as repair and inflammation? Experience led him, as an examiner of students, to believe that over this subject there is considerable confusion. In the treatment of a wound is it not the surgeon's chief object to prevent inflammation? When a granulating wound becomes the seat of inflammation the reparative process at once ceases, and what had been a granulating soon becomes an ulcerating surface. Is it not incumbent on all teachers to enunciate that repair and inflammation are not only not identical, but that they are incompatible? The one is a formative, the other a destructive, process. He also drew attention to a few practical points, such as the application of two ligatures to arteries in their continuity with division of the vessel between the ligatures; this was the practice of the last century; he did not intend to criticise this practice, for he looked on it with favour. It would be interesting if full particulars of the results of this revived method could be obtained during the present session. Again, he asked whether there was any truth in the accusation, made in recent times, that the great successes which surgeons have achieved in surgical operations had led them to undertake operative measures which might with some justice be looked upon as speculative, if not rash. Had our successes engendered an over-estimation of our own powers and led us to attempt to perform operations which past experience has not supported, and which seemed to be less founded on scientific probabilites of success than on the sanguine hopes of their performers? Are the operations upon the pylorus or stomach, for cancer, to be placed in this category? Are there other operations which should be so classed? We should avoid even the semblance of an experimental operation. He next remarked upon the kind aid which the surgeons received from the physicians in respect of such surgical work as the diagnosis of disease of the brain, kidney, bladder, and abdomen. And we were thus, with a clearer diagnosis, mutually helping to bring within the domain of scientific surgery large classes of disease which had hitherto been deemed to lie outside the pale of practical surgery. Might we not ask for even more help in this direction, and urge our medical *confrères* to seek surgical conference early, at least in all abdominal cases in which symptoms of intestinal strangulation exist, as well as in all cases in which intestinal obstruction is present?

A vote of thanks for the address was proposed by Dr. J. G. GLOVER, seconded by Mr. PICKERING PICK, and carried with acclamation.

Dr. W. HALE WHITE read a paper on a case of Myxœdema with a Post-mortem Examination. This case is the same as has been previously recorded in the Society's Transactions for 1882, page 98. From that year till June, 1884, the patient disappeared from observation. On June 12th, 1884, she was admitted into Guy's Hospital for ascites. There was still some evidence of myxœdema in the hands and face, but it was much less. The speech was slow. The abdomen was tapped, five gallons and five pints of fluid were drawn off; after this she had epileptiform convulsions, passed into the status epilepticus, and died. At the post-mortem examination there was found a small old hæmorrhage in the left corpus striatum, the vessels of the brain were thick, the thyroid was much atrophied, there was much pigmentation of the peritoneum from chronic peritonitis, the intestines were matted together, and there was perihepatitis. The heart, lungs, cervical glands, alimentary tract, spleen, pancreas, suprarenals, mesenteric glands, sympathetic ganglia, kidneys, bladder, genital organs, pituitary body, muscles, and toe-joints were all healthy. The liver showed proliferation of nuclei in the intercellular connective tissue and much deposit of fat in the centre of the lobules. The submaxillary gland showed slight increase of nuclei between the walls in the connective tissue, which seemed to have a sodden and swollen appearance. The thyroid body exhibited the remnants of vesicles, which contained much epithelial débris; the connective tissue was degenerate and sodden looking, although here and there was some evidence of a mild inflammatory condition. The sympathetic ganglia were healthy; the condition of the connective tissue was the same as that already described. The spinal cord and sympathetic nerve were normal, except that the connective tissue was like that in the ganglia. No other histological abnormality was discovered. This histological examination of the organs goes to show that the atrophy of the thyroid is the cause of the disease, because all the changes excepting this are probably secondary, and due to a myxœdematous affection of the tissues. That the sympathetic is not the cause of the disease is probable from the following considerations: first, in the case in which accessory thyroids were present no myxœdema followed excision of the gland, although there the sympathetic must have been pulled upon; secondly, the cells and nerve fibres in the sympathetic ganglia were quite healthy; thirdly, myxœdema has never been observed to follow the numerous physiological experiments in which the sympathetic has been excised. It is hardly likely that an organ like the thyroid, with four large arteries and six large veins, should not have some important function. No opinion as to disease of the sympathetic ought to be expressed from the mere size of the ganglia, as this varies much in the healthy body.—Mr. VICTOR HORSLEY said that with regard to the absence of such symptoms as tremors it should be remembered that they tended to disappear as the disease advanced. In a case of congested thyroid, which might also be described as a case of acute myxœdema, he had observed tremors of a marked kind. He pointed out that epilepsy was very frequent in cretins, and though the fits might be due to other causes,

yet the arrest of function of the thyroid might also explain their occurrence. With regard to the histology of the thyroid gland, there were merely collections of embryonic tissue to be seen in Dr. White's sections which might be described as an intermediate stage between the healthy thyroid and the complete destruction which obtained in a specimen of Dr. Ord's, where there was scarcely any of the embryonic tissue; the same changes were to be found in the experimental disease. As Wölfler first showed, this embryonic tissue normally exists about the capsule of the thyroid body.—Dr. DE HAVILLAND HALL said that in the presence of albuminuria it seemed natural to attribute the epileptiform attacks to uræmia.—Dr. W. B. HADDEN considered that the fits were sometimes due to the disease. In the investigation being made by the special committee on myxœdema, convulsions were found to have been present in a considerable proportion of the cases. The changes in the thyroid were allied to the alteration found in cirrhosis of liver and in chronic interstitial hepatitis. He had met with a case of myxœdema in which the history showed that a sister also suffered from exophthalmic goitre, and there might be some connexion between these diseases, both of which involved the thyroid.—Dr. SÉMON said all that had as yet been discovered confirmed the hypothesis he had advanced, that cretinism, cachexia strumipriva, and myxœdema were but one and the same disease. It was important to know what was the cause of the arrest of function of the thyroid. From a study of many cases he had come to the conclusion that the first change was one of cerebral anæmia, as manifested by such symptoms as giddiness and faintness. Reference was made to a case in which for the first period, which lasted five years, the signs of cerebral anæmia were most marked. It was possible that the cerebral anæmia led to trophic changes in the thyroid body, as well as indirectly to the other symptoms. Dr. CARRINGTON said that it would be equally difficult to explain the cause of the cerebral anæmia on Dr. Sémon's view. In cases of severe chlorosis and of pernicious anæmia the symptoms of myxœdema did not supervene.—Dr. GOODHART could not think that the sympathetic system was exonerated because we had not found any structural change in the ganglia; he considered that there was a close analogy between the causation of Addison's disease and myxœdema. The gland concerned in each disease might be destroyed by cancer, &c., without giving rise to the characteristic symptoms. It seemed clear that Addison's disease was due to lesion of the sympathetic nerves, though no structural changes were to be found microscopically. Considering these things he thought that sympathetic "worry" might still be at the root of myxœdema.—Dr. HALE WHITE said, in reply, that he could not say more of the epileptic fits, as he simply copied from the late Dr. Mahomed's report. With regard to the view that the sympathetic system was at fault, he thought it proved too much; moreover, none of the ordinary symptoms of a lesion of the sympathetic were present.

Drs. R. E. CARRINGTON and W. HALE WHITE read a conjoint paper on two cases of Phlegmonous Pharyngitis. The patients were seized with intense dyspnœa, and tracheotomy might or might not be performed. The operation, however, appears to be entirely useless, the general, and not the local, condition apparently leading to the fatal issue. The first case was that of a man aged forty-six, who was admitted into Guy's Hospital in the early morning. He had been ill for seven days, some days being in bed, on others at work. He was admitted with laryngeal stertor, but no marked dyspnœa. He was placed in a tent with the steam spray and watched, but in the course of a few hours he died quite suddenly, before the house-surgeon could be summoned. At the autopsy, all the soft tissues of the pharynx were œdematous; and on the right side, from the tonsil downwards for two inches, the mucous membrane was minutely injected and swollen with œdema; yellow spots of pus existed here and there. The same condition had spread into the tissues of the epiglottis. On the left side the œdema was serous only. There was very little narrowing of the rima glottidis. With the exception of subpleural ecchymoses, there were no other noteworthy points discovered. The second case was that of a medical man aged forty-nine, who was admitted into Guy's Hospital on November 10th, 1884. He was suffering from dyspnœa, apparently of moderate intensity, but he himself came to the hospital for the purpose of having tracheotomy performed. He walked up to the ward and was placed in a tent with a steam-spray apparatus. It was decided, after consultation with Mr. Clement Lucas, to perform tracheotomy three hours after admission. Just as he was about to be removed to the table he was seized with spasm of the glottis, and the operation had to be performed in the bed. Artificial respiration had to be resorted to, and was so far successful that he began to breathe spontaneously. He was then seized with an epileptiform convulsion, and ceased to breathe again. Electricity, subcutaneous injection of brandy, and other means were resorted to, and he again began to breathe feebly. He revived so far as to take a draught of milk. All seemed well, and arrangements were made for leaving him under supervision, when he again ceased to breathe. Efforts were maintained to bring him round for a full hour, but unfortunately were not successful.—Mr. HARRISON CRIPPS spoke of the case of a healthy girl who had had gonorrhœa, and soon after suffered from sore-throat; the next morning the left side of the face was swollen, and this swelling spread considerably down the neck, and was accompanied by dyspnœa, which was so severe that tracheotomy was decided upon; chloroform was given, and in two minutes the patient ceased to breathe. The interest of the case seemed to lie chiefly in the treatment. There was a large amount of serum thrown out, for the incision necessary for tracheotomy gave vent to so much serum that it made an obvious difference in the swelling during the half hour that artificial respiration was resorted to. Acute œdema of the neck was therefore most dangerous, and ought to be treated by free incisions into the skin, and perhaps scarification of the pharynx and laryngeal folds. From his experience of cases of dyspnœa he considered that all operations, where this symptom was urgent, should be performed without an anæsthetic.—Mr. HOWARD MARSH said that apparently these cases of phlegmonous inflammation had not attracted much attention, though Porter of Dublin had written on them in a book entitled "Diffuse Cellulitis of the Neck." Mr. Marsh had had about three cases of the kind under his care. In the first case the patient had suffered for twelve hours from obstruction in the larynx; later on swelling appeared in the parotid region and upper part on one side of the neck, and spread rapidly across the middle line, so that this "succulent œdema" was most extensive; it was accompanied by severe prostration and a low temperature. This case went on to diffuse and widespread suppuration, which spread down into the anterior mediastinum; gangrenous inflammation supervened, many incisions were made, and the laryngeal tissues scarified; a horribly offensive expectoration was present; and notwithstanding quinine and stimulants, death ensued from asthenia.—Dr. GOODHART considered that the class of cases described by Dr. Carrington ought to be separated from those referred to by the previous speakers, and which were also known as angina Ludovici. In Dr. Carrington's cases there was no marked swelling of the neck, and sudden death occurred, whilst there was no great degree of dyspnœa. The condition of the pharynx was most peculiar; it had a brawny aspect, and might be followed by suppuration in a short time; albuminuria was often present. It was difficult to say what precise relations this inflammation had to diphtheria.—A MEMBER related his own case of acute œdema of the larynx. At midday on June 23rd, 1873, he was attacked with shivering, and later found he was unable to swallow and had difficulty in breathing. Mr. Christopher Heath performed tracheotomy, and the tube was removed on the fifth day. Erysipelas or exposure to cold and wet might have caused the malady.—Dr. F. SEMON said that very dissimilar conditions had been spoken of. Some cases of phlegmonous pharyngitis seemed to be directly caused by poisonous influences, such as were at work in the causation of erysipelas and pyæmia. He related a case in which the left half of the larynx was infiltrated, and there was a temperature of 104°; the patient died, and the necropsy showed many collections of pus in the neighbourhood of the larynx, and pus was also found in the metacarpal joints of the hand.—Dr. BERNARD O'CONNOR said that poisoning from sewer gas was the cause of some of the phlegmonous inflammations.—Dr. CARRINGTON said that many of the cases referred to were essentially distinct from those he had described, for the neck was not appreciably affected, the larynx seemed perfectly healthy, and tracheotomy was useless.

Dr. SEYMOUR TAYLOR showed a living specimen of arrested Rickets in a male child aged seven years; there was most marked deformity of the trunk and limbs, with remarkable arrest of growth.

MEDICAL SOCIETY OF LONDON.

Total Amputation of the Penis.—Progressive Anæmia.—Cases of Paralysis Agitans.—Necrosis of Labyrinth.

AN ordinary meeting of this Society was held on Monday last, Mr. Arthur E. Durham, F.R.C.S., President, in the chair.

Sir WILLIAM MAC CORMAC showed a man aged sixty, in whom he had amputated the whole of the Penis for Epitheliomatous Disease. Micturition was effected per urethram, which opened behind the scrotum, by making a longitudinal slit in the divided urethra and stitching its edges to the skin in the perineum. The operation was first done by Thiersch in 1875, and in this country by Mr. Pearce Gould.

Dr. D. W. FINLAY read a paper on a case of Progressive Anæmia, which will appear in our columns next week.—Dr. COUPLAND said that Dr. Finlay's case belonged to that category to which Addison first drew attention, and which usually ran a fatal course. He believed it was impossible to draw any hard-and-fast line between cases which recover and those which prove fatal. Mention was made of a case of chlorosis in a young woman, which improved slightly under treatment by iron for three or four weeks, and then, without apparent reason, ran a steadily progressive downward course—œdema and hæmorrhages setting in. The age of Dr. Finlay's patient was the usual one at which this form of idiopathic anæmia occurs. The pathology of the disease remained most obscure.—Dr. K. FOWLER referred to a certain method of treatment recommended by Niemeyer, which consisted in giving large doses of carbonate of iron in the form of five-grain pills, made by mixing half an ounce of sulphate of iron and the same quantity of carbonate of potash.—Dr. WHITE referred to a case of anæmia in a woman aged forty-two, in which Niemeyer's treatment had signally failed; arsenic and iron were also useless.—Dr. SANSOM said in his experience the red blood-discs were much altered in size and shape, and there was much granular matter in masses distributed through the blood. As to the causation, it was possible for septic influences to play a part in some cases.—Dr. MILLER ORD thought that anæmia was a disease thoroughly wanting in unity. He considered that the alteration in the shape and size of the corpuscles was a notable feature in cases of progressive pernicious anæmia. Spectroscopic examination of the blood of pernicious anæmia showed the same bands as healthy blood. The chemistry of the blood in cases of pernicious anæmia was unknown, and the number of changes in the physical characters of the blood was very great.—Dr. FINLAY, in reply, said that he did not think the ague had anything to do with the etiology of his case. He had not noticed any conspicuous difference in the sizes of the red blood-corpuscles.

Dr. BEEVOR read a paper on cases of Paralysis Agitans without Shaking. One case without shaking was shown, and one with slight tremor only. After describing the symptoms of paralysis agitans other than tremor, the first case was given in detail. It was that of a farrier aged forty-nine, who felt weakness five years ago first in the left arm, then in the left leg, and in a year's time there was weakness first in the right leg, and next in the right arm. He has never had any tremor. At present there are: fixed attitude of the whole body, rigidity about the neck, with difficulty in looking upwards; expressionless countenance; slow, delayed movements; difficulty in rising from his seat and in walking. He has had retropulsion; the voice is monotonous and mumbling, and in speaking the lips only move; feelings of heat and restlessness are experienced. He has lost the finer movements of the hands, but the grasp is almost normal. His writing is rather wavy, especially in the up-strokes. Another patient, a carpenter sixty-two years old, had been under observation for five years. Eight years ago he began to walk with short steps, and this was followed by stiffness about the neck and general weakness. Now he has the characteristic fixed attitude, but no tremor; the face is expressionless; the speech monotonous; the movements of the hands slow, and with loss of fine movements. He rises slowly from his seat, and walks with short steps; there is propulsion and retropulsion. The writing is very bad, but not quite characteristic. He has sometimes had very slight tremor of the tongue. The next case shown was one of Dr. Gowers' patients, who had very slight tremor, involving specially the flexors and extensors of the elbows (not of the hands), particularly the left. He is forty-seven years old and a bricklayer. Five years ago, without any previous cause, he began to feel weak in the left hand, with loss of the finer movements, followed by weakness of the left leg and stiffness in both limbs. After a time slight shaking appeared in the left arm. Two years later the right arm and leg became similarly affected. A year later rigidity of the back and neck came on. He has now the typical fixed attitude, and moves his body as a whole; there is difficulty in rising from his chair, and he walks with short steps. Retropulsion has been present for the last twelve months. The face is expressionless, the tongue slightly tremulous, and the speech is quite characteristic. He also presents a symptom not before described in paralysis agitans—namely, on looking to the right or left the eyes move first, and after a slight interval the head follows. In this case the thigh muscles seem to respond more readily to direct percussion than in health. Another patient, aged seventy-three, a shoemaker, had difficulty twelve months ago in executing fine movements with the left hand, which gradually became weaker, and at the same time he began to have difficulty in moving the left leg. He has a general fixed attitude, slight stiffness of the neck, a slow gait, and difficulty in rising from a chair; stiffness and weakness of the left arm and leg; the left hand is typical of paralysis agitans with a loss of the finer movements; there is restlessness with a sense of fatigue. The knee-jerks are both well marked, the left more than the right; and there is slight left ankle clonus. About this case the diagnosis was not so certain, but the onset seemed too slow and gradual for hemiplegia, and there were no symptoms of disseminated sclerosis. It was remarked that the first patient was an undoubted case of paralysis agitans without movement, and attention was directed to the presence of slow movements and subjective weakness, yet with a normal grasp of the hands; and although the disease has existed for five years there is no tremor. The case with slight tremor was shown as an intermediate type between the well-marked cases and those without tremor. The case had been under observation for five years, but no tremor has been detected. With regard to the literature on the subject, Charcot, in his "Diseases of the Nervous System," had published two cases without movement; and a case of Dr. Gowers was also referred to. Dr. Buzzard has also published a case in his "Diseases of the Nervous System," of which the symptoms were briefly given. From the long duration (eight and five years) of two of the cases, it seemed possible that paralysis agitans might run its whole course without any tremor being present.—Dr. HADDEN asked whether there was a history of traumatism in these cases. An easy way of producing the festination or retropulsion was by using gentle pressure forwards or backwards on the head.—Dr. MILLER ORD spoke of the case of a man in which the attitude was typical, and in which retropulsion and festination were present; there were nystagmus and exaggerated knee-jerks, and on exertion well-marked tremors were developed.—Dr. BEEVOR said there was no history of injury in his cases. He mentioned the case of a woman in whom the disease supervened on fright. He had used the method referred to by Dr. Hadden.

Mr. WALTER PYE showed specimens of Necrosis of the Labyrinth. The patient from whom the sequestrum was removed was a girl aged four and a half years, and there was an abscess behind the ear. There was absolute deafness on the diseased (left) side; there was complete paralysis of the portio dura, and corneal irritation was present. The sequestrum was removed by opening the abscess and enlarging the wound, so as to allow of the withdrawal of the irregular-shaped mass of bone.

OBSTETRICAL SOCIETY OF LONDON.

THE annual general meeting of this Society was held on Wednesday, Feb. 4th, Dr. Henry Gervis, President, in the chair.

Mr. THORNTON showed Two Dermoid Cysts removed during Pregnancy.

Dr. M'KEOWN of Manchester read a paper on the Prevention of Ophthalmia Neonatorum and its Ravages. The author pointed out that the text-books and lectures on midwifery should deal fully with the etiology, progress, and treatment of ophthalmia neonatorum, and that midwives

should be taught and required to understand their duties with regard to the disease. Infective matter in the genital passage of the mother is a frequent cause—it has been stated to be the only cause; and hence attempts have been made to prevent the disease by treatment applied to the vagina before delivery, and to the child's eyes immediately after birth. It was claimed that by vaginal injections the frequency of the affection had been diminished, and by some that by treatment of the eyes the disease had been prevented. Abolition of the disease was stated to have been obtained by Credé in 499 cases by washing the eyes with pure water and then applying a 2 per cent. solution of nitrate of silver. At the Stuttgart Maternity, by Credé's plan a large reduction in the frequency had been effected (*a*) by the nitrate of silver treatment in the wards of Professors Carl and Gustav Braun, where, of more than 3000 births, only 1·93 per cent. were affected, whilst of 1887 born at the same time, but not similarly treated, 4·34 per cent. were affected; (*b*) by Professor Olshausen, who, by washing the eyes with a 1 per cent. carbolic solution, reduced the percentage from 12·5 to 6 per cent.; (*c*) in the practice of Professor Simpson, by the nitrate of silver treatment; (*d*) of 2266 births in the practice of Dr. Abegg, who washed the eyes immediately after birth with pure water, only 3 per cent. were affected; (*e*) reduction in the frequency had also been obtained by Bischoff, who, by vaginal carbolic injections and washing the eyes with salicylic lotion, reduced the percentage from 5·6 to 2·6, and also by Credé, by vaginal injections (carbolic and salicylic). These results warranted an extensive series of investigations in order to determine to what extent the occurrence of ophthalmia neonatorum might be prevented, and what methods of treatment yield the best results. These points could be settled only by those in obstetric practice. Inquiries were needed regarding, first, the influence of cleansing and disinfection of the genital passage of the mother previous to delivery. Was this a plan of treatment which might be adopted as a routine practice in every case of labour? Secondly, the influence of simple cleansing, and astringent treatment of the eyes immediately after birth. The entire treatment of the eyes should be in the hands of members of the profession, and investigations should be made in the various lying-in hospitals of the country by the resident medical officers of those institutions.—Dr. GRAILY HEWITT remarked that although our knowledge of this disease had greatly improved, the difficulty of diffusing this knowledge among those entrusted with the early management of infants remained. To this end the Obstetrical Society was able to contribute largely. Some years ago the Society drew up a most valuable code of instructions for the management of infants, which had proved most useful, and was largely sold by Messrs. Longmans at a nominal price. He suggested that a paragraph should be added to these rules containing the necessary information with regard to ophthalmia neonatorum, this paragraph being drawn up by the Council. The main object was to emphasise the danger of the disease, as well as the necessary preventive measures. Students attending cases of midwifery should also have their attention drawn to it.—Dr. CLEVELAND proposed that a copy of these rules should be sent to every Fellow with the next volume of the Transactions. This was seconded by Dr. ROPER.—Dr. WILLIAM DUNCAN said that the great majority of the cases occurred among the lower orders. He had made a rule at the Middlesex Hospital that all cases of ophthalmia neonatorum occurring in the maternity department should be sent at once to the ophthalmic surgeon. He strongly deprecated students and midwives being encouraged to treat these cases.

The PRESIDENT said he had been requested to call attention to the series of questions on puerperal pyrexia published by the Collective Investigation Committee in the *British Medical Journal* of the preceding week, and to ask the co-operation of Fellows.

Certain changes in the laws were then explained by the PRESIDENT, and adopted by the Society, as were also the various reports of the officers. The list of officers and councillors proposed by the Council was declared by the scrutineers of the ballot to have been adopted by the Society.

The PRESIDENT then delivered the annual address, which will be found in THE LANCET of Feb. 14th.

A vote of thanks to Dr. Gervis, the retiring President, was proposed by Dr. GRAILY HEWITT, seconded by Dr. PLAYFAIR, and carried unanimously. The speakers referred to the unfailing urbanity and courtesy with which Dr. Gervis had presided over the Society, which had been a matter of common remark. This was combined, when necessary, with firmness, both in the Society and in the Council. The remarks of the speakers were most cordially received.

The proceedings terminated with votes of thanks to the retiring treasurer (Dr. Potter, President elect), and the retiring Vice-Presidents and members of the Council.

CAMBRIDGE MEDICAL SOCIETY.

AT the meeting on January 2nd, Dr. P. W. Latham, president, in the chair,—

Mr. HYDE HILLS read the notes of a case of Delirium Tremens in which he had used Hyoscyamine. He was called up one morning to see a fine healthy looking man, aged thirty-four, who had been drinking a bottle of brandy a day for ten days, but had taken none for the last twenty-four hours; he had not slept for three nights and was now delirious, with the usual symptoms. Mr. Hills administered a quarter of a grain of hyoscyamine in a little brandy-and-water at 4.30 A.M.; and at 7.30, being still restless and noisy with dilated pupils, a second dose of one-sixth of a grain was given. At 1.30, as he did not sleep, one-third of a grain was administered, after which he remained quiet for about two hours. At 9.35 P.M., though still showing the effects of the drug in dilated pupils and dry tongue, he was given five-twelfths of a grain. He had a restless noisy night, and was worse than ever. His pulse was 120; he complained of thirst, and had taken no nourishment for thirty-six hours. At 5.45 A.M., or twenty-five hours after the first dose, he was given seven-twelfths of a grain; he was soon quieter, and in two hours was asleep. In the morning he was quite right, and soon recovered. The same drug was used in five other cases of delirium tremens. In three cases a quarter of a grain given at bedtime produced sleep, and was not again required. In two a quarter of a grain was given ineffectually, but one-third of a grain in the morning had the desired effect, and both recovered. In a case of mania a third of a grain produced rather alarming symptoms. Mr. Hills had no doubt of the efficacy of the drug in these cases. His practice was to give a quarter of a grain first, and, if necessary, increasingly larger doses every six hours in some alcoholic beverage. Merck's solution of the amorphous hyoscyamine was the preparation used.—Mr. CARVER had used the drug on two occasions. In one case of delirium tremens after bromide of potassium and chloral had failed, small repeated doses of hyoscyamine quieted the patient within twelve hours.

Mr. WALLIS narrated a case in which he had performed Perineal Section for Cystitis in Fractured Spine, in a man admitted into the hospital with fracture of the cervical spine, and in whom severe cystitis was rapidly bringing on a fatal result. The operation was performed in the usual manner, and a long elastic tube inserted. The result as concerned the cystitis was immediately beneficial, and the patient rapidly rallied from his dying condition and gained flesh. He died subsequently from other complications.—Mr. WHERRY quite concurred in the beneficial results obtained by perineal section in this case, and drew attention to the trouble caused by the accumulation of phosphatic deposits round the tube.

Mr. WALLIS related two cases in which he had used Cocaine with satisfactory results: a case of foreign body in the cornea, and before the treatment of corneal ulcer with nitrate of silver.

MIDLAND MEDICAL SOCIETY.

AN ordinary meeting of this Society was held on Jan. 21st, Mr. T. H. Bartleet, F.R.C.S., President, in the chair.

Mr. BENNETT MAY showed a girl whose Common Carotid Artery he had Ligatured for Hæmorrhage from the External Auditory Meatus, undoubtedly due to erosion of the internal carotid artery, occurring during the fourth week of an attack of scarlatina. The case had been previously reported to the Society in an incomplete form. Since then certain nervous symptoms which attended the application of the ligature had been investigated by Dr. Suckling, whose report was appended. The girl had thoroughly recovered, and Mr. May remarked that the case appeared to be the

only successful one of the kind recorded. Politzer stated that thirteen cases of a similar nature are to be found scattered throughout surgical literature, and that every one of them had terminated fatally.—Dr. SUCKLING read a report on the nervous symptoms in the above case.

Dr. MALINS showed a Uterus removed by Elastic Ligature.

Dr. SUCKLING showed a case of General Paralysis of the Insane. The man, aged thirty-six, had been unable to follow his employment for the past eighteen months on account of his mental disorder, which was characterised by forgetfulness and irritability when in any way interfered with. The condition of *bien-être* was well marked. There was marked tremor of the lips, tongue, and facial muscles, especially when put in action; there was also inequality of the pupils. No history of excess could be obtained.

Mr. LAWSON TAIT read a paper entitled General Summary of Conclusions from 1000 Cases of Abdominal Section. Mr. Tait first considered the question of anæsthetics, and stated that he preferred a mixture of two parts of ether and one part of chloroform given in a Clover's apparatus; this mixture he found did not cause bronchitis, and did not diminish the excretion of urine, and was less often followed by vomiting than any other anæsthetic he had used. He defined the term "abdominal section" as an operation in which the peritoneum was involved. Mr. Tait also presented an analysis of his cases, in all of which the peritoneum had been involved. The general death-rate was 9·3 per cent. Mr. Tait gave as the explanation of the much lower death-rate of his later operations the following reasons: (1) Greater experience; (2) the complete discontinuance of the clamp in ovariotomy and of the ligature in hysterectomy; (3) also the earlier stages of the diseases at which operation is now done. Mr. Tait laid great stress upon the last factor in influencing the mortality after operations.

Reviews and Notices of Books.

Clinical Lectures. By RICHARD QUAIN, F.R.C.S., F.R.S. London: Smith, Elder, and Co. 1884.—It is with much pleasure that we welcome the appearance of these clinical lectures, by an author whose name will live in his well-known plates illustrating the Anatomy of the Arteries of the Human Body. It must have been a source of entertainment and occupation to Mr. Quain to re-edit these clinical lectures, recalling as the labour must have done many of the past experiences of an active life. The volume is a costly production, illustrated by forty plates, many of which are beautifully coloured and are very valuable as pictures of rare specimens of disease. Plate XXXIII., fig. 2, is described as cholesteatoma testis; from the drawings and descriptions of this specimen we should feel almost certain that we had to do with tubercular disease of the organ in question. Plates XIV. and XV. are admirable representations of advanced rheumatoid arthritis of both hip joints, or, as we should prefer to think after reading an account of the case, of Charcot's joint disease. These two examples will serve to show some of the directions in which science has advanced since Mr. Quain took an active part in pathological work. The production of a work of these dimensions cannot have been made without considerable expenditure of time and energy, and when we remember Mr. Quain's years, we feel that he is to be cordially congratulated on the accomplishment of his task.

A Text-book of Operative Veterinary Surgery. By GEORGE FLEMING, LL.D. With numerous Illustrations. Pp. 336. London: Baillière, Tindall, and Cox. 1884.—This work does not profess to be a manual of veterinary surgery, but is intended to supply a want which has been long felt—an intelligible and practical description of the manual details of the various operations which it may be necessary to perform on animals. It does not, therefore, treat of the diagnosis of injuries, but takes up the subject when it has been decided to perform a surgical operation, and describes the manner in which, and the instruments by means of which, this may be done, with full instructions as to the measures requisite to prevent, or at least diminish to the utmost, the dangers to be apprehended from the struggles of the animal. In an introductory chapter Mr. Fleming points out forcibly the necessity for a sound knowledge of anatomy, physiology, and pathology for the successful practice of surgery. "As in clinical medicine, so in surgery, skill in *diagnosing* is an important element of success.....A great secret of success is to know when to act and when to abstain." The book is divided into two parts. The first treats of the manner of securing animals for operation; the employment of anæsthetics; and elementary operative surgery, including bandaging and dressing wounds. The second part, under the head of General Operations, includes the *operative* treatment of dislocations and fractures; the removal of tumours; cauterisation; galvano-puncture or electro-puncture; setons; injections; inoculations; operations on bloodvessels, muscles, tendons, nerves, and fasciæ; amputations; and extraction of foreign bodies from wounds. In addition to the description of the mode of operating, the book contains numerous illustrations of the instruments required, the manner of using them, and the various sutures and bandages which may be needful after an operation. As might be expected, Mr. Fleming protests against the performance of operations on animals in compliance with a mere fashion, such as "docking" or "knicking" of a horse's tail, cropping dogs' ears, or cutting their tails. "These operations, which, after all, are only fashionable mutilations of perfect animals devised by a morbidly artificial and corrupt taste, should be suppressed, if not by law, at least by the influence of the surgeon." The objection of course does not hold good when the operation is performed for the cure of disease or injury, or removal of deformity. The volume is in every way worthy of the author's reputation and high standing in his profession, and cannot fail to prove instructive; it should be in the hands of every young veterinarian, and would doubtless be found very useful for reference in the library of men of more advanced standing. We regret to add that it has the serious defect of having no table of contents and no index; both of which, with a list of the illustrations, would greatly enhance its value, and will, we trust, be added to the next edition.

A Treatise on Diseases of the Ear. By CHARLES H. BURNETT, A.M., M.D., Professor of Otology, Philadelphia. Second Edition, revised and rewritten. London: J. and A. Churchill.—We note with pleasure the appearance of a second edition of this valuable work. When it first came out—now some seven years ago—it was accepted by the profession as one of the few standard works on modern aural surgery in the English language; and in his second edition Dr. Burnett has fully maintained his reputation, for the book is replete with valuable information and suggestion. The revision has been carefully carried out, and much new matter added, more especially in the chapters on the abnormalities of the auricle, otomycosis, the treatment of chronic otorrhœa, the classification of aural polypi, and the diagnosis, etiology, and treatment of aural vertigo. The account of otomycosis is peculiarly interesting to the English otologist, as Dr. Burnett has had the opportunity of seeing a great deal of this affection, which in England is so rarely met with. The observations on the dry treatment of chronic otorrhœa by means of powdered boracic acid, &c., are most valuable, and will, no doubt, meet with very general acquiescence; but we note with some surprise that no special reference is made to the important help afforded by alcohol in the treatment of chronic otorrhœa and polypi; while, as regards the classification of aural polypi, we doubt whether Dr. Burnett's views will be generally accepted by pathologists. The author's remarks, too, on the value of removal of enlarged tonsils in the treatment of ear disease

point to a somewhat different experience from that of most surgeons. Dr. Burnett's work must be regarded as a very valuable contribution to aural surgery, not only on account of its comprehensiveness, but because it contains the results of the careful personal observation and experience of this eminent aural surgeon.

Brain; a Journal of Neurology. Part XXVIII. January, 1885. London: Macmillan and Co.—This number contains a very elaborate article (translated by Dr. de Watteville), by Professor Lichtheim of Berne, upon Aphasia, of which he distinguishes no fewer than seven types based upon clinical observation and theoretical considerations of the different paths of transmission of impressions and impulses to and from the speech centre. The essay is a most valuable contribution to a complex and difficult subject. The only other original article is one by Mr. A. Robinson, of Owens College, on the Nervous Lesions produced by Lead Poisoning, in which he describes a case observed by himself where no change at all was found either in the cord or the musculo-spiral nerve. At the same time, from a review of recorded observations, he thinks that the balance of evidence is in favour of a primary peripheral neuritis, the nerve centres being also attacked by the poison both directly and indirectly through arterial degeneration. The clinical cases are of much interest viz., one of a rare condition, having some resemblance to hystero-epilepsy, related by Dr. Hughes Bennett; one of multiple tubercular tumours involving the crus cerebri and roots of the lower cervical and first dorsal nerves, by Dr. Ross; and one of injury to the right side of the head followed by complete paralysis of the right arm (very limited laceration of the left ascending frontal convolution), by Dr. Thomson of Oldham. A "Critical Digest" of the subject of Vertigo, by Dr. George Parker, and the usual reviews of books and an extensive series of abstracts, make up a most interesting number.

The Quarterly Journal of Microscopical Science. Edited by Professors LANKESTER, THISELTON DYER, KLEIN, MOSELEY, and ADAM SEDGWICK. January, 1885. London: J. and A. Churchill.—This number contains the following memoirs:—1. J. T. Cunningham: The Significance of Kupffer's Vesicle, with remarks on other questions of Vertebrate Morphology. 2. W. H. Caldwell: Blastospore, Mesoderm, and Metameric Segmentation. 3. G. Brook: On the Origin of the Hypoblast in Pelagic Teleostean Ova. 4. H. N. Moseley: On the Presence of Eyes in the Shells of certain Chitonidæ, and on the Structure of those Organs. 5. Ray-Lankester: Archerina Boltoni, *nov. gen. et sp.*, a Chlorophyllogenous Protozoon allied to Vampyrella. 6. F. O. Bower: On the Apex of the Root in Osmunda and Todea. 7. E. v. Beneden's Researches on the Maturation and Fecundation of the Ovum. 8. W. F. R. Weldon: On the Suprarenal Bodies of Vertebrata. 9. C. B. Plowright: On the Life-History of certain British Heteræcismal Uredines (the Ranunculi accidia and Puccinia schoeleriana. 10. W. D. Halliburton: On the Occurrence of Chitin as a constituent of the Cartilages of Limulus and Sepia. There is also a correction of an error as to the morphology of Welwitschia mirabilis by F. O. Bower. There are no less than twelve plates.

The Medical Chronicle, Feb., 1885.—The original articles of this number are:—Paraldehyde, by J. Leech, M.D.; a case of Bell's Paralysis and Epilepsy of Syphilitic Origin, by James Ross, M.D.; Peptones and their Detection in Urine, by William Thomson, F.R.S. The most reliable test in Mr. Thomson's opinion is that given by Hoffmeister. The urine is first boiled with a few drops of a solution of acetate of lead; any precipitate which forms is filtered off, and to the clear filtrate one-fifth of its volume of acetic acid is added, and then a small quantity of a solution of sodium phospho-tungstate is added previously made acid with acetic acid. Any cloudiness or precipitate indicates the presence of peptone. The so-called biuret test may afterwards be applied by freeing the peptones from the phospho-tungstate precipitate.

THE PARKES MUSEUM.

AN important meeting under the presidency of the Lord Mayor was held at the Mansion House on the 13th instant, with the object of securing a larger amount of support for the Museum and of putting it on a more secure basis. The Duke of Cambridge, Earl Fortescue, Lord Mount Temple, Sir R. Rawlinson, Dr. Russell Reynolds, and Dr. Crawford, Director-General of the Medical Staff of the Army, were among those present. Letters of regret were received from many distinguished persons who were unable to attend. After the Lord Mayor had made a few remarks expressing sympathy with the object of the Museum, Capt. Douglas Galton, the secretary, read a statement giving a brief history of the institution, and explaining how, from want of room in University College, it had been transferred to its present situation in Margaret-street, where it was publicly opened by the late Duke of Albany in 1883. It is now open free part of each day. Many courses of lectures and demonstrations have been given to different classes of persons—artisans, members of building societies, the Royal Engineers, medical students, and others. There is also a valuable library, part of which was presented by the Council of the International Health Exhibition. Funds are urgently needed.

The Duke of Cambridge said that he was glad to be present, for as head of the army he felt very deeply everything that affected its welfare. Professor Parkes had done a great deal for the army during the time he was at Netley. Hygiene was more or less of a new science, and therefore it was most important that it should be studied in all its bearings, as every class in the community must necessarily be affected by the way it is carried out. The present undertaking could not be successfully continued without considerable means.

Mr. Erichsen and others having addressed the meeting, subscriptions to the amount of £1005 were promised.

THE NEW SCOTTISH CONJOINT EXAMINATIONS.

To the Editor of THE LANCET.

SIR,—Will you kindly allow me space for a few words in reply to "M.D., F.R.C.S., Edin.'s" charge of laxity against the United Scottish Corporations, whose letter is published in your issue of the 7th inst. As a student who passed the first professional in January last under the new scheme, I say that the statement that "cribbing" goes on "wholesale" is, so far as I saw, absolutely devoid of truth. Candidates do not sit where they like. On their entrance they are met by two gentlemen, who allot to each candidate the seat he shall occupy. He does not, then, sit next whom he chooses. The room is thickly carpeted, three examiners are constantly moving about, and the candidates are seated at least one yard apart. Is "cribbing" easy under these conditions? With regard to easiness of the examination *per se*, it was more severe than I expected, and the figures, as many rejections as passes, or thereabout, would not make it appear so easy as "M.D." suggests. Your correspondent seems to forget that for this diploma the candidate has three examinations, and that this one is intended for students at the end of their first year. May I state the work required for it? Well, the candidate must be well up in inorganic chemistry, and must have a good knowledge of alcohols, fats, and sugars; in anatomy he must (at least the candidates I knew did) know the greater part of "Gray," except the viscera and nervous system; and in histology he was called upon to recognise six or eight specimens under the microscope, and say what he saw and where found in the body. To the best of my knowledge the examination was fairly and impartially carried out. In conclusion, I have only to add that such a charge by one who does not publish his name against a number of gentlemen of position would be beneath notice but for the publicity your influential and widely circulated journal gives it.

I am, Sir, yours obediently,

February, 1885. T. SYDNEY DAVIS.

*** We have another letter in the same sense from another successful candidate giving his name, but we cannot afford space for both.—ED. L.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 21, 1885.

IT is said that the Government intend to reintroduce their Medical Bill, and that it is to be reintroduced it in its entirety—that is to say, in the form in which it came down from the House of Lords, and was read a second time in the House of Commons. We heartily commend the Government for this intention, if it implies a real determination to adhere to their Bill, and especially to its main provisions. We cannot, of course, after our long and painful experience of the apparent powerlessness of Parliament as now regulated, even when led by the most powerful Ministers, be sanguine that these intentions will ever be realised. The state of public affairs at the present moment makes us less sanguine still. On the other hand, this is just one of the measures that should excite no party feeling. It has been so long before the House as, by its unsettlement, to constitute a veritable opprobrium of the Legislature, the removal of which every member of Parliament has an interest in bringing about. We, however, shall be under no delusion, nor shall we be a party to bringing our readers under any delusive hopes. There is one settlement of the case against which, by anticipation, we enter our strongest protest—that is, the settlement by concession to Sir LYON PLAYFAIR. The acceptance of his resolution we shall consider a surrender on the part of the Government and of Mr. MUNDELLA, who, to do him justice, deserves credit for the pains he has taken to settle this vexed question. It will be remembered well how deeply Sir LYON PLAYFAIR misrepresented the profession last year. One of the most grievous misrepresentations was in the statement that the annual waste of the profession was 1600, whereas the Registrar of the Medical Council is, with infinite pains to ascertain all deaths, unable to obtain evidence of more than 526 deaths of registered medical men annually. Sir LYON PLAYFAIR actually conjured up to the House fears of a state of things in which the community would be inadequately supplied with medical men. The fallacy of such a suggestion is apparent from the fact that the additions to the Register amount annually to 1176, or more than twice the number of deaths; and from the obvious indications almost everywhere of superfluity of medical men, in the form often of unseemly competition for practice and undignified methods of trying to procure it. Sir LYON PLAYFAIR'S argument was cruel to the public as well as to the overfilled profession. Its meaning as regards the public was to reconcile Parliament to low standards of examination, to keep up the numbers, which, as we have shown, are only too well kept up with the present standards of examination. Mr. MUNDELLA is not an advocate for low work in Board Schools. He will act very inconsistently if he concedes low examinations in Medicine, in the efficiency of which the public have life and death interests. Sir LYON PLAYFAIR founded on this and other equally infirm grounds his amendment, which was to the effect that, instead of all entrants of the profession having to pass a Conjoint Board of Examination in certain practical subjects, those holding qualifications from certain bodies or certain combined bodies might be exempted on the condition that the Medical Council was satisfied with the final examinations of such bodies, and that in such examinations a certain number of the examiners should be appointed by the Medical Board of the division. Under the Bill, as it stands, all the medical authorities will combine to form a Board for the final examination of students, whatever their diplomas or degrees. Under Sir LYON PLAYFAIR'S plan there would be endless disputes to evade the conjoint test and a demand for extra examiners, which must add greatly to the already large expenses of examinations, and there would be endless dissatisfaction and jealousy between the bodies whose final examinations are accepted and those whose examinations are not considered satisfactory. The Government know well, at any rate Sir LYON PLAYFAIR does, that the profession has been for many years bent on the attainment of a one-portal system in which all the bodies should co-operate, and that it will be a grievous disappointment if it is lost. Sir LYON PLAYFAIR has led the House to imagine that mere conjunction of corporations is all that is wanted. He must know that this is no guarantee of efficiency while there is so much competition in the diplomatisation of medical students. Our correspondence columns have shown that under boasted conjoint arrangements great scandals still are believed to occur.

The Universities of Scotland will do well to return to their former faithfulness to the Bill of the Government. They may well begin to doubt whether they have done themselves any good by raising petty objections to a great measure on which the profession has set its mind. Sir LYON PLAYFAIR will have a chance of repentance for all the obstacles which he has thrown in the way of a settlement of this question. The Irish members may, if they like, again load the notice paper with multitudinous amendments, intelligible only on the supposition of obstruction; but there is a fine opportunity of showing that they are capable of business. We are, we repeat, under no delusive hope; but it cannot be the interest of any section of the House that respects the reputation of Parliament to allow another session to close without passing the Bill of the Government.

IN medicine there is an ever-present necessity to reconsider established beliefs and doctrines in the light of new facts, and many apparently simple conditions have been thus found to be dependent upon a number of factors which had not before been taken into the reckoning. One of the most recent instances of an attempt at such reconsideration is to be found in an essay by M. CHAUFFARD on Catarrhal Jaundice (*Revue de Méd.*, Jan. 1885), in which he advances some weighty arguments against the truth of the universally accepted doctrine of the dependence of the condition upon an extension of inflammatory changes from the gastro-duodenal membrane. His reflections are suggested by two cases of jaundice, both in habitual alcoholics, and both for some time giving rise to anxiety from the constitutional disturbance that accompanied the icterus. He points out the rarity of jaundice as a result of chronic gastric catarrh

and very pertinently remarks that instances of a spreading inflammation arising from a simple local inflammation are extremely rare. How, he asks, is the fact that attacks of jaundice occur epidemically, under some seasonal influence, to be reconciled with the notion that they are due to an inflammation spreading from the duodenum to the bile-duct? The mode of onset of such cases is often unlike that of a primary gastric catarrh; for in the two instances quoted, an exposure to cold succeeding a drinking bout was followed by a sense of weakness, muscular pains, anorexia, and vomiting; during the next few days pyrexia and a bilious diarrhœa supervened, showing that before any obstruction of the duct occurred the liver had been excited to over-activity; and it was not till the end of a week that jaundice appeared. In such a case everything points clinically to a primary irritation of the biliary gland and a secondary catarrh of its excretory ducts.

M. CHAUFFARD next turns to the renal secretion to ascertain whether an examination of the urine will afford any support to the theory he favours; and in both his cases he found that between the sixth and tenth or eleventh days the quantity of urine and of urea increased daily to a considerable degree; the former from one-half to five litres, and the urea from seven to thirty-five grammes. From this maximum point these amounts fell with oscillations to the normal. In one of the cases albuminuria was present up to the tenth day. In fact, he says the patient had then a "urinary crisis" analogous to that which accompanies the decline of an acute general disease. At first, in the invasion period, the secretion was greatly diminished, then later the occurrence of a critical diuresis denoted the entrance on convalescence. But for a long time after this the patient remained jaundiced, wasted, and enfeebled.

From such considerations it appears highly probable that in most, if not in all, cases of catarrhal jaundice, the condition is not a purely local one arising from local derangements, but a general disease running a regular cyclic course and having jaundice as one of its later symptoms. If this be so, what is its etiology? Is it to be placed among infective diseases, or is it not more likely due to an intoxication? The last-named process can be explained by reference to the ptomaines, which, formed in the digestive canal, are normally taken up by the blood and eliminated by the urine. Supposing that through derangement of normal processes they be formed in excessive amount or be eliminated ineffectually, or their noxious properties increased by the presence of alkaloids foreign to the ordinary intestinal fermentations, there would ensue a condition of auto-toxæmia, which may have but slight and transient effects, or more serious and rapidly fatal results. By such a hypothesis catarrhal jaundice would form the lowest of a series of pathogenic processes, of which malignant icterus would be the most severe and highest. It would, moreover, be supported by such considerations as result from SCHIFF'S experiments, which go to show that the liver itself exerts a destructive power upon the toxic alkaloids absorbed from the intestine into the portal blood. When, however, owing to the increase in their amount or in their virulence, from interference with the normal digestive fermentations, the liver, unduly irritated by their presence, is unable to exert its neutralising influence, the poison is diffused throughout the system. Hence the hepatic and the general symptoms, with, as a direct result of the liver irritation, the eventual supervention of biliary catarrh and jaundice. There may, of course, be predisposing conditions which render the liver less able to contend against the influx of an excess of these toxic alkaloids; and such conditions may perhaps be found in seasonal influences, in malarial cachexia, and the like.

We have kept somewhat closely to the tenour of M. CHAUFFARD'S line of argument, which certainly has the merit of being an endeavour to harmonise clinical facts with the advances made in physiology. Many must have felt that the doctrine of gastro-duodenal catarrh was unsatisfactory in view of the comparatively small proportion of cases of this common malady which are associated with icterus. And yet without further clinical observations we would hesitate to accept the new teaching; and it may be hoped that the attention drawn to the subject by M. CHAUFFARD will result in a series of clinical observations of an affection upon which little serious or profound study has hitherto been expended.

As time goes by, one after another of the impediments barring the progress of the scheme which seeks the general and unrestrained admission of women to the various branches of medical education is being removed. It is needless to point out that the goal of ambition sought by the gentler sex is not the mere acquirement of professional knowledge for its own sake, but the practical outcome of successful study in the shape of legal qualifications and licence to practise the healing art. The tide of revolution has set in very strongly, but not so strongly, it is to be hoped, but that it may yet be stemmed by the emphatic protest of a large majority of the profession, including most of its distinguished masters. The abstract doctrine of "equal rights" has been made the theme for socialistic clamour, and the ground for arguments utterly illogical. Quite recently an important institution has surrendered, unconditionally in fact, though at discretion in form. We refer to the Royal College of Surgeons in Ireland, which has, unsolicited, thrown open its doors to female candidates for their diploma. Seeing that this corporation directs the affiliated School of Surgery, it is clear that nothing is now wanting to ensure in the sister isle all that has been asked directly or indirectly of British licensing bodies. The London University has the names of several lady graduates in medicine already on its calendar, and one at least of these has taken the degree of Bachelor of Surgery. But it is at the colleges that new recruits will muster in force, for the examinations of the London University are too difficult to offer an incentive to more than a very small minority of lady aspirants.

Although the admission of women to examinations in medicine is an accomplished fact, we do not hesitate to question the wisdom of the concession. With regard to surgery the objection is infinitely stronger. A woman may be the fitting instrument to treat the ailments incidental to her sex, and in her place by the bedside of a sickly child; but we doubt the propriety and policy of committing to her care grave surgical diseases and accidents. It is not so much the quick

discernment, the prompt arrival at a conclusion, or the highly nervous and sensitive mind that are required of a surgeon, but rather the patient determination to overcome difficulty, the calmness in face of calamity, combined with strength of will; and these latter are the qualities least developed in women, who in our opinion are neither physically nor mentally constituted to solve such problems as a surgical diploma will give them a legal right to attempt.

It is on these grounds that we contemplate the recent action of the Irish College with misgiving and regret, believing as we do that neither humanity, nor the profession, nor even the parties most interested, will gain by the franchise lately bestowed. The whole subject of female medical education and qualification touches so closely on social and domestic grounds, that no step subversive of long-established usage and acknowledged utility should be taken without the fullest consideration. A stronger claim must be made before the Colleges of England and Scotland will be justified in granting what the Council of the Royal College of Surgeons of Ireland has recently conferred.

FROM time to time the obituary notices in the daily journals place on brief record the death of a public school boy. There is a passing consternation among his school companions, and some real grief in the house at which he was a boarder. But it is a wise provision in the nature of the young that sorrow should be more or less transitory. The necessary feature in our public school system that such sad events should interfere as little as possible, if at all, with the routine of school duties tends to make these sorrows of school life more ephemeral than they otherwise would be, and we think it is good that it should be so within becoming limits. This, however, does not do away with the weighty responsibility resting on the house master in the first instance, and on the governing authority of the school in the second, of carefully sifting all the evidence that can throw light on the probable or possible origin of such diseases as lead to a fatal issue in a previously healthy school-boy. There is generally more or less of mystery about such illnesses, and often an under-current of suspicion that had they been detected earlier their fatal issue might have been averted. The overpowering grief of parents and friends is too great to admit of their initiating any inquiry, which at best could afford them but little hope of comfort. The masters and governing authority naturally prefer the event to pass over with as little publicity as possible. Disease and death at a public school are equivalent to ill repute and lessened popularity, and these in due course tend to lower the number of pupils and reduce income. A full and impartial inquiry can, therefore, scarcely be looked for from within the school itself. What, then, ought to be done to give to the public school boy a full measure of protection to health and life? We hold that something in the nature of a public inquiry should be made whenever death takes place at one of these schools; not with a view of incriminating anyone, but as a measure of precaution for the future. Often much light could be thrown on such events by the medical attendant to the school; but his hands are tied and his mouth closed by the fact that his very position, and often his daily bread, are at the mercy of his employers, the masters and governors. And, further, no inquiry could take place which would not impose on the school attendant the responsibility of clearing up any suspicion of insufficient protection to the health and life of the boys under his medical charge. Yet it may be out of his power to remedy these defects. Who is responsible as guardian of the school-boy's health? On the medical attendant of a public school there is a responsibility at present insufficiently realised—a responsibility not confined to the house master or governing authority, but to the public at large. He should be no party to secrecy as to the primary cause of death in any particular case, whatever phase the secondary or immediate cause may have taken. If the primary cause can be traced to any defects in the school, or if even a suspicion exists that such cause may have had its origin in some error of discipline or too severely imposed duty when health was not at its best, outspoken candour ought not to militate against the medical attendant's interest. Nor can those called in consultation free themselves from the responsibility imposed upon them of absolute candour in such cases. To evade the duty of speaking plainly as to the primary cause of death by filling in a certificate of the secondary cause simply to avoid what is disagreeable is shirking one of the highest missions of the profession, and degrading a noble calling to worldly interests.

Annotations.

"Ne quid nimis."

THE UNIVERSITY OF LONDON.

IN compliance with a requisition, signed by members of the undermentioned committee, a special meeting of Convocation has been convened for Tuesday next, the 24th inst., to receive and consider the report of the special committee appointed on Jan. 6th, "To consider the proposals lately published by the Association for Promoting the Establishment of a Teaching University for London." The report of this committee will be presented by Mr. James Anstie, Q.C., B.A., and Dr. P. H. Pye-Smith; and the following resolutions embodied in it will be moved by Lord Justice Fry, B.A., and seconded by Sir Joseph Lister, Bart., M.B.: 1. "That, in the opinion of Convocation, the objects of the Association for Promoting a Teaching University for London would, if carried into effect by this University, add to its usefulness and importance. 2. "That Convocation now reappoints the special committee appointed on Jan. 6th, 1885, to promote the carrying into effect by this University of the objects of the said Association, with power to confer with the Senate or any committee thereof, and with the said Association, and with such other bodies as they may think fit, and with power to accept resignations, fill up vacancies, and add to their number, and also to appoint subcommittees; and that the said committee be directed to report to Convocation from time to time as occasion may require."

MEDICAL AND ENGINEERING INSPECTORS AT THE LOCAL GOVERNMENT BOARD.

UNDER the recent Treasury sanction six medical inspectors are now engaged in doing certain temporary work for the Local Government Board. Two of them, Dr. De Chaumont, F.R.S., and Dr. Davies, jun., of Bristol, have either last year or during the early part of this year

already been occupied in inspections of the ports and coast-line districts, and they will, it appears, continue to carry out this important portion of the work of cholera prevention which is being undertaken under the guidance of the Board's chief medical officer. The other four appointments appear to be of a more temporary type, for the inspectors have not yet been assigned to the inland districts which have to be inspected in connexion with the possibility of cholera importation and spread. Thus, Mr. Arnold Royle, C.B., Mr. Sweeting, of the Metropolitan Asylums Board's Western Hospital, Dr. Simpson, well known in connexion with his investigations of cholera at Damietta in 1883, and Dr. Gresswell, who holds an appointment on the staff of St. Bartholomew's Hospital, either have been or are still engaged in making certain special inspections as to outbreaks of infectious disease and other matters. But, for the moment at least, the increased medical staff has been completed. In the engineering department new inspectors have been appointed, owing to a death-vacancy and to temporary pressure consequent on the permanent staff being engaged on special work. General C. P. Carey, R.E., and Major-General A. De Courcy Scott, R.E., are the two inspectors who have been selected.

CHEMICAL LABORATORY AT CAMBRIDGE.

ALL who are acquainted with the scientific teaching department of the University of Cambridge are well aware that a new chemical laboratory is urgently needed, the present building being quite inadequate for the proper accommodation of the increased number of students, and for the carrying out of experimental researches by the professors and others engaged in such work. A syndicate to consider the matter was appointed some time since. Professor Liveing and Mr. Trotter have visited several of the new Continental laboratories, and under their supervision plans for a new laboratory, with lecture-rooms, rooms for scientific investigation, &c., have been carefully prepared by Mr. L. J. Stevenson, the architect, who has carried out their instructions in a way which appears to the syndicate to be highly satisfactory. The estimated cost is £30,000, and the difficulty is how this sum is to be raised. The prevalent idea of the wealth of the University is unfortunately a very mistaken one. Even with the additions lately derived from colleges—which, by the way, in the present state of agricultural depression can barely afford the tax laid upon them—the income of the University is scarcely equal to meet the annual demands for the maintenance of buildings and the teaching and other staffs of officers. The only way in which the funds can be raised for this and other similar much-needed purposes is by borrowing, which of course is objected to by many persons for obvious reasons. Mr. Stevenson's plan, however, is now before the senate, and was the subject of discussion in the Arts Schools on Saturday. Professor Liveing stated fully the necessities of the case, the insufficiency of the present provisions for teaching, for study, and for research, his belief that the proposed building would do no more than meet the requirements, and he thought it would well answer the purpose of the University to borrow the money required for the erection of the building. He pointed out that the site of the present chemical building is urgently required for the extension of the medical school and the proper accommodation of the increasing number of medical students. The proposal was, on the whole, not unfavourably received. Professor Humphry hoped that means would be found to overcome the financial difficulties and carry out the plan. The existing chemical laboratory was ill-fitted and quite insufficient for its purpose, not affording room for the students or opportunities for the professors, who were obliged to go elsewhere to carry on their researches. With all regard for literary, historical, and other subjects of instruction and education pursued in the University, they could not but perceive that science had now come to the front as an educational basis. The furthering it was, moreover, of the utmost importance to the national prosperity, and the instruction in it was greatly calculated to promote the interests of the students as well as to give them good mental training. Of all branches of science chemistry was perhaps the most important, the knowledge of it being essential to an apprehension of the laws governing the animate and inanimate world. He could not but hope that this discussion, revealing the financial position of the University, and the difficulty found in providing the money for this and other buildings required for the proper conduct of education, would convince the public that there are no unemployed or ill-employed accumulations of wealth in Cambridge; that all, and more than all, the funds at the disposal of the University were needed for the carrying on the proper work of the place. Unfortunately, Cambridge laboured under the double disadvantage of being poor and of being supposed to be rich. He trusted that the fact was being, or would soon be, realised, as the inner life of the University came to be better known, that in no place in the kingdom was more serious, continued, hard work being done by a large number of highly educated men with so small an amount of pecuniary remuneration than is the case in Cambridge, and moreover that the work is done well and heartily, all that was required being better buildings and better apparatus.

TANNIC ACID INJECTIONS IN CHOLERA.

DURING the recent exceptionally severe epidemic of cholera at Naples, Professor Cantani proposed combating the premonitory diarrhœa by warm tannic acid enemata. The practice was largely and successfully adopted. Dr. Vincenzo Vitone has just published, in *Il Morgagni* for last month, his results with that method of treatment at the Cholera Orphanage at S. Antonio a Tarsia. The children admitted in this institution came from the most infected parts of the city, and had lost one or both parents from cholera. Three illustrative cases may be quoted from a large number in which cholera was promptly arrested by tannic acid clysters. S. B——, aged eight, was conveyed to the Orphanage on Sept. 18th, from the house in which both his parents had died from cholera. He had enjoyed perfect health up to the time when, from no appreciable cause, he was seized with vomiting and diarrhœa. In a few hours he had ten evacuations, the last perfectly colourless. The patient complained of intense thirst and pain over the region of the stomach; the face was slightly cyanotic; temperature 36° C.; pulse scarcely perceptible. The following solution was injected per rectum: Warm water, 1000 grammes (1 gramme is equal to 15·432 grains); tannic acid, 3 grammes; gum arabic, 20 grammes; and laudanum, 12 drops. An infusion of chamomile was at the same time administered. After the lapse of an hour the boy was more wakeful, and the pulse became perceptible; the alvine discharges ceased, and in two days the patient left his bed completely cured. P. T——, aged four years, had lost her mother from cholera, and was conveyed to the Orphanage on October 10th. She was rapidly reduced by rice-coloured stools, so as to be scarcely recognisable. At 3 P.M. the temperature was 36·1° C., and the pulse almost imperceptible. The following clyster was administered: Warm water, 400 grammes; tannic acid, 2 grammes; gum arabic, 15 grammes; laudanum, 5 drops. The diarrhœa was suddenly arrested. At midnight the child was wakeful, hungry, and partook of milk. In two days she left her bed perfectly cured. A. R——, aged three, lost his mother from cholera, and was suddenly seized with vomiting and diarrhœa. The face became cyanotic, and the

extremities cold. The temperature of the body was 35·1° C.; the pulse was scarcely perceptible. A warm tannic acid clyster, according to the formula in the preceding case, was administered at once, an infusion of chamomile was given by the mouth, and the limbs were wrapped in warm woollen cloths. In the course of two hours the diarrhœa had ceased, and marked reaction set in; the temperature was 38·8° C., and the pulse 80. The following day the fever continued and the bowels acted, but the motion was well formed. The fever continued two days longer, but then subsided, leaving the child perfectly well. In adults Dr. E. Villani has injected per rectum as much as fifteen grammes of tannic acid in two litres of warm water, with invariably good result. The *modus operandi* of the treatment is attributed by Professor Cantani to the astringent power of tannic acid, and to its sterilising the comma bacilli, which need an alkaline solution for their development. Without entering into this therapeutical disquisition, the clinical results appear to afford striking evidence of the efficacy of warm tannic acid clysters in the treatment of cholera.

THE EXHAUSTION OF ENGLISH COAL.

A PAPER by Mr. Sydney Lupton, in a recent number of *Nature*, furnishes food for thought to every patriotic Englishman, for it shows by reasoning, which, at any rate, deserves the most careful consideration, that our coal-supply cannot long preserve our insular supremacy. Nearly a century has passed since the subject was first mooted by John Williams; but general attention was not aroused until 1881, when Mr. Hull, shortly followed by Professor Stanley Jevons, proved that the supply was by no means inexhaustible, the latter inquirer asserting that "rather more than a century of our present progress would exhaust our mines to the depth of 4000 feet," below which, it is believed, they would be unworkable, even if any important quantity of coal remained. A Royal Commission was appointed, which, in 1871, reported that 146,480,000,000 tons of coal remained available. This estimate is now regarded as considerably too high. Moreover, the deepest pit in England is less than 3000 feet deep, and although there is a pit in Belgium, the Lambert, that goes down to 3490 feet, such a pit could not be worked in England at anything like the present prices. Taking the figures of the Royal Commission, Mr. Lupton assumes as the present available supply 144,700 million tons. He takes one million tons as the unit, pointing out that it is equal to a cubical block 100 yards each way, or a square mile one foot thick. Dealing with this gigantic unit, Mr. Lupton proceeds to calculate from Mr. Robert Hunt's "Mineral Statistics" and other data, the past, present, and future output of coal. Following his example we will use the million-ton unit, but, for the sake of simplicity, will omit fractions. In 1854 we "won," that is, excavated, 65 units and exported 3. In 1883 we won 164 and exported 23. The total output for the last thirty years therefore increased on the average about 3 units per year, while the export during the whole period increased sevenfold. Illustrations are required to convey to the mind any idea of this enormous consumption, and we cannot do better than quote those supplied by Mr. Lupton. "It was calculated by Sir Henry Bessemer that the output of coal, 154,000,000 of tons for the single year 1881, would suffice to build fifty-five great pyramids, or to rebuild the great wall of China, and to add a quarter to its length! In 1883 the output was 163,800,000 tons, which would form a column a mile square and nearly 164 feet high; or would build a wall from London to Edinburgh 400 miles long and 45 feet 9 inches high and thick; or around the world 24,000 miles long and 5 feet 11 inches high and thick; or if the Straits of Dover are 21 miles across and 600 feet deep, would make an embankment across them 22 yards wide; while the total output for the thirty years would build a round column 9 feet 4 inches in diameter which would reach 240,000 miles high, the distance of the moon." If the output of coal continues to increase at the rate of 3,000,000 tons annually, the supply will last for 261 years; but Mr. Lupton, who has analysed the figures with care, concludes that practical exhaustion would occur in about 106 years, a period which agrees with that assigned by Professor Stanley Jevons. Space forbids us to follow the writer through his careful study of possible means for the diminution of this prodigal consumption. It is enough to say that the outlook does not seem hopeful. As to the notion of obtaining our future supply from the inexhaustible fields of America, that seems dispelled, as far as large manufactures go; by the calculation for our present supply 2100 steamers, each carrying 6000 tons, and each making thirteen trips a year, would be required, and if the price, free on board, were ten shillings a ton, "we should have annually to pay America £81,900,000, an amount not far below our present national income." The question is one which should be considered by every statesman, for those who talk so loudly about England's honour and England's place among nations, cannot be indifferent to the great decadence which would necessarily attend the exhaustion of our coal-supply. We may, indeed, ask ourselves whether, under existing conditions, the export of coal, at any rate to foreign countries, should be allowed.

A CONFERENCE ON CHOLERA.

A CONFERENCE of representatives of the principal countries of Europe will shortly be held, at the invitation of the Italian Government, in Rome, for the purpose of discussing the steps which it is advisable to take in the event of an outbreak of cholera occurring. We understand, although no definite arrangement has yet been arrived at, that England will be represented by Sir W. G. Hunter, K.C.M.G., and Dr. Thorne Thorne, of the Medical Department of the Local Government Board. Should the rumour regarding the appointment of English representatives be confirmed, we congratulate the Government upon the choice it has made, feeling sure that the opinion of the medical profession and sanitarians of this country will be fully and clearly enunciated, although we can perhaps hardly hope for many, if any, new precautions to be adopted in the event of a cholera epidemic.

WHAT WAS THE CAUSE OF DEATH?

AT an inquest held by Mr. Aspinall, the coroner for Liverpool, on January 6th, and subsequently at the assizes, the medical testimony on behalf of the Crown and the defence was singularly conflicting. It appears from the evidence that on New Year's Eve a Norwegian sailor named Johnson was engaged in a violent altercation with the three men charged with having caused his death. The question the jury had to decide was whether the deceased came to his end through the maltreatment of the prisoners or died from natural causes. Different statements were made on the two sides as to who was the aggressor, but with that we are not concerned. The case for the prosecution was that deceased had been beaten on the head with a belt and otherwise assaulted. Death followed almost immediately. The coroner's jury returned a verdict of "Wilful murder"; at the trial the accused were convicted of manslaughter. We wish to draw attention to the inconsistencies between the statements of the medical witnesses. Mr. F. Knight, house-surgeon to the Royal Southern Hospital, deposed to finding some cuts and bruises about the head and face—injuries not dangerous in themselves—and slight congestion of all the organs, the state of which in his opinion was quite

compatible with health. He gave the probable cause of death as concussion of the brain. The condition of the organs, said Mr. Knight, gave no indication of alcoholic excess. Dr. W. Whitford, called for the defence, took exception to these views. According to him, the aorta was the seat of extensive long-standing disease, the left lung almost completely solid, the right extensively solid, and the brain congested; the heart showed old-standing disease. These pathological changes, Dr. Whitford alleged, might be attributable to heavy drinking. In a case of such gravity it is to be regretted that the medical men were not agreed upon what was certain and what probable. Was the congestion of the lungs merely indicative of the mode of dying, or was it too extensive and general, as Dr. Whitford stated in cross-examination, not to have been of post-mortem origin? Had pneumonic exudation supervened on congestion? Was the cardio-aortic degeneration beyond the extent usually incidental to age? Did the alleged injuries accelerate death? These were the questions suggested by the case as a basis for investigation. We have not the slightest doubt that, whatever may have been the *predisposing* causes, the *immediate* cause of death was shock either from concussion of the brain or from the great excitement consequent on the struggle. Antecedent disease and alcoholic excess would render a man likely to succumb to injuries which under normal conditions would be insignificant.

THE OPEN SPACE QUESTION.

IT is very gratifying to us to note the success of the admirable efforts of Mr. H. R. Williams to preserve the Highgate Woods, as woods, for the use of the people of this congested metropolis. We regard the provision of open spaces in the present circumstances of the metropolis as not only a public question, but as in the first rank of public questions to which our public men should give their attention and sympathy. Not only should many existing spaces be secured in perpetuity for the delight and refreshment of the people, but steps should be taken to create more of them in some districts where they are most needed. It is difficult, however, for the most beneficent public authorities to create woods and sylvan beauty. The more credit to them when they cheerfully give those which exist, and which might have been sold for baser purposes. We give the Ecclesiastical Commissioners great credit for their generous action in this matter, and will be glad to learn that they have even determined to go further, and give the Churchyard Bottom Wood as they have given the Gravel Pit Wood. The suggestion that this should be purchased by some individual at once wealthy and generous is very good, but such individuals do not always rise to the occasion, and the needs of the millions of this city should not be dependent on personal generosity. The Ecclesiastical Commissioners would make good use of their powers by preserving more of the Highgate Woods for public use.

NURSING THE POOR.

WE lately remarked on the improvement in the art of nursing. It is also a point of improvement in Christian charity that it is trying to send a trained and cultivated nurse wherever there is a sick person untended. There are many associations of this kind in London now. This week one of the most successful of these, the North London Nursing Association for the Poor, has been holding its annual meeting under the presidency of Mr. Caine, M.P. It works chiefly in Holloway, Hornsey, Highbury, Ball's Pond, and the neighbourhood. The work done may be imagined from a few of the facts stated in the report. The number of cases under nursing care has been on an average 166 a month. The cases have included 95 of typhoid, 103 of rheumatism, 139 of acute bronchitis, pneumonia, and pleurisy, 43 of diphtheria, 39 of cancer, 79 of puerperal illness, &c. Nearly 200 medical men had referred patients to the Association for nursing help. Two of the nurses contracted typhoid fever, of whom one, an experienced and able nurse, died. This fact was fully and kindly investigated by so capable a sanitarian as Mr. Shirley Murphy, who acquitted the premises of blame, and considered that the disease had been caught by the nurses in the discharge of their duties. Much credit is due to the committee, and especially to the indefatigable and courteous treasurer, Mr. Butler, who is eminently the right man in the right place. The institution is creditable to the north of London, and should be generously supported.

DEATH FROM "INDIGESTION."

No doubt it is possible that the irritation set up by the presence of large masses of unmasticated food in the stomach may, in an exceptional case of weak heart, lead to the occurrence of syncope and death. Such a combination of evils has recently been found to produce a fatal result. The moral of this occurrence clearly must be to see that all food, and particularly that taken shortly before retiring to rest, is properly crushed by the teeth, and, which is not less important, well saturated with the secretion of the salivary glands, which it cannot possibly be unless the process of mastication be slowly performed. It is too commonly forgotten that the food needs not only to be finely divided, but to be well mixed with the saliva. Digestion, in fact, as we know, commences in the mouth, and this early stage of the process must be perfected by due elaboration if the later stages, which take place in the stomach and the intestines, are to be of avail as preparatory to absorption, assimilation, and nutrition. Artificial teeth are helpful in the performance of a necessary function when the natural teeth have ceased to be useful, and ought to be procured by all who stand in need of them. This is not a matter of vanity or taste, but one of personal expediency, of health, and even, it may be, of life itself.

SCARLET FEVER INFECTION.

AN instructive report has been issued by a medical committee appointed to inquire into an alleged recurrence of scarlet fever at a female orphan asylum as the result of the premature discharge of patients from the Netherfield Institution for Infectious Diseases at Liverpool. The precautions usually taken at that institution are of a very complete sort. The resident medical officer may not allow the discharge of any patients until he can certify them to be free from infection. In the case of scarlet fever it has not been found possible to adopt any time rule, but all convalescents are examined at least twice a week, and in order to facilitate desquamation they have a warm bath every other day. Before leaving fresh clothes are provided, and a final bath with disinfecting soap is gone through before these clothes are put on. In the case of the Orphan Institution, a further precaution was taken; for the managers removed the orphans to a house which had been taken for that purpose, and there the children were subjected to a further week's probation, after which another bath was resorted to, and then they returned to the asylum. Notwithstanding this, however, scarlet fever reappeared amongst the inmates after the return of some of the patients who had passed through all these tests. In the case of two children who returned six weeks and a half after the commencement of their illness, the asylum nurse found desquamation going on in the soles of the feet; and these cases are believed to have originated a fresh occurrence of the disease. The committee are inclined to think that the

cases in question were instances of secondary desquamation, such as are referred to in Quain's Dictionary of Medicine and in Ziemssen's Cyclopædia, and that this desquamation was the result of a much more active use of their feet than the children could have indulged in whilst in the hospital. On the general question, we would point out that final desquamation about the heels and soles of the feet is not uncommonly postponed to a later date even than six weeks and a half from the onset of the disease, and this quite apart from secondary desquamation; but as a rule we believe that the risk attendant on this late desquamation about those parts of the foot is not by any means great. Then, again, a failure thoroughly to cleanse the head is probably a by no means unfrequent source of retained infection, the desquamation of the scalp being at times mistaken for ordinary "scurf." A further source of danger receives still less attention. When children are sent to a scarlet fever hospital, it often happens that the clothing they wore a day or two before removal is stored away, and it is only brought again into use after their return home. This clothing is often infected. More than once we have heard of patients sent to hospital early in the week whose ordinary week-day clothing has been sent for disinfection, whereas that worn on the previous Sunday, having been put away, is again brought out after convalescence, and retains sufficient infection to lead to a recurrence of scarlet fever, with which the hospital and its alleged lack of sufficient precautions are certain to be credited.

A NEW SEPTIC ORGANISM.

AT the anniversary meeting of the Royal Microscopical Society, held last week, the President, the Rev. Dr. Dallinger, gave a lucid and exhaustive description of what is believed to be a septic organism not hitherto described. The new organism first came under notice about four years ago in an exhausted maceration of codfish, which had decomposed in a broth made from rabbits. The organism is of suboval shape, and measures $\frac{1}{10000}$ in. in length by $\frac{1}{17000}$ in. in breadth; it has no fewer than six long thread-like flagella, each of which is three times as long as the body. The mode of ordinary multiplication by fission presented features of much interest, owing to the problem of the formation of the new and numerous flagella. Multiplication appears also to take place by means of spores. A kind of fusion of two individuals was observed, the movement of the organism being continued during the fusion, but gradually slackening afterwards, when the body breaks up rapidly into very minute portions. The "spores" thus formed were afterwards observed to grow up into the likeness of the parent form, and shortly after to multiply by the ordinary process of fission.

LUNATICS UNDER LOCK AND KEY.

IT will, probably, be some time yet—it may be many years—before the Legislature withdraws the power of prison keeping from non-official persons. It will be still longer, we fear, before public opinion is enlightened to the extent of being able to perceive that imprisonment, whether official or otherwise, is neither an integral part of *treatment* for mental disease nor necessary for the protection of lunatics and the community. There is, however, a minor point of policy, and, as it would seem, of common humanity, which needs to be made clear, and may be not unreasonably pressed on general attention. We allude to the practice of keeping lunatics under lock and key, even when they are already safely confined within the walls of an asylum! This practice has no better excuse than the plea of economy. It costs considerably less to lock up a person of unsound mind than to provide the patient with proper attendance. This miserable—though, unhappily, all-sufficient—argument is held to be a valid one in defence and support of the practice of locking the inmates of asylums in their rooms by night, and too often by day also. Where keys are not directly turned upon the insane in "single rooms," the doors of these apartments are so constructed that they cannot be opened from within, which practically amounts to the same thing as locking the doors outside. In the event of a fire occurring, either lunatics are burnt in their prison cells, or they are released by some courageous person, perhaps the superintendent or proprietor of the asylum, at the peril or sacrifice of his life. The practice ought to be interdicted. It is a most mischievous method of "safe-keeping" at the best, and it is not one that ought to be tolerated in view of the risks necessarily entailed upon the poor folk thus treated. It will be better to be warned in time than to wait until a great catastrophe, the culminating point of a long course of mismanagement, shall compel the discontinuance of a practice obviously as dangerous as ill-advised.

CHOLERA HOSPITALS IN BOMBAY.

AN unpleasant controversy has arisen in Bombay in connexion with the subject of the establishment of cholera hospitals in the different quarters of the town. It appears that the Government have selected for the site of one of these the compound of the European General Hospital, and to it all the natives attacked with cholera in the district are to be sent. Against this selection the committee of the hospital have entered an energetic protest, and they are supported in their objections by the Surgeon-General of the Presidency, who was absent on duty when the site was chosen. His objections, as summarised in a Government general order, are "that the locating of a cholera hospital in the immediate neighbourhood of a large general hospital would be a most unwise, and indeed dangerous, procedure; unwise, inasmuch as the introduction of a disease like cholera, which the general community regard with dread and alarm, would, from the general effect produced, act to the detriment of the interests of the hospital by deterring the class of people who frequent it from attending; and dangerous, in bringing a supposed infectious disease into the immediate vicinity of convalescents, who, it is well known, are much more susceptible to infection than others in sound health; ..... that the plan proposed is in opposition to all principles hitherto laid down for the prevention of the spread of cholera." The sanitary commissioner for the Presidency does not apprehend any risk from the adoption of the site, believing, as he does, that it is clearly established that cholera is not contagious. The Government, adopting this view, adheres to the resolution regarding this hospital. We cannot but think that this decision is ill judged. The question of the transmissibility of the disease is still unsettled, and although we believe the opinion of its non-contagious character greatly predominates, it seems matter for regret that a course based on that view should be adopted which calls forth so strong an opposition as this has done. But apart altogether from the question of contagion, it appears to us most unadvisable—nay, most unjustifiable—to erect in the compound of the European General Hospital a cholera hospital for natives. The depressing effect upon the patients in the former of the perpetual recurrence of funerals, during the prevalence, to any extent, of cholera, can scarcely be over-estimated. The only circumstance which could justify the erection of a cholera hospital in such a locality would be the impossibility of obtaining another eligible site in the district, and this, we believe, is not the case. We trust that the Government will reconsider their decision and give weight to the very serious objections which have been brought before them. It is most unfortunate that they

should have adopted, on grounds which are open to dispute, a course which cannot fail to create strong feelings of opposition on the part of an influential class in Bombay, and which will, in all probability, curtail the benefits conferred by the European Hospital, at least during the prevalence of cholera. If no other site can be obtained in the district, the Government ought to assign this as a justifiable reason for the course they have adopted; if one can be had, then, in deference to the wishes of the committee and in the interests of humanity, they should without hesitation rescind the resolution and take steps to provide the requisite accommodation in some less objectionable situation.

PAROCHIAL MEDICAL LEGISLATION IN THE UNITED STATES.

OUR readers are well aware how deeply we sympathise with the large section of the profession in the United States who wish to place medical education and examination on a satisfactory footing, and to abate the number of diploma factories. The difficulties which have to be surmounted in a young and democratic country are very great. They have an illustration in the case of the State of Pennsylvania, where a Bill has been prepared to create a "State Board of Medical Examiners and Licensers." We confess we shall not be grieved if we hear of the failure of this attempt at legislation. It provides that the governor of the State shall appoint a board of nine examiners and licensers. He is to choose seven from a list of twenty-one names submitted by the Medical Society of the State, and two from a list of six submitted by the Homœopathic Medical Society of the State. The only qualifications of the examiners are that they shall be graduates of a legally chartered college, and shall have practised five years. But they must not be members of the faculties of any such college or university. Examiners selected from practitioners not teachers will, at any rate, not be very severe or exacting in anatomy, physiology, histology, general chemistry, &c., to say nothing of pathology, therapeutics, &c. The importation of homœopaths into the examining board is a violation of the rule of all European States. We quite approve of our own rule, which protects a candidate from rejection on the ground of his medical theories; but to give homœopaths a place in an examining board is another matter. But the parochialism of the legislation reaches its climax in Section 9, which provides that after the 1st of September, 1886, no person shall practise in Pennsylvania (be he graduate of Berlin, Paris, London, Edinburgh, or New York) who has not passed the gate presided over by these nine chosen practitioners of Pennsylvania. This is the story of the three tailors of Tooley-street with a vengeance. Such a Bill is not calculated to restore European respect for medical legislation in the State of Pennsylvania.

INTEMPERATE ADVOCACY OF TEMPERANCE.

TEMPERANCE in regard to stimulant drinks, as one of the leading social questions of our day, naturally gathers round it much variety of opinion. Written and spoken disquisitions upon it are common in every town and village, and vary in their cast, though not in their foundation of fact, according as the subject is considered from a moral, a sanitary, or a political standpoint. In truth, the more we widen the area of such considerations and give to each its due place, the sooner are we likely to arrive at a practical result in the direction of drink reform. The solution of the difficulty is not to be attained by pushing any one of the several theories of amendment to an unfair degree, but rather by consolidating into one remedial force the common and necessary points in which all agree. Our own view we may describe as a temperate and even an abstinent one. It does not at all ignore the great moral evil which has attended the ready and regular consumption of alcohol as a beverage, nor does it fail to observe and advocate what is now a cardinal doctrine in the hygiene of temperance—the uselessness for any good, and the frequent injury, which arises from the habitual use of stimulants by the sound in health who need no stimulation. But having said thus much, we have reached the limit which reason and fairness impose. The conditions of disease and allied states of physical exhaustion afford many instances in which we can alone rely, for the furtherance of nutrition or the support of flagging power at some crisis, on a stimulant, and it must also be admitted that at times the alcoholic form is preferable to any other. This view of the question is the one which has for long commended itself to the judgment of the medical profession, as well as probably to that of many others, not professionally interested, who have sought to guide their decision by the light of experimental and practical proofs. When, therefore we read of statements being made by extreme advocates of so-called temperance, to the effect that medical men prescribe stimulants in order to increase their practice—that is, to generate disease; that under no possible circumstances should alcohol be taken internally; and that an increasing general death-rate is the gauge of our retrogression into drunkenness, as was lately stated by Dr. J. H. Aldridge—we are bound to protest against a perversion of fair argument, which can in no case be relied upon to support any principle, however good in itself. The nature of active temperance is to do enough. If this is recognised we need place no check upon the zeal of its advocates. No real advance, on the other hand, can be expected from the teaching of those who show in their own arguments and acts the absence of that restraint which they inculcate on others in respect of alcohol.

REPRESENTATION OF THE ROYAL UNIVERSITY OF IRELAND IN PARLIAMENT.

A MEETING of graduates of the Royal University of Ireland was held on Tuesday last, presided over by Dr. Lyons, M.P., to consider the claim of the University to representation in Parliament. Resolutions were adopted to the effect that the meeting desired to express in the strongest manner its opinion that the claim of the University to Parliamentary representation should not be ignored in the Redistribution Scheme now before the House, and that a deputation should be appointed to bring the question before the Government and the Legislature. The deputation will include Drs. Charles F. Knight, Robert D. Lyons, M.P., J. Wilson, and Sir William Mac Cormac.

DR. BRADLEY'S CASE.

THE investigations made by Mr. Rice furnish strong collateral evidence of the extreme improbability, if not the absolute impossibility, of the occurrences deposed to by the prosecutrix at the assizes. It passes our comprehension on what grounds the jury convicted, if the facts related in Mr. Rice's letter were substantially put before them. We have already commented on the inconsistency of the verdict; for clearly, if the woman's evidence was trustworthy, Dr. Bradley was guilty of a far graver crime than that for which he was sentenced to two years' hard labour. Nor can it be reasonably doubted, had the Lord Chief Justice, who tried the case, been informed of the fact, on high medical authority, that confirmed epileptics are often subject during their seizures to sensations of an erotic character, he would have viewed the whole affair with even greater incredulity than he gave expression to before the grand jury. With all submission, we contend that his lordship failed to put the correct interpretation on

Dr. Bradley's alleged conduct when he concluded that the loosening of the dress about the neck, and the sending away of the patient soon after the supposed fit, were facts supporting the theory of criminal assault. Judges are not infallible, nor can they be expected to be conversant with all the details of treatment in common usage of any and every condition which medical men are called upon to attend. The case, as it stands, is so entirely unsatisfactory, that it is not only advisable, but necessary, in the interest of justice, that it should be reopened. The Home Secretary can scarcely fail to order a commission of inquiry when the largely and influentially signed petition is laid before him. Since writing the above, we have received copies of memorials to the Home Secretary, from a large number of medical men in Nottingham, Chesterfield, and the adjoining districts, including the staffs of the public medical institutions in Nottingham and Chesterfield.

THE ELECTION OF HOUSE-SURGEON AT THE DONCASTER INFIRMARY.

WE learn that the recent election of a gentleman to fill the office of House-Surgeon to the Doncaster Infirmary and Dispensary was the occasion of a slight misunderstanding between the medical staff of the institution and some of the governors. It appears that the applications and testimonials of the thirty-eight candidates for the post were submitted to the staff for them to determine the question of eligibility for the office. But in their report the Medical Committee selected one gentleman as the candidate to be recommended to the governors for election. This appears to have given umbrage to some of the lay governors, and at the vote subsequently taken another gentleman was elected. We have nothing to say on this question as to whether the Medical Committee went beyond its privileges as detailed in the rules of the institution. But the general question is of wide interest. It appears to us that it is of the very highest importance to the prosperity of a hospital or infirmary that the resident medical officers who have to carry out the wishes of the visiting medical staff should possess the thorough confidence of the individual members of that body, and should realise to the full their responsibility to them, and look to them for support and approval. And therefore it is always found to conduce most to the harmony of these institutions to leave it to the staff to recommend to the Board or Governors generally the candidate they feel to be most acceptable to them. The staff are also able to judge best between the professional claims of rival candidates. When other modes of election are resorted to canvassing becomes necessary, and it is vain to hope that merit will always receive its just reward.

OUTBREAK OF TYPHUS IN CAMBERWELL.

UNDER the influence of increased sanitary energy and of improved sanitary organisation, typhus is becoming a rare disease in most of our large towns. After making due allowance for the improvement in the diagnosis of "fevers," the deaths referred to typhus have rapidly declined in recent years. In London, for instance, the deaths attributed to this cause have steadily declined from 716 in 1869, to 31 in 1884. There is, moreover, good ground for believing that of these thirty-one a considerable proportion were not cases of true typhus. Only thirty cases of typhus were admitted to the metropolitan asylum hospitals during last year, of which six terminated fatally. By the light of these figures the fact reported in the Registrar-General's last weekly return, that nineteen cases of typhus were admitted to these hospitals during the last week, is particularly noteworthy, more especially as the whole of them were admitted from Camberwell. It appears that a remarkable outbreak of typhus has occurred in that part of the Camberwell district known as New Peckham, as thirteen of the nineteen cases were admitted from Bexley-place, Bexley-alley, Downes-street, and Lower Park-road. In connexion with this outbreak, it may be noted that in the latter part of December a fatal case of typhus occurred in one of the metropolitan asylum hospitals that had been admitted from Verney-flats, Rotherhithe New-road, also situated in New Peckham, close to the locality of the present outbreak. The occurrence of this case should have been a warning to the local sanitary authority, which, however, would appear not to have been correctly informed as to the nature of the outbreak, as we believe that the recent cases, or at any rate a considerable number of them, were admitted to hospital as enteric fever cases.

"A WORD OF WARNING TO OXFORD MEN.

A CORRESPONDENT of the *Pall Mall Gazette*, signing himself "B.A.," has been a little too hasty in giving a "word of warning to Oxford men" upon the proposal that the University should recognise the final examination for medical diplomas of the two London Colleges as equivalent to passing an examination in precisely the same subjects and on precisely the same lines at Oxford. There is not the slightest intention to throw open the doors of the University to all holders of these diplomas; the Oxford graduates will still be required to fulfil the present University curriculum, and none but they will be enabled to present themselves for its medical degrees. As a matter of convenience, and of common sense, such graduates, who at the present time spend at least two years in acquiring clinical knowledge at the London hospitals, ending in the examinations of the London Royal Colleges, will pursue this course in future; but they will, supposing the scheme receive the sanction of Convocation, be exempt from the burden of submitting to two examinations on the same subjects. In order, however, that the University may establish its right to confer a stamp upon its graduates signifying that they have attained higher qualifications than the ordinary medical student, evidence of such higher knowledge, in the form of a thesis, will be required. The University will still conduct its purely scientific examinations, and it will remain, therefore, still true that, as "at present, no one is admitted even to the first examination for the Oxford Medical who has not taken his B.A. degree in the ordinary manner." Such is, we believe, the proposition that has so greatly alarmed the correspondent of our contemporary, and it seems to be one which will be of advantage all round.

DEATHS FROM HURRY AND EXERTION.

A FEW days since, a railway clerk, aged twenty, was found dead in a sitting posture in a second-class railway carriage when it arrived at Woolwich. At the inquest it was stated that deceased had been suffering from heart disease for two or three years, and it was supposed that he had hurried to catch the train that morning. The surgeon who made the post-mortem examination stated that the heart was enlarged. Another case of death from exertion in a man suffering from diseased heart occurred on the 11th inst. A signalman at Brixton railway station, while pulling one of the levers, suddenly fell backwards, and on the arrival of a surgeon was pronounced to be dead. The widow stated at the inquest that deceased had been treated for an affection of the heart for some time. In this case there does not seem to have been a post-mortem examination. Yet another death from exertion occurred on the 12th inst. A young lady, aged sixteen, expired suddenly in a gymnasium after performing a feat of skill. According to the medical evidence she was suffering from valvular disease of the

heart. How often has the hurry to catch a train, or some other sudden exertion, throwing extra work on a dilated, fatty, or otherwise diseased heart, resulted in fatal syncope! It is our duty to warn such patients of the risk they will run if they allow any consideration of business or convenience to tempt them to a single rash act of this kind.

KÜSSMAUL'S COMA.

THE group of symptoms which have been designated by the inexact name of "Küssmaul's coma" consists chiefly of slow and laboured respiration, rapid cardiac action, restlessness and pain, apyrexia, glycosuria, and paralytic distension of the stomach. An article containing a large amount of information on the literature of this subject has been written by Dr. Saundby in the *Birmingham Medical Review*. There seems to be no doubt that this group of symptoms may be met with in morbid states of the system unaccompanied by glycosuria. That the symptoms are caused by a poisoned condition of the blood seems most probable. It may be well to point out that two of the chief symptoms may be explained on the assumption of paralysis of the vagus nucleus. The slow and laboured respiration somewhat resembles that form of dyspnœa which is the result of section of both vagi; the acceleration of the heart's action might be attributed to the more or less complete removal of the inhibitory cardiac functions of the vagus nucleus. Whether damage of the vagus nucleus can determine paralytic distension of the intestines must remain a purely speculative question. Epigastric pain or distressing sensations about the epigastrium have been referred, in epileptic seizures, to central disturbance of the vagus paths. We have not the least bias in favour of the supposition that all the symptoms of so-called Küssmaul's coma are due to interference with the vagus nucleus, though it may be well to consider the claims of such a suggestion. Alkaloids have a selective action on many parts of the nervous system, and there is the bare possibility that Küssmaul's coma may be the work of some alkaloid having a selective action on the vagus centres.

THE ANTI-VACCINATION ACTS AT LEICESTER.

LEICESTER will one of these days be very rudely undeceived on the subject of vaccination. The accumulation of unvaccinated children is going on apace. The fool's paradise in which the defaulting parents are living is all very well till the day of small-pox comes, and then they will find how pregnant with death and disaster this disease is, from which science and beneficent legislation have provided a protection that, generously used, might be made all but absolute. Meantime it is the duty of the Legislature to take prompt measures for making the Acts more efficient.

LINCOLN WATER-SUPPLY.

THE question of the wholesomeness of the water-supply for the city of Lincoln was the subject of a lengthened discussion at the last meeting of the Town Council. The water has been under suspicion, and hence analyses have been ordered. But the Local Government Board have informed the sanitary authority that knowledge of the chemical ingredients of a water, however complete, does not suffice to form an opinion of its wholesomeness, and they have urged that examination of the several sources of supply should be made in order to ascertain what are the risks of contamination to which they may be subjected. Mr. Councillor Watkins evidently saw the importance of this examination, but a worthy alderman held a different view. Mr. Alderman Maltby declared that if he knew anything about analyses he he was satisfied that there could be no germs of disease about a water that had been pronounced by an analyst to be chemically pure. The little word *if* makes the alderman's statement an eminently safe one. But before the matter again comes under discussion we would advise the alderman to increase his knowledge of the subject by reading the report to which the Local Government Board has drawn the attention of the Council, and he will there find that a water to which a filtrate of typhoid excrement had been deliberately added was found, in the hands of a leading analytical chemist, to give results which would have enabled him to class it as one of organic purity. "Polluting material, potent for harm," according to that report, "may be present in a water..... without removing it from the rank of waters" classed by the chemist in question as of "extraordinary organic purity."

UNIVERSITY COLLEGE HOSPITAL.

SOME changes are about to occur in the surgical staff of University College Hospital. The chair of Surgery at the College and the post of Surgeon to the hospital are vacant by the resignation of Professor J. Marshall, F.R.S. The post of anæsthetist to the hospital, which has been vacant since the death of Mr. Clover, has recently been filled by the election of Dr. Dudley W. Buxton to the office.

THE INSPECTION OF PARIS HOTELS.

THE Paris Prefect of Police, M. Camescasse, has just issued a decree reorganising the service for the inspection of lodging-houses, hotels, &c. There are to be six inspectors and four assistant inspectors, who will divide Paris between them into ten districts. They will visit every hotel or lodging-house at least once a year; but all new establishments of this description must be inspected within five days of their first opening. On the outbreak of any contagious disease, the inspector of the district must at once examine the place and report whether any special measures are necessary. To this ordinance we would object—first, that the number of inspectors for such an immense town as Paris is altogether insufficient; and, secondly, that a large portion of the more unwholesome lodgings of Paris have already been visited by the Commission des Logements Insalubres. Eloquent reports have been issued by Dr. Dumesnil and other members of this commission; but, broadly speaking, nothing has been done. If the appointment of a new body of inspectors can infuse fresh energy into the minds of the superior authorities, then some good will result, otherwise we fear that the new decree of the Prefect of Police will only tend to engender a sense of false security.

COLLECTIVE INVESTIGATION OF DISEASE.

THE Medical Society of the State of Pennsylvania have formed a committee to carry into effect a scheme of collective investigation, on the same lines as that initiated by the British Medical Association. Cards upon acute pneumonia, chorea, and acute rheumatism, drawn up precisely like those of the latter Association, have been circulated, with the request that returns be made not later than the 1st day of April, 1885, in order that reports may be compiled for presentation to the annual meeting of the Society in May. The committee point out that by adopting the British method without alteration it has secured the advantages of uniformity, and thus enabled the scheme to have an international application. In Germany the first report of the Collective Investigation Committee dealing with tuberculosis has been published in the *Zeitschrift für Klin. Medicin*, Bd. 8, Heft 6. The inquiry embraced a very wide field, and only about two hundred replies were received, several of which had to be rejected owing to their incompleteness. It is not considered that the results as yet obtained embrace a sufficiently large number to draw any very definite conclusions therefrom.

THE CHEAPNESS OF QUININE.

QUININE is said to be cheaper almost than it has ever been. Few facts are more important to mankind, next to the price of wheat and meat. In our temperate climate the price of quinine is of less interest than in hot climates and marshy regions. Yet with us how large is the scale of its use, and how specific the benefits which it confers in neuralgia, in puerperal and other pyrexiæ, in rheumatic fever, and in debility of all kinds. But in tropical countries, and especially for Europeans in these, it is almost essential to the preservation of life. In these days of Suez and Panama Canals, of African exploration and colonisation, and of Nile expeditions, the cheapness of quinine is of pleasant and prodigious consequence. It would be very instructive if there were attached to all these undertakings a subordinate of the Registrar-General. We should then know on what a scale life is sacrificed where quinine is withheld, and how unequal is the risk to the rich man who has the quinine and the poor man who has it not. With the growing cheapness of quinine there will be less excuse for this discrepancy in the future.

SMALL-POX IN THE METROPOLIS.

SMALL-POX has made further progress in the metropolis during the past fortnight, and the managers of the Asylums Board have in consequence addressed the various boards of guardians, urging upon them to make house-to-house visitations with a view of securing the vaccination of children whose primary vaccination has been neglected, and the revaccination of others.

THE BOWER AND KEATES FUND.

As inquiries have been made in regard to the settlement of this fund, the honorary secretary (Dr. R. W. Burnet) desires us to state that the plaintiffs having obtained motion for a new trial, and having as yet taken no further action in the matter, the committee cannot issue a statement until the case is finally settled.

A STATEMENT has been published of the numbers and nationality of the medical practitioners who have recently attended the special courses held by Dr. Koch at the Imperial Board of Health, from September to January, upon the methods of investigation employed in cholera research. Eleven courses were given, consisting of about ten days each, and the total number of those sharing in them was 191. The large majority were from various parts of Germany, but the list includes twenty foreign practitioners—from Austro-Hungary, Russia, Great Britain, Italy, Spain, Sweden, Luxemburg, North America, and Australia.

THE death of Dr. Edwin Samuel Gaillard, the proprietor and editor of *Gaillard's Medical Journal*, is announced as having occurred at his home in Ocean Beach, N.J., on the 2nd inst. Dr. Gaillard was born in 1827, graduated from the South Carolina Medical College in 1854, and, after practising in Florida and New York, joined in 1861 the Confederate army, following until the close of the war the fortunes of the South. At the close of the war Dr. Gaillard practised for three years in Richmond, moving afterwards to Louisville, and finally to New York.

WE learn from the *Bombay Gazette* that at the very last moment, and, indeed, after the official order on the subject was in print, the matter of Dr. Payne's claims to the Surgeon-Generalship of Bengal has been reopened by the Government of India.

JAMES HENRY BROOKS, M.R.C.S., L.S.A., of Mahé, Seychelles, eldest son of the veteran Dr. Brooks of Henley-on-Thames, was on the 6th inst. duly created a Knight of the Order of Pius the Ninth and received into the Society of that Knighthood by the mandate of Pope Leo XIII. This is not a religious order, but is established—as it is set forth in the decree—"to confer the highest honours and titles upon those who to the merit of science and wisdom join the habitual practice of charity."

THE *Indian Medical Gazette* prints an excellent letter from a "Correspondent on Furlough," containing some sound advice on "where and how to spend it." We would commend this to the notice of our medical brethren in Her Majesty's Indian Medical Service purposing taking furlough to Europe.

IN the legal proceedings instituted by Mr. Walter Hasker, who was confined as a lunatic in Bethlem Hospital in the autumn of 1883, against a medical man who signed a certificate, a solicitor, and Dr. Savage of Bethlem Hospital, the judges decided that Dr. Savage should permit an inspection of the case-book on behalf of the plaintiff.

THE death is announced, at the age of eighty-eight, of the Master of Downing College, Cambridge, which includes a large medical element. Professors Humphry and Latham both belonged to Downing until King's elected the former to a Fellowship.

COLONEL TALBOT, who commanded the convoy which was attacked by the Soudanese on the 13th inst., in his despatch describing the encounter especially reports upon the excellent work done by Surgeon-Major Conolly.

IN a case of tubercular meningitis supervening upon lupus Dr. Doutrelepont (*Deutsch. Med. Wochenschrift*, 1885, No. 7) reports the detection of tubercle bacilli in blood removed from the heart and jugular vein.

MR. W. K. HATCH, M.B., M.R.C.S., has been appointed to act as Medical Officer on the personal staff of his Excellency the Governor of Bombay, vice Mr. J. Findlay, M.B., C.M., appointed Surgeon to his Excellency the Viceroy.

SMALL-POX has broken out with considerable virulence at Pudsey, and a number of cases have been removed to the Bradford Fever Hospital. The disease is stated to be rife also at New Brompton.

THE appointment of Privy Councillor Köhler to the directorship of the German Imperial Board of Health in succession to Dr. Struck is announced.

DR. R. HERTWIG has been nominated Professor of Zoology at Munich, and Dr. C. Flügge has been placed on the professoriate of Göttingen University.

THE Cambridge Improvement Commissioners have arranged to have two more special reports respecting the proposed new drainage system.

DR. MÜNTER, Professor of Botany at the University of Greifswald, died on the 2nd inst., in the seventieth year of his age.

Pharmacology and Therapeutics.

THE ST. DALMAS' CHEST AND BACK PLASTERS.

THESE are perforated plasters spread on scarlet felt. There are several varieties, the most generally useful being the ordinary strengthening plaster and the plasters of belladonna and capsicum. They are useful and deserve a trial.

CINCHONIDINE AND PICROTOXINE.

The following conclusions have been arrived at by Dr. Chirone as the result of a careful series of experiments on animals with bisulphate of cinchonidine and with picrotoxine. 1. There are poisons like cinchonidine and picrotoxine which are capable of causing genuine epileptic attacks. Cinchonidine acts chiefly by irritating the cortical motor centres, and picrotoxine acts on the centres in the medulla oblongata. 2. Cinchonidine does not cause convulsion in animals from which the brain has been removed; when certain of the motor centres have been taken away the convulsions do not occur in those groups of muscles innervated by the removed centres. Picrotoxine, however, has a toxic action of a more energetic kind on the same animals. 3. The convulsions called forth by these poisons, although of an epileptiform nature, nevertheless present notable differences even in the same animal; animals are affected according to the degree of development of their nervous system, and according to special circumstances of their existence. All vertebrated animals are affected, even amphioxus. The invertebrated animals present no phenomena when treated by these agents. 4. Cinchonidine, whilst killing rabbits, does not always cause epileptic phenomena; these animals, however, do react to picrotoxine. 5. Cinchonidine does not, though picrotoxine does, cause convulsive phenomena in hibernating animals, at all events during summer. 6. In the higher mammals the convulsions of cerebral origin induced by cinchonidine always commence in the muscles of the face, and extend gradually to those of the neck, front limbs, and so forth. The convulsions due to picrotoxine generally commence with tremors of the head or of the entire body. The spasm from cinchonidine at the onset is clonic, whilst that of picrotoxine is at the outset tonic. The ocular muscles and those of the pupil and tongue take but little part in the phenomena induced by cinchonidine, whilst the reverse holds good for picrotoxine. Picrotoxine causes a cadaveric rigidity, which is seen before, and persists a long time after, death; whilst cinchonidine does not disturb the usual phenomena of post-mortem rigidity.

NAPHTHALINE IN CYSTITIS.

Naphthaline, one of the solid products of petroleum, insoluble in water, has been recommended for internal administration by Rossbach in cases of cystitis with ammoniacal urine. Dr. Cushing lately spoke of its value at a meeting of the Suffolk Medical Society (U.S.), citing a case where he had given powders containing about two grains of the drug in wafers or capsules mixed with water or flaxseed tea. Before the treatment was commenced the bladder had been washed out daily with carbolic solutions, and on the second day of the naphthaline treatment all foul odour had disappeared. Subsequently local treatment with boracic acid injections was combined with naphthaline internally. Naphthaline appears to have a most powerful antiseptic action, and Rossbach was led to its employment in cystitis by noting that it arrested fermentation of urine. The formula recommended by Rossbach is:—℞ Naphthalini puriss., sacch. alb., āā 5·00 grammes; ol. bergamottæ, ·03 gramme. M. fiat pulv. No. xx.

A SPURIOUS CUBEB.

The *Pharmaceutical Journal* states that a spurious cubeb has been recently offered in the London market. It consists of the fruit of Daphnidium cubeba, which closely resembles cubebs in general appearance. According to Loureiro, these fruits are used by the Cochin-Chinese as a nervine tonic in paralysis, vertigo, melancholia, and other nervous disorders. The fresh fruits are used for preserving fish, and hence, probably, contain some antiseptic agent. The Chinese, according to Porter Smith, use the fruits for bronchitic, dyspeptic, cystic, and choleraic affections.

CONIUM MACULATUM.

Orfila states, in his Traité de Toxicologie, that having administered large quantities of the juice of conium maculatum to a dog, he was surprised to find that no effect was produced. The root of the plant would appear, therefore, to differ from that of aconite and of belladonna in being very poor in alkaloid. M. Lepage of Gisors has worked at this subject, and confirms the statements of Orfila. The largest quantity of conicine was found in the fruit of the plant.

AUSTRIAN MEDICAL STATISTICS.

THE Austrian statisticians work very carefully and correctly, but too slowly. Only a few days ago the report of the I. a. R. Central Board for Statistics, which deals with the sanitary condition of the Austrian provinces (those which belong to Hungary excepted) in 1881, appeared. The most important data, which are of interest also for foreign physicians, are the following:—

In 1881 there were 159 public hospitals, containing 19,731 beds and 118,156 patients; and 375 private ones, containing 9436 beds and 67,477 patients. On an average, 1 per 82 inhabitants sought relief in a hospital; 53 hospitals containing 2776 beds and 37,744 patients belonged to religious orders. The largest hospital on the Continent is the I. a R. "Allgemeine Krankenhaus" (universal hospital) in Vienna, containing 20 divisions, amongst which 5 for internal medicine, 3 for surgery, 2 for syphilis, 1 for diseases of women, 1 for diseases of the eye, 1 for chest diseases, 1 for cutaneous diseases, 1 for mental debilities; further, the division of the Union for the protection of sick students "(Studentenkrankenverein,") and 2 divisions, 1 for internal and 1 for external medicine, for well-to-do people. These divisions are managed by 13 chief physicians and 39 assistants. This hospital possesses, besides these divisions, 13 clinics viz., 2 for internal medicine, 2 for surgery, 2 for ophthalmology, 2 for gynæcology, 1 for syphilis, 1 for dermatology, 1 for laryngology, 1 for otiatria, and 1 for mental debilities. On an average 25,000 patients are yearly treated in this institution.

The number of lunatic asylums amounted to 27, of which 22 are public and 5 private, containing 7002 beds and 9694 patients. Of these patients 646 that is, 6·7 per cent.—were cured; 1692 (17·4 per cent.) were dismissed still insane or transferred to another hospital; and 1237 (12·8 per cent.) died; so that at the end of the year 6119 (63·1 per cent.) remained under treatment.

	Males.		Females.	
Unmarried	32·0	per cent.	24·1	per cent.
Married	20·8	„	15·6	„
Widowed	2·2	„	5·3	„
Total	55	„	45	„

On an average, out of 100,000 inhabitants 42 were insane, inferring from those who were treated in these asylums. As to the age of the insane, the official statistics show the following figures:—

Under 10 years	0·2 per cent.
Between 10 and 15 years	0·8 „
„ 15 „ 20 „	5·1 „
From 20 to 25 „	9·8 „
„ 25 „ 30 „	13·1 „
„ 30 „ 40 „	29·4 „
„ 40 „ 45 „	13·5 „
„ 45 „ 50 „	10·5 „
„ 50 „ 55 „	7·3 „
Insane aged over 55 „	10·3 „
Total	100·0

As to creed:—

91·1 per cent.	Roman Catholics.
1·9 „	Protestants.
0·4 „	Greek Oriental.
6·6 „	Jews.

Outside of the asylums the insane numbered at the end of 1881 (only in the Austrian provinces) 20,001—that is, 91 per 100,000 inhabitants.

The number of cretins amounted to 15,151—that is, 69 per 100,000 inhabitants. In the Alps, especially in Carinthia, their number increased enormously—for instance, in the district of Murau the proportion of cretins to the population was 1078 to 100,000.

Eighteen public lying-in institutions existed, with 1486

beds, 17,483 mothers, and 16,165 children, whereof 127 mothers, or 0·72 per cent., and 1013 children, or 6·27 per cent., died; 15,987 births were registered; out of 1000 deliveries 13·3 were twin births and 0·006 triplets.

Twelve foundling hospitals existed, with 448 beds for the children and 256 beds for the wet-nurses. The children are retained in these hospitals only a short time, and then delivered to foster-parents. The rate of mortality of the children in the hospitals amounted to 6·08 per cent., whereas that of the children with foster-parents reached 12·83 per cent.

Fifteen institutions for the deaf and dumb existed, with 1284 inmates, whereof 47·7 per cent. were born deaf and dumb.

Nine establishments for the education of blind people existed, with 476 inmates at the beginning and 445 at the end of the year, whereof 14·6 per cent. were born blind, 79·2 per cent. became blind through diseases, and 6·2 per cent. through accident.

In fourteen institutions for vaccination 11,835 lancets impregnated with vaccine matter and 11,627 phials were sold.

Austria possesses 206 bathing places, which were visited by 106,087 persons. The Tyrol has the greatest number of bathing places—namely, 80; whereas the Bohemian places (22) had the greatest number of visitors—namely, 69,016.

The number of physicians amounted to 7427 (4766 doctors and 2661 surgeons, who, in Austria, rank lower than the doctors). On an average, there is one physician to every 2500 inhabitants; but in Galicia there is one to every 7209 inhabitants; whilst in the towns—for instance, in Innsbruck one to 390, and in Vienna one to 639 inhabitants. The number of midwives amounted to 16,298—one midwife for every 1348 inhabitants.

Per 100,000 inhabitants, 3164 (3·164 per cent.) died. The highest rate of mortality was registered in Bukowina, 3·764 per cent.; the next highest rate in Galicia, 3·653 per cent.; the lowest rates in Dalmatia, 2·137 per cent., and in the Tyrol, 2·455 per cent. Per 100,000 male inhabitants 3387 died, whilst from an equal number of female inhabitants only 2953 died. The proportion of male self-murderers to female is 4½ to 1.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 6352 births and 3571 deaths were registered during the week ending the 14th inst. The births exceeded by 538, while the deaths were 56 below, the average weekly numbers during 1884. The annual death-rate in these towns, which had been equal to 24·5 and 21·8 per 1000 in the preceding two weeks, further declined last week to 20·9. During the first six weeks of the current quarter the death-rate in these towns averaged 23·4 per 1000, against 24·7, the mean rate in the corresponding periods of the five years 1880-84. The lowest death-rates in these towns last week were 13·5 in Birkenhead, 15·1 in Salford and in Derby, and 16·8 in Brighton. The rates in the other towns ranged upwards to 27·5 in Norwich, 31·2 in Preston, 32·3 in Cardiff, and 32·5 in Sunderland. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 398, against 397 and 356 in the preceding two weeks; they included 112 from whooping-cough, 91 from measles, 53 from scarlet fever, 41 from "fever" (principally enteric), 40 from small-pox, 35 from diphtheria, and 26 from diarrhœa. No death from any of these zymotic diseases were recorded last week either in Brighton or in Plymouth; whereas they caused the highest death-rates in Norwich, Cardiff, and Sunderland. The highest death-rates from whooping-cough occurred in Preston and Nottingham; from measles in Cardiff, Huddersfield, and Sunderland; from scarlet fever in Leicester and Preston; and from "fever" in Norwich. The 35 deaths from diphtheria in the twenty-eight towns included 16 in London, 9 in Liverpool, and 2 in Nottingham. Small-pox caused 57 deaths in London and its outer ring of suburban districts, 3 in Birmingham, 2 in Sheffield, and 1 in Liverpool. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had been 1146 and 1144 on the preceding two Saturdays, had risen to 1223 at the end of last week; a higher number than has been under treatment since July last; the cases admitted last week were 255, against 287, 253, and 223 in the preceding three weeks. The Highgate Small-pox Hospital contained 96 patients on Saturday last, 29 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 556 and 421 in the preceding two weeks, further declined to 383 last week, and were no fewer than 238 below the corrected weekly average. The causes of 84, or 2·1 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Leicester, Salford, and in six other smaller towns. The largest proportions of uncertified deaths were registered in Oldham, Preston, Derby, Halifax, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 30·2 and 26·6 per 1000 in the preceding two weeks, further declined to 25·0 in the week ending the 14th inst., but exceeded by no less than 4·1 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 15·8 and 16·6 in Edinburgh and Perth, to 26·8 in Greenock, 28·0 in Dundee, and 29·6 in Glasgow. The 609 deaths in the eight towns included 29 which were referred to whooping-cough, 25 to measles, 13 to diarrhœa, 12 to scarlet fever, 10 to "fever" (typhus, enteric, or simple), 6 to diphtheria, and not one to small-pox; in all, 95 deaths resulted from these principal zymotic diseases, against 98 and 92 in the preceding two weeks. These 95 deaths were equal to an annual rate of 3·9 per 1000, which was 1·6 above the mean rate from the same diseases in the twenty-eight English towns. The 29 deaths from whooping-cough showed a decline of 5 from the number in the previous week, and included 7 in Glasgow, 5 in Dundee, 5 in Leith, and 4 in Greenock. The 25 fatal cases of measles showed a further increase upon recent weekly numbers; 17 occurred in Glasgow, 5 in Dundee, and 3 in Aberdeen. The 13 deaths attributed to diarrhœa showed an increase of 3 upon the number in the previous week, and were 3 above the number in the corresponding week of last year. Ten of the 12 deaths from scarlet fever, and 7 of the 10 referred to "fever," occurred in Glasgow. The 6 fatal cases of diphtheria were fewer than those in the previous two weeks, and included 3 in Glasgow and 2 in Dundee. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 214 and 189 in the previous two weeks, further declined to 152 last week, but were 43 above the number returned in the corresponding week of last year. The causes of 80, or 13 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 31·9, 35·5, and 36·2 per 1000 in the preceding three weeks, was 34·9 in the week ending the 14th inst. During the first six weeks of the current quarter the death-rate in the city averaged no less 33·5 per 1000, the mean rate during the same period not exceeding 22·6 in London and 21·6 in Edinburgh. The 236 deaths in Dublin last week showed a decline of 9 from the number returned in the previous week, and included 20 which were referred to the principal zymotic diseases, against 23, 22, and 18 in the previous three weeks. Of these 20 deaths, 10 resulted from measles, 4 from "fever," 3 from scarlet fever, 2 from whooping-cough, 1 from diarrhœa, and not one either from small-pox or diphtheria. These 20 deaths were equal to an annual death-rate of 3·0 per 1000. The rate from these diseases last week was equal to 2·1 in London and 1·7 in Edinburgh. The fatal cases of measles in Dublin, which had been 3 and 5 in the preceding two weeks, rose to 10 last week. The deaths from "fever" (typhus, enteric, or simple) corresponded with the number in the previous week, while the fatal cases of scarlet fever showed a decline. Three inquest cases and two deaths from violence were registered within the city; and 76, or nearly a third, of the deaths were recorded in public institutions. The 46 deaths of infants exceeded the number in any previous week of this year, while those of elderly persons had declined. The causes of 35, or nearly 15 per cent., of the deaths in the city last week were not certified.

Correspondence.

"Audi alteram partem."

EPIDEMIC INFLUENZA.

To the Editor of THE LANCET.

SIR,—It seems not improbable that England during the coming months may be again visited by epidemic influenza. There are rumours of curious chest attacks, which have affected households with fatal severity. I have heard these illnesses described as epidemic pneumonia; evidently the disease is of a highly contagious character. Within my own knowledge are four families suffering from such contagious chest trouble; and within the past few days I have had another family under my own care, in which the disease assumed such peculiarities as to lead me to infer that I had to deal with true influenza. The facts of the case are as follows:—

On the morning of Saturday, the 31st ult., I was asked to see a child aged fourteen. I learned that on the previous day there had been no indication of illness. The child had gone to bed fairly well, but had passed an extremely feverish, restless night. I first saw my patient at 9 A.M., the symptoms being those of high fever, with a temperature of 103·5°; breathing very rapid and shallow, about 60 to the minute; pulse 140. I could detect no changes in the chest sufficient to account for these grave symptoms, and as far as I could ascertain all the other organs were healthy. I have seen such conditions precede a severe catarrh in children of a neurotic type, and I thought probably such was the case before me. In the evening of the same day, at 5 P.M., all the symptoms were intensified; but in addition there were symptoms of acute fully developed bronchitis, the most extraordinary point being that the expectoration was both copious and purulent, such an expectoration as would be seen after several days of sharp bronchitis. The pulse was still as rapid as in the morning, the breathing more so. The temperature was now 105·5°, the cough incessant, and the tongue covered with thick creamy fur. There was great prostration, but no delirium, the mind being perfectly clear. Physical examination of the chest discovered almost universal bronchitis of the large and small tubes. I should describe it as being more patchy or lobular than is usual; if it had not been so, I fail to see how respiration could have been carried on. During the day two other children in the same house had been seized with a similar attack, though in a less intense form, the extreme fever being perhaps the most marked symptom. On the following morning—that is, within thirty-six hours of the commencement of the attack—in the case of the first child the storm had completely passed. The bronchial irritation had continued until about midnight, when it almost suddenly ceased. The child fell asleep, and passed a good night. At the time of my visit the pulse and temperature were normal, the breathing tranquil, and I could scarcely detect a râle in the chest, a heavily coated tongue, great prostration, and complete loss of appetite being all the traces left of the attack. With the other two children the bronchial attack was not so severe. But in the case of one it was marked and peculiar with regard to its rapid accession and its rapid decline, all stages of acute bronchitis being passed within a few hours, thirty at the most. On the third day one of the children was much troubled with severe earache, which is one of the common sequelæ of influenza. I should also add that during this short illness a dog in the house had an attack of marked bronchial character, and apparently of the same type as that seen in the children.

It is now so many years since England was visited by epidemic influenza, that it would be well for practitioners to be on their guard against its possible advent; the mortality during its last occurrence was terrible. Ten years ago I had a family under my care, and at that time I regarded their highly mysterious illness as caused by influenza. Subsequent knowledge leaves no doubt on my mind that it was a sporadic form. A family of seven children were suddenly struck down by simple continued fever, in each case complicated by some form of chest trouble of a catarrhal character. The fever in each case ran high, and in two the bronchitis was most severe, though not so severe as in the case I have related above. The acute stage passed rapidly off, and was followed in each case by earache, and left that peculiar prostration which I have always understood to characterise true influenza. It is a prostration which reminds one of that following diphtheria, and which suggests a neurotic origin, probably through some poison affecting the pneumogastric. The enfeeblement which follows diphtheria has no direct connexion with the extent of throat trouble, a very slight throat affection being often succeeded by prolonged prostration. As with epidemic influenza, a slight attack may leave the patient miserably weak.

One word as to treatment. I presume no physician of the present day would care to follow the advice laid down by our older writers. The lancet and calomel must be replaced by quinine, brandy, and good nourishing soups. The pyrexia can be at least assuaged by judicious sponging. Under some such treatment, we may trust that, should this formidable enemy again attack us, the mortality will show a marked improvement over that of the last great epidemic, so graphically described by Sir Thomas Watson in his lectures.

I am, Sir, obediently yours,

DONALD W. CHARLES HOOD.

Green-street, Park-lane, February, 1885.

CONGENITAL DISLOCATION OF THE HIP.

To the Editor of THE LANCET.

SIR,—I am reminded of the fable of the wolf and the lamb when Dr. Bennett complains that I have attacked him. I was under the impression that he had attacked me, and that his attack was neither polite nor measured. He introduced my name nine times, misspelt, into his address, and evidently thought that he had, wolf-like, given me the *coup de grâce* when he uttered the words "falls to the ground." Also, he complains that I have perverted ("twisted") his description of the pathological wasting of the gluteus; that I have attributed "nonsense" to him, and have put into his mouth "absurd statements." But I have merely used his own words, and the conclusion is that which naturally arises out of them. He thinks that I have overlooked the word "almost," but he will find that I have quoted him exactly. With your permission I will transcribe the paragraph which he complains that I have mutilated. It runs thus: "The next of the series of theories was that of Ammon namely, that it was due to arrest of development. That theory naturally suggested itself first, and in dissecting the specimens I have kept it prominently before me, but I see no evidence of arrest of development as the cause of dislocation. The epiphyses and the shaft of the femur are normal, except so far as they have suffered from the effects of the dislocation. The most important theory was that of Guérin, that during fœtal existence some irregularity of nerve action occurred, and the muscles in particular groups became affected for the time spasmodically. Whatever the change was, whether spasmodic action of muscle or simple disorganisation of muscle of any kind, it was followed by retraction of the muscle, and that retraction caused the displacement. In my own cases I have been struck with the destruction of the fibres of the gluteus maximus muscle—indeed, they had almost disappeared in places." Which, being explained and reduced to few words, means this: There is no arrest of development, but retraction following intra-uterine spasm caused displacement of the head of the femur and destruction of the fibres of the gluteus. If there is any other meaning attaching to it, perhaps Dr. Bennett will say how he understands it. He thinks that I overlooked the fact that he exhibited four examples dissected and preserved by Harrison, as well as two of his own. In this address the numbers of specimens are not given, and no single one is described. Notwithstanding his dissections, Dr. Bennett does not formulate a theory; but he has come to a wrong conclusion—namely, that every recorded dissection reveals facts identical with those seen in Hutton's case. He is grand at fault-finding, and scolds, all round; and yet he can only avow his ignorance of the subject.

Dr. Bennett assumes too much; he assumes that I have not made any dissections. Both I and others have made dissections, and some of them are published, and my paper was based on them. Further, he exhibits considerable credulity. Hutton's case is not one of congenital dislocation; but if it were, who would believe that the position of

the displaced head of the femur in a partially paralysed idiot of thirty-one years could be similar to that observed in a young and healthy child, and who would think it fair to draw a comparison between cases so dissimilar, or who would think that "*the true position of the head of the femur*" could be learnt from such a case except Dr. Bennett? It is impossible to discuss the subject on such grounds.

I am, Sir, your obedient servant,

Grosvenor-street, Feb. 14th, 1885. B. E. BRODHURST.

THE DYNAMITE EXPLOSION IN WESTMINSTER HALL.

To the Editor of THE LANCET.

SIR,—The professional interest attaching to the results of injury by explosives induces me to offer the following facts for your acceptance and publication. It is already well known how terrible were the injuries sustained by the two police constables Coles and Cox, at present under care in the Westminster Hospital—in the fearless exercise of their duty; and it cannot fail to excite the most general satisfaction that the lives of these brave men should have been spared.

My present purpose is to communicate some details respecting the serious injuries received by Mr. Edwin Green, the civil engineer, whose miraculous escape exceeds all natural expectation; indeed, the shattered condition of his hat and clothes can alone convey any adequate idea of the danger he survived.

At the request of the secretary of the Imperial Union Accident Assurance Company (in which office Mr. Green was insured) I visited him on the 30th ult., at his office in Abingdon-street, Westminster. Mr. Whitney, of Great Cumberland-street, had been in professional attendance since the date of the explosion; and, as the report with which I have been courteously favoured by this gentleman is so complete and descriptive, I may be permitted to include it *verbatim* as under:

"I was called to see Mr. Green, at 24, Abingdon-street, on the afternoon of Saturday, the 24th ult., whither he had been conveyed from Westminster Hall a few minutes previously, directly after the dynamite explosion. Prior to the explosion he was standing close to the spot where it took place, fell, and was taken up in a perfectly unconscious state. He was then removed to Abingdon-street. I found him with partially restored consciousness, but with his mind clouded and bewildered, lying on a bed, with little or no power of movement. There were at this time loss of vision, deafness, and bleeding from the right ear. The entire nervous system had evidently suffered a serious and severe concussion. The skin of the face had a curious appearance, not as if covered with fine dust, but of being absolutely dyed with dirt. Half the crown of the hat had been blown away by the explosion, and the clothes very much torn. On opening the front of the shirt the chest and epigastric region presented a large grazed and bruised surface marked with blood, as if a violent blow had been struck by some hard body of considerable size. In a few minutes the patient felt sick and vomited a large quantity of dark, clotted blood, mixed with portions of food. These vomits were repeated at intervals of a few minutes, still in considerable quantities, and then followed coughing and spitting of bright-red, frothy blood from the bronchial tubes and lungs. This hæmorrhage was a source of much anxiety, but, by a constant supply of ice and the administration of lead, was gradually subdued. It has not recurred. With the aid of a good constitution, unremitting care, and excellent nursing, he has made gradual and steady progress towards recovery. The disturbed functions are all steadily improving, the damaged visual and locomotive powers being last in the train of recovering organs. But vision, though improving, is yet wholly unfit for practical and professional purposes.

Feb. 5th, 1885. W. A. WHITNEY, M.R.C.S.

Mr. Whitney, in a subsequent letter, says: "I was forcibly struck with the apparent power of the lead in arresting the hæmorrhage; and I may add (which I did not mention in the report) that the administration of Easton's syrup from the date of Jan. 31st has been as obviously beneficial in helping to restore the locomotive power and to remove the paralysing effects of the nervous concussion."

In the last report, dated Feb. 14th, I was gratified to hear that "Mr. Green went home on Tuesday last, and is going on capitally."

Further comment by me is unnecessary.

I remain, Sir, yours faithfully,

J. HERBERT STOWERS, M.D.

Finsbury-circus, E.C., Feb. 1885.

THE CASE OF DR. DAVID BRADLEY.

To the Editor of THE LANCET.

SIR,—I have pleasure in informing you that I have been able to secure 166 signatures, of practitioners resident in Birmingham, to a memorial to be presented to the Home Secretary in favour of a reconsideration of the verdict in Dr. Bradley's case. At the Birmingham Midland Counties Branch of the British Medical Association held last Thursday, the following resolution was proposed by myself, seconded by Dr. E. B. Whitcombe, Superintendent of the Borough Asylum, and unanimously carried:—

"That this meeting having heard a statement of the case of Dr. David Bradley, recently convicted of felonious assault at the Leicester Assizes, desires to express its opinion that the case is eminently one in which a reconsideration of the verdict of the jury is demanded. This opinion is based upon a consideration of the following facts: First, that the complainant has been admittedly the subject of epileptic fits since childhood; secondly, that such persons are specially liable to be subject to erotic delusions during and after a seizure. It is therefore of the utmost importance that the corroborative evidence in such a case should be decisive, whereas in the case of Dr. Bradley it seems to be singularly defective." I am, Sir, yours truly,

The Crescent, Birmingham, Feb. 16th, 1885. LAWSON TAIT.

To the Editor of THE LANCET.

SIR,—Having been at Leicester Assizes in November last, and heard the whole of the evidence given in the above case, I shall be glad if you will allow me a small space in your journal to give you the result of some investigations I have made at the house on Whittington Moor, where the offence was alleged to have taken place. I went over there on the 14th inst., accompanied by Mr. Reginald Naylor, an architect of this town, who has kindly taken a plan of the rooms, which can be produced at any future investigation if necessary. The house is situated about the centre of a terrace of small dwellings, and has its front entrance opening *direct* into a parlour, which is 12 ft. square, and has a low bay window. This room was used by Dr. Bradley as a branch surgery, and here it is alleged the offence was committed. It is divided from the kitchen by a space of 2 ft. 8 in., containing the staircase. Between the parlour and kitchen are two badly fitting 1½ in. doors, with panels about ¾ in. thick. With both of these doors fastened we were able to hear conversation going on in the kitchen, and also the rattling of knives and forks whilst the inmates were at dinner. The parlour is separated from the cellar beneath by a plain one-inch boarded floor resting on joists, and conversation going on in the parlour could be distinctly heard in the cellar. During the whole of the time that Dr. Bradley and the prosecutrix were in the parlour together the woman who occupied the house was either in the kitchen or cellar, and yet she heard none of the screaming. The woman's husband was ill in bed in the room immediately over the parlour, where the voices of anyone in ordinary conversation can be distinctly heard, and yet he heard no screaming. Two women were about three yards from the front door, which was proved at the trial to be about one foot open, and yet *they heard no sound*. With the front door shut I was able to hear distinctly a child across the street playing with a shuttlecock and battledore. The architect admitted that he never saw such flimsily-built houses, and that any screaming must have been heard in the houses on either side, in the cellar below, and the bedroom above the parlour.

In conclusion, allow me to say that I know nothing of Dr. Bradley, and never saw him until he was in the dock.

I am, Sir, yours faithfully,

Friar Gate, Derby, Feb. 1885. GEORGE RICE, M.R.C.S.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

To the Editor of THE LANCET.

SIR,—I should be much obliged by your allowing me to correct an erroneous statement in THE LANCET of last week, in the report of the discussion on Mr. Davy's paper at the Medical and Chirurgical Society on "The Radical Cure of Club-foot" by osteotomy—i.e., the removal of a large wedge of bone from the tarsus. I am reported to have said that "Mr. Lund's operation"—removal of the astragalus—"interfered with the movements of the ankle-joint." What I did say was that Mr. Lund's operation dealt only with the ankle-joint, but free motion at this joint was obtained by removal of the astragalus; and at the present time, in the case operated upon by Mr. Lund ten years ago free motion still exists. Mr. Davy's operation dealt only with the transverse tarsal joint, leaving the ankle-joint, in severe cases, in a state of immobility with an elevated os calcis. Treatment should be directed against both these great centres of motion, which are of equal importance in the production and cure of the deformity. I am, Sir, yours obediently,

Henrietta-street, W., Feb. 17th, 1885. WM. ADAMS.

BIRMINGHAM.

(From our own Correspondent.)

THE GENERAL HOSPITAL.

THE annual meeting of the governors of this hospital was held on the 18th inst., when the committee presented their 105th annual report, with a statement of the receipts and expenditure for the year ending Dec. 31st, 1884. From the tables given it is seen that the large number of 47,560 patients were treated at the hospital in the year 1884, 3451 of these being in-patients; and of the total number 31,302 were free cases, attended to without tickets. The ordinary income of the year exceeded that of 1883 by £528. Of this excess £200 was due to an increased subscription list, a fact which, considering the general depression in trade, shows the high estimation in which the charity is held. The ordinary expenditure was £285 less than that of the last year, chiefly owing to a decrease in the number of in-patients; but the total expenditure has been increased by the outlay of £103 in the chapel, which greatly needed renovation and repair. The general account shows that the year ends with a deficiency of £3620, which the committee trust the liberality of the public will make good. Fitting eulogies were passed to the working staff of the hospital, and the prospects for the future were predicted as being highly encouraging.

THE LYING-IN CHARITY.

The annual meeting of this charity was held on the 12th inst., and was well attended. The committee's forty-second annual report pointed out that the work done had been eminently sound, and was progressing satisfactorily, the system of attending the patients exclusively at their own homes being followed by marked success. The number of patients attended during the year was 964, against 870 in the previous year, among whom there has been only one death, from puerperal convulsions, an extremely small percentage as compared with the Registrar-General's returns of the ordinary mortality in such patients. The number of children stillborn was 33, the number of deaths of children 47. Sixteen of them occurred during the ten days that the mothers were under the charge of the midwives, and the remaining 31 happened afterwards between the ten days and the date of the midwives' last call, thirty days after delivery. The financial condition of the charity was shown to be favourable. An important work is done by its means among the necessitous poor, the tickets being much sought and highly valued by the recipients. The figures show the enormous advantage gained by attendance upon the patients at their own homes, as contrasted with the former plan of aggregation in one building, thus confirming the opinion expressed by the best authorities of the lessened risk afforded by this system.

THE DENTAL HOSPITAL.

The twenty-fifth annual report of this useful institution has just been issued. The number of patients treated in the year was 7535, against 5672 in the preceding year, the increase being due mainly to the number of cases being sent from the General Hospital. This influx, though represented by numbers, does not carry a corresponding amount of funds with it, a matter of some regret to the authorities of the hospital. Anæsthetics were administered during the year in sixty-two cases, the greater number being nitrous oxide gas, which is necessarily a costly article for general use. An appeal is made for an increase in the number of subscribers, who yield the present income of £191, while the expenditure amounted to £134.

IRELAND.

(From our own Correspondent.)

PROPOSED AMALGAMATION OF SOME OF THE DUBLIN HOSPITALS.

THE deputation which lately had an interview with Earl Spencer were divided as regarded the advisability of amalgamation, some being in favour of the scheme and others indifferent or antagonistic. Of the £15,723 annually distributed, some valuable institutions receive a very small quota; for example, St. Mark's Ophthalmic Hospital but £100, Coombe Lying-in Hospital £200, and the Hospital for Incurables £250. The Westmoreland Lock Hospital does good service for its grant of £2000, also Steevens' Hospital with £1300, and the House of Industry Hospitals with £7400, while Cork-street Fever Hospital receives £2500. If the latter institution could be amalgamated with the Hardwicke Fever Hospital, it would be a desirable proceeding. Clinical instruction, which should be a *sine qua non* in institutions of this kind, is altogether absent in Cork-street Hospital; and further, its affairs are altogether managed by a lay committee, the majority of whom seldom, if ever, attend the meetings of the Board. As regards the proposal to form another medical school, the suggestion is perfectly absurd, there being at present too many institutions of the kind in Dublin, and adding another to the number would not be a desirable proceeding. What the Government will do it is difficult to say, but they appear to be strongly in favour of the amalgamation of some of the more important institutions which receive grants from Parliament.

ROYAL UNIVERSITY OF IRELAND.

The Senate have approved of certain changes in the courses in medicine, to come into operation next year, and have reappointed for another year the following examiners: In Medicine, Stephen M. MacSwiney; in Midwifery, John A. Byrne and H. M. Jones; in Materia Medica, F. B. Quinlan and J. Seton Reid; in Medical Jurisprudence, Edmund W. Davy and Michael McHugh. The Senate have also adopted the following resolutions: "That all graduates of the University who at present hold the diploma in Obstetrics be admitted to the degree of M.A.O. upon making application and complying with certain conditions." "That after the year 1885 credit will not be given to any candidate for Botany and Zoology at the first examination in Medicine upon the ground of having passed any Arts examination in which the subjects were comprised." The diploma in Sanitary Science has been conferred upon Dr. John Roche.

ARTERIAL ANOMALY AND MALPOSITION OF RIGHT KIDNEY.

In a subject brought into the Lædwich School of Medicine, Dublin, for dissection last week, a very rare arterial anomaly was found. The right renal artery came off at the bifurcation of the abdominal aorta into the common iliacs, and passing downwards was attached to the right kidney, which lay in the pelvis behind the bladder. The organ was also of one-third the normal size, while the artery supplying it was about the size of the profunda femoris. This malposition of the kidney is an extremely rare occurrence, and therefore worth recording.

NATIONAL ORTHOPÆDIC AND CHILDREN'S HOSPITAL, DUBLIN.

It is satisfactory to learn from the ninth annual report that this institution is now out of debt and has a small balance to its credit. This happy result was due, to a great extent, to a very successful bazaar held last December. The hospital has been amalgamated with the Pitt-street

institution, the first one of its kind established in the United Kingdom in 1821, exclusively for the treatment of children's diseases. It was founded by Sir Henry Marsh and Dr. Charles Johnson, and since then the staff has included Dr. Stokes, Sir P. Crampton, Mr. Cusack, Dr. William Moore, &c. Preliminary steps are being taken to secure plans and a suitable site for the building of a hospital for the ailments and deformities of children.

Dr. Levis, who contended that he was duly elected last November as medical officer of Skibbereen dispensary, and brought the matter into court, has this week, in an action against the guardians, established his right to the appointment.

Dublin, Feb. 17th.

PARIS.

(From our Paris Correspondent.)

CARDIAC HYPERTROPHY IN ADOLESCENTS.

PROFESSOR GERMAIN SÉE lately submitted a paper to the Academy of Sciences on Cardiac Hypertrophy occurring in Youth, or during the process of the growth of the body. He endeavours to make out that this hypertrophy is merely the result of growth, and not of any morbid influence, consisting as it does in a simple increase in the numerical strength of the primitive fibrillæ of the heart, or, in other words, in the hypernutrition or hypersarcosis of that organ, accompanied with dilatation. There is, moreover, no fatty or fibrous degeneration, nor are the coronary arteries sclerosed, as is the case with hypertrophy resulting from disease. It is, however, difficult to say whether the lesion in question consists in true hypertrophy or in simple dilatation of the heart, as it generally disappears with the cessation of growth of the other parts of the body. Professor Sée founded the subject of his thesis on eighty individuals, thirty of whom were youths aged from eight to sixteen years, and the others from sixteen to twenty-one, all being in other respects in a perfectly normal condition. In another class of cases—that is, in young recruits aged from seventeen to twenty, and who presented themselves for certificates for volunteer service—he found a great number who were the subjects of functional troubles or manifest lesions of the heart, as verified by auscultation and percussion. Professor Sée seemed to look upon this condition as almost normal in youth, and on that account did not consider that it incapacitated young men for military service. MM. Vulpian and Larrey, however, who had to report on the paper, did not take this view of the case, as they considered that hypertrophy of the heart, being an abnormal condition, is incompatible with the exigencies of military service. This opinion was emphasised by Baron Larrey from personal experience of many years, and he stated that, as it would be impossible to say whether the cardiac hypertrophy would or would not disappear at the cessation of the growth of the individual, as suggested by Professor Sée, he considered it advisable to reject the recruits who presented such a condition.

MM. CORNIL AND ROBIN.

According to a law recently passed in the French Parliament concerning the elections to the Senate or to the Chamber of Deputies, no member of either body can at the same time hold any other official appointment under Government. Professors Charles Robin and Cornil, who have been recently elected as Senators, will have to choose between the Senate and the respective chairs they now occupy at the Paris Faculty of Medicine, the former as Professor of Histology and the latter as Professor of Morbid Anatomy. It is anticipated that M. Robin will retire from his professorial chair; and it remains to be seen what will be the decision of M. Cornil, who is regarded as the favoured candidate for the Professorship of Histology.

MEDICAL HONOURS.

Among the list of the decorations of the Legion of Honour recently conferred by the President of the French Republic, I find the names of Dr. MacGavin and Dr. Walter Douglas Hogg, who were created Chevaliers of that Order for "exceptional," and I may add meritorious, services. Dr. MacGavin has been many years in practice in Paris, and Dr. Hogg is the son of the highly respected pharmacien of that name who has been established in this city for nearly thirty-five years.

Paris, Feb. 18th.

THE SERVICES.

THE EGYPTIAN EXPEDITION.

Classes for ambulance drill are to be formed amongst officers and men on board the transports.

Surgeon-General Oliver Barnett has been appointed Principal Medical Officer in command of the Medical Staff and Army Hospital Corps about to be despatched to Suakim.

Brigade Surgeon Hinde, Principal Medical Officer of the South-Eastern District at Dover, was to sail on Tuesday from Portsmouth.

Quartermaster F. Thompson, Medical Staff, is ordered to Aldershot to prepare for embarkation to Suakim.

Surgeon-Major Evatt, M.D., Medical Officer to the Royal Military Academy, Woolwich, has been ordered to hold himself in readiness to sail for Egypt.

There is no foundation for the report that the Government has sent a circular to the leading medical schools of the country asking students to volunteer as dressers for the Soudan campaign.

Drs. Reed and Alexander, with a detachment of the Army Hospital Corps, on the 18th took up their berths in the *Ganges*, which has been chartered for service as a hospital ship.

The medical officers finally appointed to the 3rd Battalion of Guards are Surgeon-Major Lawrence, Surgeon Fenn, and Quartermaster Tedding.

Orders have been received at Aldershot for the concentration at that station of another detachment of the Medical Staff Corps for service in the Soudan.

On the 17th inst. the 1st Bearer Company, the 1st and 2nd Field Hospitals of the Medical Staff Corps, besides details of the Commissariat and Transport Corps, under orders for the Soudan, proceeded by special trains from Aldershot to Southampton, where they embarked in the steamer *Arab* for conveyance to Suakim.

Colonel Loyd-Lindsay, Chairman of the National Society for Aid to the Sick and Wounded in War, states that the Society has again been in communication with Lord Wolseley and with the authorities at home, and it is now equipping an expedition which will go to Suakim under the charge of Mr. V. Barrington Kennett as its representative in that district, with a staff of surgeons and a liberal supply of comforts and medical appliances. The intention is to form stations for the relief of sick and wounded men along the lines of communications. In this the Society is acting in entire accordance with and under the advice of Dr. Crawford, the Director-General of the Army Medical Department.

WAR OFFICE.—Royal Horse Guards: Surgeon James Stevenson Forrester, from the Medical Staff, to be Surgeon, vice W. Maunsell-Collins, M.D., retired.

INDIA OFFICE.—The Queen has approved of the retirement from the service of the following officers of Her Majesty's Indian Military Forces:—Brigade Surgeon William Payton Partridge, of the Bombay Army; Brigade Surgeon William Henry Kirton, of the Bengal Army.

The following officers are granted a step of honorary rank on retirement:—Deputy Surgeon-General John Edward Tuson, M.D., of the Bengal Army, to be Surgeon-General; Surgeon-Major Rivers Mantell, of the Bengal Army, to be Brigade Surgeon.

ADMIRALTY.—Fleet Surgeon Adam Brunton Messer, M.D., has been promoted to the rank of Deputy Inspector-General of Hospitals and Fleets in Her Majesty's Fleet. The following appointments have been made:—Staff Surgeon Richard A. Mowll, M.D., to the *Nankin;* Surgeon Herbert W. A. Burke, to the *Excellent;* Fleet Surgeon William G. Ridings, to the Royal Marine Artillery, Portsmouth.

RIFLE VOLUNTEERS.—2nd Volunteer Battalion, the Queen's Own (Royal West Kent Regiment): Honorary Assistant-Surgeon Robert Nathaniel Mitchell, M.D., resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the battalion on his retirement.—2nd Volunteer Battalion, the Lancashire Fusiliers: Lieutenant William Pooley is appointed Acting Surgeon.—12th Middlesex (Civil Service): Walter Robert Tytheridge, Gent., to be Acting Surgeon.—1st Volunteer Battalion, the Queen's (Royal West Surrey Regiment): Acting Surgeon Charles William Philpot, M.D., to be Surgeon.

LADY LEE has given the sum of £200 to the funds of the Maidenhead Cottage Hospital.

Medical News.

COLLEGE OF PHYSICIANS IN IRELAND.—At the February examinations the following obtained the licences in Medicine and Midwifery of the College:—

MEDICINE.—Berkeley Joseph Acheson, Francis Forster Brady, George Arthur Hawkins-Ambler, Julian Sewell Hayes, John Keenan, Denis Patrick Kenna, Francis Ignatius Maunsell, Sampson Roch, John Thomas Walsh.

MIDWIFERY.—W. J. Cawden, H. S. Fairbank, Lawrence B. P. Fernandez, George Arthur Hawkins-Ambler, John Keenan, D. P. Kenna, Francis Ignatius Maunsell.

The undermentioned were admitted Members:—

Thomas Vesey Bell. | Michael Joseph Yourrell.

UNIVERSITY OF DUBLIN.—At a meeting of the Senate held this week the following degrees were conferred:—

BACHELOR IN SURGERY.—John Blacker Buchanan, Henry Augustus Ellis, Samuel Handy Halahan, William Lacy Hickey, Joseph Ewing Miller, James John O'Donnell, Daniel R. O'Sullivan, George Raymond, William Richardson Rice, Rowland Hill Scovell, Walter John Slaughter, John James Carl Watson.

LICENTIATE IN SURGERY.—Joseph Vincent Manning.

BACHELOR IN MEDICINE.—Edward J. Farmer, Samuel Handy Hallahan, Robert Kerr Johnston, Robert Travers, Lewis Arthur Henry Mecke, Joseph Ewing Miller, Robert John Montgomery, James John O'Donnell, George Raymond, Walter John Slaughter.

DOCTOR IN MEDICINE.—Alexander James Boyd, Richard Alfred Lett, Arthur Henry Mecke, Victor Edwin Smith, Charles Herbert Thompson, William McDowell Aikin Wright (stip. cond.).

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 12th inst.:—

MacGillycuddy, Niell, University College.
Maude, Arthur, St. Bartholomew's Hospital.

THE Society for the Total Suppression of the Sunday Sale of Liquor has just held its annual meeting in Manchester. The income had amounted to £2840 during the year.

MEDICAL MAGISTRATE.—Mr. G. Booth, M.R.C.S., has been placed on the Commission of the Peace for the borough of Chesterfield.

AT a meeting held at Hastings on the 17th inst., to receive the annual report of the Local Sanitary Aid Association, the committee reported the continued progress of the organisation.

ROYAL COLLEGE OF SURGEONS.—Professor Treves will commence his course of lectures on the Anatomy of the Peritoneum and Intestinal Canal in Man on Monday, the 23rd inst., in the theatre of the College.

HOSPITAL SATURDAY FUND.—Mr. Samuel Morley, M.P., has been unanimously re-elected President of this fund for the ensuing year; and the names of the Rev. C. H. Spurgeon and Mr. B. Lucraft have been added to the list of Vice-Presidents.

PRESENTATION.—Dr. J. W. Mathews, of Kimberley, has been presented by the Mussulmans of that place with a silver cup and an address, as a mark of respect and admiration for his outspoken defence of the rights and liberties of Mahomedans during the late epidemic.

PURIFICATION OF TOWN SEWAGE.—A deputation from the North of France, who are now in England with the object of ascertaining the best mode of treating town sewage and the purification of rivers, visited on the 16th inst. the sewage works at Mode Wheel belonging to the Corporation of Salford, to which the visitors gave unqualified praise. The deputation afterwards proceeded to Glasgow.

ST. JOHN AMBULANCE ASSOCIATION.—Rooms at the Mansion House have been placed at the disposal of the City and Port of London executive of the St. John Ambulance Association, to hold afternoon classes for the benefit of *employées* in offices and business establishments. Two of the five classes meeting at Lady Brassey's house have been examined by Mr. R. Bruce, M.B., and Deputy Inspector-General M. Coates, R.N.

ROYAL FREE HOSPITAL.—At the fifty-seventh annual general court of the governors of this hospital, held on the 12th inst., it was stated that the receipts from all sources during the past year had amounted to £15,772, and the expenditure to £11,590, there being a balance of about £3000 to the credit of the institution. During the year 22,736 persons were treated, of which number 20,816 were out-patients. The daily average of in-patients in the wards was 136.

THE GUILD OF ST. LUKE THE PHYSICIAN.—At a large gathering of the members of this Society, held on the 18th inst. at the rooms of the Medical Society, Chandos-street, Dr. Wynn Westcott, the Deputy Coroner for Central Middlesex, delivered, by request, a lecture on "Suicide, its Causes and the best Means of Prevention." The lecture was well received, and will be published in the monthly periodical of the Guild. Mr. Cowell, F.R.C.S., of the Westminster Hospital, was the chairman of the meeting.

SOUTH DEVON AND EAST CORNWALL HOSPITAL.—The annual general meeting in connexion with this institution was held on the 3rd inst., when the remainder of the new building, part of which was formally opened some time ago, was declared complete. The new hospital is built on the pavilion system, and is in most respects modelled after the Edinburgh Infirmary. Accommodation is afforded for 120 patients, with an average of 1700 cubic feet of space for each. The receipts during the past year amounted to £3775, and the expenditure to £3675. The number of in-patients was 750, and of out-patients 1988.

NORTH-WESTERN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—At a recent meeting of this Association the discussion on Dr. Hope's paper on Infantile Diarrhœa, read at the previous meeting, was continued by Drs. Vacher, Samelson, Barr, Ashworth, Kenyon, and Mr. Corbett. Dr. Kenyon read some notes on the subject of revaccination, and a memorial to the Local Government Board, prepared by Dr. Vacher, was adopted. Mr. Fred. R. Hawxby, B.A., architect, afterwards described a plan which he had adopted of heating and ventilating houses, the principal features of the scheme being those advocated by Drs. Drysdale and Hayward of Liverpool—viz., the admission to the house of an ample supply of fresh air, and the extraction of the vitiated air by means of the waste heat of the kitchen fire. The arrangement has been already applied by Mr. Hawxby in a house erected by himself, and is reported to work satisfactorily.

MERCER'S HOSPITAL, DUBLIN.—At a recent meeting of the past and present students of this hospital, resolutions to the following effect were carried: 1. That the recent alterations in the working of the hospital are calculated to interfere greatly with the surgical practice and teaching of the institution, and that they are unnecessary. 2. That the post of house-surgeon being an annual one, and open to all students of the hospital qualified to fill it, the action of the medical board in filling the post for the ensuing year without notifying the vacancy to the students by advertisements or otherwise is most arbitrary and unfair. 3. That the system of not admitting patients unless upon the joint order of two lay or two medical governors is absurd. 4. That it is absolutely necessary that some steps be taken by the board to enable the medical and surgical staff to give proper clinical lectures. 5. That should any reduction in the number of admissions to the hospital be made, such reduction should in no way curtail the right of the senior surgeon for the time being to a larger proportion of beds than any other member of the staff.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

ARBUCKLE, HUGH WIGHT, M.D.Aber., L.F.P.S.Glas., L.R.C.P.Ed., has been appointed Medical Officer for the Stamford District and Workhouse, Thorne Union.

BLUMER, W. PERCY, F.R.C.S.E., has been appointed Honorary Surgeon to the Sunderland and North Durham Eye Infirmary, vice E. Allan Maling, M.R.C.S., J.P., resigned.

GELSTON, JOHN SEYMOUR, L.K.Q.C.P.I., L.R.C.S.I., has been appointed House-Surgeon to the Doncaster Infirmary and Dispensary, vice Marshall, resigned.

GREEN, C. D., M.B., M.R.C.S., L.R.C.P., has been appointed House-Surgeon to St. Thomas's Hospital.

HARRIS, THOMAS, M.D.Lond., has been appointed Assistant Lecturer and Demonstrator in Pathology at the Owens College, Manchester, vice Robert Maguire, M.D.Lond., M.R.C.P., resigned.

HILL, G. W., B.Sc., L.S.A.Lond., has been appointed Medical Officer for the St. Just District of the Truro Union, vice Harden, deceased.

HUBBARD, FREDERICK EDMUND, L.R.C.P.Lond., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Fifth District of the Depwade Union, vice Rose.

HULL, WALTER, M.B., M.R.C.S., L.R.C.P., L.S.A.Lond., has been appointed House-Surgeon to St. Thomas's Hospital.

JOHNSTON, G. D., M.R.C.S., L.R.C.P., has been appointed Resident Accoucheur to St. Thomas's Hospital.

LANKESTER, H. H., M.R.C.S., L.S.A.Lond., has been reappointed Non-resident House-Physician to St. Thomas's Hospital.

LEE, CHARLES G., M.R.C.S., L.R.C.P.Lond., has been appointed Honorary Surgeon to the Liverpool Eye and Ear Infirmary, vice T. Shadford Walker, M.R.C.S., appointed Honorary Consulting Surgeon.

MACKENZIE, H. W. G., M.A., M.B., M.R.C.S., has been appointed Resident House-Physician to St. Thomas's Hospital.

MARRINER, W. H. LISTER, M.B., M.R.C.S., L.S.A.Lond., has been reappointed Clinical Assistant in the Department for Diseases of the Throat at St. Thomas's Hospital.

MIDDLETON, LUCAS ALFRED, L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer for the Harbourne District of the King's Norton Union, vice Smith.

PLUMMAN, S., M.R.C.S., L.S.A.Lond., has been reappointed Clinical Assistant in the Departments for Diseases of the Skin and Ear at St. Thomas's Hospital.

PRIEST, J. DAMER, M.R.C.S. & L.S.A.Lond., has been appointed Acting Surgeon to the War Department Royal Gunpowder Manufactory, Waltham Abbey. Also Certifying Factory Surgeon, and Surgeon to the N Division of the Metropolitan Police.

PULLAN, H. W., L.F.P.S.Glas., M.R.C.S., has been appointed Medical Officer for the Belton District of the Thorne Union.

RELTON, BERNARD, M.R.C.S., L.S.A.Lond., has been appointed Assistant House-Surgeon to St. Thomas's Hospital.

ROBINSON, H. B., M.R.C.S., L.R.C.P., has been appointed Resident House-Physician to St. Thomas's Hospital.

SAKURAI, Y., M.R.C.S., L.R.C.P., has been appointed Assistant House-Surgeon to St. Thomas's Hospital.

STEWART, JAMES PICKERING, M.B., C.M.Glas., has been appointed Medical Officer for the Gosberton District of the Spalding Union, vice Swan.

WHITE, SINCLAIR, M.D., M.Ch.Q.U.I., F.R.C.S.Eng., has been appointed Medical Officer of Health for the Sheffield Urban Sanitary District, vice Whitgreave.

WILLIAMS, R. M., M.R.C.S. L.R.C.P., has been appointed Assistant House-Physician to St. Thomas's Hospital.

Births, Marriages, and Deaths.

BIRTHS.

FRASER.—On the 14th inst., at Melville-street, Edinburgh, the wife of Dr. Thomas R. Fraser, F.R.S., Professor of Materia Medica in the University of Edinburgh, of a son.

SMYTH.—On the 12th inst., at Holly Lodge, Brockley, S.E., the wife of Fordyce Smyth, L.R.C.P.Ed., F.R.C.S.Ed., of a son (stillborn).

STUART.—On the 13th inst., at Poona, the wife of Surgeon Alex. K. Stuart, of H.M.'s Indian Medical Service, of a son.

TAYLOR.—On the 10th inst., at The Cedars, Kenninghall, Norfolk, the wife of J. H. Wilson, M.R.C.S., of a son.

WRIGHT.—On the 15th inst., the wife of Francis Jas. Wright, M.D., of Northumberland House, Finsbury-park, N., of a son.

MARRIAGES.

BOOSEY—GWATKIN.—On the 12th inst., at Holy Trinity Church, Twickenham, J. B. Bradbury, M.D., of Cambridge, to Jane, elder daughter of the late Rev. R. Gwatkin, B.D., formerly Fellow and Tutor of St. John's College, Cambridge, and Vicar of Barrow-on-Soar, Leicestershire.

BOYS—BEAUMONT.—On the 12th inst., at Chudleigh, Devon, by the Rev. Walter Moyle, M.A., cousin of the bride, assisted by the Rev. Theophilus Bennett, M.A., S. E. Carter, Esq., M.D.Lond., to Edith Caroline, youngest daughter of the late Col. Wm. Beaumont, of Her Majesty's Indian Army, and of Fairfield, Chudleigh, Devon.

WIGNALL—HIGGINBOTHAM.—On the 11th inst., at St. Mary's Church, Barnfield, by the Rev. John McWhinnie, Staff Surgeon R.N., to Harriet, widow of the late Thos. Higginbotham, of Barnfield, Alderley Edge, Cheshire.

WILLIS—BROOKS.—On the 14th inst., at St. Matthew's, Denmark-hill, by the Rev. C. E. Jones, William Mill, M.R.C.S., L.R.C.P., of Halford, Warwickshire, to Ella Frederica, youngest daughter of the late Wm. Brooks, Denmark-hill, S.E.

WILSON—COOKE.—On the 17th inst., at St. Andrew's, Newcastle-on-Tyne, A. Campbell Munro, M.B., D.Sc., South Shields, to Emily Isabel, daughter of the late Richard Cooke, Woodford, Essex.

DEATHS.

FRANKLIN.—On the 12th inst., after two days' illness, at Liverpool-road, Hy. Franklin, L.R.C.P.Ed., late of St. John's-street, Clerkenwell.

GOUGH.—On the 16th inst., at Epsom, Sergeant D. Gough, in his 67th year, for twenty-seven years drill-master at the Royal Medical College, Epsom.

LEWIS.—On the 8th inst., at Davos, Switzerland, George Stephens Lewis, Surgeon Army Medical Staff, late of Alexandria, Egypt.

MARTIN.—On the 13th inst., at Alexander-square, South Kensington, James Johnstone Martin, Fleet Surgeon R.N., aged 63.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, February 19th, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Feb. 13	30·03	W.	49	47	...	52	46	...	Overcast
,, 14	29·74	W.	49	47	...	52	47	...	Overcast
,, 15	29·54	S.W.	50	48	...	52	45	·19	Overcast
,, 16	29·32	S.W.	51	50	...	52	49	·35	Raining
,, 17	29·32	S.E.	42	41	...	45	40	·57	Raining
,, 18	29·58	N.W.	38	36	...	45	35	·06	Cloudy
,, 19	29·79	W.	34	33	...	45	31	...	Foggy

Medical Diary for the ensuing Week.

Monday, February 23.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. each day, and at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

MEDICAL SOCIETY OF LONDON.—Dr. Felix Semon: Electric Illumination of different Cavities of the Human Body (mouth, pharynx, larynx, nose, ear, vagina, rectum), Faradisation, Galvano-Cauterisation, and Electrolysis, by means of Pocket Accumulators chargeable at home.—Mr. Hurry Fenwick: Cocaine in Vesico-urethral Practice.

Tuesday, February 24.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 P.M., and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M., and on Fridays at 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M., and on Saturday at the same hour.

ROYAL INSTITUTION.—3 P.M. Prof. S. Colvin: Museums and National Education.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Dr. Ormerod: Hereditary Locomotor Ataxy (cases will be exhibited to illustrate Dr. Ormerod's paper).—Dr. Samuel West: Fatal Hæmoptysis, the statistics of the last fifteen years of the Chest Hospital, Victoria-park, with Remarks upon Profuse Non-fatal Hæmoptysis.

Wednesday, February 25.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour. Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.

HUNTERIAN SOCIETY.—Dr. Pye-Smith: Presidential Address.—Dr. Stephen Mackenzie: The Connexion between Erythema Nodosum and Rheumatism.

Thursday, February 26.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL COLLEGE OF PHYSICIANS.—5 P.M. Dr. William Osler: Endocarditis (Gulstonian Lecture).

ROYAL INSTITUTION.—3 P.M. Prof. Dewar: The New Chemistry.

Friday, February 27.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

QUEKETT MICROSCOPICAL CLUB.—8 P.M. Mr. Buffham: The Conjugation of Rhabdonema Arcuatum (Kutz).

CLINICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Hughes-Bennett: A Case of Locomotor Ataxy without any Disease of the Posterior Columns of the Spinal Cord.—Dr. Seymour Taylor: A Case of Arrested Rickets.—Mr. Charters Symonds: A Case of Nephro-lithotomy.—Mr. Henry Morris: A Case of Nephro-lithotomy.—Dr. Hadden: A Case of Obliterative Disease of Vessels (living specimen).

ROYAL INSTITUTION.—9 P.M. Prof. E. Ray Lankester: A Marine Biological Laboratory.

Saturday, February 28.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. C. Armbruster: Richard Wagner.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

THE INDEX MEDICUS DISCONTINUED.

WE regret to observe that a notice accompanies the annual index which completes the sixth volume of the Index Medicus, informing subscribers to that publication that it will with that issue cease to be published. The late Mr. Leypoldt, the publisher, regarded the undertaking with particular favour; and his successors, who are managing his estate and business enterprise, have made strenuous, but futile, efforts to secure the subscriptions necessary to place the Index Medicus on a self-supporting basis.

Mr. W. Dobson (Leeds).—The announcement appeared in our last number, page 299.

KING AND QUEEN'S COLLEGE OF PHYSICIANS, IRELAND.

To the Editor of THE LANCET.

SIR,—In these days of medical reform it has been a matter of surprise to me that it has not been suggested to alter the name of the King and Queen's College of Physicians to that of Royal College of Physicians. There are many reasons in favour of such an alteration, and none that I know of against such a change. For the former the following arguments may be advanced:—1. The public recognise the letters "L.R.C.P.," understand their value, and know what they represent. The letters "L.K.Q.C.P.I." to most outside the profession are utterly unintelligible. 2. The advantages of simplification and uniformity in the designation of medical qualifications. 3. The boon conferred on all who hold the diploma of the College in being enabled to place letters after their names that will represent something to the public beyond hieroglyphics. As a case in point, a medical friend (a L.K.Q.C.P.I.) informs me that he is going in for another medical qualification, as he considers the ambiguity of these letters detrimental. For the same reason I have recently written to the Royal College of Physicians, London, with a view of passing the necessary examination to obtain their licence, though I am a M.K.Q.C.P.I., feeling the same might be an impediment should I enter into civil life either at home or abroad.

I appeal, Sir, to you, that through the aid of your powerful journal this subject may have due consideration, as I feel sure those who hold the diploma of the College must see the advisability of such a change.

I am, Sir, yours faithfully,

Feb. 16th, 1884. SURGEON, R.N.

Mr. Alfred Drysdale (Mentone) is thanked; but the publication of the letter would hardly be agreeable, we think, to the surviving relatives of the deceased gentleman.

Subscriber could not certify. He might express an opinion.

EFFECTS OF EXCESSIVE CIGARETTE SMOKING.

To the Editor of THE LANCET.

SIR,—I have a patient, aged forty, subject to chronic pharyngitis, kept up by excessive cigarette smoking. His general health is good, and all the symptoms are easily recognisable, except one which I have never seen myself nor heard described by others—viz., that once, and sometimes twice, a day, without any special effort, he expectorates a vermiform substance, about a quarter of an inch long and one-sixteenth of an inch thick, tough in substance, and of a nauseous taste, though not odorous. It appears to me like a combination of mucous and sebaceous matters secreted in one of the minor conduits and moulded by the latter into its shape. Can you or any of your readers enlighten me on a subject of which I am fain to confess my ignorance?

I am, Sir, your obedient servant,

London, Feb. 16th, 1885. M.D.

Mr. A. Glover Williams will get the name of the secretary and other particulars by inquiring of the Charity Organisation Society.

"ALL FOR THE SAKE OF A DOCTOR."

THE *Kentish Independent* comments on Mr. Spear's report to the Local Government Board in a leading article with the above heading. Our contemporary thinks that Woolwich is to be congratulated on its unique position amongst English towns in not being compelled to appoint a medical officer of health. He even claims to echo the voice of local medical opinion, for he says: "The authorities ..... have a system, which they think a good one, by which all the practitioners of the district form a sort of volunteer corps of medical officers, such practitioners, with few exceptions, preferring this to the other alternative of a parish doctor poking his nose into their cases, and possibly meddling with their patients." We are quite unable to understand how the local practitioners can be said to form a "volunteer corps of medical officers," nor can we learn that they are parties to such an arrangement. And as the number of civilian practitioners is about thirty, to which must be added ten military surgeons, the division of responsibility among such a number would leave but little to be borne by any individual member. It is true that a half-crown fee is paid by the local board to medical men for notifying a case of infectious disease. Surely, the *Kentish Independent* does not suppose that notification is the duty of a medical officer of health. His duty is, amongst other things, to deal with infectious disease when it has been notified. This function is now performed by the inspector of nuisances, who is an engineer, and his assistant; and though Mr. Spear very properly praises the labours of these officials, he points out forcibly, though the *Kentish Independent* cannot agree with him, that it is impossible for the sanitary affairs of a town to be satisfactorily conducted in the absence of a responsible skilled medical adviser.

Consultants' Mileage Fee.—We do not think a uniform tariff in consultation fees practicable.

CONCUSSION, DISLOCATION, OR MERELY A FAINT—WHICH WAS IT?

To the Editor of THE LANCET.

SIR,—With reference to the interesting case of displacement and fracture of the axis recorded in your issue of the 14th inst., I beg to submit an extract from a very rare book—"A Journal or Historical Account of the Life, Travels, &c., of George Fox," London, 1694, vol. ii., pp. 151-2, which appears to me to bear upon it, and which you will, I trust, publish, if your space will so allow. Describing a visit he (Fox) paid to Shrewsbury, he says that one of his companions, named John Day, "being to try an horse, got upon his back; and the horse fell a running and cast him upon his head, and brake his neck, as the people said. They that were near him took him up dead, and ..... laid him on a tree. I got to him as soon as I could, and feeling on him concluded he was dead. And as I stood by him, pitying him and his family, I took hold of his hair, and his head turned any way, his neck was so limber. Whereupon, throwing away my stick and my gloves, I took his head in both my hands, and setting my knees against the tree I raised his head and perceived there was nothing out or broken that way. Then I put one hand under his chin and the other behind his head, and raised his head two or three times *with all my strength, and brought it in.* I soon perceived his neck began to grow stiff again, and then he began to rattle in the throat, and quickly after to breathe. The people were amazed, but I bid them ..... carry him into the house. They did so, and set him by the fire, and afterwards put him to bed. After he had been in the house awhile he began to speak, but did not know where he had been. The next day we passed away (and he with us, pretty well) about sixteen miles, ... and many hundred miles did he travel with me after this.' If success be a test of treatment, a more judicious one could scarcely have been employed in this instance. I think it quite possible that there was a displacement here of one or other of the upper cervical vertebræ, and the words I have italicised would seem to imply as much. But of this your readers are as competent to judge as I am, and I merely reproduce the extract as a curiosity in its way, and in the connexion just referred to.

I am, Sir, yours obediently,

Feb. 17th, 1885. FRANCIS.

Mr. F. Peter Smith.—The papers sent are very bad; but we cannot prosecute the subject nor the rascals who thrive on the ignorance of their dupes.

Dr. J. Chapman (Paris).—We cannot undertake to return MSS. not used.

"PRURITUS VULVÆ."

To the Editor of THE LANCET.

SIR,—In your issue of the 24th ult. "M.D." asks for suggestions regarding the treatment of pruritus vulvæ, the various remedies employed by him not having succeeded. I would suggest an examination of the urine for sugar, diabetes being so frequently accompanied by pruritus—in fact, it is occasionally the only symptom complained of. If sugar be found, I would recommend "M.D." to administer half-grain of codeia three times a day (with the usual limitations regarding diet), and, I think, in a short time the pruritus will be greatly relieved. It will be interesting to know the result of treatment in the case.

I am, Sir, yours faithfully,

Leominster, Feb. 16th, 1885. RICHARD WATTS WHITE.

PANFILO CUSTALDI AND THE ART OF PRINTING.

A COLLECTION of interesting documents relating to the life of Panfilo Custaldi, for whom the honour of the invention of printing has been claimed by patriotic Italians, have recently been discovered, and will, we understand, shortly be published in the *Archivio Storico per Trieste, l'Istria, ed il Trentino*. It is not stated that these documents give any support to the claim above alluded to; but it appears that Custaldi, who was a physician practising in Capo d'Istria, was already practising the art of printing with movable types as early as 1461, in partnership with two other residents in the same town.

Trocar.—If the patient was in a critical state when seen by our correspondent, it would not be right to expose him to a four hours' drive while suffering from strangulated hernia. If operative interference was not immediately necessary, "Trocar" was carrying out the intentions of the Local Government Board, and the wishes of most boards of guardians, by sending the patient to be operated upon to the nearest hospital or infirmary.

M.R.C.S.—1. No. 1, Old Serjeants' Inn, Chancery-lane, W.C.—2. No.

"CASCARA SAGRADA."

To the Editor of THE LANCET.

SIR,—We notice in your issue of the 14th inst. a correspondent, "A. G. C.," asks where to procure a really trustworthy preparation of the cascara sagrada. We beg to say that the experiments made by medical practitioners in this country with Messrs. Parke, Davis, and Co.'s preparation, for which we are the agents, have been most successful; and we shall be very pleased to forward samples to "A. G. C." and any other medical man who may wish to try it.—Yours faithfully,

BURGOYNE, BURBIDGES, CYRIAX, AND FARRIES.

Coleman-street, E.C., Feb. 16th, 1885.

To the Editor of THE LANCET.

SIR,—"A. G. C." should try the fluid extract made by Messrs. Parke, Davis, and Co., or by Messrs. Ferris and Co. In my hands they have proved most effectual. I can also speak favourably of the pills made by Messrs. W. H. Schieffelin and Co., each of which contains two grains of the solid extract. I am, Sir, yours truly,

Peterborough, Feb. 14th, 1885. W. EASBY, M.D.

To the Editor of THE LANCET.

SIR,—In reference to the inquiry by "A. G. C." in your current issue, I would beg to observe that the extract of cascara sagrada was prescribed for me recently in the form of a pill (in four-grain doses), combined with nux vomica, belladonna, and gentian, by my friend Dr. Cullimore of Welbeck-street, W., for obstinate constipation due to sluggish action of the liver, with marked benefit. I found that one four-grain dose twice a day for a few days, and afterwards once a day, produced the desired result. I would add, as desired by your correspondent, that the medicine was made up by Messrs. Twinberrow and Son of Wigmore-street, Cavendish-square. I am, Sir, yours truly,

Feb. 16th, 1885. JOHN LUCAS, M.D.

*** Other communications received by us would seem to show that there is no difficulty in obtaining trustworthy samples of the cascara.—ED. L.

Mr. Edward Wheeler.—We did not mean to affirm that Jenner appreciated the necessity for revaccination as we now understand it; but that the second subjection to the operation by the small-pox hospital nurses, with its magnificent results, are, in a sense, the confirmation and completion of Jenner's discovery of vaccination. What view does Mr. Wheeler take of the immunity enjoyed by the officials of the small-pox hospitals?

THE ADMISSION OF PATIENTS SUFFERING FROM FITS TO ASYLUMS FOR IDIOTS.

To the Editor of THE LANCET.

SIR,—I notice in one of your answers to correspondents in THE LANCET of last week you say: "Patients subject to fits are, we believe, ineligible for admission to idiot asylums." Having been attached to the Earlswood Asylum some years ago, I beg to inform you that the majority of the patients in that institution are subject to fits, and I believe it is the same at other idiot asylums.—Yours faithfully,

Brentwood, Feb. 16th, 1885. J. R. WHITE, M.B.

*** The published prospectuses of the majority of idiot asylums do not bear out the last statement of our correspondent's letter.—ED. L.

THE ARABS WOUNDED IN THE SOUDAN.

To the Editor of THE LANCET.

SIR,—May I ask through the medium of your valuable journal whether any provision is made for the surgical and medical treatment of the poor Arabs wounded in the battles in the Soudan? It is to be trusted that they receive the same humane treatment as our own wounded soldiers, and are not left to die unaided on the ground which they so bravely defend. I am, Sir, yours obediently,

Leeds, Feb. 14th, 1885. H. A. ALLBUTT, M.R.C.P.

MEDICAL ETIQUETTE AT CRIEFF.

A CORRESPONDENCE has been sent us for publication by Dr. Gairdner, jun., of Crieff, between himself and Dr. Alex. Thom, jun., beginning as far back as January, 1881, and ending in February, 1885. It will be readily understood that we have seldom room for such a correspondence in THE LANCET. We certainly have not at present. There is another objection to its publication in the fact that it is incomplete. Dr. Thom chose, rightly or wrongly, to answer Dr. Gairdner by letter, defending himself by saying that he had also answered verbally. It is difficult to express a judgment on an incomplete correspondence. We regret the difference between Dr. Gairdner and Dr. Thom, the more so as it seems to us that nothing could be in better taste and form than the letter from Dr. Thom to Dr. Gairdner with which the correspondence opens, accepting, but only reluctantly, a half fee sent him by Dr. Gairdner for attending a case in his absence. His action in other cases is not, in appearance, satisfactory: as when he visits as a friend a case in which his father had met Dr. Gairdner in consultation; and when he visits after delivery an obstetric case of Dr. Gairdner's, which he attended in an emergency arising from the latter's unavoidable absence in the country. But then we have not his version of the facts, and hesitate to pronounce judgment without it. In one case we are not so sure that Dr. Gairdner is quite right—where he declines a consultation with Dr. Thom on the doubtful ground *that the patient had had other consultations*. But the matters in dispute seem to us such as should admit of easy adjustment.

M.D. wishes to know if magnetism or galvanism is effectual in hypochondria with a tendency to hysteria?

CASE OF ATHETOSIS.

To the Editor of THE LANCET.

SIR,—On Nov. 5th, 1884, John H——, a native of Bremen, was sent to me by a fellow practitioner for treatment. On examination, I found him suffering from that rare and peculiar nervous affection called by Hammond "athetosis." Unfortunately, I was able to keep the patient under observation for only a short time, as he was a vagrant, and left the city after his second visit to my office. He was a German, healthy, well nourished, and, according to his statement, strictly temperate. There was no history of syphilis, nor was there any evidence of struma or protean disease of any kind whatever. The patient said he had been suddenly seized with a violent pain in the right forearm, with convulsive movements of the fingers of the right hand, while walking, six weeks before he came to me. The pain in the arm and the movements of the fingers had continued without intermission. He said that his companions had told him the convulsive movements of the fingers continued during sleep. There were continual contractions and partial extensions of all the fingers of the hand affected. The muscles of the forearm were hard and rigid, and seemed not to relax for a moment during the whole time he was under my observation. The patient was unable to close his hand, having no control whatever over the flexor muscles. He had slight control over the extensors, being able by exerting all his power to extend the fingers; they were, however, immediately flexed again. The movements of the fingers were of a peculiar writhing and twisting character. The patient complained of considerable pain in the arm up to the elbow. There was slight hyperæsthesia in the affected forearm and hand, and an increase in temperature. In all other parts of the body sensibility to touch and temperature were normal. The involuntary contractions of the fingers came on hurriedly, violently, and with great force. The contractions were somewhat paroxysmal, with no increase of pain in proportion to the violence of the contractions. The patient was unable for a single instant to arrest the movements of the fingers and fix them in any one position. I gave him as a *placebo* a hypodermic injection of morphia, and directed him to call again on the following morning. He came, but for some reason would allow no further examination, and left for I know not where.

I have seen but one other instance of this peculiar affection, and that was a mulatto woman brought before the Tri-State Medical Association at Henderson, Ky., in 1878, by Dr. Dixon, if I am not mistaken. I have endeavoured to give this man's case succinctly, for fear of occupying too much space, and will bring my communication to an end without further comment. I am, Sir, yours faithfully,

Louisville, Kentucky, U.S., Jan. 7th, 1885. JAMES WEIR, M.D.

Mr. C. C. Whitefoord may, we think, rest content with the strong expression of opinion on the part of the judge and the jury. It is scarcely necessary to publish our correspondent's letter.

"DEGENERATION OF LONDONERS."

To the Editor of THE LANCET.

SIR,—I venture to suggest that degeneration occurs amongst Londoners principally from early sexual indulgence and syphilis, apart altogether from deficiency of food or air. A very little experience in practice, especially among the poorer classes, will convince anyone that the extent to which Londoners suffer from syphilis is appalling.

I am, Sir, yours truly,

Feb. 9th, 1885. OBSERVER.

THE NEW TEACHING UNIVERSITY.

M.R.C.S. and L.S.A. recommends that the course of study be the same as in the Scotch Universities. But his further recommendations are peculiar—that those who are ambitious only for the College and the Hall qualifications should be given the M.B. and C.M. degrees, while those who would aim at passing the examination of the Royal College of Physicians should be dubbed "M.D." This is rather arbitrary.

Mr. F. R. Fisher.—Next week.

"AN EASY METHOD OF APPLYING THE FORCEPS."

To the Editor of THE LANCET.

SIR,—I have for the last dozen years, or more, been in the habit of applying the upper blade of the forceps in the manner described in THE LANCET of to-day by your correspondent, Mr. Lucas; and as I can fully corroborate all the advantages he claims for it, I venture to encourage its general adoption in preference to the old method described in most of the works on midwifery. The tugging and persuasion that are often required to get the patient into the desired position are alike distressing and terrifying to both the sufferer and her friends, whilst if the method suggested be used the forceps may often be slipped on without the patient actually knowing when. I have generally found it sufficient to have the knees well drawn up without separating the legs, and it is really astonishing how easily the blade usually sweeps round the head into the required position.—I am, Sir, yours faithfully,

HENRY CARTMEL, M.R.C.S.

Carlton House, Manchester, Feb. 14th, 1885.

To the Editor of THE LANCET.

SIR,—In reference to Mr. Lucas's letter in the current number of THE LANCET on "an easy method of applying the forceps," I may say I have adopted precisely the same procedure for the past twenty years. I learnt it from my father-in-law, who practised it thirty years before, and he got it from someone else. So it would not appear to be *very* new.

I am, Sir, yours obediently,

Lewes, Feb. 16th, 1885. J. G. BRADEN, M.R.C.S., L.S.A.

*** We have received many other letters showing that the suggested method of applying the forceps is by no means new.—ED. L.

MR. LEAKE AND THE ANTI-VACCINATIONISTS.

THE demands on our space this week will not permit our treating the above-named subject at the length its importance merits. We must therefore defer our comments until our next issue.

A QUERY.

To the Editor of THE LANCET.

SIR,—I shall be greatly obliged if any of your readers would kindly inform me of any school to which a child nine years old could be sent. She is one of four or five children, none of whom can speak intelligibly—saying only a few simple words, and those only half articulated. She has had no illness, but is very perverse, and develops frequently a strong tendency to mischief and destruction, tearing clothing, breaking windows and furniture, &c. Such fits last about a day; in the intervals she is very intractable and disobedient. I regard them as evidences of epileptiform seizures, with tendency to insanity. The parents are related (cousins, I believe); no other family history. They are able to pay.

I am, Sir, yours truly,

Seaforth, Feb. 18th, 1885. F. F. G.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Voight; Messrs. Moxley and Harrison, Barbadoes; Dr. Bate; Dr. J. Gairdner, Crieff; Mr. C. Leslie, Manchester; Mr. G. S. Robinson, London; Mr. A. G. Williams, Brixton; Dr. Fairbank, Doncaster; Mr. H. E. Armstrong, Newcastle-on-Tyne; Mr. L. Newton; Messrs. Burgoyne, Burbidges, and Co.; Mr. Partridge, Stroud; Messrs. Essinger and Neuberger, London; Mr. J. J. Foley, Midleton; Mr. Cartmel, Manchester; Mr. Porter Smith; Mr. H. Allingham, London; Mr. Leake, Manchester; Mr. Crouch, London; Dr. Easby, Peterborough; Mr. G. Rice; Dr. Dudfield; Mr. C. P. Moir, London; Mr. T. P. Stephens, Emsworth; Mr. A. Drysdale, Mentone; Mr. G. A. Wright, Manchester; Mr. J. N. Marshall, Glasgow; Mr. J. R. Thomas, Llanelly; Dr. Finlay, London; Mr. Brodhurst, London; Dr. Lucas, London; Dr. Notley; Mr. Lawson Tait, Birmingham; Dr. Bristowe, London; Messrs. Calvert and Co., Manchester; Messrs. Livingstone, Edinburgh; Mr. Whitefoord, London; Mr. Haywood, Manchester; Mr. English, Canterbury; Mr. Ricker; Mr. Lewers; Mr. Stansby, Derby; Messrs. Beal and Co., Brighton; Mr. Wharton Jones, Ventnor; Mr. Braden, Lewes; Mr. W. Adams, London; Dr. McLeary, London; Dr. Hair, Peterborough; Mr. Higgens, London; Mr. W. A. Buchan, Plymouth; Dr. P. W. Macdonald, Dorset; Mr. F. A. Gray, Ottery St. Mary; Mr. R. W. White, Leominster; Mr. R. Pollock, Wellingford; Mr. Atwood, York; Dr. J. Chapman, Paris; Mr. R. Jeffreys, Chesterfield; Dr. Spencer Cobbold, London; Miss Ryan, Kendal; Messrs. Robertson and Scott, Edinburgh; Mr. Armstrong, Manchester; Mr. Dalby, Cannock; Mr. Fry, Swindon; Dr. Pritchard, Hinckley; Dr. Ridge, Enfield; Mr. Juler, London; Dr. M. Thomson, London; Dr. Roberts; Mrs. Carless, Liverpool; Messrs. Oppenheim and Co., London; Mr. Kinder, Leicester; Mr. Bridgman, Barnstaple; Mr. Porter, Sheffield; Messrs. Lee and Martin, Birmingham; Mr. Abbs, Dewsbury; Messrs. Allen and Hanburys, London; Messrs. Lofland and Co., London; Mr. Barrow, Notts; Mr. Gurner; Mr. Burdett, London; Mr. Blore, Leeds; Mr. Brown, Edinburgh; Messrs. May and Co., London; Messrs. Harrison and Brass, Elgin; Mr. Wrixon, Watford; Mr. W. J. Grey, Newcastle; Mr. McLaglen, London; Mr. Johnston, Belper; Mr. F. F. German, Seaforth; Dr. Dedolph, St. Paul; A Constant Reader of THE LANCET; Subscriber; Trocar; M.D.; Surgeon, R.N.; Francis; A Member of Long Standing; Puzzled; Oxonian; Edith, West Kensington.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Braye; Mr. Palmer, Neyland; Mr. Sweeting, Lynn; Mrs. Higginbotham, Glasgow; Mrs. Williams; Mrs. Marvack, Truro; Miss Osborne, Eastbourne; Dr. Jones, Hulme; Mr. Woodd; Messrs. Curtice and Co., Staines; Mr. Hutchinson, Cheltenham; Mr. Dalmas, Leicester; Mr. Linney, Hitchin; Mr. Thorpe, Chelmsford; Mr. Page, Armley; Dr. Douglas, Perth; Messrs. R. and F. Low, London; Mr. Lemmon, Hastings; Dr. Wyman; Messrs. Mackay, Edinburgh; Mr. Eberle, Thirsk; Mr. Brown, Pimlico; Mr. Stutter, Wickhambrook; Mr. Gill, Anerley; Mr. Malins, Macclesfield; Dr. Maud, Edinburgh; Mr. Paine, Worthing; Dr. Mackay, Esk; Mr. Morgan, London; Mr. Ferguson, Hinckley; Mr. Wetwan, Southwold; Mr. Mason, Highbury; Mrs. James, St. John's Wood; Medicus, Dorking; R. C. B., Peckham; Secretary, Royal Cornwall Infirmary; J. S.; G. S.; Hounds; E. C., Burton-on-Trent; Chirurgus; M.R.C.S., London; A. E. T., Clapham; F. G., Walthamstow; B. D. F.; M.B., Elmsley; M. D. S. A. Manchester; Matron, Bedford General Infirmary; Molar, Virginia-road; Nursing Sister, Edinburgh; A. B., Leeds; A. B., Sheffield; Medicus, Dorrington; Medicus, Great Marthen; W. W., Woolton; W. R., Yoxford; Medicus, Edgbaston; L.R.S.P., Vauxhall; L.R.C.P. Norwich; A., Sheffield; M.D., Swanage; Fides, Croydon.

Manchester Examiner, Syracuse Sunday Herald, Glasgow Herald, North Devon Journal, Wellington Weekly News, Western Daily Mercury, Glasgow Herald, Sheffield Daily Telegraph, Southport Visitor, Doncaster Gazette, Musical Opinion, Liverpool Courier, Manchester Examiner, &c. have been received.

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Clinical Lecture
ON
MALFORMATIONS OF THE HEART.

Delivered at the Hospital for Sick Children, Great Ormond-street,

BY ROBERT J. LEE, M.D., F.R.C.P.

GENTLEMEN,—Cases of congenital heart disease in infants and children are generally of great interest—perhaps because they are not very common, or because exact diagnosis is difficult. At one time this difficulty of diagnosis aroused an interest in my own mind; but time, observation, and reflection have altered my views, and presently I will explain to you as briefly as possible the reasons why. We will begin, as usual, with a case, a typical one, of congenital malformation of the heart, and of rather common occurrence. The boy is now in fairly good health. According to the mother's account he has never been so well. He is between five and six years of age, is well grown and well nourished, and there is no complaint made of disturbed health except a slight cough. We have had him under observation for several months, and his mother says that he was brought to this hospital between three and four years ago, when he was about eighteen months old. We are told that he had three convulsive attacks at that time, but there does not seem to have been any reason for suspecting disease of the heart—at least, no intimation of this was given to the mother. When he came the second time, some months ago, there was then nothing very definite in the symptoms. He suffered chiefly from a disinclination for exercise or movement, from occasional swelling of the joints of the knees, feet, and hands; and he had spots of rather bluish ecthyma on different parts of the body. It was the fact of these symptoms being indefinite, and perhaps more particularly a peculiar expression of anxiety in the face, that made us at once suspect some cardiac trouble.

If you examine the boy's heart, you will find very much the same signs to-day as when he was examined a few months ago. You can hear a loud prolonged murmur over the præcordial region, but loudest a little below and to the left of the nipple; and you can follow the murmur round the axilla to the angle of the left scapula, where it is much fainter than in front, but still very distinct; it is systolic, but more prolonged than the ordinary mitral murmur of rheumatic origin. The liver was enlarged, for its margin could be felt midway between the umbilicus and the right costal boundary line. The treatment was active and satisfactory. We relieved the circulation by leeches applied over the heart, encouraging the hæmorrhage by fomentations. We ordered full doses of digitalis combined with the mixture of iron and magnesia; and, lastly, we enjoined perfect repose. As you see, the impulse of the heart is considerable, but the contractions are regular, and not very rapid, not more than 80 in the minute, and less probably if the boy were not a little excited. The clubbed condition of the fingers which was noted some months ago has disappeared, the skin is quite healthy, and there is no swelling of the joints; in fact, there is nothing particular to observe in the case except the cardiac murmur and some coarse crepitation in the lungs, due probably to a recent mild attack of bronchitis, or to slight congestion from the condition of the heart.

The case is not complete without an inquiry into the possible origin of the malformation. The first symptom of serious disturbance of the child's health was when he was ten months old, and then his breathing was at times oppressed, and there were other symptoms, although not at the time understood, yet clearly sufficient to decide the question of the congenital character of the cardiac defect. Two possible causes are given by the mother. One is that three weeks previous to the birth of the child she had a serious fright from a fire breaking out immediately behind the house in which she was living. Her anxiety was increased from the fact that her husband kept an oil-shop, and there was imminent danger of a conflagration on their own premises. The child was born rather prematurely, in consequence it was thought of this accident. The other cause is somewhat different. The father was the subject of severe rheumatism, and though we cannot ascertain distinctly the cause of his death, yet we are told that it happened rather suddenly eight months after the birth of this child. The relation between the father and the boy's condition is simply this—that if the former were the subject of disease of the heart of rheumatic nature at the time of conception, we know by experience that this may be the cause of cardiac malformation in the offspring. Which of these two causes was the potent one in this case I am not prepared to say. It is true that the most common cause of this kind of malformation is maternal trouble; but in giving you the complete history and all the facts, I have indicated a possibility worthy of attention and recollection. There is one point to be noticed before we discuss the nature of the cardiac defect, and that is the convulsive attacks which occurred at the age of eighteen months. They were not ordinary convulsions such as we are familiar with in infancy. They were rather long attacks of passive coma, without muscular spasm, and were alone sufficient to suggest some cardiac trouble. I have already pointed out, when considering the subject of convulsions in infancy, that this form of so-called convulsions presents a striking contrast with the form we are most familiar with. I think that the importance of carefully examining the heart in infants when the convulsive attacks are of comatose character was then mentioned to you.

Now we will consider what is the probable condition of the heart. Though we may not be able to diagnose for certain the exact nature of the malformation, we can arrive at conclusions exact enough for all practical purposes. In this case I think we may conclude that the defect is situated in the ventricular chambers, and that in all probability it consists of a communication between them somewhere in the interventricular septum. This is not an uncommon form of malformation. As you might imagine, the most common form is a communication between the auricles from non-closure of the foramen ovale. The auricles thus become practically one chamber, and we judge of the extent to which they are partially divided by the general condition of cyanosis. But if you expect to find a murmur present in most cardiac malformations you will perceive on reflection that this is unreasonable. In the majority of cases the chief physical sign is rapid and increased action of the heart, and not what we have observed in the case before us. It is for this reason that we must attend more to the general evidences of disturbance of the circulation than to the stethoscopic examination, and even when there is a distinct cardiac murmur we must look rather to the former than the latter in giving a prognosis. If we take a general view of this question, we shall see that it resolves itself into an hydrostatic problem, where the point we have to determine in any particular case is not so much the locality where the two blood currents, the arterial and pulmonary, are confluent, but rather the extent to which confluence is permitted by defects in the chambers or vessels which contain the fluids.

Imagine that we have two tubes of equal size placed parallel to one another, and that water or any other fluid is flowing through them in a similar direction, and at the same pressure. If we open a communication between these tubes by a cross tube interposed at right angles, no effect is practically produced upon either current; but if the cross tube is inclined at an angle between them, there is a tendency for a current to be established along the interposing tube. You can easily perceive that the size and the direction of a communication between two currents determine to some extent how far one mingles with the other. In a closed circuit the conditions are somewhat different, and we have to consider the difference of pressure on either side of a communication between the two systems.

In the case before us, for example, there is probably a a current from the left ventricle into the right during each contraction, with little if any current in the opposite direction, at least if there is it must be during the diastole. I think that if the right side of the heart were much congested, and the fluid pressure were increased, there would be more trouble, and cyanotic symptoms would exist as at the time when the leeches were applied. We will not consider this subject any further now, as you can pursue it at your leisure without my assistance. It only remains for me to say a few words on a line of research which I have no doubt has occurred to you as likely to aid in diagnosis—namely, the examination of the numerous specimens exhibited in most museums, or the descriptions to be obtained from various sources of different kinds of malformation. It is

rather curious to find that a good many of the specimens in museums were accidentally discovered, and prove chiefly that persons may live without suspicion of anything being wrong with the heart for many years. In other respects these specimens from having no history attached to them are not of much value.

A classification may be made from such a collection of specimens, and certain general conclusions may be drawn, but when this is done you are not much assisted in the diagnosis of any particular case. There is one thing certain, after all, and that is that general symptoms must be relied upon rather than physical signs in deciding the probabilities of life being supported under the circumstances. A large number of cases soon terminate fatally, and by soon I mean within a few weeks or months from birth. It often happens that, provided the greatest care is taken of an infant, it exists until an accidental exposure to cold induces some complication such as bronchitis or pneumonia, or it becomes the subject of convulsive attacks, which soon prove fatal. In many cases the distress of the infant is very painful to see, and we need not hesitate when expressing faint hopes of life to point out how little its prolongation is to be desired where the suffering is so great. Among those who have made the subject of malformations one of special study, and to whom we are much indebted for carefully described examples, as well as important generalisations, I must not omit to mention the name of the late Dr. Peacock. It is associated in my mind with such estimable qualities of intellectual and moral character that I mention it with deep respect and affection, and when I recommend to your attention the writings of this distinguished physician and pathologist, I do so in the conviction that you will derive great satisfaction and profit from the perusal of his works. In the Transactions of the Pathological Society some of his most important contributions will be found. In vol. xxxii., p. 35, there is a brief but valuable summary of what he described as "the most common kind of deviation from the natural conformation of the heart," the cases where the aorta communicates with both ventricles through deficiency of their system.

Seeing that we must be guided so much more by the general symptoms, in our diagnosis and prognosis than by the physical signs in this class of cases, you will appreciate my reasons I hope for attaching more importance to the former than the latter; and though it it not my wish to discourage you from carefully determining physical signs, it is proper that you should not attach too much importance to them, or hope for as much assistance in diagnosis as we are accustomed to derive when dealing with other forms of cardiac disease.

ON VISCERAL SYPHILIS.

BY J. S. BRISTOWE, M.D., F.R.S.

(*Concluded from p. 333.*)

THE next case is one in which, together with a number of lesions that were regarded at any rate for a time as due to disseminated cancer or sarcoma, there was a condition of knee-joint exactly such as was found in the case forming the text for my paper. In this case also recovery under specific treatment seems to have been complete and permanent.

CASE 3. *Tertiary Syphilis affecting Testicle, Glands of Neck, Clavicle, Knee, Sacro-iliac Synchondrosis, &c., and simulating Malignant Disease of these Parts; Cure.* In the early part of the year 1872 I saw in consultation a gentleman about twenty-eight years of age. He had been a very healthy and athletic man, and, in fact, took a leading position among the promoters of athletic sports in the metropolis. He had been married for some months, and at the time of marriage was, he said, perfectly well. About six months ago, shortly after his marriage, one of his testicles began to enlarge, and then at irregular intervals other swellings became developed in connexion with one of the collar-bones, the glands beneath the angles of the jaw, one of the sacro-iliac synchondroses and the left knee. The last of these appeared a few weeks before I saw him. At the time of my visit he had lost much flesh, was exceedingly anæmic, very weak, and wholly confined to bed. He had been suffering from much pain and want of sleep, and was very low-spirited. On examination I found the glands under the angles of the jaw enlarged and hard, and those on one side forming a lobulated mass about the size of a duck's egg. The central part of one of the clavicles was swollen, painful, and tender, the swelling being about as large as a small Tangerine orange. One of the testicles was large and tender, apparently about the size of a cricket-ball; but there was effusion of fluid into the corresponding tunica vaginalis, which prevented an exact determination of the size of the testicle; but collectively the tumour was as big as a large cocoa-nut. One knee was very much swollen, painful, and tender. Its cavity contained a good deal of fluid; but also the solid tissues were thickened, and especially this was the case over the lower end of the femur, suggesting that the affection might have begun from this part. There were also swelling, pain, and tenderness over one of the sacro-iliac synchondroses. Further examination showed that there were a few large indurated glands in the groins, but that there was no evidence of glandular tumours elsewhere, or of visceral disease of any kind. What was the patient suffering from? I confess that my primary thought was (and this was, I believe, the view of his medical attendant), that he was the subject of some kind of malignant disease, either lymphadenoma or a variety of sarcoma. This view, I thought, best explained the gradual and unaccountable onset of his disease and the general diffusion of morbid growths, and seemed to be confirmed by the fact that he had never to his knowledge had primary syphilis or experienced any secondary symptoms. Still I was not quite satisfied with this opinion, and, moreover, was anxious to be able to take a hopeful view. And on pushing my inquiries I found, in the first place, that though, as far as he knew, he had never had syphilis, and certainly had no scar of old chancre, he had before marriage lived loosely, and might well have contracted the disease; in the second place, that the glands in the groin had become enlarged about three years previously, their enlargement being referred at the time to over-exertion in connexion with athletics; and lastly, that about fifteen months ago a swelling had appeared in his calf, which had ulcerated and formed a deep unhealthy sore, that the sore had spread until it had become nearly as large as the palm of the hand, and that at the end of six months it had healed, leaving a large irregular depressed cicatrix, which still remained. I concluded that this was really a tertiary syphilitic ulcer, and that there were good grounds after all for at any rate hoping that his complex disorders were also syphilitic. A few days later Mr. Timothy Holmes saw the case with us, and came to the same opinion that we had done. The patient was consequently put under a course of mercury and iodide of potassium. I heard no more of my patient until two or three years later, when I was asked to see him again in consultation. He was suffering from an attack of rheumatic fever. I then learnt, that he had rapidly improved under antisyphilitic treatment; that in the course of a few weeks he had been able to be removed to the seaside; and that at the end of a few months he had been restored to health. On the occasion of this visit, I found practically no traces of the various inflammations and tumours which he had formerly presented. I know that he was alive and carrying on his business, and presumably therefore well, a year ago.

I may be allowed to explain that I have not ventured to say on which side of the body the specific lesions were; because while I have a vivid recollection of all the more important features of the case, I am mainly indebted for the above description to the notes of an old clinical lecture of mine which states the facts briefly, but omits to specify these particulars, doubtless because when I gave the lecture there was no need to remind me of them.

The next case is one mainly of abdominal syphilis—that is, of syphilitic affection with gummata of the liver and spleen, and consequent ascites. It illustrates the abdominal phenomena (excepting obstruction of the vena cava) presented by my first case. In both the tumours were at first so large and irregular as to suggest the presence of malignant disease; but in the last, though they have not disappeared, they have become quiescent, apparently under the influence of iodide of potassium and mercury; and even in the case now under treatment there is distinct evidence that the growth has become arrested, even if it be not shrinking. In the case I am about to quote it will be observed that latterly the patient has been also suffering from intracranial syphilitic disease.

CASE 4. *Tertiary Syphilis; Enlarged Liver and Spleen; Ascites; later, Paralysis of Portio Dura; Incomplete Recovery.*—Ellen M——, a telegraph clerk and also a prostitute, aged thirty, came under my care on March 17th, 1882. Her history was not accurately known while she was in the hospital on this occasion. But it was ascertained some months later that she had been earning her livelihood mainly by prostitution for some time, that she had indulged largely in alcohol, and that she dated her present illness from an injury received a year and a half previously during a violent struggle with a man who, after having had connexion with her, tried to rob her of her jewellery. From that time she had suffered from increasing weakness and emaciation, pain in the epigastrium, and nearly constant vomiting after food. Eight months ago a tumour was detected in the epigastrium, which has since got larger. Latterly the catamenia have been absent. She has never had any skin eruption. She was thin, somewhat pale, and complained of shortness of breath, and cough attended with expectoration of viscid mucus, and also of enlargement of the belly, with sickness, epigastric pain, and tenderness. The heart was healthy, but there was some degree of dulness and a good deal of smallish crepitation over the lower part of both sides of the chest. The abdomen was large, but did not distinctly contain fluid. There was a hard, prominent, rounded, irregularly nodulated tumour, filling up the epigastrium, and measuring six inches transversely by three inches vertically. This was evidently the prominent portion of a much enlarged liver, for the lower edge of this organ could be traced from the right anterior superior spine of the ilium obliquely upwards to the junction of the eighth and ninth left costal cartilages, passing in its course about two fingers' breadth above the umbilicus. Just to the left of the liver the enlarged spleen could be felt emerging from beneath the ribs, its lower end reaching to midway between the ribs and the crest of the ilium. The liver dulness commenced at the upper border of the fifth rib; the splenic dulness commenced at the upper border of the eighth rib in the mid-axillary line, and extended downwards for seven inches. Tongue fairly clean; bowels regular; urine, sp. gr. 1019, high coloured, but free from bile, and without albumen; temperature normal. There was little change in her condition while in the hospital. On the whole, however, she improved a little. Her cough, which was attended with occasional slight hæmoptysis, nearly disappeared; her vomiting diminished; and her appetite returned to some extent. Her catamenia also returned; but there was no appreciable change in the size of the liver and spleen. The blood was examined, and found not to contain any relative excess of white corpuscles. She left of her own accord on April 15th. Five months later I saw her at her own lodgings. She was then decidedly worse, and seemed very ill. She was sallow, but not actually jaundiced. The abdomen contained a large quantity of fluid; the liver and spleen were much in the same condition as before; and the veins in the upper part of the abdominal walls and in the lower part of the thoracic walls were dilated. It was now that I heard the true history of the case; and I was confirmed in the view I had previously formed, that the enlargement of the liver and spleen was largely due to the growth of gummata.

Some months after this she was in King's College Hospital, under the care of Dr. Buchanan Baxter, still suffering from ascites, for which she was tapped. She was very ill then, and it was expected she would die; but she improved, and left the hospital fairly well. During the greater part of the time to which the above notes relate she was under anti-syphilitic treatment. On July 9th, 1884, she was readmitted into one of my beds. Ten days previously she dreamt that she had a fit, and on getting up in the morning found her face drawn to the right side, that she could not close her left eye, and that she was deaf of her left ear. On admission, she was suffering from frontal and vertical headache, sickness, drowsiness, loss of memory, and low spirits, complete paralysis of the left portio dura, deafness of the left ear, and slight weakness of both external recti, with double vision. She had no other paralysis, and the soft palate was unaffected. On examining the abdomen, no ascites was found, but the liver was still large and hard, and its edge reached to the umbilicus, and the spleen was also large and hard, and extended three inches below the ribs. She remained a month under treatment, and improved; but when she left she was still forgetful, still deaf, and still had complete paralysis of the portio dura.

The case with which I shall conclude, though interesting in itself and in its bearing on that of the gentleman athlete already detailed, has no direct relation to the case on which my paper is founded. It was an obscure case of disease of the testis and cervical glands, associated with albuminuria and dropsy, in which there was room for difference of opinion as to the nature of the affection, but in which the prevailing belief that it was syphilitic seemed confirmed by the results of treatment.

CASE 5. *Tertiary Syphilis; Enlargement of Glands in Neck and of Testicle; Albuminuria; Relieved.*—Charles H——, a butcher aged thirty-six, was admitted under my care on the 25th October, 1882. The history is somewhat obscure. He did not acknowledge having had syphilis; but said, that he had been liable to cough with expectoration for years; that six years previously he had struck one of his testicles, which became swollen and then diminished in size, and that a year ago he damaged the organ again, since when it has gradually enlarged; and that about three months ago he first noticed swelling of his legs, and at the same time suffered from lumbar pain and sickness. He is a well-nourished man, with some œdema of face and legs, penis, and scrotum. He has a hard and somewhat tender lump about the size of a large walnut behind the left sterno-mastoid, and another similar one under the angle of the right jaw. The left testicle is about the size of a child's fist; it is very hard, somewhat irregular in shape, adherent to the skin, and tender. Its exact shape and bulk are somewhat masked by the œdema of the scrotum, and it is impossible to distinguish testicle and epididymis. The breath sounds are harsh at the right apex, and the urine, which has a specific gravity of 1012, contains a large quantity of albumen. With these exceptions there is no evidence of visceral disease; the tongue is of a general beefy-red colour, void of papillæ, deeply fissured (mainly in the transverse direction), and studded here and there with patches of fur. He has no vomiting now; his appetite is fair, and his bowels are regular. There was a good deal of speculation as to what was the nature of this patient's malady. Was he suffering from tubercle? Was he suffering from some malignant growth, or was his disease syphilitic? It is evident that much might have been adduced, and much was adduced, in favour of either of these views; and it may be worthy of remark that the patient was sent to the College of Surgeons for the purposes of one of their practical examinations, and that there was considerable divergence of opinion among the examiners. On the whole, however, the balance of opinion was in favour of the syphilitic nature of the glandular tumours in the neck, and of the enlargement of the testis; this view being based partly on the hardness of the tumours, partly on the slow growth of the testis, and partly on the peculiar condition of the tongue, which some persons, and especially my friend and colleague Mr. Clutton, regarded as a characteristic outcome of combined smoking and syphilis. For two or three weeks after the patient's admission there was no improvement. Indeed, the glands in the neck slowly got larger and a third tumour of the same kind was added to them, and the testis also underwent some slight increase of bulk. At this time he was not treated with iodide of potassium and mercury; then these drugs were administered, and during their employment there was manifest amelioration of the tumours, both in size and as regards tenderness. In other respects he continued without change. His œdema persisted; he was thirsty, passed a good deal of urine (generally between sixty and a hundred ounces in the twenty-four hours), and had to relieve his bladder frequently. The specific gravity of the urine was generally about 1012, but occasionally (when the quantity passed diminished) rose to 1020. It contained a large quantity of albumen, generally one-half, but never presented distinct casts. What the nature of the kidney disease was I do not know, but I think it not improbable that the organs were the seat of lardaceous degeneration. The patient left the hospital on the 29th of November.

I have little to add by way of comment. It will be admitted, I think, that the cases I have quoted illustrate point by point all the interesting features of the case still under my care; and that collectively they justify (if such justification be necessary) the diagnosis which has been arrived at. At any rate it will be admitted, I think, that the whole group of cases is very interesting and instructive.

There is one matter of great practical importance which most of the cases bring into prominence—that is, that tertiary syphilis may be present in the most aggravated form in adults who are perfectly ignorant of having ever

had either primary or secondary symptoms of the disease, and who present no discernible traces of any such antecedent affections. This is less surprising, perhaps, in the case of women than in that of men, because while secondary symptoms in either case are often very trivial and apt to be overlooked, a chancre in women may easily occupy a position which neither involves present discomfort nor leaves a scar where it can be distinctly seen. In the third case of my series, that of the gentleman athlete, there was not only no history of primary or secondary syphilis, and no knowledge of the fact that the disease had ever been contracted, but a skilled surgeon failed to discover any local evidence of a former chancre. There is no reason whatever to suppose that the disease in any of the cases was congenital.

One other point I may refer to—namely, the causation of the venous obstruction. I am not aware that the walls of veins suffer from syphilitic thickening, with consequent thrombosis, as do the walls of arteries; nor, so far as I know, do veins become obstructed by clots in the course of constitutional syphilis, excepting as in tuberculosis and cancer, when the patient is in the last stage of cachexia. I am hence disposed to believe that in the two cases of obstruction of the vena cava the obstruction was due to the compression of the veins by adjoining gummatous growths; and, further, that it is due to this circumstance that in the one case the cava soon became pervious again; and that in the other, even after the obstruction has existed for two years, there are already indications that it is in process of removal.

ON A CASE OF PROGRESSIVE ANÆMIA.[1]

CURED BY IRON AFTER FAILURE OF ARSENIC TO AFFORD RELIEF.

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THOMAS B——, aged forty-five, a wheelwright by occupation, came under my care at the Middlesex Hospital on Nov. 25th, 1881, with the following family and personal history. His parents were both dead, the father at the age of sixty-three, from some form of heart disease, the mother from an unknown cause. Of a family of five brothers and five sisters three of the former and two of the latter survive. One sister died of consumption at the age of sixteen, the others in childhood from unknown causes; two brothers and one sister surviving suffer from rheumatism, one of the brothers having had two attacks of rheumatic fever. As a lad the patient had suffered much from headaches. He had had an attack of ague at the age of fifteen, followed by two others about the age of eighteen. Five and a half years before admission he was laid up with what he was told was "congestion of the liver and inflammation of the kidneys." He was ill then for twelve weeks, but was able after that to return to his work. Two years ago he lost his appetite and began to complain of increasing weakness. For eighteen months he has been troubled with pain in the loins and interscapular region, frontal headache, watering of the eyes, dimness of sight and noises in the head. About ten months since he suffered a little from "piles," and occasionally lost blood. For the last six or seven months he has observed himself becoming pale, and the paleness has gradually increased. He has also been troubled with shortness of breath on exertion. Two months ago for a short time he had frequent diarrhœa accompanied by abdominal pain, coming on immediately after food. A month since he brought up blood without coughing to the extent of half a teacupful. His feet and legs have lately swelled towards evening. He has been a temperate man all his life.

On admission his pulse was 96, of fair volume, but compressible; temperature 99°; respiration 24; the tongue clean, very pale, and rather dry. He was a fairly-nourished man, older looking than his stated age. He complained of great and increasing weakness, and shooting pains about the back and loins. He was markedly anæmic-looking, the visible mucous membranes being very pale, and the skin having a waxy appearance and faint yellow tinge. The skin of the axillæ and of the inner and anterior aspect of the legs and ankles was dark and mottled, but there were no spots of pigmentation about the lips or mucous membrane of the mouth, and the areolæ round the nipples were not dark. The muscles were soft and flabby, but not wasted. There was slight pitting on pressure over the ankles and shins. As regards physical examination, the lung resonance was everywhere good. Below the right clavicle the expiration was a little prolonged. There were no adventitious sounds, except at the extreme bases, where scanty crackles were heard at first on deep inspiration. The heart's sounds were well pronounced at the apex, which appeared to be in the sixth interspace, an inch outside the nipple-line, where the first sound was accompanied by a well-marked blowing murmur. At the base the sounds were scarcely audible. A loud venous hum was heard over the jugulars on both sides of the neck. There was no enlargement of the liver or spleen, or of the glands in the neck, axillæ, or groins. The urine had a specific gravity of 1024, and was acid and free from albumen. The blood, estimated by the hæmacytometer, was found to have a corpuscular richness of 23 per cent. (1,150,000 red corpuscles in the cubic millimetre). Under the microscope the blood showed the corpuscles aggregated in masses rather than in rouleaux. The white corpuscles were not in excess. No retinal hæmorrhages were observed with the ophthalmoscope. The patient was at once put upon arsenic (five minims of the liquor arsenicalis three times daily) with three ounces of port wine, and a diet consisting of fish, beef-tea, milk, and an egg, the arsenic being increased to eight minims for each dose on Dec. 1st, a week after taking the smaller quantity. A note made on Dec. 4th states that he was sick during the previous night, but had no pain or diarrhœa. His tongue was clean and pale, and the colour of the face had not perceptibly improved. The blood, estimated again by the hæmacytometer on Dec. 7th, showed no change. I accordingly determined to give the arsenic in another form, and ordered for him an eighth of a grain of arseniate of iron in pill, to be taken every six hours, and he went on with this for six days. Two days after commencing to take the arseniate he complained of slight diarrhœa, which, however, increased, and was accompanied by griping pain in the abdomen. This I attributed to the arsenic, and ordered it to be discontinued, and the diarrhœa ceased the following day.

Examining the blood on Dec. 15th, I found the corpuscles numbering only 21·2 per cent. of the normal, and it seemed that he was not a whit the better, but rather worse, for the arsenic he had taken. On this day, therefore, I ordered him three grains of dried sulphate of iron in pill three times a day, and on the 19th (four days later) it was noted that his appearance was less anæmic and that his condition was generally improved. On Dec. 26th the blood showed a richness of 47·8 per cent. (2,390,000 per cubic millimetre), being an increase of 24·8 per cent. (or 1,240,000 per cubic millimetre) since the treatment with iron was begun—namely, in ten days. A few days later it was noted that the apex murmur was less marked than it had been. On Jan. 4th, 1882, the corpuscles were 45·8 per cent., and he felt stronger and was able about this time to go into the garden on fine days. On Jan. 9th, when he had been taking the iron for nearly four weeks, I thought that a little arsenic might prove helpful along with it, and he was ordered five minims of the liquor arsenicalis with infusion of calumba, three times a day, the iron still being continued. On Jan. 16th the corpuscular richness of the blood had reached 72·8 per cent. (3,640,000 per cubic millimetre); the heart's apex was within the nipple-line, the murmur inaudible; the muscles were much firmer; there was no œdema of the ankles present; the pulse was regular and of good strength; the man's whole appearance was considerably improved, and he felt much better. On the following day he was sent to the seaside. He returned on Feb. 11th, having a very good colour, and stating that he felt quite well and was able to return to his work, having no shortness of breath on exertion. About a month after his return I had an opportunity of examining his blood again, the result being 91·2 per cent. of corpuscular richness (4,590,000 per cubic millimetre). Six months later he was reported to me as having continued quite well, and being regularly engaged in his work. I saw him last week, and he still continues well, although not robust. I ought to add that I was unable to estimate the hæmoglobin percentage, and that only one ophthalmoscopic examination was made.

[1] A paper read before the Medical Society of London on February 16th, 1885.

I have brought forward the foregoing case chiefly on account of the considerations it presents from its therapeutical side, but in view of recent writings on the subject the two sides of diagnosis and treatment are so bound up that it seems impossible to discuss them separately. I have called it a case of progressive anæmia, because although not progressive in the sense in which the word is used when coupled with "pernicious"—i.e., progressive to a fatal result,—it has seemed necessary to give it a name which would serve to indicate the opinion that it belongs to the same class; and in this sense a certain amount of progress might be predicated of it, just as of other diseases which go in a downward direction until a turning point is reached. If Addison's name of "idiopathic anæmia" be preferred, it need not be objected to, except for this, that when we have labeled a disease "idiopathic" there is a danger that we may be drawn away from the endeavour to seek for causes the discovery of which would render the name no longer appropriate. But the name is of the less importance if we are agreed about the thing, the essence of which, as laid down by Dr. Pye Smith in his able and exhaustive paper in the twenty-sixth volume of Guy's Hospital Reports, is "its being primary, not the result of hæmorrhage or of organic disease, and simple, not part of a more general condition." Judged by this test I would submit that the case belongs to the so-called idiopathic class. It has no doubt been observed that my patient had suffered from ague in his youth, and it may be suggested that this may have had some influence in determining his attack of anæmia. But it should be remembered that he had no splenic enlargement and no excess of white corpuscles; and the ague was separated by an interval of twenty-seven years from the illness for which he came under my care, an interval during which his health had been generally good.

Again, the loss of blood which he suffered from hæmorrhoids was not sufficient in amount to account for his anæmia; and besides, as it occurred long after increasing weakness was complained of, I should look upon it not as a cause, but as a consequence of the anæmic state. The same remark would apply to the blood which he brought up a month before coming under my observation. In regard to these points I may quote Dr. Pye Smith, who says, "The vague statements of a man of forty-seven, that when young he suffered once or twice from fever, cannot seriously affect the case." And again, "The remarkable fact is that we find progressive and fatal anæmia to come on with no assignable cause; and this being admitted, one may well doubt whether preceding dyspepsia, or slight hæmorrhage, or pregnancy should be regarded as more than a coincidence."

I wish especially to call attention to the fact that, contrary to recent experience, treatment with arsenic alone appeared to do no good, and that improvement began from the time that iron, in the form of dried sulphate, was prescribed. I am aware that in the eyes of some this fact is sufficient to remove the case from the Addisonian category. According to others, the man's recovery would seem sufficient to support the same argument. But both of these positions are surely based on unscientific grounds; for it seems equally unreasonable to diagnose a case on the one hand by treatment, and on the other by result. I am not aware that we adopt the same method in the case of other diseases. If arsenic were an absolute specific, something could be said in favour of the former method, and for the other if such cases were uniformly fatal. But neither of these positions is correct, for arsenic has frequently failed to effect a cure, and cases of the kind occasionally recover. Dr. Pye Smith tabulates twenty such cases, in seven of which treatment by arsenic was successful, in five iron, in one iron and arsenic, and in two transfusion. The remainder were not medicinally treated at all.

I would venture to suggest for discussion whether all distinctive names are not undesirable—whether, in fact, anæmia, apart from hæmorrhage and organic disease, is not a unity, comprising, like other diseases, cases which recover under appropriate treatment and cases which, in spite of treatment, run on to a fatal result. There seems, indeed, to be no single distinctive sign in the class of cases under review, except death, by which they are commonly diagnosed. Even the retinal hæmorrhages, which at first were regarded as pathognomonic, have been shown by Dr. Stephen Mackenzie to be liable to occur in anæmia, however brought about, when the corpuscular richness of the blood falls below 50 per cent. of the normal.

In a good many of the cases reported chlorosis is given as an antecedent condition, and this seems to supply an argument in favour of the unity for which I plead. The same consideration must be drawn from what Immermann has written on the subject under the name of "pernicious anæmia." He speaks of it occurring in cases "as a complication supervening on an ordinary idiopathic or symptomatic anæmia, the true causes of the complication being totally unknown." "Moreover," he says, "I am inclined to put the same interpretation on those cases of chlorosis in which, after the usual symptoms have lasted a variable time, and the diagnosis has been correctly established, ... the patient succumbs at the end of a few weeks in a state of utter prostration and in spite of the most vigorous tonic treatment. We can hardly avoid the conclusion that the disease was at first a simple chlorosis, and that at a given moment certain fresh causes of an unknown order came into operation and modified the usual symptoms of chlorosis, so as to make the disease assume the character of a pernicious anæmia"; and Dr. Mitchell Bruce, in "Quain's Dictionary of Medicine," says that "the symptoms of simple chlorosis are those of mild anæmia, with certain important differences, which become fewer and less marked, and finally disappear, as chlorosis advances to the more serious disease."

I think we can only deduce from all this that anæmia, apart from hæmorrhage or organic cause, is one disease, beginning, as a rule, mildly, and being in the majority of cases curable (whether by iron or arsenic does not matter, for arsenic is often useful, even in the milder cases), but that in a certain proportion of cases it continues its downward course, becomes "pernicious," and ends in death. Such a conclusion is supported in the main by Dr. Coupland in the Gulstonian Lectures for 1881. He there states that "the symptoms of pernicious anæmia are those of simple anæmia aggravated and intensified," the effects being also "the same carried to an extreme degree."

It is instructive, in conclusion, to note that, according to Dr. Coupland, the great majority of the cases occur between the ages of forty and sixty in males, and between twenty and forty in females. May not a reason for this be found in the fact that as individuals advance in life they gradually come to have less power of repair, the younger average in females being accounted for by the additional strain thrown upon them in connexion with child-bearing and lactation? If so, such a consideration would still further tend to break down the distinction between simple and pernicious anæmia so-called.

ONE HUNDRED AND ELEVEN CASES OF LITHOLAPAXY.

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IN the December number of the *Indian Medical Gazette* of 1882, the February number of 1883, and the March number of 1884, three papers of mine appeared, in which full details of my first seventy-six cases of litholapaxy were given. Having now completed 111 cases of the operation, I propose dealing with them comprehensively in the present article, repeating some remarks recorded in the papers above alluded to, and adding some further observations of a practical nature which I have learnt from an increased experience of the operation. It is hoped that the record of a large number of cases of this operation from the practice of a single operator may prove interesting to the profession at large, and that the results obtained may have some effect in bringing into more general practice amongst my professional brethren in India an operation which, though still in its infancy, has undoubtedly a brilliant future in store for it.

The extreme aversion with which the natives of India regard any mode of treatment that involves several distinct surgical proceedings, extended over an unlimited period, is well known to every surgeon who has practised amongst the people of this country. The knowledge of this fact alone, putting aside altogether the comparative merits of lithotrity and lithotomy, was sufficient to deter surgeons from practising the old operation of lithotrity. When, however, some five years ago Professor Bigelow, of Harvard, U.S., introduced his new operation of "litholapaxy" to the

TABLE SHOWING PARTICULARS OF 111 LITHOLAPAXY OPERATIONS.

Serial No.	Date of operation.	Age.	Sex.	Caste.	No. of days in hosp.	No. of sittings	Size of cannula.	Weight of calculus.			Variety.	Time occupied by operation.	Duration of disease.	Result.
		Years.					No.	Oz.	Drs.	Grs.		Minutes.		
1	3rd July, 1882	50	M.	H.*	10	1	18	—	4	—	Phosph.	30	9 months	Successful
2	25th ,, ,,	85	M.	M.†	10	1	16	—	6	—	Uric	25	3 years	,,
3	4th Aug. ,,	55	M.	M.	13	1	16	—	1	20	,,	10	9 months	,,
4	6th Sept. ,,	65	M.	M.	10	1	18	—	3	55	,,	25	5 years	,,
5	11th ,, ,,	65	M.	M.	6	1	16	—	6	40	Oxalate	25	4 ,,	,,
6	15th ,, ,,	50	M.	H.	5	1	18	—	4	—	Phosph.	18	½ ,,	,,
7	22nd ,, ,,	65	M.	H.	7	1	18	1	3	—	Uric	33	2 ,,	Died
8	23rd ,, ,,	40	M.	H.	7	1	16	—	1	—	,,	5	1 ,,	Successful
9	24th ,, ,,	40	M.	H.	6	1	18	—	7	30	Phosph.	25	3 months	,,
10	26th ,, ,,	60	M.	H.	7	1	16	—	2	—	Oxalate	12	2 years	,,
11	17th Oct. ,,	45	M.	H.	9	1	18	—	7	5	,,	25	4 ,,	,,
12	23rd ,, ,,	20	M.	H.	5	1	16	—	2	50	Uric	11	4 ,,	,,
13	2nd Nov. ,,	50	M.	H.	5	1	18	—	—	15	Oxalate	6	10 days	,,
14	17th ,, ,,	35	M.	M.	8	1	16	—	5	25	,,	20	12 years	,,
15	28th ,, ,,	40	M.	M.	10	1	16	—	5	35	Phosph.	23	2 ,,	,,
16	6th Dec. ,,	60	M.	M.	11	1	18	3	2	—	Uric	66	3 ,,	,,
17	6th ,, ,,	38	M.	M.	7	1	16	—	2	5	Phosph.	8	1 ,,	,,
18	19th ,, ,,	35	M.	H.	7	1	14	—	—	45	Uric	5	4 ,,	,,
19	27th ,, ,,	40	M.	M.	12	1	16	1	2	—	Phosph.	35	12 ,,	,,
20	1st Jan., 1883	40	M.	H.	12	1	18	—	—	10	Oxalate	2	1 month	,,
21	1st ,, ,,	18	M.	H.	12	1	16	—	—	50	Uric	10	6 ,,	,,
22	3rd ,, ,,	55	M.	M.	13	1	16	—	5	—	,,	25	3 years	,,
23	6th ,, ,,	41	M.	H.	5	1	14	—	—	15	Oxalate	5	2 days	,,
24	9th ,, ,,	48	M.	M.	5	1	18	—	—	20	Uric	8	9 months	Died
25	17th ,, ,,	32	M.	M.	11	1	18	1	1	—	Oxalate	35	2 years	Successful
26	17th Feb. ,,	17	M.	H.	9	1	16	—	5	40	Uric	25	2 ,,	,,
27	19th ,, ,,	40	M.	H.	11	1	16	—	2	55	Phosph.	25	5 ,,	,,
28	22nd ,, ,,	40	M.	M.	7	1	18	—	2	—	Uric	10	3 ,,	,,
29	5th March ,,	46	M.	H.	22	1	16	—	2	10	,,	25	2 ,,	,,
30	19th ,, ,,	35	M.	M.	21	1	16	—	3	5	Phosph.	20	1½ ,,	,,
31	4th April ,,	32	M.	H.	8	1	16	—	6	30	,,	35	2 ,,	,,
32	12th ,, ,,	35	M.	H.	8	1	16	—	—	35	Uric	6	1 ,,	,,
33	12th ,, ,,	50	M.	H.	8	1	18	1	—	—	Oxalate	45	2 ,,	,,
34	15th ,, ,,	85	M.	M.	11	2	18	—	6	40	Uric	20	2 ,,	,,
								—	—	40		3		
35	16th ,, ,,	55	M.	H.	4	1	16	—	1	20	Phosph.	5	1 ,,	,,
36	20th ,, ,,	65	M.	H.	12	1	16	—	6	—	,,	36	½ ,,	,,
37	21st ,, ,,	40	M.	M.	13	1	16	—	2	20	,,	20	3 months	,,
38	24th ,, ,,	36	M.	M.	11	1	16	—	—	10	Uric	5	3 ,,	,,
39	28th ,, ,,	52	M.	H.	6	1	16	—	2	40	,,	12	1 year	,,
40	27th ,, ,,	50	M.	M.	8	1	18	—	5	30	,,	20	1 ,,	,,
41	8th May ,,	16	M.	M.	7	1	16	—	3	15	Oxalate	12	1 ,,	,,
42	18th ,, ,,	45	M.	M.	11	1	16	2	2	—	Carb. lime	70	10 ,,	,,
43	19th ,, ,,	17	M.	H.	6	1	14	—	—	40	Uric	7	2 ,,	,,
44	25th ,, ,,	45	M.	H.	—	—	18	2	6	—	,,	75	8 ,,	,,
45	28th ,, ,,	19	M.	H.	8	1	16	1	—	40	Phosph.	14	½ ,,	Died
46	3rd June ,,	35	M.	M.	12	1	18	—	—	12	Uric	6	4 days	Successful
47	8th ,, ,,	65	M.	H.	9	1	18	1	6	30	Oxalate	35	4 years	,,
48	21st ,, ,,	85	M.	H.	9	1	16	1	1	—	Uric	20	3 ,,	,,
49	24th ,, ,,	38	M.	H.	8	1	18	1	4	30	,,	57	3 ,,	,,
50	3rd July ,,	55	M.	M.	6	1	16	—	1	40	,,	12	1 ,,	,,
51	8th ,, ,,	65	M.	H.	7	1	18	—	1	30	,,	10	3 ,,	,,
52	10th ,, ,,	65	M.	H.	10	1	16	—	1	6	Oxalate	6	3 ,,	,,
53	27th ,, ,,	18	M.	H.	8	1	14	—	5	10	Uric	25	4 ,,	,,
54	1st Aug. ,,	50	M.	H.	3	1	16	—	—	10	,,	2	6 weeks	,,
55	10th ,, ,,	4½	F.	H.	3	1	16	—	1	26	,,	8	1 year	,,
56	12th ,, ,,	85	M.	M.	12	1	18	1	5	44	,,	55	5 ,,	,,
57	14th ,, ,,	65	M.	M.	10	1	18	1	5	24	,,	58	3 ,,	,,
58	22nd ,, ,,	30	M.	M.	19	1	16	—	5	40	Phosph.	35	2 ,,	,,
59	23rd ,, ,,	32	M.	M.	5	1	16	—	—	19	Uric	10	½ ,,	,,
60	24th ,, ,,	60	M.	H.	7	1	18	—	4	30	,,	30	2½ ,,	,,
61	25th ,, ,,	45	M.	H.	12	1	16	—	2	5	,,	10	1½ ,,	,,
62	3rd Sept. ,,	50	M.	H.	6	1	18	—	—	32	,,	5	1 ,,	,,
63	16th ,, ,,	38	M.	M.	6	1	16	—	2	26	Phosph.	10	½ ,,	,,
64	16th ,, ,,	42	M.	H.	6	1	18	—	3	26	Uric	20	13 ,,	,,
65	20th ,, ,,	3½	F.	H.	3	1	14	—	1	30	Phosph.	15	1 ,,	,,
66	2nd Oct. ,,	4	F.	M.	5	1	14	—	—	57	,,	10	3 ,,	,,
67	15th ,, ,,	65	M.	H.	15	1	16	—	1	15	,,	5	½ ,,	,,
68	26th ,, ,,	55	M.	H.	5	1	18	1	—	35	,,	34	8 months	,,
69	28th ,, ,,	96	M.	M.	15	1	18	1	1	35	Uric	60	4 years	,,
70	21st Nov. ,,	80	M.	M.	17	1	16	2	—	55	,,	90	4 ,,	,,
71	4th Dec. ,,	50	M.	M.	8	1	16	—	1	25	Phosph.	6	½ ,,	,,
72	5th ,, ,,	35	M.	H.	7	1	16	—	—	11	Uric	3	½ ,,	,,
73	11th ,, ,,	50	M.	M.	6	1	18	—	2	45	Phosph.	8	½ ,,	,,
74	13th ,, ,,	60	M.	H.	5	1	18	—	1	46	,,	10	1 ,,	,,
75	14th ,, ,,	26	M.	H.	12	1	16	—	2	35	,,	20	3 ,,	,,
76	27th ,, ,,	45	M.	M.	1	1	18	—	—	15	Uric	1	2 months	,,
77	5th Jan., 1884	40	M.	M.	2	1	16	—	—	13	,,	1	2 ,,	,,
78	24th ,, ,,	18	M.	H.	6	1	16	—	3	10	,,	17	9 years	,,
79	2nd March ,,	75	M.	M.	14	1	16	1	—	—	,,	35	3 ,,	,,
80	11th ,, ,,	45	M.	M.	6	1	16	1	2	30	,,	29	3 ,,	,,
81	23rd ,, ,,	70	M.	M.	14	1	16	—	—	30	,,	5	3 months	,,
82	15th ,, ,,	60	M.	H.	5	1	16	—	6	30	,,	20	1 year	,,
83	16th ,, ,,	58	M.	H.	8	1	18	—	5	48	Phosph.	25	2½ ,,	,,
84	29th ,, ,,	60	M.	H.	9	1	16	—	2	—	,,	10	2 ,,	,,
85	15th April ,,	75	M.	H.	10	1	16	1	1	40	Uric	54	3 ,,	,,
86	16th ,, ,,	60	M.	H.	9	1	14	—	1	54	Phosph.	15	1 ,,	,,
87	25th ,, ,,	60	M.	M.	6	1	18	—	1	3	,,	5	3 months	,,
88	23rd May ,,	45	M.	H.	11	1	16	1	4	—	Uric and Phosph.	11	2 years	,,
89	23rd ,, ,,	35	M.	H.	8	1	16	—	1	10	Oxalate	7	1 ,,	,,
90	7th June ,,	16	M.	H.	6	1	16	—	3	15	Uric	10	2 ,,	,,
91	21st ,, ,,	35	M.	H.	9	1	18	2	—	—	Phosph.	17	2½ ,,	,,

* Hindoo. † Mahomedan.

TABLE SHOWING PARTICULARS OF 111 LITHOLAPAXY OPERATIONS—*continued.*

Serial No.	Date of Operation.	Age.	Sex.	Caste.	No. of days in hosp.	No. of sittings	Size of cannula.	Weight of calculus.			Variety.	Time occupied by operation.	Duration of disease.	Result.
		Years					No.	Oz.	Drs.	Grs.		Minutes.		
92	27th June, 1884	55	M.	M.	19	1	16	1	4	—	Uric and Oxalate	28	3 years	Successful
93	29th ,, ,,	55	M.	H.	12	1	16	—	5	10	Uric	17	2 ,,	,,
94	11th July ,,	45	M.	H.	7	1	18	—	3	15	,,	11	3 ,,	,,
95	16th ,, ,,	55	M.	H.	9	1	14	1	1	20	,,	27	1½ ,,	,,
96	1st Aug. ,,	40	M.	M.	4	1	16	—	—	20	,,	4	½ ,,	,,
97	13th ,, ,,	26	M.	M.	3	1	18	3	1	30	Oxalate	52	6 ,,	Died
98	16th ,, ,,	75	M.	H.	9	1	16	—	1	25	Uric and Oxalate	6	½ ,,	Successful
99	18th ,, ,,	34	M.	M.	2	1	14	—	—	5	Uric	2	1 month	,,
100	24th ,, ,,	20	M.	H.	5	1	18	—	7	—	Phosph.	18	3 years	,,
101	25th ,, ,,	56	M.	H.	11	1	16	—	—	15	,,	5	15 days	,,
102	26th ,, ,,	35	M.	M.	7	1	16	—	5	30	Uric	36	3 years	,,
103	6th Sept. ,,	80	M.	H.	9	1	16	—	1	20	Phosph.	15	9 months	,,
104	8th ,, ,,	56	M.	H.	5	1	16	—	—	12	Uric	5	2 ,,	,,
105	10th ,, ,,	50	M.	H.	4	1	14	—	—	15	,,	5	4 ,,	,,
106	19th ,, ,,	36	M.	M.	14	1	16	—	4	—	,,	10	1 year	,,
107	24th ,, ,,	45	M.	M.	10	1	18	1	1	11	,,	35	4 ,,	,,
108	29th ,, ,,	25	M.	H.	14	1	16	1	2	5	,,	20	2 ,,	,,
109	6th Oct. ,,	35	M.	M.	7	1	14	—	—	8	,,	2	10 days	,,
110	11th ,, ,,	25	M.	H.	5	1	16	—	2	5	Oxalate	11	3 months	,,
111	26th ,, ,,	55	M.	H.	7	1	18	2	—	45	Uric and Oxalate	26	2½ years	,,

notice of the profession, and, scattering to the winds all previously held theories as to the deleterious effects of prolonged instrumentation in the bladder, demonstrated by a series of successful cases that, instead of subjecting the patient suffering from stone to a number of short sittings extended over an indefinite period, the calculus might be crushed and evacuated at one sitting, the chief objection to the crushing operation, so far as this country was concerned, seemed to have been removed. As with many of my professional brethren in India, lithotomy in my hands had proved a fairly successful operation. I did not therefore at first abandon the cutting for the crushing operation. I must confess, however, that the main cause of my hesitation in adopting the new operation was the depreciative manner in which it was criticised by Sir Henry Thompson on its first introduction. I need scarcely say that English surgeons have been in the habit of receiving as almost equivalent to divine law the utterances of that distinguished surgeon on any point connected with the surgery of the urinary organs. When, therefore, I read of the "disastrous" results that he anticipated from Bigelow's operation I naturally hesitated in adopting it. And it was not till I subsequently read of the brilliant results Sir Henry himself had obtained from that operation, with reference to which he had uttered such gloomy forebodings, that I finally decided on giving the operation a trial.

During the period that has elapsed since I adopted the operation of litholapaxy in my practice 203 cases of stone in the urinary passages have come under my immediate treatment. Amongst these there were four cases of impacted urethral calculus, in all of which external urethrotomy was successfully performed. There were seventy-five cases of vesical calculus in male children or lads under sixteen years of age. Lateral lithotomy was the operation performed by me in all these cases, and amongst them there was no death, all having made excellent recoveries. In the remaining 124 cases, all of which occurred in adult males, with the exception of three female children, the operation of litholapaxy was entertained, but for various reasons there were thirteen instances in which the operation could not be performed. Five of these latter were the subjects of severe stricture of the urethra, so that the instruments would not pass into the bladder; in one case there was a greatly enlarged prostate with tortuous urethral canal; and in seven cases the stone was so large that it could not be grasped by the lithotrite, or so hard that after being grasped the lithotrite could make no impression on it. In twelve of these cases I performed lateral lithotomy, with two deaths. In the remaining case the calculus was extremely large and hard, weighing over twelve ounces. In this case the suprapubic operation was performed, but the patient died six hours afterwards. I have considered it advisable to mention the above facts so that it may be clearly understood that the operation was given a fair trial, having been performed in every possible instance in the adult without reference to age, state of health, size of calculus, &c. It is in this way only that a true estimate of the comparative value of the operation can be obtained, and not by performing it in selected cases only.

A detailed description of the operation of litholapaxy would be foreign to the aim and scope of this paper. A word, however, about the instruments employed. The lithotrites used by me are: a large fenestrated instrument for crushing large and hard calculi; a smaller one of the same description for medium-sized and small stones; and a flat-bladed lithotrite for crushing débris. All these lithotrites are constructed on the well-known model of Thompson and Weiss, and admirable instruments they are. Recently I have had a very large and powerful fenestrated lithotrite constructed for me by Weiss on the same model. Its crushing power is excellent; but in dealing with very large and hard calculi, it might be rendered more efficient by some slight alterations that I shall have to suggest further on. The aspirator used by me is that modification of Bigelow's instrument known as Thompson's, and subsequently improved by Weiss. The evacuating cannulæ vary in size from No. 12 to No. 18. Larger than the latter I have not used, that being the largest size I possss. I have, however, met with a few cases in which a larger size might have been passed with ease, and I have, consequently, ordered a No. 20 cannula. The larger the evacuating cannula, the less necessity there will be for crushing the calculus into fine powder, and, consequently, the less time will the operation require for its performance—a matter of no small importance when we have to deal with a large stone in a patient whose constitution has been very much worn by the disease. It is, therefore, advisable to employ the largest cannula that will pass with ease into the bladder. I cannot too strongly deprecate the use of any force in passing a catheter, or, indeed, any instrument, into the bladder. The deleterious effects which Sir Henry Thompson anticipated from the use of large instruments experience has shown to be mythical. Sir Henry says that the instruments should be proportionate to the size of the stone; but experience has taught me that the capacity of the urethral canal is of much more importance in determining the size of the instruments, and that the largest lithotrite and cannula that can be passed without the use of any force should be employed. A large lithotrite is much handier in the bladder, less liable to get clogged by débris, much more efficient not only for crushing large calculi, but for disposing of fragments of débris, than a small one, and I fully agree with Bigelow that when one gets accustomed to the use of a large lithotrite he does not willingly abandon it for a smaller instrument.

The accompanying table will show at a glance some of the most important points connected with the 111 cases of litholapaxy, which are the subject of this paper. The subjects of these operations were all natives of India. All, with the exception of a few cases in private practice, were in-patients of the Civil Hospitals at Moradabad and Bareilly, throughout the whole course of their treatment. Detailed notes in every case have been kept by my assistant-surgeons and myself, and no case has been permitted to leave the hospital till he had quite recovered.

From this table it will be observed that amongst the 111 cases in which litholapaxy was performed there were four deaths. The details of these cases are as follows:—

CASE 7.—A Hindoo male, aged sixty-five, was admitted into the Moradabad Civil Hospital on September 21st, 1882, with symptoms of stone in the bladder, which had existed three years. There was painful and difficult micturition, with frequent desire to make water; passing of blood occasionally, and the urine for some months had been mixed with pus, giving a very offensive smell on standing. There was great enlargement of the prostate. A catheter was passed and about ten ounces of fetid urine drawn off. On passing a sound several small calculi were detected. The man's health was very bad. On September 2nd I performed litholapaxy. The operation lasted thirty-five minutes, the lithotrite being introduced four times. The débris weighed eleven drachms. No. 18 cannula passed easily—after previously slitting the floor of the meatus slightly—as far as the prostatic portion of the urethra, where some manipulation was necessary to pass it into the bladder. It was evident from the appearance of the débris that there were several calculi, varying in size from that of a pea upwards. Before withdrawing the cannula finally the bladder was washed out with a weak carbolic solution. In addition to the usual after-treatment, a catheter was ordered to be passed morning and evening, owing to the atony of the bladder and enlargement of the prostate that existed. During the first two days little urine passed except through the catheter. The urine continued fetid and sanious; the bladder was washed out daily, a faint trace of carbolic acid being added to the water. There was no pain, but the patient continued very anxious and depressed, and died on September 27th from exhaustion. No post-mortem examination was permitted.

(To be continued.)

REMOVAL OF A GUN-BREECH AND BOLT FROM THE NOSE AFTER FIVE YEARS.

BY RUSHTON PARKER, B.S., F.R.C.S.,
PROFESSOR OF SURGERY IN UNIVERSITY COLLEGE, LIVERPOOL.

THE patient, a farmer aged twenty-four, was brought to me by Dr. O. W. Griffith of Pwllheli, on Dec. 19th, 1883. Five years before a muzzle-loading fowling-piece had burst in his hands, laying open his face about the mouth and nose. The resulting wound had healed externally with a trifling scar and no deformity, under the the care of another medical man. About November, 1883, he consulted Dr. Griffith on account of a persistent fetid discharge of pus from his nostrils, and a sinus under the upper lip on the left side. The use of disinfectant lotions not having produced any improvement, it was concluded that a piece of necrosed bone was at the root of the evil. The examination by myself and Dr. Griffith showed entire absence of facial and buccal deformity, and the probe revealed nothing except a bare edge of bone when passed into the sinus under the lip. Exploration by either nostril, however, with dressing forceps was attended by contact with what was presumed to be a piece of dead bone, that could be seized and turned about, but not withdrawn, as the aperture was not large enough. So arrangements were made for operation under anæsthetic the next day, which was undertaken in lodgings the patient took for the purpose. The sinus beneath the lip was entered with a blunt-pointed bistoury, and the soft parts of the nose detached from the upper jaw by a horizontal incision along the mucous fold under the lip. Through the resulting hole the manipulations were made, in order not to mutilate the exterior of the face. The sequestrum forceps employed soon clicked with a metallic sound, and were withdrawn holding an iron screw bolt, at once suggesting that one had to do with parts of a gun, but the main object still remained, resisting at first all efforts at extraction, though freely movable round and round. The bony margins of the nostril were clipped with pliers to enlarge the opening somewhat, but even then the body did not advance. The sequestrum forceps missed their hold repeatedly, having become much distorted, and therefore almost useless. However, with the fingers, and with another pair of forceps used as a lever, the piece of metal was prised through the opening by forcibly pulling, wrenching, and wriggling. Examination with the finger failed to detect any further loose fragment, coming upon blood-clot and the sharp edges of the nasal septum and other bony corners presumably not necrosed. Much hæmorrhage naturally occurred, but was speedily arrested by washing with hot water. The patient was a full-blooded man of extremely strong build and middle height, and most bravely endured the operation, of which he must have felt the greater part, as the chloroform produced little or no effect upon him. Much soreness naturally followed all the next evening and night, in which he slept but little. The next morning early he took a breakfast of ham and eggs instead of the tea or beef-tea which had been recommended for him,

and he set off the same day for Pwllheli, where he has remained and progressed favourably ever since. In the first week of June, 1884, he was seen by Dr. Griffith, who found the incision under the lip healed without visible cicatrix, and the discharge from the nose a mere trace. The patient was free from all inconvenience.

Remarks.—This is the largest piece of gun-barrel, embedded in the nose, that I have heard of, weighing 3 oz. in the breech and ½ oz. in the bolt, the former having dimensions of 2⅞ by 1⅛ by ¾ in., and the latter 2¼ by ¼ in. The next largest that I know of is that removed by Mr. George Lawson, depicted in the second and subsequent editions of his work on the Eye, and weighing 1½ oz.

Liverpool.

LATERAL DEVIATION OF THE SPINE.

BY F. R. FISHER, F.R.C.S. ENG.
SENIOR SURGEON TO THE NATIONAL ORTHOPÆDIC HOSPITAL.

THE various conditions of curvature of the spine have of late years attracted a considerable degree of attention, especially with reference to their treatment. Pott's disease of the spine, or, as it is more commonly called, "angular deformity," and lateral curvature, have mainly, it might perhaps be written solely, received notice. Concerning these deformities more difference of opinion has been expressed as to the most desirable methods of treatment to adopt for the relief of the latter than of the former condition, because most surgeons are fairly well agreed as to the objects to be striven for in order to relieve Pott's disease, whilst they dispute pretty freely as to what lines should be followed to overcome lateral deformity. Much of this difference of opinion is to be traced to a confusing together of several conditions of lateral deviation of the spine under the one term lateral curvature. Now, although lateral curvature varies greatly in its nature, especially as regards the situation of distortion and the number and length of the curves formed in the column, there is one distinguishing feature in this deformity which should prevent any error in diagnosis, and to this point alone need reference be made here. Wherever the curves may be situated, whether in the cervical, dorsal, or lumbar region of the spine, whether in the early or late stage of the deformity, there will always be found that condition which has given to lateral curvature of the spine the name of scoliosis; this ever present characteristic is the so-called "rotation of the vertebræ"—that is to say, the anterior portion of the column, the bodies of the vertebræ, is further displaced from the median line than is the posterior portion, the spinous processes; indeed deviation of the latter processes is frequently

not established until very considerable displacement of the bodies of the vertebræ has taken place. From the presence of this structural change in the column it follows that in whatever position the subject of the deformity is placed the distortion of the spine remains, a fact in itself of great aid in arriving at a correct diagnosis of the condition. A surer and equally simple mode by which to detect lateral curvature is to make the patient stand erect in the drill position of attention, and gradually stoop forwards as though endeavouring to accomplish the familiar feat of touching the toes with the tips of the fingers without bending the knees; if whilst the patient is in this position, with the pelvis nearly at right angles with the thighs, the surgeon runs his fingers down the column, one on either side of the spinous processes, there will be detected a fulness at the seat of curvature on the side towards which the transverse processes of the rotated vertebræ are directed backwards, whilst a groove, owing to the same processes being thrown forwards, will be distinctly evidenced on the opposite side.

The fact that lateral deviation of the spine does not constitute lateral curvature cannot be too strongly insisted upon. Once arrive at a clear understanding on this point and much controversy might be avoided. To illustrate the confusion which at present exists between the various conditions of lateral deflection there are here figured three cases, showing marked deformity of the spinal column, all of which were described as cases of lateral curvature. In only one of these cases was there any evidence of rotation of the vertebræ, and where this condition did exist it had been overlooked and that portion of the spine had been regarded as perfectly normal. An interesting point to observe about these cases is that they present a marked similarity to one another in external appearance. Fig. 1 might be regarded as the advanced stage of the same condition existing in Figs. 2 and 3; nevertheless they all distinctly differ in their nature.

FIG. 1.

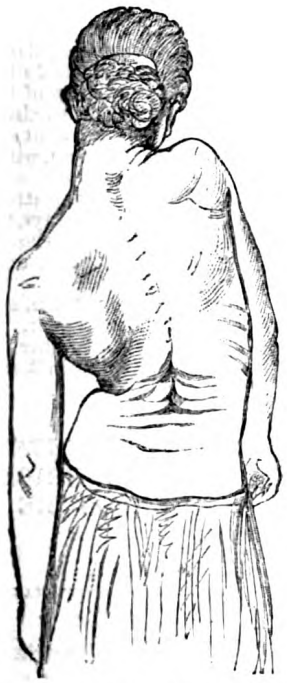
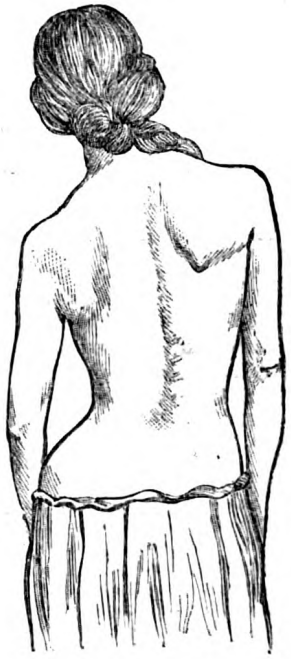


FIG. 2.

FIG. 3.



The case shown in Fig. 1 was a girl aged nineteen, who had been for a long period under treatment for lateral curvature; as will be seen, she presented a terrible condition of deformity when standing erect, but when lying down the spine was perfectly straight; moreover, she could, by placing the hands on the hips, herself force up the column, and so extend it almost to the normal shape; there was here, then, no structural change in the spine of any sort. This case belongs to a class of which examples are constantly to be met with, and to which, to distinguish them from true lateral curvature, the term *lateral bending* might very well be applied. The subjects are usually young girls who are overworked and underfed, the servant of the lower classes, girls educated at cheap "establishments for young ladies," the attendants at second-rate drapery shops, and such like; also it is met with in those who have suffered from long illness of an exhausting nature, and in those affected with that defective condition of health commonly described as general debility. Frequently accompanying the deformity, as it did in this case, is that mental condition which tends to exaggerate any bodily derangement; the hysterical complication generally appears at a late, and not an early, stage of the affection, which must not be confounded with the so-called "hysterical spine."

The case illustrated in Fig. 2 was one of a remarkable nature. It is well known that Pott's disease sometimes gives rise to lateral distortion; when this occurs it is usually in the advanced stage of the disease, and is caused by one or more vertebræ being so affected that the sides of the bodies are chiefly destroyed, instead of the anterior portions, as usually happens. In the case of the girl here figured, however, lateral deviation was one of the first symptoms of Pott's disease. A few days after the patient first came under my notice local pain was complained of in the spine, at about the situation of the second lumbar vertebra. On examination, I found that there was some slight rigidity of the spine at this point, and complete recumbency was ordered to be observed. In a few weeks slight prominence of the second lumbar vertebra was well marked, and the case clearly declared itself to be one of Pott's disease of the spine. Probably such a state of things as here existed is of very rare occurrence, and it is to be hoped that it is so, for such a condition might very well be mistaken, when in its earliest stage, for the comparatively trifling affection of lateral bending of the spine. Under no circumstances, however, should such a case be mistaken for one of lateral curvature, and yet as such was it described by a surgeon who has written somewhat freely on the subject of deformity of the spinal column.

The third case was a young girl, aged seventeen (Fig. 3), who was sent to me as requiring treatment for lateral curvature in the dorsal region of the spine. For the relief of this she had been wearing for some months a plaster-of-Paris jacket, and had been kept almost entirely recumbent; the deformity continued to increase, and her general health began rapidly to fail. When I first saw her she could only walk a few steps, her muscles were soft and flabby, and she was very thin; with regard to the existing deformity of the spine, that which was most evident when she was standing up (the lateral deviation in the dorsal region) disappeared

when she lay down, but well-marked rotation of the vertebræ in the lumbar region was present, although the spinous processes were not out of the straight line. A few weeks' care restored the general health and overcame the lateral bending of the spine in the upper part of the column, the rotation of the vertebræ in the lumbar region was afterwards reduced, and she made a complete recovery.

On the question of distinguishing such cases as have here been described as lateral bending of the spine from those of true lateral curvature, regard must be paid to the fact that many authorities describe lateral curvature as presenting in the early stage only lateral deviation of the column unaccompanied by rotation of the vertebræ, and the latter complication is given as a later phase of true lateral curvature. Without questioning the correctness of this view, at the same time not admitting its truth, it is sufficient here to indicate the reason for regretting such a method of description; granting, then, that lateral bending may terminate in lateral curvature, the latter term should not be applied until the deformity is accompanied with rotation of the vertebræ, because this is the essential characteristic of the affection. Every surgeon must admit that lateral deviation of the spine may arise and disappear without any structural change in the spinal column becoming developed; we are therefore no more justified in describing lateral bending of the spine as lateral curvature than we should be in calling pleurisy empyema, or periostitis necrosis, simply because the one disease may precede the other. To enter more fully upon this subject would necessitate a consideration of the etiology and pathology of lateral curvature, matters upon which the writer hopes to treat in another communication.

Grosvenor-street, W.

SCLERODERMA IN RELATION TO FILARIA SANGUINIS HOMINIS.

BY JOSEPH BANCROFT, M.D.

ON May 4th, 1883, a case of scleroderma came under my notice in the person of a colonial-bred girl who had resided most of her life near the town of Ipswich, and on examining her blood I discovered filariæ in abundance. I have had this patient under observation since that time, and thinking I might find additional evidence of the association of filariæ with scleroderma I delayed making the communication until the present time. As no other cases of scleroderma can be found in the limited population of this colony (the filaria diseases being happily on the decrease by better attention being paid to securing pure drinking water), I considered it best to make my experience public in order to inform observers in South America and Asia of this case, so that in their wider fields of observation it may be possible to pursue the inquiry further.

My patient is seventeen years of age, and has been attacked with a thickening and hardening of the skin of the face, arms, shoulders, and all the body above the level of the waist. Below this part the integument is softer, and is normal over the legs. The skin feels like salted ham, it is impossible to pinch up a fold of it, and the sensation in it is but little impaired. No folds or creases are to be seen on the face, neck, or other parts down to the level mentioned. She does not complain of dyspnœa, though the textures of the chest seem so inflexible. I thought I had seen a similar case before, the patient being Captain B——, a Dane, a Sandwich Island trader, who had in April, 1875, come to live here for the benefit of his health, but in his case the skin was more flexible. I examined his blood then, with negative results. Photographs of the girl suffering from scleroderma were taken on May 15th, 1883. About the end of the same month she was taken ill with symptoms like peritonitis, from which she recovered. Some time later I sent for her, to show the blood to a Mauritius medical practitioner on a visit here, but could find no filariæ. Months later I examined her before Professor Anderson Stewart of the Sydney University, when the microscopic worms were demonstrated active and abundant. In the work of the late Tilbury Fox, page 345, is quoted the opinion of Rasmussen, that scleroderma is of elephantoid nature, and that observer suggested the name "elephantiasis sclerosa" for it. In Quain's Dictionary, published this year, is an article by the late Erasmus Wilson, which gives no recent observations on this curious disease. I have no doubt the scleroderma of this kind is correctly interpreted by Rasmussen as a form of elephantiasis of the upper parts of the body. How the lymphatics in elephantiasis become obstructed by adult filariæ will require some careful injections and dissections of those vessels to determine. In old cases of elephantiasis of the legs and scrotum the microscopic filariæ are seldom found in the blood, due possibly to death and calcification of the adult worms. The parent worms may not live in the lymphatic ducts at all for anything we know to the contrary, but by their proximity to these vessels and by their penetrating them to void their brood, inflammatory closure of the larger lymphatics may ensue. The sexual orifice of the mother-worm pointed out by Dr. Cobbold, and figured in THE LANCET as close to the head of the animal, is a fact to be carefully noted. The Sandwich Island patient probably had suffered from filariæ. No microscopic brood could be found in his blood when he lived here. He suffered from strange pains in his chest like angina, seldom could lie down and rest for long together. He took large doses of morphia with very little relief. I lost sight of him after about a year's observation, and he died later on while travelling for his health.

The patient, S. J——, aged seventeen, of German parentage, was born in Ipswich, Queensland, and lived for the first six years of her life in a neighbouring farming district, the Walloon Scrub, since which she has lived eight years in Brisbane. She has always enjoyed good health and went to school until twelve years of age. She has drunk water without care as to boiling or filtration. She occasionally shivers for a few seconds, eats well, bowels act regularly, menstruates scantily, is not short of breath, and can do her housework. She wishes to be cured of the hardness of the face, arms, and upper parts of the body, which has existed four months, and came on almost imperceptibly, without any sickness. This hardness is, as above described, uniform, without creases, and the skin cannot be pinched up. Filariæ were found in abundance on May 4th, 1883. In June, after an attack of mild peritonitis, which kept her in bed for some days, the microscopic worms could not be found in the blood, though examined with a plentiful supply and with great care. Later in the year they were found in abundance.

Dec. 1884. She is working as housemaid near town, and has not been under medical treatment for the past year.

I trust that the history of this case will lead to further inquiries by Drs. Manson and Lewis and by practitioners in Brazil.

Brisbane.

CASE OF SCARLET FEVER WITH EXTENSIVE SLOUGHING OF LEFT ANTERIOR TRIANGLE OF NECK AND EXPOSURE OF VESSELS.

BY A. GLOVER WILLIAMS, M.R.C.S.,
SURGEON TO THE BRIXTON DISPENSARY, LATE HOUSE-PHYSICIAN ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

ON Oct. 23rd, 1883, a boy aged six years was brought to me by his mother. He was delicate-looking, of fair complexion, with light hair. He had been for the last two or three days suffering from sore-throat, accompanied by feverish symptoms, but no rash, according to his mother's statement. On examination, there was slight ulceration of both tonsils; the glands at the angles of the jaw and along the inner edges of the sterno-mastoid muscles were enlarged and painful, especially on the left side; there was some amount of fever, but no sign of any rash or desquamation. The patient was ordered to be kept at home. When I visited him on the 25th there were the same symptoms, but the fever was more marked. Temperature 102° F. No rash was to be found on examination. By the 28th the throat symptoms had much increased; there was marked ulceration of the tonsils; the glands at the angle of the left jaw and along the inner edge of the sterno-mastoid were much enlarged and tender, but not fluctuating. I ordered chlorate of potash and bark.

On November 3rd the ulceration had extended over the fauces, palate, and tongue, but did not involve these structures to any depth. Temperature was 103°. On the 5th the throat symptoms were about the same; the glands on the left side were now semi-fluctuating. On the 7th I opened the abscess, but only a small quantity of pus came

away. The next day the skin over the glands sloughed, exposing a space corresponding on the outer side to the inner edge of the left sterno-mastoid muscle, on the inner to the middle line of the neck, above to a line drawn from the angle of the left jaw to the upper border of the thyroid cartilage, and below to a line drawn on a level with the lower edge of the cricoid cartilage. The vessels were plainly seen in their sheath, the superior thyroid artery crossing the space. After syringing the cavity out with Condy's fluid and water, it looked as clean as if it had been dissected; it was dressed with iodoform. Port wine was ordered. On the following day there was no extension of sloughing. Pulse 112, rather feeble; temperature 101°. The ulceration of the fauces, tongue, &c., was rather better. The cavity was washed out and dressed with iodoform. On the 14th the cavity was granulating and closing; still syringed and dressed with iodoform. General condition fairly good; pulse still rather feeble; temperature 99°. On the 18th the fauces and tongue were much improved; cavity still closing and general condition improving. Ordered a mixture of perchloride of iron and cod-liver oil. After this the patient went on uninterruptedly well, the cavity gradually got smaller, and by the third week in December was completely healed, leaving only a scar one inch and a quarter long and half an inch wide, with no tendency to contraction, all the movements of the neck being perfectly performed. In conclusion, there was distinct peeling, which was noted a few days after he came under my care. He had no albumen in his urine at any time during his illness.

Remarks.—The interesting features in this case are the facts—first, of his recovery; and, secondly, the perfection of the repair of the parts after so great a destruction of tissue. Two cases occurred in the practice of a friend, when after the sloughing the temperature still remained very high, showing probably that the sloughing was only a local manifestation of a general high state of blood-poisoning. Oozing of blood from the ulcerated surface was the cause of death in another case that came under my notice. The oozing was general, no large vessel being involved. As regards the opening of the abscess in these cases, I am inclined to think that if sloughing is likely to take place, it will do so whether an opening is made or not. The diet consisted of beef-tea, essence of beef, milk and eggs beaten up, and during the greater part of the illness two ounces of port wine daily.

Brixton-rise.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. GEORGE'S HOSPITAL.

STRANGULATED UMBILICAL HERNIA; OPERATION; RADICAL CURE; RECOVERY; REMARKS.

(Under the care of Mr. T. P. PICK.)

THE operation for strangulated umbilical hernia was formerly looked upon as one of the most serious in surgery, the result being so often fatal. Since the introduction of the antiseptic treatment, however, although no surgeon would lightly undertake the operation, still he is able to do so with far greater confidence and hope of success, and is less inclined to allow valuable time to be wasted in trying other treatment of doubtful utility. The plan adopted by Mr. Pick in this case will probably be frequently imitated by many in future operations of a like character.

We are indebted for the following notes to Mr. Herbert Allingham, late house-surgeon.

Catherine C——, aged fifty-three, married; has had seven children. She had suffered for six or seven years from mitral disease, and was an in-patient in 1879 under the care of the late Dr. Barclay. While in the hospital she was tapped, and a large quantity of ascitic fluid drawn off; she remained in nine weeks. In June, 1884, she was again admitted for a month, this time not being tapped. The hernia for which she had come to the hospital on Dec. 9th had existed for eight months. On Monday, Dec. 8th, she caught a severe cold and cough, the latter being very troublesome. She removed the bandage which kept up the hernia in order to apply a poultice to the front of her chest. While the bandage was off she was attacked with a violent fit of coughing, causing the intestines to protrude at the umbilicus. She then tried to reduce the hernia, but failing, put on the flannel bandage and went to bed. The next day she began to vomit and complained of much abdominal pain, so sent for a doctor, who ordered an enema of castor oil and a purge. After this her bowels acted twice, but the vomiting still continued and became very feculent. On Wednesday, the third day after strangulation commenced, she was brought to the hospital in the following condition. About the umbilicus was a tumour three inches in diameter, tender, tense, with the skin over it red and œdematous; no impulse on coughing; the rest of the abdomen being distended with a large quantity of ascitic fluid; tongue brown and dry; pulse small and rapid. While in hospital she vomited three times before the operation. Mr. Pick was immediately sent for, and operated, the patient being narcotised with ether, which she took very well. An incision was made over the tumour about three inches in length, and the sac, on being opened, was found to contain a good deal of fluid, with flakes of lymph in it. The intestine presented the following appearance—viz., very congested and covered with recent lymph, part of it being quite discoloured and of a greenish hue. As much as possible of the lymph was wiped away. Mr. Pick then incised the ring and reduced the hernia, emptying out of the abdomen about two quarts of ascitic fluid. The edges of the ring were then pared all round, and brought together with four silver sutures; a small piece of drainage-tube was then inserted into the sac, and the edges of the skin approximated with sutures over the closed abdominal aperture, the wound being dressed antiseptically with carbolic gauze. The same night she vomited once, the matter being feculent. The bowels acted twice. She was ordered some opium and ether mixture, and later on in the evening three ounces of brandy.

11th.—Morning temperature, 99°; evening, 99·6°. Pulse, morning, 108; evening, 110. Bowels acted twice; tongue rather dry and yellow. Patient inclined to sleep. Complained of a little pain in the abdomen, but slight tenderness and no distension. Cough troublesome.

12th.—Morning temperature normal; evening, 98°. Pulse, morning, 104; evening, 96. Bowels acted twice; no vomiting. Tongue moist and coated. No pain in abdomen. Still cough.

13th and 14th.—About the same temperature, normal night and morning. On the 13th bowels acted twice. Still only taking strong beef-tea and milk.

15th.—Temperature normal. Tongue moist and clear. Pulse 90. Bowels acted once. No pain, distension, or tenderness of abdomen. Cough much better.

17th.—The wound was dressed, only some serous discharge. Superficial wound healing, the track of the drainage-tube was gently syringed out, and the tube discontinued. No pain or tenderness about the abdomen, it being quite soft. The wound was dressed again antiseptically. Temperature and pulse normal.

25th.—Again dressed and superficial stitches removed. Wound nearly healed over sutures, bringing the peritoneal edges together. Wound dressed in the same way. Temperature normal; cough gone. Sleeps and eats well. Fish diet, one pint of milk and an egg daily.

30th.—Antiseptics discontinued; wound now only covered with zinc ointment.

Jan. 2nd.—She got up, lying outside her bed; wound was healed. Patient wearing an abdominal belt.

14th.—Left the hospital well.

Remarks.—There are two points probably worthy of notice in this case. First, in consequence of the chronic ascites the peritoneum was less inclined to take on active inflammation; second, as Mr. Bryant has shown, operating on this kind of hernia is extremely fatal when the sac is opened, but if the stricture can be relieved without opening the sac and the intestine reduced, there is a much better chance of recovery. Therefore, in umbilical hernia where it is necessary to open the sac, it would seem advisable to do as Mr. Pick did in this case viz., to pare the edges of the ring and bring them into close apposition so as to obtain rapid closure of the abdominal aperture, which will prevent extension of inflammation from the superficial wound, or drainage of exudation into the abdominal cavity.

LEEDS FEVER HOSPITAL.

DEATH AFTER THE USE OF ANTIPYRIN; NECROPSY; REMARKS.

(Under the care of Dr. BARRS.)

ANTIPYRIN is one of those remedies which will probably take a prominent place in the materia medica of the future, and it is therefore the more necessary to publish cases where untoward results have followed its use. As a rule, it appears to be a drug the administration of which is not followed by unpleasant symptoms, though vomiting, a peculiar exanthematous rash, resembling measles, and, as in the case referred to by Mr. Blore in his remarks, collapse, have followed its use. Antipyrin is a very valuable means of reducing the temperature and the frequency of pulse and respiration in fevers and febrile diseases, the effect being prolonged from ten to twenty hours. It does not, however, appear to act as an antiperiodic. Chemically it is described as dimethyl-chinizin, and is stated by Dr. Knorr of Erlangen to be one of a series of derivatives from a hypothetical base, to which he has given the name "chinizin." The chinizin derivatives are products of the action of diacetic ether upon one of the hydrazines. For valuable information about this drug, we would refer our readers to the *Pharmaceutical Journal*, Nov. 1st, 1884, and to the *Therapeutic Gazette*, Oct. 1884 and Jan. 1885. See also *Berichte* (xvii., 2032), *Wiener Med. Blätter; Prager Med. Wochenschrift*, Oct. 1884; *Schmidt's Jahrbücher*, 1884, p. 127; *Bulletin Générale de Thér.*, Oct. 1884.

For the report of this case we are indebted to Mr. Blore, resident medical officer.

H. M——, aged thirty-five years, was admitted on Jan. 15th, 1885, with the following history. On Dec. 4th, 1884, the patient had a miscarriage in the fifth month of pregnancy. From that date to the day of admission (six weeks) she had been confined to bed. Soon after the miscarriage she suffered from pain in the lower part of the abdomen, vomiting, headache, and shivering; and, later on, from diarrhœa. She became progressively weaker, but never lost consciousness. She was kept on milk diet, and the vagina was syringed. She was sent to the hospital as a case of enteric fever.

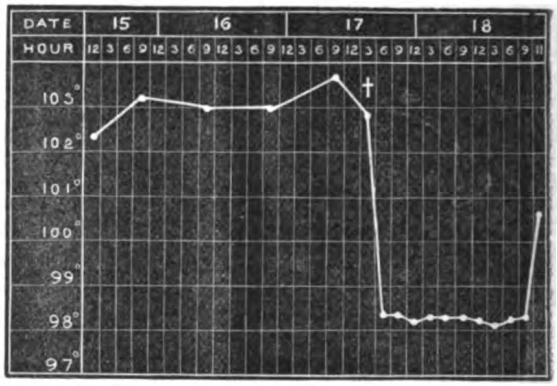
On admission, the patient was intelligent, and she gave the above short history of her illness. She was very weak, turning in bed with difficulty, but had not lost much flesh, and did not appear to be suffering any acute pain. The pulse was regular, but somewhat small and compressible; heart sounds quite free from bruit; pulmonary signs normal. The tongue was moist and only slightly furred, abdomen little, if at all, distended, and tender on pressure, the tenderness not localised to the ileo-cæcal region. No splenic enlargement was detected. There was no evidence of an enlarged uterus, no vaginal discharge, and the os uteri was closed and normally placed and directed. The temperature was 102·4°. The length of the illness, the course of which seemed to have been uninterrupted, its commencement with a miscarriage, and the absence of any signs distinctly pointing to enteric fever, led to the case being regarded as probably of a puerperal nature, but no exact diagnosis beyond the negation of enteric fever was made. In the evening of the day of admission the temperature rose to 103·2°.

Jan. 16th.—Slept during most of the night. General condition appears much the same as on admission. Temperature 103°; pulse 120, and in no way improved; tongue covered with thin white fur; abdomen only slightly tender. No complaint, except of weakness; no action of bowels. To have enema, and to take five grains of quinine three times a day. Evening temperature 103°.

17th.—Patient has passed a restless night, with little sleep. Temperature 103·6°; pulse 132; respiration 36. Is quite rational; tongue and abdominal signs not appreciably changed, but bowels have acted twice normally, enema not being required. The quinine was stopped, and, to reduce the temperature without causing further depression, thirty-five grains of antipyrin were administered at 3 P.M., followed three hours later by half that quantity. The temperature, taken at 3 P.M., was nearly 103°; pulse 132, and very feeble. At 6 P.M. the temperature was 98·4°; pulse 108; skin cool and moist. At 11 P.M. the rectal temperature was 98·4°; pulse 132. Patient answers questions intelligently and makes known her wants, is pale and still, and, except for rapid feeble pulse, her condition appears much as it did five hours ago. Temperature 98°.

18th.—Restless night, with some diarrhœa and vomiting; skin pale, cool, perspiring; rectal temperature 98°; pulse 120; respiration sniffing in character; is intelligent and makes no complaint, but is much collapsed. To have half an ounce of brandy every two hours. 5 P.M.: No reaction; hot bottles, &c., applied. 9 P.M.: Pulse much worse than four hours ago. Patient now lethargic; skin cold and perspiring; heart sounds muffled; respiration shallow and sniffing; some râles at bases of lungs. Increased efforts at stimulation by means of brandy and ammonia and turpentine to chest were to no purpose, the patient dying at 11 P.M., thirty-two hours after taking the antipyrin. The temperature rose to 100·6° during the last half hour of life.

The accompanying chart shows clearly the rapid fall and prolonged low temperature, the † marking the point at which the drug was administered.



The following is briefly the result of an examination made the day after death:—Brain and its membranes much congested, the superficial veins being especially dilated, with a few hæmorrhages. Pericardium normal, heart free from valvular disease, but somewhat softened; a few old adhesions of the pleuræ, but no excess of fluid. Lungs much congested, but otherwise normal. No peritonitis. Liver normal. Spleen much enlarged, weighing 3 lb., and softened. Its middle third was occupied by a large infarct, broken down into a cavity in the centre. Kidneys also enlarged, and each contained two or three conical infarcts. Intestines intact in their whole length. Uterus contracted and empty.

Remarks by Mr. BLORE.—The chief interest in the above case lies in the effect of the antipyrin. From the day of admission to the time of taking the drug there had been uniformly a high temperature. Within three hours the temperature had become normal, or subnormal, and did not subsequently rise until the patient was actually dying. It is recommended by those who have had most experience of the drug that thirty grains be given as often as every hour for three doses, or a single dose of sixty grains, in either case much more than the patient in question took. In the case of other adult patients here, single doses of twenty or thirty grains have produced only a temporary remission, the temperature having resumed its former height within four hours. It was with the view of preventing this rise that the second smaller dose was ordered to be given three hours after the first. This object was certainly effected, but unfortunately no improvement, but the reverse, took place in the other symptoms, and collapse ensued. The chief attribute urged in favour of antipyrin is that dangerous symptoms never follow its use. May alone (*Deutsche Med. Woch.*, 1884) mentions a case of collapse after antipyrin, but is uncertain whether to attribute the collapse to the drug or to the course of the disease. In the case above described, though the patient was undoubtedly very ill, there can be no question that the extreme depression, accompanying the fall of temperature, was directly due to the action of the drug.

SUNDERLAND INFIRMARY.

CASE OF TRAUMATIC TETANUS; RECOVERY.

(Under the care of Dr. JAMES MURPHY.)

J. S——, a lad aged fifteen, was admitted on Sept. 24th, under the care of Dr. Murphy, with well-marked symptoms of acute tetanus. The following history was obtained:—Twenty days previous to admission the terminal phalanx

of his left thumb had been severely crushed and bled freely, but there was no fracture of the bone. He was treated by Dr. Shelley with an astringent lotion, but the wound showed no sign of healing, and after a week presented a very foul greyish appearance, as if a fungus were growing on it. During this time he felt well, and was running about, but four days previous to admission he felt very languid and had a general feeling of malaise, which was soon followed by stiffness of the muscles of mastication and of the face generally and neck. This condition rapidly spread to the muscles of the limbs and trunk, and when admitted the risus sardonicus was particularly well marked, the under jaw protruding and fixed so that the tongue, which was thickly coated, could but with difficulty be passed between the teeth. The muscles of the trunk and limbs were very rigid, and opisthotonos well marked, the lad resting on his heels and occiput, and every few minutes a violent and characteristic spasm of the voluntary muscles would seize him, which would soon cease completely and leave him perfectly still. These attacks would be sometimes delayed as long as half an hour if nothing disturbed him; but the opening of a door, or speaking to him, brought them on at once. On placing the hand on his abdomen it felt like a board. His wrists and ankles were quite movable, and were not affected at any period of the attack. He complained of great pain in his thighs, similar, but much more severe in character, to ordinary cramps. His pupils were normal; his eyes generally closed. He never spoke except when asked a question, and then replied as laconically as possible. His intellect was quite clear, and his temperature 100°. He was at once given a calomel and jalap purge, as his bowels had not been open for several days, and placed in a small private ward, which was regularly kept at a temperature of 65°, and though there was no apparent draught, the bed was carefully surrounded by large screens, and he was placed on twenty grains of chloral and thirty of bromide of potassium, to be administered every three hours, day and night. What milk he could swallow, with great difficulty, was allowed him, and he had nutrient enemata of beef-tea and eggs. The whole of the terminal phalanx of the injured thumb was amputated shortly after his admission. Within twenty-four hours the spasms had ceased very considerably, and now only recurred at an interval of an hour or two, and were much less severe in character. The temperature sank to normal. The case progressed day by day to complete recovery about the twentieth day after admission. The progress towards recovery was well marked during the first forty-eight hours, after which the symptoms were but slight, and gradually passed away. First the spasms disappeared, then he could open his mouth a little more, next the pain in the thighs was not so distressing; the opisthotonos became less marked; then the risus sardonicus slowly faded away; the rigidity disappeared, and he completely recovered; the temperature having varied from 101° to 98° without any apparent cause. The amputated phalanx was examined, but without any definite result.

Dr. Murphy attributes the satisfactory result not to any one part of the treatment, but to the whole of it. First, the removal of the irritating wound, then the free use of chloral and bromide of potassium, to control the spasms, which he regards as of great consequence, so as to guard against the consequent exhaustion, and for the same reason the isolation of the patient in a small private ward, where the temperature was kept at 65° without varying, and the bed carefully protected from all draught by large screens, and, finally, the judicious administration of plenty of nourishing food by mouth and rectum.

MEDICAL SOCIETY OF LONDON. — The following is the list of names of Fellows of the Society nominated for office by the Council for the ensuing year:—President: W. M. Ord, M.D. Vice-presidents: R. D. Powell, M.D.; Sydney Jones; J. L. Down, M.D.; S. Cartwright. Treasurer: A. E. Durham. Librarian: W. H. Allchin. Hon. Secretaries: J. K. Fowler, M.D.; J. H. Morgan, M.A. Secretary for Foreign Correspondence: Felix Semon, M.D. Council: T. L. Brunton, M.D., F.R.S.; S. H. Davson, M.D.; Sir Joseph Fayrer; D. W. Finlay, M.D.; A. P. Gould; F. de Havilland Hall, M.D.; Francis Mason; Edmund Owen; Isambard Owen; G. R. T. Phillips; T. Pickering Pick; W. Pye; J. P. Richards; A. E. Sansom, M.D.; C. B. Sewell, M.D.; W. H. Strange, M.D.; T. T. Whipping-ham, M.B.; W. H. White; C. T. Williams; A. Wiltshire, M.D.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Hereditary Locomotor Ataxy.—Fatal Hæmoptysis.

AN ordinary meeting of this Society was held on Tuesday last, Dr. George Johnson, F.R.S., in the chair. The papers read were decidedly interesting, and excited a fair amount of discussion.

Dr. J. A. ORMEROD read a paper on Hereditary Locomotor Ataxy. The first part of the paper dealt with the differential diagnosis of hereditary ataxy and ordinary tabes dorsalis. The symptoms which distinguish the so-called hereditary ataxy from ordinary tabes dorsalis were said to be: (1) The occurrence of the disease in many members of one family; (2) its onset in early life; (3) the absence at first of pain, or any other of the multiform symptoms of tabes; and (4) the occurrence later in the disease of disorder of speech and of nystagmus. The second portion of the paper dealt with the clinical histories of cases of hereditary ataxy. The clinical history of a family of seven children, of whom three were ataxic, was given. The mother had had fits, the mother's sister was insane, and her father was probably ataxic. The first case was that of a girl in whom the onset was accompanied by choreic movements. There was unsteadiness in walking, increasing till she now could not stand alone; there were occasional fainting fits and some muscular weakness of the legs, with rigidity at the ankles and club-feet of the equinus variety. The second case was that of a boy of the same family, and the unsteadiness of gait slowly increased; he had had a few attacks of giddiness, and there was a slight affection of the speech. The third case was that of a young woman, in whom the onset was much the same as that in the first case; in addition, lateral curvature of spine, slight ptosis, and occasional squint were present. The next family was one of nine children; no nervous disease could be discovered in the parents or grandparents; of this family, three, or possibly four, members were ataxic. One of these was a female aged twenty; unsteadiness of gait set in at the age of thirteen, and had been worse since a "low fever" two years ago. She was now unable to walk without support; there were slight muscular weakness in the legs, shooting pains last year, and speech was doubtfully affected. The fifth case was that of a female aged sixteen. The case was similar to that of her sister, but less advanced; there was no muscular weakness or pains. There were anæmia and attacks of headache, with vomiting. The knee-jerk was absent in all four cases, and apparently in some other members of the family as well. The author made some remarks on the etiology of the disease. Other nervous diseases—colour blindness, hæmophilia, diabetes insipidus—which attack families were compared with this disease, and other factors which might assist in the development of the disease were remarked upon, and more especially puberty and acute diseases. Friedreich's disease did not appear to be propagated through the female parent. Several living specimens of the disease were exhibited before the meeting commenced.—Dr. ALTHAUS thought Dr. Ormerod's paper was a valuable contribution to our knowledge of a disease of which but little accurate information was forthcoming. In this so-called hereditary ataxy there was no actual hereditary influence to be observed. The pathological lesions were of a much more diffuse character than was usually found in cases of ordinary tabes dorsalis. In Friedreich's disease the grey matter and lateral columns, and even the anterior columns, may be affected with the sclerosis. Disorders of a sensory kind were not met with in the early stages of the "hereditary ataxy." The individual history of cases of tabes dorsalis was all important, and the history of the stock from which the patient came had nothing to do with the etiology. The clinical symptoms of locomotor ataxy had not been recognised for as long as four generations. Alcoholism of the parent, and especially of the father, was probably causative in Friedreich's disease.—Dr. BUZZARD said that he concurred in the view that this apparently rare disease was very different from the ordinary progressive locomotor ataxy of which we saw so much. He considered that we constantly failed to see what we did not look for, and could not help thinking that these cases were more numerous than we thought. The absence of

sensorial symptoms was noteworthy; it was the motor side which was almost exclusively affected. In a recent case which came under his notice there had been acute disease, which no doubt aided in the development of the symptoms. He should agree with the view that this form of ataxy was not strictly hereditary. But with regard to true tabes dorsalis, he was not so sure that this did not occur in families. From his experience he considered that there might be some peculiar family proclivity to tabes dorsalis. A point which had not been referred to in regard to Friedreich's disease was the importance of its diagnosis from cases of hysteria, especially at the present time. Reference was made to a case which he had seen with Dr. Playfair of supposed hysteria, which had been sent to that gentleman to be treated by the Weir Mitchell method. The patient was a young lady, aged twenty-six, of hysterical manner. It was alleged that she could not stand; she fell in a "heap" on the floor when attempts to stand were made. The arms were affected with distinctly ataxic movements. Such symptoms might occur without any organic disease whatever being present. This patient had a prodigious lateral curvature of the spine; there were no sensorial symptoms, not even anæsthesia. The reflex from the sole of the foot was perfect. She had no pain. There was no knee-jerk in either leg. The speech was of a marked "toxic" character. At times considerable urgency, not to say force, had been employed to induce her to walk, and a certain amount of unintentional harshness had thus been used towards her. There was no history of any other case of the kind in the family. When the child was only five or six years of age she was noticed to tumble, and was supposed to be careless. At the age of eight or ten, whilst learning to dance, she frequently fell down without apparent cause. At twelve years of age she had taken a long walk for the last time. At the age of seventeen there was great weakness of the legs. Three years ago she suffered from typhoid fever, and since then had been unable to stand. These cases were important to be borne in mind when the question of hysteria came before us. For this simple practical point alone we ought to be indebted to Dr. Ormerod for his valuable paper. Mr. R. W. PARKER asked whether these patients were suckled or not; it might be that rickets had something to do with the causation of the disease.—Dr. K. FOWLER gave a few details of a family of well-to-do people of whom two boys and one girl were affected. The ages of the boys were fourteen and five, and that of the girl nine. In each case the disease had followed very much the course described by Friedreich. No acute disease had preceded the onset of the malady. There were no lightning pains. The pupils were normal. The mother was healthy; the father was of intemperate habits, and died of cancer. In one of the boys there were marked erotic tendencies at an early age, and he had lately had marked lightning pains. In the girl there was some wasting of the leg. The knee-jerks were absent, and the ataxic gait was very marked in all the cases. There were two more members of this family, both girls, one aged twenty and the other seventeen; the latter had slight ataxic symptoms, the former was healthy.—Dr. ORMEROD, in reply, said it was difficult to investigate the question of heredity, for many reasons. In a third family of whom he had read in an Italian paper the great-uncle was ataxic. He had seen a fourth family of two boys, both of whom were ataxic. The mother, and possibly the mother's father, had had a somewhat similar disease to that of the boys. With regard to the morbid anatomy, the posterior column was sclerosed throughout, and deeply. The question of hysteria might crop up frequently. Ataxic patients might easily be accused of intemperate habits.

Dr. SAMUEL WEST read a paper on Fatal Hæmoptysis, which dealt with the statistics of the last fifteen years of the Chest Hospital, Victoria-park. Some remarks were made on Profuse Hæmoptysis which was not fatal. These statistics were confined to hæmoptysis in the limited sense of the term, and all cases were excluded which were due to the rupture of one of the large arteries, other than the pulmonary, into the trachea or bronchi, or through the lung, as in the course of thoracic aneurysm or new growth. The cases were twenty-six in number, of which twenty were males and six females. There was no special liability at any age. Men were more frequently attacked than women, in the proportion of about three to one. Chronic phthisis was the predisposing condition of the lung, and that was often the case where there were but few clinical evidences of the disease. Fatal hæmoptysis was rare in subacute cases of phthisis, and perhaps never occurred in acute phthisis. The cause was ascertained in seventeen out of twenty-five cases. In eleven it was aneurysm, and in six ulcerated vessel. The distinction between aneurysm and ulcerated vessel was probably only one of degree. The site of the lesion was generally the left artery, about twice as often as the right one. The source of the hæmorrhage was not necessarily found on the most affected side of the chest or in the most affected part of the lung. Any cavity, whatever its origin or shape, might be the source of the hæmorrhage provided the cavity be of the chronic order. The favourite seat was in the middle of the lung near the periphery. Certain facts about pulmonary aneurysms with regard to size, origin, shape, number, contents, rupture, &c., were referred to and the pathology discussed. The causes of non-fatal cases and of fatal cases of hæmoptysis were probably the same, there being evidence to show that both pulmonary aneurysms and eroded vessels may heal spontaneously.—Dr. PERCY KIDD showed a specimen of multiple aneurysms of the pulmonary artery in the lung, and also an aneurysm on the outside of which was laminated clot. He said that during the past two years and a half he had had thirty-five fatal cases of hæmoptysis; thirty were immediately fatal, five indirectly fatal from exhaustion in the course of from thirty minutes to twenty hours. In thirty cases there was rupture of an aneurysm. In one case an ulceration of the bronchial wall had extended into a branch of the pulmonary artery; in another case the separation of hydatid membrane from the cavity of a lung caused the hæmorrhage; in one case an unruptured aneurysm was found. In many cases of aneurysm of the pulmonary artery there was no marked history of hæmoptysis, and he had brought before the Pathological Society cases of this sort of which he had now collected nine instances. He had now examined forty cases of aneurysm of the pulmonary artery. With regard to the sides of the chest affected, he found that they were almost exactly equal; nineteen were right-sided and twenty-one left-sided. The majority existed in the lower two-thirds of the lungs, and aneurysms were not so uncommon at the base of the lung. Dr. Reginald Thompson had pointed out that in the base of the lung aneurysms were near the diaphragm, and here the more active movements of respiration hinder thrombosis, and so favour ectasia of vessels. With regard to the number of aneurysms, he had found multiple aneurysm in eleven cases. The greatest number was twenty-two; there were six in one case and three in another, and two in the remaining eleven cases. Of the forty aneurysms thirty-three occurred in men and seven in women. There were twenty-eight fatal cases of hæmoptysis in men and seven in women. With respect to the nature of the cavity, it was a chronic one; but he had found aneurysms in acute cavities having no lining membrane and with caseous soft walls, especially at the base of the lung; thus strengthening Dr. Reginald Thompson's view. The aneurysms had not been peripheral in more than half of the cases, and here his statistics differed from those of Dr. West. The size varied from that of a hemp-seed to that of a small orange. He did not think the endarteritis was due to propagation of a change from the wall of the cavity to the vessel. The primary endarteritis occurred on the exposed side of the vessel, and was probably due to purely mechanical causes. With regard to shape, there were two varieties: the sacculated and the fusiform. The former was the more common of the two; he had met with only four of the latter variety. Thrombi existed in a very great number of the specimens. A triangular slit was most common, but longitudinal ruptures were also seen. As to the identity of the pathology of fatal and non-fatal hæmoptysis, he could not agree completely with Dr. West. With Dr. Reginald Thompson, he thought there was some peculiar hæmorrhagic diathesis in some of the cases of hæmoptysis.—Dr. EWART made some remarks on the pathology of aneurysms of the pulmonary artery. He considered that the alteration of the lung tissue played a considerable part in the causation, for there was increased blood pressure in the pulmonary artery, and the right side of the heart overacted in cases of chronic phthisis, owing to the production of compensatory emphysema. This force acting from within the diseased vessels, and the tendency which the respiratory movements had to dilate the exposed portion of the arteries, were probably the most important factors in the production of aneurysm of the pulmonary artery.—Dr. THEODORE WILLIAMS referred to the literature of fatal hæmoptysis. Rokitanski had observed aneurysms of the

pulmonary artery. Dr. Fearn of Derby had written a good account of the subject. Dr. Peacock, Dr. Quain, and Dr. Cotton had collected specimens. Rasmussen had written perhaps the earliest and fullest account. He had not found a satisfactory answer to the question of the relation of fatal to non-fatal cases of hæmoptysis in Dr. West's explanation. He remarked that the discovery of bacilli closely crowded in the vessels by Ribbert might explain some of the cases of early hæmoptysis.—Dr. S. WEST, in reply, said he had not wished to discuss the views of other individuals, but simply to record fresh statistics. Ulceration and aneurysm of vessels might be shown to be closely allied in pathological nature.

MEDICAL SOCIETY OF LONDON.

Electric Illumination of the Various Cavities of the Human Body.

AN ordinary meeting of this Society was held on Monday last, Mr. Arthur E. Durham, F.R.C.S., President, in the chair. There was a numerous attendance of Fellows, who were attracted, no doubt, by the demonstrations given by Dr. Felix Semon. The paper read by Dr. Semon will appear in full in our columns.—Mr. DURHAM congratulated Dr. Semon on the success of his demonstration.—Dr. SYMES THOMPSON had found Dr. Semon's laryngoscope of much value in a case of sarcoma of the tongue, and he considered the instrument a great addition to our means of investigating the condition of hidden parts.—Mr. STOKER showed an electric lamp somewhat similar to that used by Dr. Semon.—Dr. MILLER ORD said that one great advantage of Dr. Semon's instrument was that it was exceedingly portable. It was also of much use in making demonstrations to a class.—Dr. GILBART SMITH had worked at the subject for a year and a half, but confessed that he had not been so successful as Dr. Semon. The difficulty of warming the mirror was great when the electric lamp was used.—Dr. THEODORE WILLIAMS asked where the instrument could be obtained, and what its price was.—Dr. THUDICHUM believed that no battery was equal to a Grove's battery, and he had come to this conclusion after an experience of twenty-five years. He did not agree with Dr. Semon that the laryngoscopic arrangement with the electric lamp did away with double reflection. In rhinoscopy he thought that the instrument would be of less value than the methods at present in use; it might be of use for examining parts which were not in the direct line of sight.—Dr. FELIX SEMON, in reply, said that the instrument was to be obtained from Messrs. Weiss and Son, 62, Strand, W.C. The cost of the whole apparatus would probably amount to not more than £5. The mirror used in laryngoscopy must be warmed in the ordinary way before being applied to the stem of the instrument. The accumulators were not meant to do away with the batteries or Drummond's limelight, and in no way rivalled them. He confessed that he had never been able to look into the antrum of Highmore.

HARVEIAN SOCIETY OF LONDON.

A MEETING of this Society was held on Thursday, the 5th inst., Dr. T. Morton, President, in the chair.

Mr. W. H. EVANS read notes of a case of Labour complicated by Vaginal Hernia. The tumour, when first discovered, was small, and situated in Douglas's pouch; it gradually increased in size, and fluctuation was obtained. When seen in consultation by Mr. Bryant it had so far enlarged as to allow percussion to be practised when the labia were separated. The resonant note obtained left no further doubt as to its nature. Labour occurred at full term, and much anxiety was occasioned by the protrusion of the tumour at each successive pain. Taking advantage of an interval of rest, Mr. Evans was able to reduce the hernia and rapidly to bring the labour to a satisfactory termination. The patient did well. Dr. ALDERSON mentioned the case of one of his patients, in which an eminent obstetric physician, since deceased, had, in consultation with him, diagnosed hernia in Douglas's pouch. The lady, then four months pregnant, was recommended to spend three months in bed. After delivery, which took place without further complication, the swelling was discovered to be not hernial, but, as Dr. Alderson originally believed, cystic. It was punctured, and sebaceous matter escaped.—Dr. SILCOCK suggested that the tumour in question might have been a congenital ovarian cyst.

Mr. COWELL read a paper on Purulent Ophthalmia in Infants. It had for its special aim to show that the large amount of blindness due to this disease (constituting one-third of the cases of blindness in this and other European countries) could be avoided if (1) the people could be instructed as to its dangers, and if (2) medical men universally recognised the futility of only temporising measures. The action of the Ophthalmological Society and their recommendations for checking the disease were a move in the right direction; but their appeal to the President of the Poor-law Board had not been successful owing to some practical difficulties of time and cost. It was therefore likely that the burden of the fight against this evil must fall upon the members of the profession. This great object could best be attained by unremittingly and by every means endeavouring to diffuse a knowledge of the disease and of its dangers through the dispensaries, the clubs, the lying-in institutions, and the visitors of the sick poor. Prophylaxis was the next duty. Why should not antiseptic precautions form part of the routine of every lying-in case? In respect of treatment, the first essential was that no time should be lost. The indications were (1) to remove the conjunctival discharge as rapidly as it formed; (2) to relieve tension; and (3) to watch and treat the complications. In addition to the usual rules of treatment, Mr. Cowell recommended that the affected eyes should be cleansed every quarter of an hour with weak antiseptic lotion, and the conjunctivæ painted with from four to six grains of solution of nitrate of silver daily in severe cases, twice or thrice a week in mild cases; the free solution being washed away with antiseptic solution. Where there was much discharge alum or boracic acid might be added to the lotion. The cul-de-sac under the upper eyelid required careful washing out. The ablutions might be less frequent during sleep, and gradually diminished as the discharge lessened. When severe chemosis occurred early scarification was necessary.—Mr. JULER inquired whether severe cases could be diagnosed early from milder ones. He quoted some investigations of Dr. Widmark (*Revue Générale d'Ophthalmologie*, Sept. 1884), in which twenty-two cases of purulent conjunctivitis had been examined (four adults and eighteen infants). Bacteria, described as gonococci, were found in the majority of these cases in the fluid, on the pus cells, and on the epithelial cells. In the adults he discovered gonococci in the urethral secretion, and in the infantile cases in the urethral discharge of the mother. The gonococcus was absent in six of the infantile cases which ran a mild course. Mr. Juler exhibited a specimen of bacteria which he considered identical with gonococci. The antiseptic solution used for the ablutions should be weak (¼ per cent. carbolic or boracic acid). The conjunctivæ, if severely swollen, should be freely scarified, and if eversion of the upper lid were impossible the outer canthus should be divided.—Mr. H. POWER, speaking from the experience of the ophthalmic department of two large institutions, would have mentioned 10 to 15 per cent. only as the percentage of blindness due to ophthalmia neonatorum. The discovery of the gonococcus was due to German observers, who had long forestalled the observations which had been mentioned. Independently of prophylactic measures, which should not be neglected, the eyes of infants were generally protected by the agglutination of the palpebræ. When due to gonorrhœa, cases were likely to do badly unless they received skilled treatment early. On a wide average, cases, if seen in the first week, would recover; if in the second week, they would run a dangerous course; if in the third week, they were hopeless. Ablutions practised every hour, or every two hours, were sufficient as a rule; but it was important to remove the stringy precipitate which generally adhered to the margin of the lid after the application. As a disinfectant, half a grain of nitrate of silver to the ounce was an appropriate strength; for the purposes of stimulation two grains to the ounce should be used. Scarification was strongly deprecated, and division of the canthus was seldom requisite and most undesirable.—Dr. ALDERSON mentioned a case in which he had with great success, but not without pain to the patient, insufflated a dose of calomel into the conjunctival sac.—Dr. BLENKINSOP, in his former experience as obstetric assistant to St. George's Hospital, had found the use of a lotion of sulphate of zinc (two grains to the ounce) generally successful. One or two of his cases only were, however,

gonorrhœal.—Dr. M. HANDFIELD JONES considered that the severity of the cases entirely depended upon the nature of the vaginal discharge. This was well illustrated by the irritation of the tissues of the vulva by gonorrhœal and uterine inflammatory secretions as compared with the absence of irritation in the ordinary cases of leucorrhœa, even of long duration.—Dr. F. A. HILL was puzzled to find specialists at variance on important points of treatment. In his own hands treatment by frequent ablutions had been very successful. Dr. SILCOCK was convinced of the importance of systematic ablutions; sleep should be interrupted for that purpose. Pure iodoform and pure boracic acid, among other remedies, had been tried at Moorfields, but the old-fashioned treatment by nitrate of silver had been finally resumed. Scarification was necessary in some cases, and should be employed.—Dr. C. WELLS had recently treated a case where gonorrhœa was present in the father. Purulent ophthalmia occurred two days after birth, and was treated successfully with sulphate of zinc lotion; one eye only was affected. This good result was due to the use of an antiseptic application of spermaceti and vaseline with thymol. This compound, solid at ordinary temperatures, but easily soluble by warmth or in water, would be found a useful prophylactic for surgeon and patient.—Dr. T. MORTON referred to the comparative infrequency of the affection in his own practice, which formerly had been extensive among the poor. His percentage was much below that usually laid down in text-books.—Mr. COWELL, in his reply, strongly insisted upon the curability of all cases if seen sufficiently early and if treated by frequent ablutions and by stimulant applications. The first week appeared to him to be the critical period. Scarification relieved threatening ulceration more quickly than any other method, but division of the canthus might be termed a barbarity except in a few isolated cases.

At the meeting on Thursday, Feb. 19th, Dr. T. Morton, President, in the chair,

Mr. J. H. MORGAN read a paper on the Operative Procedures in Cleft Palate, and their effects upon the Voice. After referring to the gaps still remaining to be filled in our knowledge of the etiology of the deformity, the author inquired whether cases ever occurred in which the surgeon need despair of producing some benefit by operation. Assuming that only partial closure would be obtained, the size and weight of the obturator required would be materially reduced, and its adaptation rendered easier. The wearing of an apparatus previous to operation was denounced on account of expense and of the damage caused to the teeth, as well as of its ill-effect upon the state of the cleft. Partial failure to close the whole opening at a first attempt did not stand in the way of complete success on a second occasion. The period between two years and a half and three years was recommended as the most suitable age for operation. The method of dividing with curved scissors the attachment of the soft to the hard palate, and of making long incisions parallel to the edges of the cleft, was advocated as the best means of reducing tension, and as less likely to interfere subsequently with the action of the muscles of the soft palate and with their function of closing the opening between the nares and the pharynx. An analysis of twenty-five cases was given; fourteen were completely successful and ten partially so; one failed on the first attempt, but was dealt with successfully later. The result upon the voice in those cases where attention had been given to proper training was stated to have been most satisfactory, and the necessity of careful and systematic teaching after the operation was strongly urged.—Mr. CARMALT JONES referred to cases where the results, ten years after the operation, were not satisfactory, the soft palate being excessively tense. Such cases supplied an argument in favour of deferring interference until the age of puberty.—Mr. T. PICKERING PICK had performed the operation in a considerable number of cases. Before the introduction of Smith's gag early operation had been impracticable; it had now become the rule, with the result that the habit of nasal intonation, so difficult to eradicate when once acquired, was generally avoided. Mr. Pick's first patient, operated on at the age of three years, had since been educated as a vocalist. In some cases, however, the dentist's obturator achieved better results than the knife, although the necessity for frequent renewal and the damage done to the teeth were strong arguments in favour of operating. Distinct articulation could be taught by causing the children to strike a board with the finger at each syllable. In every case the whole palate should be operated upon, partial operations having led to ultimate failure. The first condition for success was complete absence of tension on the sutures; free incisions were necessary, and never did harm.

Dr. C. T. WILLIAMS related cases of Emphysema treated by the Compressed Air Bath. The author, after fully describing the machinery and the working of the compressed air bath in use at the Brompton Hospital, proceeded to give illustrative cases of the specific effects of this agent. 1. A mechanical influence was exerted by the increased pressure on those surfaces of the body which were specially exposed, such as the skin, the aerial mucous membrane, and conjunctiva; dilatation of the bronchi and intropulsion of blood from the superficial veins and capillaries into those of the deeper organs which were protected by bony cavities—skull, spine, thorax, and pelvis—were among the mechanical results described. 2. Physiological and chemical effects were due to the increased amount of oxygen inhaled, which showed itself in quickened tissue change and larger excretion of carbonic acid and urea. With regard to emphysema, Dr. Williams' conclusions were that by the use of the compressed air bath (1) cough and expectoration were allayed and bronchial spasm reduced; (2) respirations were diminished in number and increased in depth; (3) pulmonary distension was relieved, and the active respiratory area increased; (4) a fall in the pulse-rate and a rise in arterial tension were effected; (5) the secretion from the kidney and liver was assisted, and thus derivation from the aerial mucous membrane brought about; (6) lastly, body weight was increased. Diagrams, pulse tracings, &c. illustrated the remarks contained in the paper.—Dr. SANSOM expressed his appreciation of the new departure in the treatment of emphysema. He had formerly tried Waldenburg's apparatus with disappointing results. He was nevertheless a believer in mechanical treatment, which he had used in three forms: (1) forced expiration, (2) bandaging the chest, (3) shampooing. Forced expiration could be practised very effectually without the additional aid of the air-pump, which Dr. Berkart had recommended, if patients were directed to blow a stream of air through a tumbler one-third full of water till they could no longer produce a bubble. This exercise might with advantage be continued for ten minutes and repeated during the day.—Mr. FRANKISH, Mr. CRIPPS LAWRENCE, Mr. WHITCOMB, and Dr. EWART also took part in the discussion.—In his reply, Dr. WILLIAMS pointed out that whereas fifty air-baths were in use on the Continent, only one existed in London, and one in the provinces (at Ben Rhydding). It was hoped that arrangements for rarefaction of air would be added to the Brompton apparatus. The immediate effects of a bath passing off within twenty-four hours, a course of at least thirty, and, preferably, of sixty baths, was recommended. With regard to the question of danger in dilatation of the right cavities of the heart, Dr. Williams had observed no ill effects, but a decided amelioration, unfortunately temporary, in the only severe case which he had treated. The main source of danger in all cases was carelessness in effecting a very gradual transition from high pressures to the normal. Workmen could spend hours comfortably under a pressure of five or six atmospheres, but when the pressure had been suddenly reduced in the pneumatic tubes, death had occurred from cerebral and spinal hæmorrhage. The subject of atmospheric pressure in mines was also commented upon.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

AT a meeting of this Society, held at 11, Chandos-street, Cavendish-square, on Feb. 11th, Dr. Norman Chevers, C.I.E., President, in the chair,

Dr. K. M'LEOD read a paper on "The Prevalence of Epidemic Roseola in Calcutta," of which the following is an abstract. He stated that an epidemic of measles had visited Calcutta during the year 1880 and the early part of 1881. This was succeeded by an outbreak of cases of an eruptive fever which appeared sporadically throughout the town among all classes of the population, affecting principally children and young adults. It lasted throughout the hot weather and rains of 1881, and cases continued to occur during the cold weather of 1881-82. The phenomena and course of these cases differed in many respects from those of the earlier epidemic. The symptoms of the disease were a distinct pre-

eruptive stage, lasting generally from twenty-four to thirty-six hours, and characterised by the sudden onset of fever. Muscular pains were sometimes present, vomiting and diarrhœa were rare, and sneezing and watery eyes not common nor severe. The eruption lasted two or three days, being bright-red or crimson in colour, circular in shape, and appearing in spots and patches, sometimes diffuse or confluent; it was not succeeded by desquamation. The fever was severe, onset sudden, decline gradual as the eruption faded. The total duration of illness was about a week. The most commonly observed complications were bronchial catarrh and tonsillitis, the tonsils being sometimes covered with an aphthous pellicle and slight ulceration taking place. The lymphatic glands of the neck were enlarged in many cases; sequelæ were absent and the mortality trifling. The disease was not very infectious, but cases occurred in succession in the same family. It was also noticed that a previous attack of measles was not protective, and an instance was recorded in which an attack of measles occurred shortly after recovery from the disease. Dr. M'Leod thought that the disease resembled very closely rubeola or rötheln; there could be no question of identity with scarlatina, because in addition to well-marked clinical differences, it was a well-known fact that though single cases were often imported in troopships, scarlatina as an epidemic disease did not exist in India. It was a question whether these were not cases of some other kind of fever, such as mild malarious remittent, complicated by a roseolar rash; but this was shown to be impossible by the similarity of the symptoms as observed by different practitioners and the number and grouping of the cases. The evidence thus pointed to the view that this was an epidemic of rötheln, and, if this were so, it became an interesting question whether similar outbreaks occurred from time to time in other tropical countries and places.—In the discussion which followed, the President, Sir W. R. E. Smart, Surgeons-General de Renzy and W. J. Moore, Drs. Duka, Cayley, Squire, and Thorne, and Messrs. Shirley Murphy and Charles Paget took part.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

A MEETING of the above Society was held on Jan. 15th, Mr. W. A. Garrard, President, in the chair.

Mr. ARTHUR JACKSON related a case of Strangulated Hernia on which he had operated on Dec. 25th, 1884. There was nothing particular about the operation; the difficulty was in the diagnosis. A scrotum full of something; a special and recent tumour outside the internal ring; spasmodic sickness; no abdominal distension; a good countenance; a quiet pulse; and very slight hiccough. A recent tumour appeared on Tuesday, Dec. 23rd, late in the evening; the scrotal swelling was chronic. With diffidence herniotomy was performed, and on cutting down upon the recent tumour a port-wine coloured piece of bowel was found very tightly constricted, which was reduced with difficulty.

Dr. GWYNNE introduced a lad, aged ten years, subject to the condition known as Hæmophilia. This boy he had known almost from his birth, and had frequently treated him for hæmorrhages from his fingers, tongue, nose, scalp, and various other parts of the body, caused by injuries generally of a very slight nature. The right knee was slightly contracted, and the lower extremity of the femur was much larger than its fellow. When about a year old he had knocked it when in bed, and in the morning it was found much swollen; since that time the condyles had become enlarged, and that knee has become weaker and the hamstring muscles slightly contracted. He was an active boy on his legs, except when suffering from the effects of slight knocks. Dr. Gwynne had sometimes counted more than half a dozen ecchymoses on different parts of his body. His growth was stunted, and he was only the same height as his brother, who was two years younger. There was no family history. His complexion was dark.

Mr. PYE-SMITH showed a wedge of bone which he had recently removed from the lower end of a man's femur for the cure of Genu Valgum. The patient was a cab-driver, aged twenty-eight. He had been admitted into the public hospital on account of a partial dislocation outwards and on to the inner edge of the left patella. This was reduced under ether by flexing the knee, and the osteotomy had subsequently been performed to remedy the knock-knee. The degree of deformity was very great, the legs forming an angle somewhat greater than a right angle when the knees were placed together in bed. A wedge of bone was removed by means of a small saw from just above the condyles of the left femur, the apex of the wedge having an angle of about 40°. Listerian antiseptic precautions and dressings were employed. The case is progressing favourably, and it is intended soon to operate on the other limb, which is equally affected.

Mr. C. ATKIN read a paper on Natural Drainage in Otorrhœa, in which, after noting that in fatal cases the Eustachian tube was usually found more or less blocked, he went on to say that though cleansing of the tympanic cavity, "per tuban," was recommended in cases of inspissated secretions, not sufficient stress was laid on the necessity of keeping the tube open for drainage purposes in all cases. The usual routine treatment of allowing powders and drops to be applied to the ear, followed by a plug of cotton-wool "to keep the cold out," was condemned, unless a previous examination had shown that the Eustachian tube was in a patent condition. Notes of a fatal case were read where the pus had not burrowed back into the mastoid cells, but had ulcerated through into the roof of the pharynx, causing an intermittent fetid discharge through the nose. The case, a man aged twenty-one, died the second day after admission into the infirmary from abscess of the cerebellum.

At the meeting on Jan. 29th, Dr. BANHAM presented two cases of Hydatid Disease, one of the liver and the other of the spleen; the first after being twice aspirated, the brief notes of which are: A girl, aged fourteen, was first aspirated eleven months ago, and two quarts of clear hydatid fluid were drawn off. After the operation acute febrile symptoms with incessant vomiting set in, and it was found that the cyst had completely refilled. It was again aspirated six months after the first operation, and apparently nothing but pus was drawn off, about one quart in quantity. Since then the patient has been restored to perfect health. Dr. Banham's second case was a girl, ten years of age, with a large well-defined tumour in the left hypochondriac and epigastric regions, freely movable, firm, and elastic to the touch, which was diagnosed as a case of hydatid of the spleen.

Dr. BANHAM introduced a woman, thirty-eight years of age, who had long suffered from Cephalalgia. Three years ago she was attacked with left hemiplegia, and four months ago with a loss of the sight, so that she was only able to see objects on the right hand side. In neither of these attacks was there unconsciousness, and they were two days in attaining their full development. On examination there was marked paresis of the left side, and on testing her right with the perimeter there was found to be right hemianopia, the vision in both cases passing just beyond fixation point. The left pupil was larger than the right. The pupillary reflex was absent, and there were no morbid ophthalmoscopical appearances. Dr. Banham considered that the left hemiplegia was due to thrombosis of the right middle cerebral artery, and that the hemianopia was due to a similar cause, affecting a branch of the post-cerebral artery supplying the posterior part of the optic thalamus and the corpora geniculata and corpora quadrigemina, or to a point of softening in the optic thalamus. The condition of the pupils seemed to exclude a purely cortical or subcortical lesion of the occipital lobes, while the healthy condition of the retina favoured the view that it was not a purely tract lesion.

Mr. S. SNELL related particulars of a case of Blindness, in a man aged forty, occurring rapidly, within three days, in the right eye, and a short time later, in an almost equally rapid manner, in the left. Light perception was abolished in each eye, with negative ophthalmoscopic signs. Mr. Snell gave his reasons for supposing a lesion of the region of the chiasma, and promised further particulars of the case later on.

Mr. SNELL also exhibited a patient with Paralysis of External Recti. The left sixth nerve had been affected for three or four weeks, but during the last few days the right had become also paralysed, and it was feared further evidence of central disease was developing, when the case would be again brought to the notice of the Society.

Dr. GWYNNE read a paper on the Treatment of Empyema, and gave notes of four cases in children that came under his care during the latter half of last year. He advocated the choice of the seventh right and eighth left interspace for paracentesis behind the line of the axilla, as these points

were well above the highest level of the diaphragm in forced expiration. He laid great stress upon keeping the pus aseptic, as few patients bore well frequent washings of the pleural cavity. He preferred using a trocar and cannula to incision with a knife, as being more cleanly and allowing of more control over the too rapid escape of the pus, and allowing of the easy introduction of the drainage-tube through the cannula; a double opening was rarely necessary or desirable. He believed that the drainage-tube was often kept in far longer than was necessary, keeping up by its presence much irritation and discharge. In children he thought there was nothing gained by too early opening, as at first the empyema was often multilocular and some delay broke down adhesions and made it unilocular, a matter of no small importance when drainage was established. In children empyema was not, he thought, often preceded by serous effusions.

MIDLAND MEDICAL SOCIETY.

AN ordinary meeting of this Society was held on Feb. 4th, Mr. T. H. Bartlett, President, in the chair.

Dr. MALINS read a paper on a case of Inversion of the Uterus. The patient, aged nineteen years, was confined of her first child on June 1st, 1883, after an easy labour attended by a midwife. She had tedious convalescence owing to continued hæmorrhage, and became anæmic and weak. She was admitted into the General Hospital on Oct. 24th, several attempts at reduction having previously been made. The uterus was found to be dense, completely inverted and involuted, the vagina lax and capacious. Under ether an attempt was made by taxis, steadily applied for an hour, without any impression being made in reducing it; a further trial was also made about a week later. On Nov. 20th the abdomen was opened in the middle line, a strong silk thread passed through the fundus into the vagina, and a button fastened on the distal side. Considerable traction was made on this ligature with counter-pressure by one hand without any yielding; this was persisted in for nearly an hour. The wound was then closed. There was much shock, the temperature going up to 104°, and the pulse becoming quick for eight or nine days—120 to 140. On Dec. 21st an elastic ligature was put round the base of the uterus in the vagina. On Jan. 1st the uterus was detached; the stump healed well, there were no bad symptoms, and the patient was discharged cured on Jan. 14th.

Mr. J. W. TAYLOR showed a case of Congenital Syphilis in an adult, with gummata around the left knee-joint. These, which had been noticed from childhood, and at one time seriously interfered with locomotion, had greatly diminished in size under prolonged treatment; the tumours remaining had probably undergone changes preventing further absorption. Some syphilitic symptoms had been observed in children of the third generation.

Dr. SUCKLING showed a case of Muscular Atrophy due to lead. The patient was a man aged forty-one, who had been a gasfitter. The interossei and extensor muscles in both upper extremities were wasted, and the "main en griffe" present in both hands. There were no electrical alterations. Dr. Suckling considered that the case was one of simple muscular atrophy, and not progressive, for the following reasons: (1) The weakness was far in excess of the atrophy; (2) there had been marked improvement under the administration of iodide of potassium; (3) the paresis came on somewhat suddenly.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

THE ordinary monthly meeting of this Society was held on Feb. 6th, Dr. Bell, President, in the chair.

Dr. JAMES ALLAN showed a section from a Concretion in the Kidney exhibited at the last meeting, the structure being true bone. He also showed sections of Osseous Plates from the Membranes of the Brain.

Dr. EDDISON showed a specimen of Microsporon Furfur from a patient in whom the growth took the unusual form of rings.

Dr. GRIFFITH showed a series of specimens illustrative of various forms of Malignant Infiltration of the Liver, including Carcinoma and Lymphosarcoma. He also showed a series of specimens of Intestinal Ulceration.

Dr. JACOB showed a case of Tumour of the Vocal Cord by means of a new electric light, in which the lamp was attached to the laryngeal mirror.

Dr. CLIFFORD ALLBUTT spoke briefly on two cases of Lead-poisoning. In the first case (a man of sixty) an indefinite cachexia alone existed, with much general debility, no definite colic or constipation, and no relative weakness of extensors, and gums devoid of teeth. A sudden attack of lead colic in the son betrayed the cause, and the source of the poison was found in the water-supply. In the second case, a man of fifty had been long treated for hypochondriasis. An estimate of urea proved renal excretion to be very deficient, and on renewed attention being given to the urine fleeting traces of albumen were discovered. A faint lead line was found on the gums, and traced to his occupation. Dr. Allbutt inquired whether in plumbism there might be a stage of defective nitrogenous excretion preceding the signs of organic renal disease.

Mr. HEWETSON showed a girl aged eighteen, in whom an attack of Acute Glaucoma occurred in one eye in October last. When first seen the attack had lasted five days. All the symptoms were those of an ordinary attack of acute glaucoma, accompanied by almost entire loss of vision. After the instillation of eserine, an iridectomy resulted in a rapid diminution of intraocular pressure, and consequent improvement of vision. At the end of a week after the operation she was able to read Jaeger 1 fairly well. Mr. Hewetson remarked on the rarity of glaucoma in one so young, and on the necessity of early iridectomy.

Mr. PRIDGIN TEALE related a case of Abscess discharging through the Lung and originating between the Diaphragm and Liver, which was cured by incision and drainage through the pleural cavity. Within six months of the operation the patient was in vigorous health.—Dr. C. J. B. JOHNSON had seen the case, and had followed out the after-treatment. The principal difficulty arose in the occurrence of severe dyspnœa after the operation, through admission of air to the pleura, the other lung being at the time partially solid. This was obviated by covering the wound with absorbent wool secured by adhesive plaster. Recovery was then uninterrupted.—Mr. MAYO ROBSON remarked on the difference between a healthy pliable pleura and one thickened by disease, as in empyema.—Dr. CLIFFORD ALLBUTT drew attention to the "anginiform" pains experienced by the patient. He reminded the meeting that a condition of intense orthopnœa and anginiform agony may be caused by diaphragmatic pleurisy, which can be inferred from the entire absence of any pneumocardiac signs.

Reviews and Notices of Books.

The Year-book of Pharmacy for 1884. Edited by LOUIS SIEBOLD, F.I.C., F.C.S. London: J. and A. Churchill. 1885.—It is always a pleasure to us to receive this useful and ably-edited Year-book of Pharmacy. As a work of reference to all that appertains to materia medica, chemistry, and even therapeutics, it is probably unsurpassed. The present volume is of especial interest, containing as it does the able address delivered by the president, Mr. John Williams, at the meeting of the British Pharmaceutical Conference at Hastings in August last. The majority of the papers read on that occasion were far above the average. It is worthy of note, as showing the activity which prevails amongst chemists, that abstracts are given of no less than nine papers on ptomaines and analogous compounds. Another subject which seems to have attracted a good deal of attention is the change undergone by starch in the process of conversion into sugar under the action of diastase. In connexion with this matter we cannot refrain from calling attention to a statement in a paper by Mr. Jugk, who is made to say that "a good extract of malt should convert its own weight of starch within ten minutes at 100° F." We are not told what starch is referred to, but if potato starch is meant, we should consider it a very poor extract of malt, and should condemn it without

the slightest hesitation. We are somewhat surprised to find no reference in the index either to the oleates or to cocaine. The abstracts, we see, are made up only to June 30th. Why this should be we are at a loss to understand. There would be no difficulty in bringing the work up to date. It is so good that we feel we have a right to ask for more of it.

Hygiene, its Principles as applied to Public Health. By E. F. WILLOUGHBY, M.B. Pp. 305. London: Collins and Co. 1884.—This volume, which forms one of Collins's advanced science series, has been written chiefly for the use of students reading for the examinations in hygiene held by the Science and Art Department, and for the certificates in sanitary science given by the University of Cambridge. It treats of food and water; ventilation and heating; sewerage, drainage, and sanitary appliances; meteorology and climate; personal hygiene; injuries, accidents, and preventable diseases; with a very brief notice, in the appendix, of dangerous, unhealthy, and offensive trades; of sewage disposal, and of the principles and facts and some of the fallacies of statistics. It appears to have been carefully drawn up, and to give a good, clear, and intelligible account of the general principles applicable to questions of public health. We are surprised, however, to find a recommendation given to administer an emetic to a man who is "dead drunk" without the slightest caution as to the danger arising from an individual in this deplorable condition being laid on his back. The risk of asphyxia under such circumstances should have been pointed out. With a view to make the work available as a text-book alike to the students for the elementary and the advanced examinations, the parts which are necessary for the former are printed in large type, while the additional and more detailed information required for the latter is given in a smaller type. The work appears well calculated to answer the purpose intended, and to furnish for the non-professional reader good general information on the subject of public health and the measures necessary to maintain and improve it.

Myths in Medicine, and Old-time Doctors. By ALFRED C. GARRATT, M.D. New York and London: G. P. Putnam's Sons. 1884.—The scope and intention of this book are thus set forth by the author in the introduction: "These chapters record medical history and the successive medical schools and sects; also the medical improvements along the ages, excepting the present, these being the gleanings of special studies in medical history. The work is addressed to the profession, especially the younger portion of it, and to an intelligent public—in plain language, for all readers. . . . Here are traced the rise and progress of the great medical profession, the old and new healing art; also the new phase of a very old fashioned medical 'school,' each inspected anew by routes not usually taken, so that important facts that should be familiar to everyone may be readily understood by any and all." It may be as well to explain that "the new phase of a very old fashioned 'school'" is homœopathy, Dr. Garratt pointing out that the so-called law of *similia similibus curantur* was on record two thousand years before the time of Hahnemann. The last chapter of the volume is therefore devoted to a searching, and so far as regards *potencies* a mathematical, analysis of that still existing myth in medicine. The preceding chapter—dealing with the question, What was alchemy in the seventeenth century?—concludes with the following words:—"The third phase of alchemy crops out in our own time most prominently in the so-called system of homœopathy." For the author's justification of this assertion we must refer the reader to the concluding pages of the book. The body of the work contains many interesting excerpts from the works of ancient writers, medical and otherwise. It is interesting to note the antiquity of specialism (dating back to B.C. 1400 or 1500, when it was a legal and precautionary method for the ensuring of thoroughness!) and of splenectomy. An old-time theory of the pathology of aphasia is also curious:—"That the traces of the nerves in the tongue being defaced, or closed up, the Spirits that do duty to that organ, though directed to one part, finding those avenues shut up, are compelled to go into those that are not obstructed." To those who have not time and opportunity to gather for themselves gleanings from the past we can recommend this interesting little book.

The Harveian Oration. By J. RUSSELL REYNOLDS, M.D., F.R.S. London: J. and A. Churchill. 1884.—The appearance in a separate form of the Harveian oration delivered by Dr. Russell Reynolds in October last calls for a brief notice at our hands. We do not envy anyone the task of having to compose an oration dealing with a subject which, however interesting, cannot legitimately be regarded as inexhaustible. Yet it must be confessed that the many Harveian orators have not failed to make something out of their study of Harvey's life and work. The conditions under which the Harveian oration was founded preclude, we believe, the possibility of diverging in any degree from the subject of Harvey himself. It follows that each successive orator finds the ground more and more cut from under his feet. Be this as it may, it cannot be gainsaid that the latest attempt has proved anything but unsuccessful. Dr. Reynolds's oration is admirable; it contains much that is poetically beautiful and instructive. The truth is that Harvey's life and work present so many aspects that a sort of permutation and combination is possible whereby new arrangements of the matter can be made by those possessing the necessary ability. Dr. Reynolds sought to show, with considerable reasonableness, in the third part of his discourse, that Harvey was religious, yet free from the restraints of theology, an observer, a questioner, and interpreter of Nature. He made legitimate, and only legitimate, use of working hypotheses. He was at once bold, meek, and cautious, and fully realised the value to be attached to the conclusions to which others had come who had looked at facts for themselves. In much of his writing Harvey was both humorous and eloquent. His great achievements were the result of his method—namely, that of observation and experiment.

Medical Education and the Regulation of the Practice of Medicine in the United States and Canada. Chicago: W. T. Keener. London: Trübner and Co. 1884.—This work, prepared by the Illinois State Board of Health and published by permission of the board, gives a brief but sufficient account of the various medical institutions in the United States and Canada, extinct and existing, including examining and licensing bodies, the organisation and requirements for admission and graduation of the medical colleges, auxiliary and post-graduate schools, &c. Drawn up originally to form a section of the fifth annual report of the Illinois State Board of Health, the work is valuable to all, inasmuch as by reference to it the standing of any one of the many medical colleges existing in the United States and Canada may be readily determined.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—The officers and other members of Council of this Society nominated for the year 1885-86 are as follows:—President: George Johnson, M.D., F.R.S. Vice-Presidents: W. O. Priestley, M.D.; Hermann Weber: T. Bryant; M. Berkeley Hill. Treasurers: C. B. Radcliffe, M.D.; T. Holmes. Secretaries: R. D. Powell, M.D.; Howard Marsh. Librarians: Wilson Fox, M.D., F.R.S.; J. W. Hulke, F.R.S. Council: H. Charlton Bastian, M.D., F.R.S.; W. H. Broadbent, M.D.; T. Buzzard, M.D.; W. S. Church, M.D.; C. T. Williams, M.D.; Warrington Haward; Sir Wm. Mac Cormac; T. P. Pick; W. Sedgwick; W. Rivington.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 28, 1885.

THE movement for the promotion of a Teaching University in London has met with the strongest support in a quarter in which perhaps it might least have been expected. The graduates of the University of London have not given the proposal a chill reception or bowed it out of doors, but have accorded it a hearty welcome. Their decision on Tuesday last is destined to have an influence over the future of the University greater than that of any event which has occurred since the necessity of collegiate instruction for degrees in all faculties, except in that of Medicine, was done away with, some twenty-five years ago. Since that time no such question of primary importance as that connected with the promotion of a Teaching University has been brought before its members. In no grudging manner, but by a very large majority, the graduates have determined "that in the opinion of Convocation the objects of the Association for promoting a Teaching University for London would, if carried into effect by this University, add to its usefulness and importance." The objects of the Teaching University, as stated by Lord Justice FRY in moving the resolution, must have so important and extensive a bearing on medical education in this country that we recapitulate them, although they were given in full in our editorial columns on the 14th inst.:—

"1. The organisation of University teaching in and for London, in the form of a Teaching University, with Faculties of Arts, Science, Medicine, and Laws. 2. The association of University examination with University teaching, and direction of both by the same authorities. 3. The conferring of a substantive voice in the government of the University upon those engaged in the work of University teaching and examination. 4. Existing institutions in London of University rank not to be abolished or ignored, but to be taken as the bases or component parts of the University, and either partially or completely incorporated, with the minimum of internal change. 5. An alliance to be established between the University and the professional corporations, the Council of Legal Education as representing the Inns of Court, and the Royal Colleges of Physicians and of Surgeons in London."

It is at once apparent that the adoption of these objects must determine a new departure in the history of the University. The proceedings of the executive authority have satisfied neither the teachers nor its wisest and most far-seeing graduates. The University was founded on non-sectarian principles at a period when the older Universities refused to give their degrees to students who could not accept the doctrines of the Established Church; but when that barrier was removed, the special *raison d'être* of the University of London no longer existed. Instead of strengthening the teaching in England, the executive had opened the portals of the University to all comers, and, by refusing to acknowledge the advantages of a definite collegiate training, did a great deal to destroy the influence and prestige of the higher colleges. It had a first warning of the dangers of this step in the conversion of Owens College into the Victoria University, and now it has received another hint, the significance of which it will not be wise to ignore. The foresight of its own graduates must necessarily compel the Senate to depart from their old *rôle* of a mere examining board for the State, and take on those higher duties which, from its position, the University of London should never have neglected. An illiberal disregard of every educational movement and a selfish adherence to an old educational idea have brought a just Nemesis on the doctrinaires who rule the Senate. The single object of keeping the examination standard as high as possible, without the slightest inquiry as to how the information is obtained (as if there were no difference between such information and true knowledge), is disclaimed by the very graduates who have obtained its degrees. "The conferring of a substantive voice in the government of the University upon those engaged in the work of University teaching and examination" will be a revolution in its management, and must altogether change the character and constitution of the present executive. That such a change is not altogether acceptable to many members of the Senate was clearly shown by the speeches of Mr. OSLER, Mr. SHAEN, and Mr. HUTTON, who are members of the Senate as well as graduates in Convocation, although it might have been more gracious on their part if they had waited for its presentation to the former body. Mr. OSLER's speech in moving the amendment—"That the House is not in a position to affirm the expediency of the adoption by the University of the diversified and indefinite objects of the Association for promoting the establishment of a Teaching University for London"—was such a deliberate attempt at ignoring the demands for a Teaching University, and of pretending not to understand the objects of its promoters, as to justify Lord Justice FRY's well-timed remark, "That there were two ways of reading a document—one, with a view to understand it, and the other, with a decided intention not to do so; and he need not say which the inner circle of Senators had obviously been pursuing." Moreover, the Senate will scarcely have power, even if it has the inclination, to ignore the vote of Convocation, for a second resolution was adopted in the following terms:—

"That Convocation now reappoints the Special Committee appointed on January 6th, 1885, to promote the carrying into effect by this University of the objects of the said Association, with power to confer with the Senate or any committee thereof, and with the said Association, and with such other bodies and persons as they may think fit, and with power to accept resignations, fill up vacancies, and add to their number, and also to appoint subcommittees; and that the said committee be directed to report to Convocation from time to time as occasion may require."

A standing Committee is therefore appointed, with which the Senate must work, or else come into collision, and if the latter course be chosen, the result can scarcely admit of doubt.

What will be the effect of this new movement on medical education and medical degrees in London? Consolidation of preliminary and scientific teaching seems to us to be inevitable, and would be of unspeakable advantage. Degrees will be rendered accessible to every industrious and fairly intelligent student, and the old restrictive regulations will

be done away with. An institution exercising some supervision over medical studies, and fostering the best aspirations of medical science, will be able to do much towards promoting higher knowledge and original investigation. Instead of educating a few men highly, the general standard must be considered, and the sacrifice of the many to the few be no longer a cardinal principle in the University which practically rules medical education in a city which presents greater opportunities for clinical teaching than any other in the world. We earnestly hope that, when definite proposals are advanced by the Association for promoting the Teaching University, these considerations will find a prominent place in their programme, and that the Senate of the existing University will not be permitted to make any compromise which will interfere with the due carrying out of the measures by which such ends may be obtained. A degree which may be accessible to every worthy student, and a constant stimulus to the enthusiasm which ennobles every true teacher and student, will do more to improve medical science in general than a severely rigid examination-test, which only disheartens the plodding and disgusts even the ambitious student.

THERE is very little probability of domestic legislation of any sort during the present session of Parliament. The "burning questions" of what used to be called Imperial policy will engross the largest share of attention in both Houses; and of the scraps of time which can be spared for minor matters at home, few can be expected to fall to the lot of the medical reformer. On the uncertainty of medical education engaging attention during the present session we expressed our views last week.

The Lunacy Laws are to be tinkered, but no one need be much moved on that score. Only the proprietors of private asylums have cause to rejoice in the position of affairs. They, indeed, may find consolation in the prospect of legislation at this conjuncture, because it goes without saying that the Government will not attempt to deal with the private-asylums system in any considerable sense, and if only something can be done without unsettling the *status quo*, all danger of disturbance will be escaped for many a long year, and asylum property will recover its value in the market with proportional celerity. At the present time the Lord Chancellor, who really knows nothing whatever about the subject, and is entirely in the hands of official wire-pullers—who have drawn his Bill for him, and will tell him what to say and how to say it,—has only one leading idea on the question, and that is that existing statutes would be the better for a little codification, and that in a few minor and practically quite unimportant points there may be room for amendment. In brief, he proposes to patch and paint the structure, and to call it by a new name—nothing more; whereas it requires to be pulled down and reconstructed on a new principle. Neither the public, sane and insane, nor the medical profession, nor the asylum keepers, need give the prospect of "lunacy law reform," so far as the near future is concerned, a single serious thought. It would be idle to do so. The lawyers may have a certain amount of interest in the promised Bill; but for us there is neither hope nor interest in it, and we can afford to wait for its appearance before we discuss it.

Far more interesting and hopeful than the prospect of new law-making in connexion with insanity is the enterprise just beginning to be shown by certain of the judges in respect of the administration of the law as it stands. Mr. Baron HUDDLESTON has already done much, and other judges are following suit, in the way of providing that, even without "reform," both the sane and the insane might be much better protected than they are, or have hitherto been. Not the least significant of logical inferences deducible from recent deliverances on the part of the judges is that no small proportion of the inmates of asylums at this present time are illegally detained, and that—the asseverations of the Commissioners in Lunacy notwithstanding—the great majority of the documents which have satisfied their petty notions of "regularity" are bad in law, and only pass as legal warrants for the detention of the poor folk named in them because they have not been judicially examined. The gross absurdity of making a mixed Commission, of no legal authority whatsoever, a court, without appeal, for the private adjudication of issues which ought to be settled in the broad light of day, stands confessed. Nothing short of a complete and sweeping measure can suffice to wipe away the reproach of our lunacy system; but it is gratifying to find that some of the more heinous abuses of that system are likely to be prevented for the future by the tardy interposition of the administrators of the law, who would seem to have just awakened to the knowledge of the fact that such miserably bad and unworkable laws exist. It is something to know that, rotten as the whole system of "certifying" and confining certificate-made lunatics is, and must for the present continue to be, it will need to be more carefully worked in the future than in the past, or those who either carelessly or selfishly abuse it will bring themselves within the reach and righteous indignation of the law.

Sanitation must wait; medical education must wait; the protection of the public from false pretensions and quackery must wait. But we shall at least be able to plead that the demands we have so repeatedly urged on the attention of the Legislature have not been satisfied; whereas the lunacy law reformers will have nothing to urge, inasmuch as their case will have been quite recently dealt with and the question settled, albeit without being answered, and it will not be likely to be speedily reopened. Therefore, so far as it goes, we prefer the cold of our own place of neglect, far outside the outermost limits of probability, to that of our friends the reformers in lunacy, who are to have their wrongs and grievances talked about and tinkered without being redressed. The outlook in medical politics is the reverse of encouraging, and almost the only redeeming feature about it is to be found in the fact that, being so utterly hopeless and bad, it surely must mend.

IN the course of a few weeks Surgeon-General J. M. CUNINGHAM, the head of the Indian Medical Service, and for many years the sanitary commissioner with the Government of India, will have completed his public career in that country. On the eve of his departure he has prepared a work on Cholera for the Government, embodying the results of his long experience and exceptional opportunities for acquiring precise information in connexion with the subject.

The work is entitled "Cholera: What can the State do to Prevent it?" In the preface the author observes: "My object is to discuss the whole question from a *practical* point of view; to examine how far the action taken by different Governments in order to arrest the progress of epidemic cholera has been productive of good and how far it has been productive of evil; and to point out, from the thirty-three years' experience I have had of the working of the sanitary department in India, what has proved to be the only effectual means of meeting the disease." Dr. CUNINGHAM, as is well known, holds what many believe to be very heterodox views on the subject of cholera; he is, nevertheless, equally well known to be a most capable public servant, and has had unsurpassed opportunities of forming an opinion of the matter with which he is dealing; and it is a decided advantage to the profession in Europe that what may be referred to as the reverse side of the shield should be held up to view by one so competent to do so. The appearance of the work, moreover, at a time when, as we were able to announce last week, a conference is to be held in Rome to consider the practical phase of the question, is very opportune.

Dr. CUNINGHAM dissents from the view that cholera is a disease of comparatively recent origin, and points out that instead of its having, as popularly supposed, started in Jessore in 1817, it is known to have existed in India at least 400 years ago; but it is only since 1868 that a systematic attempt has been made to collect statistics concerning it and other diseases in that country. As regards the so-called endemic area of cholera, it is remarked that its limits cannot by any means be readily defined on a map, as it shades off gradually in all directions, and that the prevalence of the disease in the endemic as well as in epidemic territories is very different in different years. It is, however, pointed out that the districts which suffer most are by no means those which are in most direct or constant communication with the endemic area; nor is the reverse true that those districts which escape are comparatively isolated and removed from intercourse with the endemic area. In this connexion two places are cited which enjoy a remarkable immunity from cholera—Montgomery and Mooltan, in the Punjaub; and two other places in the same province—Umritsur and Lahore—are cited as enjoying no such exemption, but from time to time suffer severely under precisely similar conditions as regards facilities of intercommunication. All four lie on the same line of railway, and bear the same relation to the traffic of the country. The direction taken by epidemics of the disease in the Bengal Presidency is stated to be always upwards, never downwards, and advantage of this circumstance is taken in regulating the movements of troops. It has never been attempted to prove that the troops conveyed cholera when travelling in a southerly direction, and this in the Upper Provinces is all the more noteworthy because the great drainage-channels, into which much of the choleraic matter must eventually find its way, run in the reverse direction of the epidemic. Railways have now placed the whole country within a few days of the endemic area, but the frequency of epidemics have by no means increased, nor is their movement more rapid, while their direction is wholly unaltered. Amongst the few places in or near India where the disease is little known, the hill station of Mussoorie is cited, which, although within seven miles of the plains, and drawing all its supplies thence, has suffered less over a long series of years than most towns in Europe.

Dr. CUNINGHAM tells us that all attempts to keep out cholera from places in India have signally failed, and so satisfied has the Government become of the futility of quarantine, that it has been altogether prohibited. All experience in India, he says, goes to show that "to impose quarantine or cordons in order to keep out cholera is a proceeding no more logical or effectual than it would be to post a line of sentries to stop the monsoon." As regards troops and prisoners, the procedure adopted is that when a single case of the disease occurs removal from the affected room or building is compulsory. If a third case occur among any body of troops, then they are immediately removed into camp. Such removal "has proved successful even when the party moved have carried their sick to the new place, and have drawn their supplies, including their water-supply, from the affected place which they had left.....Nor need any fear be entertained that the removal of bodies of men, even when suffering from cholera, will prove a source of danger to the community at large, and especially to the community to whose neighbourhood they have gone. Among the many moves made in this country there is no instance of this kind on record."

Passing on to the chapter which deals with cholera out of India, it is mentioned that reference is made to the disease in the old writings of China and Japan, and that there can be no doubt that epidemics of it occurred both in Europe and in America long before the great Bengal epidemic of 1817. With regard to the alleged statement of the conveyance of cholera from India by means of ships, it is maintained that ships sailing from that country suffer very little from the disease, and that severe outbreaks even in ships sailing from Calcutta have been extremely rare. The evidence which has been adduced in support of the disease having thus been promulgated from India is examined, and the conclusion arrived at is that "if ships from India were the common carriers of cholera, then there should be no difficulty in producing, not one or two doubtful instances, in which the evidence breaks down at once on examination, but hundreds of instances in which the evidence is clear, complete, and incontrovertible."

The visitations of cholera to Europe and America during the last fifty years are divided into three periods—1829 to 1864, 1865 to 1880, and 1880 to 1884. During the first of these periods three epidemics were recorded, all of which appeared first in the east of Russia. The materials for the history of the second period are collected from the late Mr. NETTEN RADCLIFFE'S exhaustive papers, and deal with the appearance of the disease in various European countries each year from 1865 to 1874; during 1875 to 1877 no cases in Europe have been recorded, nor were there any in 1879. In connexion with the third period, 1880 to 1884, the history of the recent epidemic is dealt with. In Dr. CUNINGHAM'S opinion, the upshot of all the evidence goes to show that during the fifty years passed under review the places which are in most direct and constant communication with India have suffered least; that since direct and constant

communication was established between India and Europe, Europe has suffered from cholera invasion less frequently than it did before; and that in spite of railways and other improved means of communication, the recent European epidemic travelled no faster than did that of 1832.

The system of "medical inspection" is briefly referred to, and considered to be useful in itself, but it is not to be depended on as a means of preventing cholera invasion. Ships coming from cholera-stricken places may be expected to have cholera sick on board. "The sick have suffered because of the influence of the place from which they have come, and the best evidence of the groundlessness of the fear attaching to them is to be found in the fact that in nearly every instance they are isolated cases, and the rest of the ship's crew have not been attacked. There is a great difference between the arrival of persons suffering from cholera and the arrival of the influence or causes which produce cholera." Reference is made to the isolated cases of the disease which occur in all countries every year—it is known to have been in Russia during the last twenty years,—but they are referred to, when not followed by an epidemic, as cases of cholera nostras. But Dr. CUNINGHAM asks, "Are isolated cases of small-pox or measles different from the numerous cases which make up an epidemic? Are they distinguished as cases of variola nostras or rubeola nostras? And yet these diseases, just like cholera, have their times of abeyance when they present themselves in solitary attacks, and their times of epidemic prevalence."

Even those who may disagree with Dr. CUNINGHAM will allow that he puts forward the points in his argument with marked ability, and all who value the thorough sifting of evidence bearing on the truth or otherwise of current medical teaching will hail with pleasure the appearance of this volume at a time when so many are prone to accept as proved and finally disposed of some of the very statements and conclusions which Dr. CUNINGHAM so vigorously assails. We regret that our space will not allow of our following the author through his examination of the theories which have been advanced in connexion with the etiology of the disease and other matters. Indeed, we have already given a longer summary of the work than we are generally able to give, simply because we feel that, being an official publication, it can reach the hands of but few of our readers, unless, as we hope, it may be republished in this country. We must not, however, omit to give the pith of what is said as to the duty of the State in connexion with the prevention of the disease, and this cannot be done better than by quoting one or two of the sentences of the author's concluding chapter: "Each country should have its own sanitary administration, which should be occupied entirely with carrying out sanitary improvements within its own boundaries, and with collecting information to show where these are most wanted and what results they have produced. If it is to be of any value, the whole practical action must be based on the great truth that the measures which will confer protection from cholera are measures directed, not against the freedom of the *person*, but against the insanitary conditions of the *place* in which he lives." Such measures will not only diminish cholera, but they will also diminish the many other diseases which, though less alarming, are by their constant drain on the population in reality much more destructive than cholera.

MR. LEAKE, the member for South Lancashire, seeing our criticisms on his speech in answer to a deputation from the anti-vaccination party in his constituency, has been at the trouble to have his words more exactly reported, and has courteously sent us a copy of the report. We have much pleasure in again reverting—though it must be briefly—to his speech, as that of a man anxious to do what is right in a public question of momentous consequence. We have no lack of sympathy, any more than Mr. LEAKE, with the difficulties of honest people who are not accustomed to weigh evidence. We shall not be far wrong if we state Mr. LEAKE'S case as follows. He cannot resist the scientific case for compulsory vaccination of children on medical and general grounds, and he has had no bad personal experience of any mischief arising from it. But he would not impose more than one penalty. He maintains that the State in many cases comes between the parent and the child, and imposes duties on the parent *nolens volens*. He thinks that much of the diminished mortality from small-pox is due to improved sanitation. He says that professional opinion as to the sufficiency of one vaccination has been disproved, that the dogma now is "vaccination every seven years," that it is empirical and all guesswork. His experience of revaccination shall be described in his own corrected words.

"His experience of revaccination was so serious and costly—the revaccination of his household in London a year or two since cost him between £50 and £70—that in future he would risk all rather than try it again on his family. Of the members of his household, twenty in number, some were unwell for months, suffering from sluggish unwholesome wounds. One child had erysipelas, one domestic scarlatina. And this under the charge of a no doubt careful physician, who employed the so-called pure calf lymph imported from Belgium. Nothing would induce him to vaccinate his family again. As it was, he took that step in deference to the fears of some members of it, and his own timidity in taking the responsibility of whatever might otherwise happen to his children."

Our answer must be as brief as the statement of Mr. LEAKE'S points. We are glad that, though in what he calls "a little bit of a dilemma," he sees his way to maintaining the compulsory vaccination of children. A visit to a blind asylum and the study of the experience of unvaccinated families in huge epidemics of small-pox will confirm his determination. His attempt to reduce the credit of vaccination by reference to improved sanitation is in our opinion a failure. The malignity of small-pox remains, and will show itself in the healthiest houses and among the healthiest people, if unvaccinated. Professional opinion is not like the POPE'S opinion—infallible; it is based on experience. The medical profession is now so open to light and so free from the influence of mere authority, that it would abandon vaccination to-morrow if it could be discredited on grounds that would satisfy common sense and a trained judgment. But with the indisputable evidence of a small mortality from small-pox among the vaccinated, and a practically absolute immunity from the disease amongst the officials of small-pox hospitals from the simple

precaution of *one successful revaccination*—vaccination every seven years has not yet reached the small-pox hospitals, though certainly one had better be vaccinated once too often than have the most modified small-pox,—there is no immediate prospect of that "general spread of intelligence and conviction" in the direction of abolishing compulsory vaccination which is likely to liberate either us or responsible public men, like Mr. LEAKE, from the duty of heartily upholding the present law, and praising GOD for men like EDWARD JENNER as the very greatest benefactors of their race. As to Mr. LEAKE'S experience of revaccination, it was not the happiest; but the lightest experience in his household of twenty of the most modified small-pox would have been more inconvenient. We do not deal with the money cost; that is a matter between him and his medical man. But we will say one or two things on the revaccination experience. It was from calf lymph. We have not yet given up our preference for lymph taken from a healthy child. But the result is much the same. The sequelæ of the revaccinations were certainly exceptional. When all is admitted, they were nothing to the sequelæ of small-pox, which we would ask Mr. LEAKE to investigate. "Domestic scarlatina" is a new disease to us, and we cannot connect it with vaccination. When Mr. LEAKE comes to weigh the sequelæ and the personal incidental inconveniences of revaccination with those of small-pox—and, by the way, in questions affecting millions we should not make too much of mere personal experience,—he will find the balance in favour of revaccination to be enormous.

Annotations.

"Ne quid nimis."

THE MEDICAL COUNCIL AND THE REVISION OF REGULATIONS OF MEDICAL EDUCATION.

THE Branch Council for England has held a meeting this week. It will be remembered that at the last meeting of the General Medical Council the revision of regulations in regard to medical education was referred for consideration to the Branch Councils. It remains to be seen whether this system of reference will work well or give more strength and precision to the work of the General Council. If we are rightly informed, the Branch Council of England does not see its way to recommend either the extension of the time of medical education or any change in the minimum age for receiving a qualification. In other words, it will recommend that the period of study should remain at forty-five months, and the age for passing not under twenty-one.

THE HOSPITAL SHIP "GANGES."

IF anyone will glance backward to the period of the Crimean war, or, even later, to that of the China war, and recall the provisions made for the sanitary and medical requirements of the sick and wounded, he cannot fail to be struck with the enormous stride that has taken place in this respect. If the so-called unification of the medical service has done nothing else, it has done this: whereas the doctors then had little or no power to have things as they wished, now they not only have the power to set forth their requirements, but, being directly brought into contact with the Admiralty officials, no pains are spared by the latter to fulfil all those requirements, and that in the most practical way. The first hospital ship fitted and equipped with a special design was the *Victor Emmanuel* for the Ashantee expedition, and from that day to this she has been the type which all other hospital ships have followed. Of course, nowadays, with iron steamers built in watertight compartments, it is impossible to obtain all the advantages of a flush hospital deck from stem to stern, with the large ports of a wooden line-of-battle ship. The hospital ship for the present expedition is a P. & O. steamer, the *Ganges*, very similar to the *Carthage* employed in the Egyptian war of 1882. The arrangements on board the *Ganges* are admirably complete—that was the opinion universally expressed by those who had the opportunity of inspecting her; and the Transport Department of the Admiralty are to be congratulated on the successful issue of their labours. As we looked at this vessel, with the Geneva Cross flag flying as her ensign, at the simplicity, effectiveness, and completeness of her arrangements, we could not avoid a feeling of gratification at the progress which had been made in providing for the sick and wounded, and at the development of views which not long ago were regarded as impracticable.

SANITARY JURISDICTION OVER DAIRY FARMS.

BRADFORD is endeavouring under an Improvement Bill to acquire certain powers over dairy farms situated beyond the limits of the borough, and we are given to understand that the Lords of Her Majesty's Council, in whom are vested the sanitary regulations as to this class of establishments object to an essential portion of the proposal. At first sight it might appear undesirable that any authority should have powers, to be enforced under a penalty clause, beyond the area of its own jurisdiction, but the circumstances under which Bradford applies for this power are so exceptional in their urgency and so fenced round by conditions that nothing but good could result if the demand were agreed to. What is asked is, firstly, that such cow-keepers or milk-dealers as supply milk within the borough limits shall, on written request from the borough medical officer of health, furnish that officer with a list giving the names and addresses of all their customers; and, secondly, that the provisions, rules, and regulations in force under the Contagious Diseases (Animals) Act, 1878, or under any Order of Her Majesty in Council, as to the good government of dairies, cowsheds, and milkshops, shall apply to any persons supplying milk within the borough, although such persons may reside or carry on their dairy processes beyond the borough boundary. Now the Privy Council do not appear to object to the first provision, and if even this should become law, Bradford may be congratulated on having made a precedent of some considerable importance. But, assuming that the list of customers should, when supplied, disclose a distribution of infection through the borough, and that an inspection of the dairy farm and premises should issue in the discovery of conditions which have led to the mischief, the urban sanitary authority remains powerless to effect any good. It is true that the borough authority may communicate the facts to the authority having jurisdiction under the Act and Orders outside the borough, but, unfortunately, when one authority makes complaint involving matters of negligent inspection or mal-administration against another authority, the only result often is that the offending authority immediately feels it its duty to put itself on the defensive, rather than to loyally aid the complainants. Besides which, the real wrong has been done to the borough, and not to the outside district, and the injured district should have some power of enforcing the alterations necessary to prevent any similar occurrence. The assumption we have made is by no means a hypothetical one. Dr. Hime tells us of nine dairy farms which, though

situated in a neighbouring rural district, sent all their milk into Bradford. All the nine premises were found to be in a most unsatisfactory condition, and in one of them a scarlatinal child and its excremental matters were found in such dangerous relationship to the milk utensils as readily to account for the prevalence of disease which had occurred in the borough, and was the immediate cause of the inquiry which had elicited the facts narrated. It will also be in the recollection of our readers that some two years ago London suffered from a severe epidemic which was traced to a dairy farm in the rural sanitary district of St. Albans, and that last year again the borough of St. Albans suffered from a similar epidemic having its source in the same district. It therefore becomes a matter of great importance to place in the hands of authorities whose districts thus become invaded some power over the source of mischief, even though it may lie beyond the area of their sanitary jurisdiction. And it must be remembered that precedents have already received legislative assent, which justify the application made. Thus, section 108 of the Public Health Act, 1875, gives distinct power to a local authority to take proceedings where a cause of nuisance arises beyond the limits of its jurisdiction. Again, under section 11 of the Vaccination Act, 1871, proceedings may be taken respecting any child not within the area for which the vaccination officer acts if either the child or its parent was within such area at the time the information was given by such officer. Here it is taken for granted that, since the offence affects or has been committed in one district, the authorities of the injured district have the power to enforce remedy or penalty. All that Bradford asks is that this principle should be extended, so that their borough may deal with the grave injury to which it is at times subjected by the importation of disease and death from dairy farms outside its sanitary limits. We trust that from this point of view, and in consideration of the important matters which have been urged in a special memorandum prepared by Dr. Hime, the Privy Council may see their way to assent to the claim of the Bradford Corporation—a claim which may reasonably be made by every sanitary authority in the kingdom.

MENINGITIS IN SCHOOL CHILDREN.

LAST Saturday Dr. Danford Thomas held an inquest on a boy aged eleven years whose death was considered to be indirectly due to mismanagement at school. The history of the case proved that the child was known to be delicate, that he had been ailing in an obscure way for some months, and had had a discharge from one ear and one eye up till the time of his death, which occurred on Thursday week, after a sudden attack of vomiting with frothing at the mouth. It was also stated that a master at the school which the boy formerly attended had been in the habit of boxing his ears for slight misdemeanours. A post-mortem examination showed that cerebral tuberculosis was the proximate cause of death. In the opinion of the medical attendant this disease had arisen from the ear mischief, whilst the latter might have been due to the boxing chastisement inflicted. To unravel accurately the evidence of causation in such a case as this is not a simple matter. Several points equally claim our attention. The delicacy of a strumous constitution is a wide term and full of meaning. Even in the absence of any other trouble it cannot be relied on to maintain itself at a fair level of health. Then there is the ear discharge, with its possibilities of infection should it continue unchecked by treatment or become obstructed in its exit. There is also the direct violence of boxing the ears, and there is the continued mental tension of school lessons, which at the age of eleven are sufficient to occupy children in good health to the extent of their capacity. Undoubtedly a blow on the ear might cause injury within it, which in turn might lead to otitis and suppuration. When this condition is established a further process of cranial disease and meningitis are sequelæ familiar to every surgeon. The tubercular complication may or may not be present. Where it does exist there is room for doubt as to how far the aural disease and the constitutional fault of the patient are respectively accountable for it. The finding of true tubercle, of which we have at least macroscopic evidence in the present case, while it by no means excludes the possibility of an origin in the absorption of morbid products in the ear, is instructive in another way. It reminds us that there is a class of children in elementary schools who have inherited a physical type which is prone to suffer in an extreme degree, not only from the shock of a local injury, but also from other forces which are then in operation. One of these has been widely recognised and met by the provision of a cheap and wholesome diet. Others, such as the want of open-air exercise and the pressure of examination tasks, are, we hope, undergoing abatement. The closing remarks of the jury are significant. After condemning the irregular mode of punishment in question, they add: "The dulness of the deceased in his schoolwork for which he was punished was due to physical causes, over which the deceased had no control."

LADY JOHN MANNERS AND TOOTHLESS PAUPERS.

LADY JOHN MANNERS, on the occasion of opening a bazaar to raise funds for a chapel in the Melton Workhouse, showed how possible it is for a lady with all the means of comfort and luxury to put herself sympathetically into the place of the inmates of a workhouse, and, as it were, feel their loneliness, their hopelessness, and the dreary monotony of their lives. It is the virtue of such sympathy as that of Lady John Manners that it does not evaporate in mere words and sentiments; it takes a practical form. One of the very last things that would occur to mere benevolent dreamers is the condition of old toothless people in workhouses, and their difficulties with a piece of tough meat, which often means that they go almost dinnerless. The amount of thought given to the appearance and efficiency of the dental system is one of the most striking points in the luxury of the age. Lady John Manners has given kindly thought to the case of poor paupers who have indifferent or inadequate teeth, and who cannot hope to be helped by a fashionable dentist. Extraction is all the dentistry for which paupers can hope. Lady John has a word for them. She proposes the more systematic introduction of mincing machines to do the work of teeth for them. The proposal is altogether admirable, and only needs to be made to be adopted by all sensible and humane boards.

HYSTERICAL PYREXIA.

ANCIENT authors used to allow the existence of hysterical fever, and though this idea has been ridiculed by modern authorities, yet recently M. Debove has advocated it afresh. He believes that he has seen several examples of it, although where febrile movements are recorded in hospitals for nervous females we might suspect the onset of tuberculous disease. A case was narrated by M. Debove, which he watched for five years after the commencement of the pyrexia. The patient was twenty-four years of age, and had suffered from neurotic disturbances ever since the age of seven years. Three years ago she suffered from a severe febrile disturbance, which exhibited the three stages of cold, heat, and sweating, very clearly; since that time the temperature, taken at regular intervals, has never been below 100° F., and two or three times a week the temperature has intermittently reached to nearly 104° F. The possibility of malaria was excluded by M. Debove, on the ground that the spleen was not enlarged, and that quinine

had no influence over the fever. Deception seemed to be out of the question, as M. Debove himself took the temperature on several occasions. The question was discussed at the Académie de Médecine whether in hysterical individuals the heat centres might not be functionally disturbed, thereby occasioning the alterations in the normal heat of the body—whether, in fact, hysteria of the thermic centres is possible.

THE SANITARY ADMINISTRATION OF WOOLWICH.

SINCE our brief comment in our issue of the 7th inst. as to certain points in the sanitary administration of Woolwich, we have had an opportunity of perusing the recent official report on the district. Woolwich occupies an exceptional position as regards its sanitary administration. From 1805 to 1852 its sanitary affairs were administered under a private Improvement Act; in 1852 the Public Health Act, 1848, was applied to it by means of a Provisional Order; and in the Metropolis Local Management Act, 1855, Woolwich was for certain matters scheduled as a metropolitan parish, and thus came under the Metropolitan Board of Works, but a saving clause exempted the locality from other powers conferred under the Act, and so the Local Board of Health formed under the Act of 1848 is still retained. But because the district is in some respects metropolitan, neither of the Public Health Acts of 1872 or 1875 applies to it; and it thus comes to pass that Woolwich is neither under the metropolitan sanitary legislation nor under that applicable to the country generally. One chief anomaly arising from this singular position is that Woolwich is under no obligation to appoint a medical officer of health, nor to report to the Local Government Board as to its sanitary state, and under these circumstances that Board have, through their inspector, Mr. Spear, instituted an inquiry as to the state of the district and its sanitary administration. In some very important respects Woolwich has been found to be by no means behindhand. For certain purposes, as, for example, in connexion with works of main sewerage and the regulation of the structure and foundations of new buildings, the district has been cared for by the Metropolitan Board of Works, and its water-supply is from London Companies. It has also striven to meet the want of a medical officer of health by securing the services of an officer who is really competent in his proper capacity, and who holds the dual appointment of surveyor and inspector of nuisances; it has inaugurated a voluntary system of notification of diseases; and it carries out certain provisions against infection either without medical aid and advice, or by means of such aid as the inspector of nuisances may think desirable. The local board further express themselves to be ready to appoint a medical officer of health on any occasion of emergency in connexion with epidemic disease that may arise. All this is much to their credit, but still it is evident, both from a consideration of all the circumstances, and also from the details of Mr. Spear's report, that this does not suffice. Such an administration as exists cannot possibly give to any competent officer of the authority such information as is needed in order to take skilled account of the sanitary requirements of the district; and for the purposes of the prevention of disease, it is above all things needful that detailed medical knowledge of the sanitary circumstances of a district should be at any moment available. If cholera were, for example, to extend to Woolwich this year, can it for a moment be supposed that a medical officer of health newly appointed in the face of such an emergency would compare, in point of efficiency, with one who had in an official capacity, and by the aid of carefully compiled statistics and frequent sanitary inspections, already made himself master of the district and of its sanitary wants? We would strongly urge the Woolwich Board of Health no longer to hesitate to make a really proper appointment, and to seek the permanent services of an officer capable of advising them in all health matters concerning this very important district. The need for a medical officer of health in every sanitary district has been regarded as imperative by the public and by the State, and the mere accident of having a peculiar and exceptional standing as to their sanitary law should not debar the inhabitants of Woolwich from having the same class of skilled services which is deemed necessary for all other districts in the kingdom.

THE PEABODY BUILDINGS IN 1884.

THE trustees of the Peabody Donation Fund have issued their twentieth annual report relating to last year. The amount spent upon land and buildings during the twenty years has considerably exceeded a million sterling, with the result that 10,144 rooms, besides bath-rooms, laundries, and wash-houses have been provided for the artisan and labouring poor of London, and were at the end of last year occupied by a population of 18,453 persons. The report states that the average weekly earnings of the head of each family in residence at the close of the year was 23*s.* 8*d.*; the average rent of each tenement was 4*s.* 8*d.* per week, and of each room 2*s.* 1*d.* The vital statistics of the resident population of the Peabody Buildings afford trustworthy evidence of satisfactory sanitary condition. The birth-rate was equal to 44·6 per 1000, and exceeded by 10·9 the rate for the whole of London. This high birth-rate indicates an age constitution of the population which should give a low death-rate. The recorded death-rate, after correction for the deaths of residents recorded in hospital, was 19·1, and was 1·2 below the general London rate. Infant mortality, measured by the proportion of infants under one year to births, was 138·7 per 1000, and 13·7 below the mean rate in London. These figures are somewhat more favourable than those recorded in recent years. It is necessary, however, to point out that mortality statistics of improved or model dwellings are of somewhat doubtful value for comparative purposes. The inhabitants of such dwellings consist for the most part of a "selected" population; selected indirectly as being healthy, steady, thrifty, and respectable. The number of applications for each vacant tenement facilitates this selection. Moreover, it must be remembered that as these tenants break down in health, or capacity for work, they cease to be tenants, and often drift through other lodgings to the workhouse or hospital. After due allowance, however, for all these disturbing influences, the trustees may be congratulated upon the evidence they are able to report of the health of the residents of their buildings during last year.

TABES DORSALIS AND SYPHILIS.

PROFESSOR A. EULENBERG (Virch. *Arch.*, 99, i.), returning once more to the question of the relation between tabes and syphilis, arrives at the following conclusions. There is apparently an absolutely and relatively large percentage of tabetics who have been syphilitic; their number is notably larger than a few years ago was generally suspected. The precise relation which syphilis bears to a subsequent tabes is not known; probably it acts only as a debilitating, disposing factor, like many other agencies; but possibly in a certain number of cases syphilis may be the direct cause of tabes. However that may be, it is hardly possible that syphilis can be considered as the sole, or even as the most frequent and important, cause of tabes. Those cases of tabes which are preceded by syphilis exhibit no constant and characteristic symptoms, and in their course are not to be distinguished from other (non-syphilitic) cases. Neither is there any marked or characteristic difference shown in the two cases as to prognosis and treatment. Under certain circum-

stances, cases of tabes with syphilitic antecedents may improve as well without antisyphilitic treatment as under it, may even become quite cured; whilst, as a rule, specific treatment shows no result, or only a transitory one. Although for some years past this question of the etiology of tabes has been much investigated, no definite solution has been arrived at; nor is it yet determined whether any essential practical gain as regards the treatment of the disease has ensued from such inquiries.

ALLEGED DANGERS IN THE USE OF CORROSIVE SUBLIMATE AS AN ANTISEPTIC AGENT.

DR. FRAENKEL of Hamburg draws attention (Virch. *Arch.*, 99, ii.) to an almost unsuspected danger arising from the too free use of corrosive sublimate as an antiseptic agent. His remarks are in the first place based upon a case recorded by Stadfelt of death with dysenteric symptoms following upon intra-uterine injection of a solution of sublimate (1 in 1500) after adherent placenta, and are supported by the results of post-mortem examinations of surgical cases in which this solution was employed. In all these cases (fourteen in number) severe ulcerative lesions were found in the large intestine, but Dr. Fraenkel admits that in only two of these could the lesion be said to have caused the death of the patient. The appearances presented by the diseased bowel resembled those of acute dysentery—viz., more or less extensive areas of necrosis of the mucous membrane, with intense surrounding inflammation. He combats the notion that the intestinal lesions depended on septicæmia, mainly on the ground that in no case were any other of the lesions characteristic of septicæmia or pyæmia present, nor did the cases run the clinical course of blood-poisoning. Although the paramount value of corrosive sublimate as an antiseptic must be admitted, its employment is nevertheless not free from risk. Its immoderate use as an external application is liable to excite the diphtheritic-like inflammation of the large and sometimes of the small intestine, which is recognised clinically by tenesmus, colic, and bloody stools. But so far the renal changes supposed to be characteristic of sublimate poisoning have not been observed in surgical practice. The intestinal affection is most liable to occur in individuals whose nutrition is defective, or who are very fat, especially those with fatty hearts; and particularly if the sublimate has been in contact with large exposed and absorbing surfaces, as the peritoneum or uterus; therefore care should be taken to use only the weakest solutions consistent with their antiseptic property, and especially not to use them too frequently as intra-uterine injections.

HEALING BY FAITH.

IT is not our purpose to deny, or even to question, the verity of cures "by faith." The "mind" so acts on the body, and the brain plays so important a part in the nervous system, by which the whole organism is energised and controlled both in regard to its functions and nutrition, that it is not only quite possible, but an absolute fact, that many maladies which are not so far advanced as to be dependent upon changes in structure, or "organic diseases," may be remedied by, or through, the agency of the mind. We will even go so far as to affirm that a very large proportion of the ailing might be, and probably would be, sound if only they were sufficiently strongly impressed to believe themselves to be so. This influence of the mind on the body has been the stronghold of quackery from the earliest times, and "faith" is as powerful an influence for good or evil now as it has ever been. Such "miracles" as the Salvationists are working, with their prestige among the emotional classes, whether illiterate or well-informed, have uniformly signalised the commencement of a new era in religious enthusiasm. When the first enthusiasm subsides, "miracles cease" of physico-mental necessity. The large class of so-called hysterical, cataleptic, and even epileptic affections are distinctly amenable to this influence; so are those nervous disturbances and derangements which consist wholly or chiefly in disorderly activity, as distinguished from actual disease. The mimetic maladies, of which there are always a very large number of cases, are, of course, amenable to the curative influence of faith. Outside these classes, however, stand a multitude of badly managed or misunderstood cases which only need to be placed on a new footing—it matters little what—to get well. A wondrous cloud of ignorant prejudices still hovers over many districts as to the curability or hopelessness of special diseases which are better understood and more successfully treated—on common-sense principles—in the centres of knowledge. For example, we know of localities and affections which, being associated, produce the most dire delusions as to the length of time bones usually take to unite in healthy subjects; and how far coughs and other distressing maladies are, or are not, under the control of the will. In such combinations of fact and fiction it is easy to get miracles out of such common matters as the union of the accurately applied ends of a fractured radius in three or four days! There is not a word to be said against "healing by faith." Every busy practitioner has cases under his observation that he would be heartily glad to find so powerfully affected that they could be cured even by this agency. All we are anxious to point out is that an intelligent lay press ought not to lend itself to the promulgation of nonsensical beliefs and impressions. Of course, it is true that many of the poor people who are reported to be "cured" are actually benefited, and by their faith. This is a fact, and there is no sort of reason why the benefits received should not be permanent. If the subjects of these cures are thankful to the Giver of all good, that is not a matter to make merry about. It is as it should be. We are glad of their gain and pleased to find them moved to gratitude. Meanwhile, if these "cures" need be discussed, let the comments made be neither irreverent, offensive, nor puerile. The *modus operandi* of such recoveries is perfectly well understood, and there is nothing either specially noteworthy or wonderful about them.

HOSPITAL SHIPS.

AT a meeting of the Hospitals Association, held on Wednesday, February 18th, Sir Edmund Hay Currie in the chair, Dr. Murray Braidwood read an interesting paper on "Hospital Ships," which he stated should be specially constructed and adapted for the treatment of sick and wounded. He argued that the hospital was necessarily very different from an ordinary dwelling-house, and the conversion of the latter into the former was at the best unsatisfactory; so, also, it was equally unsatisfactory to attempt to use a ship constructed for other purposes for the reception and treatment of the sick. From the medical point of view there is much to be said in favour of Dr. Braidwood's suggestion, but the great difficulty which has to be met is that of expense; the opportunity for the use of such vessels in time of war is, we are glad to say, rare, and it is doubtful if the Government could be induced sufficiently to recognise the advantages they would confer by devoting to this purpose ships which would not be useful for other purposes in the interval. That the civil population would, under certain circumstances, find such ships useful is proved by the action of the Metropolitan Asylums Board in providing the *Castalia* and other vessels for the isolation of small-pox; but at the present moment we are not in a position to contrast the expenses incurred with those of the erection of hospitals on

shore. At the meeting a plea was made for the provision of proper accommodation for the sick on board the large ocean vessels which every week leave India for Europe, carrying with them a number of invalids who, for the sake of healthy passengers not less than for their own welfare, should receive special consideration. With this demand we fully sympathise. A few of the shipping companies, but not all, have recognised its need, and we would therefore urge it upon all who may have the duty of arranging for the conveyance of the sick.

ENTERIC FEVER IN NORWICH.

FROM recent weekly returns of the Registrar-General it appears that the annual death-rate in Norwich averaged 28·7 per 1000 during the first seven weeks of this year, exceeding the mean death-rate during the same period in the twenty-eight large English towns by 5·7. The rate in Norwich from the principal zymotic diseases, moreover, averaged 3·7 per 1000, against 2·2 in the twenty-eight towns. This excess of zymotic fatality in Norwich was mainly due to the prevalence of "fever" and of whooping-cough, to which 21, and 15 deaths, have been respectively referred since the beginning of this year. The first death from "fever" was registered in the second week of this year, whereas in the five following weeks the deaths referred to this heading averaged 4 per week. Although the form of "fever" is not distinguished in the Registrar-General's weekly return, it may safely be assumed that these figures indicate an outbreak of enteric fever in the city. It may be noted that the recorded death-rate in Norwich last year did not exceed 21·2 per 1000, and this rate, if corrected for the abnormal age distribution of its population, is reduced to 20·2, very slightly exceeding the rate in the whole of England and Wales, which was 19·6. The deaths from "fever" in Norwich during the fifty-three weeks of last year were 31, giving a rate from this disease very little in excess of the mean "fever" rate in the twenty-eight large towns dealt with in the weekly return. Perhaps the most unfavourable feature in the mortality statistics of Norwich last year was its high rate of infant mortality; this was equal to 187 deaths under one year per 1000 born alive, whereas the proportion in the twenty-seven other towns ranged from 128 in Portsmouth to 226 in Leicester, and averaged 168. Norwich has persistently shown excessive infant mortality in recent years.

WAR WITH NATURE.

THE year before the Franco-Prussian war General A. von Roon, Prussian Minister of War, caused to be published and jointly edited with Oscar Peschel a treatise on ethnology. He had been mainly instrumental in the creation of the new German military system, and desired to cultivate in the German army a knowledge of the natural laws by which races tend to spread and diffuse themselves. Some such study would be useful now to teach our soldiers, and especially our politicians, the uselessness of waging war against the overpowering forces of nature. It is an exciting political question just now whether the Soudan should be permanently occupied or not. There will be ample British blood shed, and slaughter enough of the semi-civilised races of the Soudan now struggling with religious fanaticism over this question. We do not doubt the ultimate triumph of our arms in the field, but we do doubt the possibility of any permanent occupation of the Soudan. No European race has yet succeeded in colonising the valley of the Nile. All attempts to propagate Europeans in this district have failed, though every civilising nation has tried it in turn. The people now are the same as in the days of the Pharaohs, and so they will remain, whatever statesmen and warriors may desire to the contrary. Natural laws affecting the diffusion of races will not yield to military or political exigencies. The sooner this truth is realised the better. It was an axiom of the great Napoleon after his Egyptian campaign not again to wage war with a desert.

FREE NURSING FOR INFECTIOUS DISEASES.

LAST week we made some observations on the valuable aid which is rendered to medical practice among the poor, except, we understand, as regards infectious fever cases, by the North London Nursing Association. About the same time the public were informed through the daily press of the working of another Society with allied though not identical aims—the Westminster Sanitary Aid Association. The purpose of this body is to make itself acquainted with the needs of the poor in regard to the preventive hygiene of infectious diseases, and to help them to carry out the measures required for disinfection. It is obvious that between the proper spheres of action of these useful agencies there is still a gap which charity would do well to fill, inasmuch as the nursing of the most prevalent and communicable fevers receives no attention from either. Many such cases, no doubt, find their way into hospitals; others not so severe are tended to a successful issue by careful parents. Most of the latter class, however, would benefit, and some above all demand that skilled attention which the practitioner can only prescribe, and which the trained nurse alone can efficiently render. Could not some plan of action be devised by one or both of the Associations we have mentioned by which this needy section of sufferers might be brought within their care? An increase in the nursing staff would of course be required, but not, perhaps, to so great an extent as might at first appear necessary. It would be only right to assign certain nurses to wait upon each kind of infectious disease, visiting the patients in turn; and in this way a small staff would be able, in the course of their daily rounds, to superintend a considerable number of cases, with little risk of carrying infection from one to another.

SMALL-POX IN ISLINGTON.

MR. STONELAKE has done good service in directing the attention of his fellow guardians to the proportions of the small-pox epidemic in Islington. A considerable number of cases had been traced to a potman in a small public house, who continued to carry and serve customers while actually suffering from the disease. This case should be submitted to a magistrate. Islington has not appeared creditably in times of epidemic small-pox. One great metropolitan epidemic, that of 1876-7, seemed to originate in Islington, and to be very inadequately managed at the outset. Whose fault is it? The guardians are at any rate now aware of the facts. The mere issue of handbills is not enough. Disinfectants are a delusion. A house-to-house visitation should be immediately established. Every case of small-pox is a discredit either to parents or the public authorities, or to unrevaccinated adults.

ERYTHROMELALGIA.

A CURIOUS case which had been under the care of Dr. Weir Mitchell was exhibited at a meeting of the Philadelphia Neurological Society. The patient was a man aged fifty-three, a blacksmith by trade. Rather more than three years ago the first symptoms of the affection appeared in the form of pain in the inner side of the second toe of the left foot. A year later the third toe was affected, and still later the fourth and little toes, and four months ago the great toe became involved. The toes were all affected in the same manner; first, a burning sensation, followed by an aching pain, was experienced, and some weeks

after discolouration of the affected toe set in. The toes of the right foot also became affected, though to a less degree, about a year ago. The pain is not worse in wet or cold weather, but it is more severe at night when the feet get warm. Occasionally twitchings, chiefly nocturnal, have been felt in the calf of the left leg. The second left toe was amputated at the proximal joint; the wound healed slowly and the pain was relieved in all the toes. At the present time all the toes affected are discoloured; the left foot up to the ankle is covered irregularly with reddish patches, which disappear on pressure, and are more or less sensitive. Sharp shooting pains about the arms have been experienced from time to time. The nature of the case seems somewhat obscure; it may possibly have alliances with the protean conditions which accompany the first stages of tabes dorsalis.

THE LATE GENERAL STEWART.

WE have yet to learn the full particulars of the wound received by General Stewart, and the progress of the events which ended in his death. The fears we expressed in a recent annotation have been realised. We should surmise that the bullet, which entered at the groin, passed into his pelvis, and that the long track it left was not rendered or maintained aseptic. The occurrence of fever, which appears to have rapidly terminated fatally, was due in all probability to some septic change set up in the wound. This, as we previously explained, was a danger to which he was exposed until cicatrisation was complete, and against which it is specially difficult to guard in military practice. We trust that full particulars of the wound, its complications, and the treatment adopted will be forthcoming.

FIBRO-ENCHONDROMA OF THE TONSIL.

DR. ANGELO CHIOLINI reports in the *Gazzetta degli Ospitali* (15th inst.) the case of A. V——, aged thirty-three, who was admitted into the clinique of the University of Pavia, under Professor Bottini, on Nov. 24th, 1884. Three years previously, the patient, without apparent cause, began to experience buzzing and singing noises in the right ear, with slight deafness on the same side. One medical practitioner referred the symptoms to simple otitis; another, who was consulted a month later, finding the right tonsil somewhat enlarged, applied tincture of iodine to it, and administered iodide of potassium internally. The persistent increase of the tonsil successively interfered with respiration, deglutition, and speech, and the patient was pale and emaciated when she placed herself under Professor Bottini's care. She was then quite deaf in the right ear, and swallowed with great difficulty. A small very hard tumour, of the size and shape of an almond, was noticeable just above the right angle of the lower jaw, without implicating the skin. Just below was another, of roundish shape, the size of a walnut. A small movable elastic body occupied the sulcus between the two tumours, which on deep palpation seemed joined in one mass. On looking into the patient's mouth, four-fifths of the isthmus of the fauces from right to left were occupied by a tumour, which extended forwards over three-fourths of the palate, and downwards and backwards beyond reach of the exploring index finger. Want of space rendered laryngoscopic examination impossible. The tip of the uvula touched the left tonsil, which was perfectly healthy. The tip of the little finger could with difficulty be introduced into the isthmus of the fauces. The tumour was very firm and painless, and the part of it visible in the mouth was round and granular, but not ulcerated. Having diagnosed the neoplasm as a very rare specimen of large fibro-enchondroma of the tonsil, Professor Bottini resolved on its removal. This was effected on the 9th of December last. The patient being seated on a chair, her head was held back by one assistant, while another depressed the tongue and held the mouth open. Professor Bottini, seated in front, then made an incision with a straight bistoury along the roof of the mouth and through the soft palate. A considerable portion of the tumour, thus exposed, presented a white mother-of-pearl appearance. Enucleation was effected by the finger, with external pressure and forceps traction from within. The wound in the soft palate was united with twelve points of suture, and the mouth washed out with a 5 per cent. solution of sulpho-carbolate of zinc. The operation occupied half an hour, and was completed without hæmorrhage. Convalescence was rapid and uneventful. The wound was found to be perfectly healed on the second day, when the sutures were removed. The breathing, deglutition, speech, and hearing became natural, and the patient was quite well on the eighth day. She left the clinique four days later. The tumour, on reuniting the fragments, proved to be of the size of a large orange; its surface was lobulated and exceedingly hard. On fracture, the surface was found to be of mother-of-pearl colour in some parts, and yellowish-red in others. The diagnosis of fibro-enchondroma was accurately verified by microscopic examination. The cells in some parts were identical with those of normal cartilage.

ADULTERATION IN AMERICA.

WE are glad to learn that a "Society for the Prevention and Suppression of Adulteration of Food, Drugs, Medicines, Liquors, &c.," is about to be organised in America. It is surprising that this most important subject has hitherto received so little attention in a country which, young as it is, has produced a people whose ingenuity, activity, and inventiveness are almost proverbial. The fierce competition that inevitably arises from these qualities is, we fear, only too likely to develop such mean and injurious devices as adulteration. At present there has been but little legislation on this matter in the United States. Very few cases have, we believe, been brought before the courts of law, and these have not been for adulteration proper but for the sale of diseased meat, &c. It is high time that our Transatlantic cousins should give this subject the serious attention it demands. THE LANCET can claim to have rendered to humanity good service in this cause; whilst, therefore, congratulating the promoters of the Society and wishing them success, we would refer them to the Analytical Sanitary Commissions inaugurated by us in 1851.

THE PATENT MEDICINES STAMP TAX.

MR. WARTON has given notice in the House of Commons that on March 17th he will call attention to the conduct of the Government with regard to poisonous patent medicines, and move a resolution on the subject. It will be remembered that as long ago as the beginning of last August the Chancellor of the Exchequer stated that he had asked the Board of Inland Revenue for a report, which he promised to "study with care." It will be interesting to hear what has been done in the matter.

BURGLARS AND DOCTORS' HOUSES.

SOME burglars have recently made the neighbourhood of Woolwich the scene of their exploits. It is believed that these gentry usually are reluctant to meddle with the houses of medical men, from the risk they might run of being disturbed by the doctor's nocturnal movements. In this instance, however, they not only entered the house of a well-known and much respected practitioner, but, curiously enough, ignored the fact of his being surgeon to the police, so that they ran the risk of being caught at their work by a policeman coming to ring the night bell. At all events,

they seem to have been disturbed in some way, for, though they disarranged a number of articles of furniture, we are glad to learn that nothing of any importance has been missed. Some arrests have been made on account of other burglaries in the neighbourhood.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE annual meeting of this Society will be held on Monday next, March 2nd. It has been arranged that a discussion on Cholera shall be commenced on March 24th, when the President, Dr. George Johnson, will open the debate. We believe that Drs. Klein and Gibbes will take a prominent part in the proceedings.

PORRO'S OPERATION.

Il Morgagni (7th inst.) reports a case of Porro's operation, successful to mother and child, which was performed at Gubbio on the 15th ult. by Dr. Lodovico Vincini. The patient, M. M——, aged forty, was a rachitic primipara, with extremely contracted pelvis. She was in the ninth month of pregnancy, and had been twelve hours in labour, when chloroform was administered. The removal of the uterus and appendages occupied fifty-five minutes. The spray was not used, but a strictly antiseptic dressing applied. The patient quickly recovered from the anæsthetic, and in twenty-four hours was in the most favourable state. This continued, and the child, a female, is also well.

INTERNATIONAL MEDICAL CONGRESS.

THE arrangements for the meeting of the International Medical Congress in Washington in 1887 are in a forward state of preparation, and we believe the officers of the various sections have been nominated. Dr. Flint is to be the President of the Congress; certainly no one could be chosen who would more worthily fill the chair.

ASEPTIC SILK.

MR. H. W. FREEMAN, of the Royal United Hospital, Bath, has been using chromic acid silk sutures in abdominal sections to bring together the abdominal parietes, also in perineorraphy and in excisions of the breast, and he claims that deep sutures may be left in the abdominal walls for three weeks, in the perineum for a fortnight, and in the breast for the same length of time, without the slightest change occurring in the texture of the silk or sepsis in the course of the suture. China twist seems to be hardened by this process and rendered impervious to the surrounding secretions. The silk is prepared by boiling it in a 2 per cent. solution of chromic acid for ten minutes and allowing it to soak for twelve hours subsequently in a 1 per cent. solution. A stronger solution destroys the silk and renders it brittle.

THREE ATTEMPTS AT HANGING.

IT was simply just to commute the sentence of death passed on John Lee, the butler, convicted of the murder of Miss Keyse at Babbicombe in November last. The bitterness of death has been inflicted on that condemned man at least three times, and the law ought to be satisfied. The mismanagement of the execution was complete—indeed, so complete as to be startling; and if it should hereafter be found that the disavowal of guilt to which Lee still adheres is truthful, there will not be wanting many to allege that the execution was prevented by some supernatural agency. It is inconceivable that the "drop" could not be made to fall when the bolt was drawn! It was surely tried before the execution, and presumably it was again tried once or twice between the futile attempts to hang the culprit. What are we to understand? The interposition of the Home Secretary was clearly called for, and it would be inhuman to hang the convict now; but there ought certainly to be a searching inquiry into the causes of the failure.

UNSATISFACTORY INQUEST AT ST. DAVID'S.

A VERY inadequate inquest at St. David's is reported on the body of a young woman who died in convulsions, and was found post mortem to show indications of recent delivery. Her mother had suspected pregnancy, but the deceased had persistently denied it. The former said that at the time of her daughter's death she had no reason to believe she had been delivered. Mr. Foley had seen the deceased, and formed the opinion that she had been delivered five or six days previously, and that the confinement was not the cause of death. No trace of the child has yet been found. The jury returned a verdict "that the deceased died from puerperal convulsions." We are rather accustomed nowadays to inconclusive inquests, but surely no coroner will be satisfied to leave an inquiry where this is left.

EXPERIMENTAL PRODUCTION OF CHOREA.

WE are informed that Dr. Angel Money will shortly read a paper at the Royal Medical and Chirurgical Society on the above subject. It is said that his experiments prove that chorea can be caused by capillary embolism of the central nervous system.

MR. HENRY LOMB, of Rochester, N.Y., has offered through the American Public Health Association the sum of $2800 to be awarded as first and second prizes for papers on the following subjects:—1. "Healthy homes and foods for the working classes." 2. "The sanitary conditions and necessities of school-houses and school-life." 3. "Disinfection and individual prophylaxis against infectious diseases." 4. "The preventable causes of disease, injury, and death in American manufactories and workshops, and the best means and appliances for preventing and avoiding them." The first prizes consist of $500 and the second of $200.

IT has been decided to offer £100 to the Senate of London University towards the foundation of a Rabbeth Medal in commemoration of Dr. Rabbeth, who lost his life through an attempt to relieve the sufferings of a child dying of diphtheria in the Royal Free Hospital. The father of Dr. Rabbeth having undertaken to found the proposed scholarship at King's College in memory of his son at his own expense, the committee of the memorial fund have resolved to divide the funds which may be at their disposal on the 31st of March between the King's College and Royal Free Hospitals towards the endowment of two children's cots.

IN reference to the criticism in THE LANCET last week on the cholera hospitals in Bombay, we are pleased to learn from our Bombay contemporaries that some other site instead of the compound of the European General Hospital is to be selected for the erection of a cholera hospital for the natives. Though the Government do not appear to have been moved by the potent reasons urged by the Surgeon-General of the Presidency, still we cannot but hail the change, which is, indeed, in the true interests of humanity and preventive medicine.

IN an original article contributed to the *Gazette Hebdomadaire des Sciences Médicales de Montpellier* M. Grynfelt has advocated the use of injections of hydrochlorate of cocaine to facilitate catheterism.

MESSRS. CROOKES, ODLING, and TIDY, in their report on the composition and quality of daily samples of the water supplied to London for the month ending Jan. 31st, state that all the samples examined were clear, bright, and well-filtered. The mean quantity of organic matter in Thames-derived water supplied during the past month was 0·137 part, and the maximum in any one sample was 0·182 part, in 100,000 parts of the water, this quantity corresponding to a little over three-tenths of a grain of organic matter per gallon.

STUDENTS of pathology will be glad to learn that there has just appeared the final section of Professor Ziegler's admirable text-book on Pathological Anatomy. The division contains sections on the eye and ear, on the bones and joints, muscles, and male and female generative organs, as well as the mammary gland. The whole work contains 1576 pages, and is illustrated by no fewer than 357 woodcuts, nearly all of which are original. Dr. Macalister's translation will also doubtless be soon completed.

IN the Prussian Parliament on the 23rd inst. Professor Virchow and other liberals took advantage of the debate on the Estimates for the Ministry of Public Worship to direct public attention to the recent appointment of Dr. Schwenninger to the chair of Dermatology in the Berlin University, an appointment which they characterised as an arbitrary act, tending to degrade the University and corrupt the public conscience.

MR. EDWARD STANFORD, of Charing-cross, has just issued a popular map of the seat of military operations in the Soudan; also a facsimile of a map drawn with great neatness and accuracy by General Gordon, March 17th, 1874, of his route from Suakim to Berber and Khartoum. The innumerable admirers of the lamented General will doubtless eagerly possess themselves of this interesting memento of the deceased hero.

THE Twickenham Local Board sent a deputation last week to the Home Office, complaining of the condition of the Thames, both on account of the diminution of the water and the accumulation of mud caused by metropolitan sewage. The Under-Secretary assured them that the Home Secretary was exceedingly anxious to do what he could, both with reference to the water-supply and the state of the Thames.

PETITIONS have been addressed to the Home Secretary by the medical practitioners of Derby, Middlesborough, Stockton-on-Tees, Sunderland, South Shields and district, Newcastle-on-Tyne, and Durham and district, calling attention to the recent conviction of Dr. Bradley, and asking the right hon. gentleman to exercise his prerogative on Dr. Bradley's behalf.

THE Local Government Board have determined not to renew the existing orders prohibiting the importation of rags from France and Italy unless there should be any reappearance of cholera on the Continent. The orders, therefore, lapse at the end of the present month.

IN the actions brought by Mr. Hasker against Drs. Savage and Wood, medical officers of Bethlem Hospital, for assault and false imprisonment, and against Dr. Goldsborough for trespass, libel, and false imprisonment, the jury returned verdicts for the defendants.

THE attempts to grow the eucalyptus on the Assam hills, says the *Indian Medical Gazette*, have not been successful.

M. MARTINEAU has recently treated suppurating buboes by means of the thermo-cautery, whereby an ulcer is formed which tends to heal rapidly.

ALL the precautionary measures decreed by the Swiss Government during the prevalence of cholera last year in Southern Europe will be abolished from March 1st.

MR. G. BAINBRIDGE has been appointed to act as senior surgeon to the Jamsetjee Jeejeebhoy Hospital, Bombay, during the absence on furlough of Mr. W. Gray.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

Official Report on the Epidemic of Enteric Fever at Beverley.[1]—The outbreak in question commenced suddenly in the third week in June last; it increased rapidly and reached its highest point in the week ending July 12th, when twenty-nine families were freshly attacked. In a population of about 11,500, as many as 231 cases occurred before the end of August, and of these 12 died. The disease appeared in all parts of the town, no special locality or class of persons being affected more than others. In considering the cause of the epidemic, Dr. Page was soon able to eliminate the question of milk pollution; the condition of the sewers and drains was so defective as to give ample facilities for the spread of the infection, but it could not be held accountable for the origin of the outbreak. The water-supply, however, came strongly under suspicion. Of 2800 houses in Beverley, 185 are supplied by the Beverley Waterworks Company, the remainder being dependent upon local wells, and it was ascertained that of these 185 houses as many as 32 per cent. had been attacked; whereas of the other households having a different supply only 2·5 per cent. were attacked. The fifty-nine houses referred to were scattered all over the borough, and all they had in common was their water-supply. Some persons, too, who lived where private wells were used, but who had drunk the company's water at places where they were employed, also sickened; and it was soon obvious that there was strong *primâ facie* evidence implicating the company's service. In seeking the method by which pollution of this water could have taken place, the question of contamination in the mains after the supply had left the company's works came under consideration, and the existence of leaky sewers in proximity to some of the mains, as also other circumstances, make it possible that some contamination may have arisen during occasional intermissions in the service; but the character of the epidemic was opposed to this being the cause of this special outbreak. The well at the company's works lies close to a seven-acre field, on which is distributed in various ways the sewage of the East Riding Lunatic Asylum. Broad irrigation of the sewage takes place at intervals, and the last occasion on which it was practised before the epidemic was from the middle of April to the middle of June. The soil here is clay overlying chalk. Examination of the soil around the company's main near this point failed to detect any soakage of filth or any leaky joints; but that which was evidently most suspected was percolation along the sides of the well shaft through the upper chalk directly into either the well or the reservoir in which the water was stored. With a view of testing the possibility of such an occurrence, some two hundred gallons of creasote were added to the contents of the neighbouring sewage settling tank and cesspit, and these were then discharged on to the irrigation field. This experiment was without result, but Dr. Page adds that he has since ascertained that the choice of creasote

[1] To be purchased of Knight and Co., 90, Fleet-street; Shaw and Sons, Fetter-lane; Haddon, Best, and Co., West Harding-street; and P. S. King and Son, King-street, S.W.

as a test for his purpose was open to objection, for creasote, passing through a soil charged with matters derived from sewage, might either be unable to reach the well at all, or it might only reach it in a condition in which it was unrecognisable. That sewage matters can penetrate long distances cannot be doubted after Haegler's account of the Lausen epidemic, and if the sewage in this instance made its way into the Beverley water, it did not lack the possibility of containing the specific contagium, for enteric fever had prevailed at the asylum in the preceding March and April, and the interval which ensued between the latter date and the outbreak of the disease amongst the company's water consumers might easily be accounted for by conditions affecting the rate of natural discharge in this particular soil, especially during a period of scanty rainfall. The epidemic was complicated by an outburst at the asylum itself, the disease there reaching its height between July 12th and 19th. Locally this was at first set down to extension from the first cases in the previous months; but the suddenness of the attack, taken together with the date of its occurrence and its character generally, led Dr. Page to conclude that, the same water being in use in the asylum and in the town, the cause of both outbreaks was the same. Much was made during the course of the epidemic of the results of chemical analysis of the company's water. Analyses were made on May 31st and July 19th, dates which are described by Dr. Page as being on the very borders of the period when the water must have been acting as the epidemic agent. The water was always spoken of in unqualified terms of approval, but previous experience of the failure of chemical tests to detect the existence in water of infective material deprives even the most satisfactory analyses of the weight which might otherwise have been attached to them in this respect. The actual point at which contamination of the town water can have taken place was not made out; but apart from this, there can be but little hesitation in accepting the conclusion that the Beverley water did receive infection, and that the disease was distributed in the town by its means. It is also certain that the conditions which existed in the immediate vicinity of the well, main, and reservoir, and which are shown in a lithographic sketch, are such as should not be tolerated in the neighbourhood of works from which a public water-supply is delivered; and although Beverley has bought its experience somewhat dearly, we are glad to be able to add that, as the result of the epidemic, this experience is about to be acted upon, for it has been decided to remove all sewage irrigation away from the field and the filter-beds which are contiguous to the premises belonging to the Waterworks company.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Weston-super-Mare Urban District.—This district had in 1884 a death-rate of 16·2 and a birth-rate of 23·9 per 1000. The list of deaths, however, includes the cases of nine visitors. Scarlet-fever has occurred sporadically at intervals, twenty-five cases coming under notice. Six cases of enteric fever were also known of, but most of them were imported. Unfortunately, local wells are still resorted to, and this liability to pollution is shown by the fact that of fourteen samples sent for analysis twelve gave indications of contamination. The sanitary authority should not rest till all wells which can by their surroundings be subject to the risk of pollution are closed. During 1884 the number of houses supplied with the public service was 400; and it is to be hoped that similarly rapid progress in this matter may continue.

Barnstaple Urban District. Mr. Henry Jackson has only been in office nine months, but his report for 1884 shows that he has made himself very fully acquainted with all the conditions with which he has to deal as health officer. The death-rate in a population of 12,460 was 17·6 per 1000, which would be reduced still further if allowance were made for extra-urban deaths in the workhouse. Investigation into the origin of cases of infectious diseases has revealed a serious deficiency in the ventilation of the sewers, and the authority have already engaged the services of an engineer to deal with the matter. The need for an infectious hospital has also been shown, and a committee has been formed to look out for a suitable site. As to this, we may point out that the site should be large enough to allow of an ample unoccupied zone between all buildings intended to receive infected persons and things, and the requisite boundary wall. The report throughout shows that a careful officer is, with every prospect of success, bringing under the notice of his authority the conditions as to which sanitary amendment is needed.

Tyne Port District. Mr. Armstrong reports that special vigilance was maintained during 1884 owing to the prevalence of cholera in Southern Europe. A register was kept of all vessels sailing from the East, with the dates of passing different ports, and the time of expected arrival at their destination; satisfactory arrangements were made by the officer of Customs for the early transmission to the sanitary station of information as to cases of sickness, at all hours, respecting arrivals. All vessels reporting "All well" were boarded by the inspector to satisfy himself that this was correct; and when there was any doubt, the advice of the assistant officer of health was at once sought. Vessels from infected ports were all boarded by either the medical officer of health or his assistant. Instructions as to water-supply and precautionary measures were printed and freely distributed. Eight cases were received during the year into the floating hospital namely, four cases of enteric fever, one of typhus, three of febricula, and one which proved to be peritonitis. The existing accommodation is, however, found to be insufficient for the prospective needs of the port, and several alternative schemes for procuring a new hospital are under consideration. One relates to the use of an old man-of-war, another to procuring a disused mission ship, and the third to the building of one or more pavilions on a floating platform. As yet no decision has been arrived at in the matter. The structural defects needing alteration in vessels inspected were 123 in number, and 105 of these had already been remedied. The nuisances which were abated in British and foreign steamers and sailing vessels were 501 in number. All emigrant vessels were visited daily whilst in the port. In short, the general port sanitary work continues to progress, and it must evidently go far to effect a considerable improvement in the sanitary arrangements of vessels and in the quality of the provision made for the crew.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5727 births and 3508 deaths were registered during the week ending the 21th inst. The births were 87 and the deaths 119 below the average weekly numbers during 1884. The annual death-rate in these towns, which had been equal to 24·5, 21·8, and 20·9 per 1000 in the preceding three weeks, further declined last week to 20·5. During the first seven weeks of the current quarter the death-rate in these towns averaged 23·0 per 1000, against 25·0 in the corresponding periods of the nine years 1876-84. The lowest death-rates in these towns last week were 11·8 in Brighton, 15·7 in Birkenhead, and 16·5 in Wolverhampton. The rates in the other towns ranged upwards to 33·3 in Cardiff, 33·8 in Preston, and 37·9 in Sunderland. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 384 last week, against 356 and 398 in the preceding two weeks; they included 117 from whooping-cough, 92 from measles, 45 from scarlet fever, 36 from "fever" (principally enteric), 35 from diarrhœa, 34 from small-pox, and 25 from diphtheria. These zymotic diseases caused the lowest death-rate last week in Nottingham, Brighton, and Bolton, and the highest in Preston, Cardiff, and Sunderland. The highest death-rates from whooping-cough occurred in Salford, Oldham, and Preston; from measles in Newcastle-upon-Tyne, Cardiff, and Sunderland; scarlet fever in Halifax and Sunderland; and "fever" in Newcastle-upon-Tyne and Norwich. The 25 deaths from diphtheria in the twenty-eight towns included 14 in London, 4 in Liverpool, and 2 in Birmingham. Small-pox caused 63 deaths in London and its outer ring of suburban districts, 1 in Liverpool, and 1 in Birmingham. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had been 1144 and 1223 on the preceding two Saturdays, declined to 1141 at the end of last week; the admissions, which had been 223 and 255 in the previous two weeks, declined to 163 last week, and were fewer than in any week since the end of November last. The Highgate Small-pox Hospital contained 99 patients on Saturday last, 29 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 556, 421, and 383

in the preceding three weeks, further declined to 343 last week, and were as many as 220 below the corrected weekly average. The causes of 84, or 2·0 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Leicester, Derby, and Plymouth. The largest proportions of uncertified deaths were registered in Oldham and Salford.

HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had declined in the preceding three weeks from 30·2 to 26·6 per 1000, further declined to 23·1 in the week ending the 21st inst., but exceeded by 2·6 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 14·9 and 16·0 in Perth and Leith, to 26·1 in Greenock and 28·3 in Glasgow. The 563 deaths in the eight towns included 31 which were referred to whooping-cough, 21 to measles, 9 to scarlet fever, 8 to diphtheria, 7 to diarrhœa, 6 to "fever" (typhus, enteric, or simple), and not one to small-pox; in all, 81 deaths resulted from these principal zymotic diseases, against 98, 92, and 95 in the preceding three weeks. These 81 deaths were equal to an annual rate of 33 per 1000, which was 1·1 above the mean rate from the same diseases in the twenty-eight English towns. The 31 deaths from whooping-cough exceeded those in the previous week by 2, and included 17 in Glasgow, 4 in Edinburgh, and 4 in Dundee. The 21 deaths from measles showed a decline of 4 from those in the previous week; 15 occurred in Glasgow and 4 in Dundee. Eight of the 9 fatal cases of scarlet fever and 4 of the 8 of diphtheria were returned in Glasgow. The deaths referred to "fever," which had been 6 and 10 in the previous two weeks, declined again to 6 last week, and included 3 in Glasgow and 2 in Edinburgh. The 7 deaths attributed to diarrhœa showed a considerable decline from recent weekly numbers, and were but half the number in the corresponding week of last year. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 214, 189, and 152 in the previous three weeks, further declined to 139 last week; they exceeded, however, by 26 the number returned in the corresponding week of last year. The causes of 67, or nearly 12 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 36·2 and 34·9 per 1000 in the preceding two weeks, further declined to 32·4 in the week ending the 21st inst. During the first seven weeks of the current quarter the death-rate in the city averaged no less than 33·0 per 1000, the mean rate during the same period not exceeding 22·1 in London and 21·3 in Edinburgh. The 206 deaths in Dublin last week showed a further decline of 30 from the numbers returned in the two previous weeks, and included 20 which were referred to the principal zymotic diseases, against 22, 18, and 20 in the previous three weeks. Of these 20 deaths, 11 resulted from measles, 3 from scarlet fever, 3 from diarrhœa, 2 from whooping-cough, 1 from "fever," and not one either from small-pox or diphtheria. These 20 deaths were equal to an annual rate of 3·0 per 1000; the rate from these diseases last week was equal to 2·0 in London and 1·9 in Edinburgh. The fatal cases of measles in Dublin, which had been 3, 5, and 10 in the previous three weeks, further rose to 11 last week; the deaths referred to "fever," however, which had averaged 5 in the preceding six weeks, declined to 1 last week. Four inquest cases and 5 deaths from violence were registered within the city; and 62, or nearly a third, of the deaths were recorded in public institutions. The 28 deaths of infants showed a marked decline from recent weekly numbers, while those of elderly persons exceeded the number in the previous week by 5. The causes of 25, or nearly 13 per cent., of the deaths regisered in the city last week were not certified.

A COMPLIMENTARY farewell dinner was given on Jan. 20th, by the members of the medical profession resident in Calcutta, to Dr. David Boyce Smith, who has recently been appointed to the chair of Medicine in the Army Medical School at Netley.

THE SERVICES.

BRITISH MEDICAL SERVICE.—The following is the list of the successful candidates at the recent Competitive Examination for appointments in this Service:—

	Marks.		Marks.
Hickson, S.	2540	Adams, G. G.	2130
Fletcher, H. J.	2480	Shine, J. M. F.	2120
Lindeman, S. H.	2445	Day, W. B.	2110
Davis, E.	2430	Hamilton, D. R.	2100
Powell, S.	2410	Thompson, R. G.	2080
Jones, F. W. C.	2335	Blackwell, C. T.	2070
Meek, J.	2320	Power, R. I.	2070
Morris, A. E.	2310	Kilkelly, C. R.	2065
Cormack, R.	2300	Bean, W. H.	2020
McMillan, J. F.	2290	Ferguson, N. C.	2010
O'Donel, C.	2275	Wills, S. R.	1980
Carte, W. A.	2270	Hearn, M. L.	1960
Fitzgerald, A. O.	2270	Deeble, S. L.	1950
Elderton, F. D.	2260	Hall, R. H.	1950
Sheldrake, E. N.	2230	Bennett, W. H.	1940
Molesworth, R. E.	2220	Greenway, J. H.	1921
Long, J. W. F.	2215	Hanley, R. G.	1880
Josling, C. L.	2210	Bell, W. H.	1875
Bateson, J. F.	2180	Cree, G.	1850
Swan, W. T.	2180	Philson, S. C.	1850
Bulpin, J.	2175	Nicolls, J. M.	1830
Macleod, R. L. R.	2145	Harris, F. W. H. D.	1800
Curtis, J. H.	2140		

NAVAL MEDICAL DEPARTMENT.—At the competition for commissions in the Medical Service of the Royal Navy, held on Feb. 9th and following days, in the Hall of the University of London, Burlington-gardens, the undermentioned gentlemen were the successful candidates:—

	Marks.		Marks.
South, H. E.	2090	Minter, E. D.	1720
Page, A. M.	2010	Alsop, C.	1710
Cropley, A.	1930	Eede, E. T.	1695
Jenkins, J.	1910	Chamberlain, C. B. d'E.	1690
Youel, H. S.	1815	Corbett, J. N.	1590
Elliott, H.	1760	Bowie, R. F.	1570

INDIAN MEDICAL SERVICE.—At the Competitive Examination held at Burlington House on Feb. 9th the following gentlemen were successful:—

	Marks.		Marks.
Campbell, E. K.	2590	Carroll, E. R. W. C.	2220
Drury, F. J.	2495	Dyson, H. J.	2160
Rogers, F. A.	2230		

Eighteen candidates competed for five appointments. All were reported qualified.

THE EGYPTIAN EXPEDITION.

So many of the officers of the Army Medical Staff have been ordered abroad that civilian surgeons have been temporarily appointed to the charge of troops in the Chatham garrison. The deficiencies in the number of medical officers in Woolwich also are being supplied by the temporary employment of three retired medical officers and five qualified but unsuccessful candidates for Netley.

On the 25th inst. the Prince and Princess of Wales paid a visit to the *Ganges*, which has been chartered by the Admiralty to act as a hospital ship at Suakim, and to which we have referred in another column.

On the 24th inst. the hospital and bearer companies of the medical staff, amounting in all to about 300, arrived by train at Woolwich, from Aldershot, in charge of Surgeon-Major Evatt, and embarked on board the steamship *Calabria* for Suakim. The final inspection of the ship, which sailed on the 25th inst., was made by Colonel Julian Hall and Surgeon-Major Clarke, assisted by Surgeon-Major Riordan, who went out in charge of the troops.

Surgeon Birrell, of the Army Medical Staff, has been placed on board the *Osprey* in charge of the first portion of the navvies who are to be employed in constructing the Suakim-Berber railway.

Thirty medical officers, now undergoing drill instruction at Aldershot, are under orders for foreign service. Fifteen are to proceed direct to Suakim, and the remainder are for service at Gibraltar, Malta, and in India, to replace others ordered from those places to the Soudan.

Surgeon Keefe has gone out in medical charge of the *Conway Castle*, on which troops have embarked for Gibraltar.

ARMY MEDICAL STAFF.—Surgeon Campbell Louis Young has been placed temporarily on the half-pay list, in consequence of ill-health. The undermentioned surgeons on probation to be Surgeons: James Rocheid Forrest; Michael William Russell; William Raoul de Morinni;

Benjamin Frazier Zimmermann; Arthur Frank Stace; Alexander Stables, M.B.; John Frederick Edward McCraith; Edward Arnold Cloete Smith; William Maxwell Hewson, M.B.; Grenville Edwin Moffet, M.B.; Henry Aylmer Haines, M.D.; John Drew Moir, M.B.; Richard Crofts; George Magill Dobson, M.B.; George Ernest Hale; Cecil Willoughby Johnson, M.B.; William Ebenezer Berryman; Alfred Thomas Irvine Lilly; Robert Caldwell; Charles Cooper Reilly; Sidney Edward Duncan; James Maher; Allan Perry; Samuel N. Cardozo; Arthur De Courcy Scanlan; Hartwell Woodhouse James; Robert Trevor; Henry Daniel James; William Turner; Brooke Owen William Norfor, M.B.

INDIA OFFICE.—Surgeon F. J. Tuohy, M.D., of the Indian Medical Service (Bengal), has been transferred to the half-pay list. Dr. Tuohy served in the Afghan war in 1878-79, and took part in the advance on Candahar and Tehelat-i-Ghilzi under Sir Donald Stewart.

ADMIRALTY.—The following appointments have been made:—Surgeons Henry E. South, Robert T. Bowie, John N. Corbett, M.D., Charles B. d'E. Chamberlain, Eli T. Eede, Clement Alsop, Ernest D. Minster, Horace Elliott, M.D., Sidney H. Youel, John Jenkins, Alfred Cropley, and Alfred M. Page, additional, to the *Duke of Wellington;* Surgeons George A. Dreaper, William H. O'Meara, William W. Jacobs, and Alexander F. Harper, additional, to the *Royal Adelaide:* Surgeon Edward R. D. Fasken, additional, to the *Impregnable;* Surgeon James C. F. Whicher, additional, to the *Cambridge;* Surgeon Alexander G. Andrew, additional, to the *Excellent;* Surgeon Arthur S. Nance, additional, to the *Vernon.*

MILITIA MEDICAL STAFF.—Surgeon-Major John Kilner, 3rd Battalion, the Suffolk Regiment, resigns his commission, also is permitted to retain his rank and to wear the prescribed uniform on his retirement.

RIFLE VOLUNTEERS.—8th (S.W.) Middlesex: Honorary Assistant-Surgeon John Prince to be Surgeon.

WILLS OF MEDICAL MEN.

THE will of Richard Seymour, M.D., late of 3, Palace-square, Upper Norwood, who died on Nov. 28th last, has been proved by Mr. John Wight, Mr. Hobart Seymour, the nephew, and Mr. William Alfred Impey, the executors, the value of the personal estate exceeding £8900. The testator bequeaths his furniture and effects to his wife, and legacies to his executors and nephews. The residue of his property he leaves upon trust to pay the income to his wife for life; at her death he gives the fee simple of his houses at Dublin, and his share in some houses at Limerick, to his said nephew; considerable pecuniary legacies to other relatives, and the ultimate residue to Robert Seymour and Edward Otto Impey.

The will and codicil of Daniel John Duigan, C.B., M.D., Deputy Inspector-General of Hospitals and Fleets, late of 29, Edith-road, West Kensington, who died on Dec. 2nd last, were proved on the 24th ult., by Mrs. Mary Anne Duigan, the widow, and Mr. Martin Cormac, the acting executors, the value of the personal estate amounting to over £6900. The testator leaves his residence, with the furniture and effects, to his wife for life, and then to his three children as she shall appoint; £2500 each to his son Alfred Leopold and his daughter Lucie Foley; £1000 to his son Valentine Richard; an annuity of £52 to Bridget MacCormac; and the residue of his property to his wife absolutely.

The will of Valentine Hutchinson, M.D., late of the Elms, Bishop Auckland, Durham, who died on Dec. 16th last., was proved on the 7th ult., by Mr. Robert Shum Mansel, J.P., one of the executors, the value of the personal estate amounting to over £2000. The testator leaves legacies to his executors and others; and the residue of his real and personal estate to be divided equally between all his children.

The will of Llewellyn Morgan Thomas, M.D., late of 15, Weymouth-street, Portland-place, who died on Nov. 26th last, was proved on the 21st ult., by Miss Jane Wyman, the sole executrix, to whom he gives, bequeaths, and devises the whole of his real and personal estate.

The will and three codicils of John William Moore, M.D., late of Southsea, in the county of Southampton, who died on July 9th last, were proved on the 17th ult., by Mrs. Catherine Jemima Moore, the widow, the value of the personal estate amounting to over £2000. The testator, after making some bequests, leaves the residue of his real and personal estate upon trust for his wife for life, and then for his three daughters, Mrs. Bowden-Smith, Mrs. Meldrum, and Miss Moore.

The will of Frederick Henry Horatio Akbar Mahomed, M.D., late of 24, Manchester-square, who died on Nov. 22nd last, were proved on the 24th ult., by Mrs. Ada Mahomed, the sole executrix, to whom he gives, devises, and bequeaths all his estate and effects absolutely. The value of the personal estate exceeds £1900.

The following legacies have recently been left to hospitals and other medical institutions:—Sir George St. Patrick Lawrence, K.C.S.I., C.B., late of 20, Kensington-park-gardens, £100 to the Medical Branch of the Indian Female Normal School and Instruction Society; the Most Hon. William Henry Hugh, Marquis of Cholmondeley, of Cholmondeley Castle, Cheshire, of Houghton Hall, Norfolk, and of 1, Hyde-park-street, £500 to the Hospital for Women, Soho-square; Mr. Dennis Herbert, late of the Priory, Huntingdon, £200 to the Huntingdonshire County Hospital, and £100 to the Hunstanton Convalescent Hospital; Mr. J. Gorman, £400 to the Mater Misericordiæ Hospital, £500 to St. Michael's Hospital, £1000 to St. Mary's Asylum for the Blind, and £500 to the Hospital for Incurables; Mr. J. Winter, £50 to the Adelaide Hospital, Dublin; Major-General Pope, £3000 for a medical dispensary at Helmsdale, and £2000 to Inverness Infirmary, for the express benefit of Kildonan patients.

Correspondence.

"Audi alteram partem."

TYPHUS IN CAMBERWELL.

To the Editor of THE LANCET.

SIR,—In reference to the recent outbreaks of typhus in Camberwell, on which you comment in your last issue, I think I have a right to claim that the local authorities have not been neglectful of their duties.

As you point out, we have had two outbreaks. The first was limited to one house in Verney-flats, a tenement house occupied mainly by Irish labourers, and situated on the confines of the parish, close to Rotherhithe. In this house, between Nov. 10th and Dec. 15th, seven cases occurred in two families, and two died. That the disease was typhus was ascertained at the beginning of the outbreak, and every case as it occurred was at once removed to hospital. How the disease became imported we could not ascertain. But no cases, so far as we know, have been met with in that locality since. The more recent outbreak has occurred half a mile away from the other. On Jan. 28th the inspector's attention was called to 17, Down-street, in which a man and his wife had recovered from a mild attack of fever, the nature of which was not specified. As it turns out, this was probably typhus; but we had no proof of this. Then, between Feb. 9th and 11th, three children were removed from 3, Bexley-place, and, three from 5, Down-street, with what was stated to be enteric fever. These streets are close together; and, as soon as I was informed of what had occurred, it struck me that the behaviour of the disease was much more like that of typhus than that of enteric fever; and I made inquiries at the district hospitals and found that my suspicions were correct. This was on the 12th. Between the 9th and the 22nd there have been twenty-three cases in these two streets and their immediate neighbourhood, of which fifteen have occurred in two houses. Of these, one suffering from haemoptysis was taken by his friends to St. Thomas's; but all the rest were removed at once to the district hospitals. It is curious that all the persons attacked, except four or five, have been children. And doubtless it is largely owing to this circumstance that no deaths have occurred up to the present time. The same fact, and the early removal of the cases to hospital, explain also how it was that the medical men in attendance failed at first to recognise the nature of the disease. This latter outbreak, like the former one, has occurred in an Irish colony. I presume that the two are related; but I am unable to trace the connexion.

I am, Sir, yours faithfully,

Old Burlington-street, W., Feb. 25th, 1885. J. S. BRISTOWE.

THE CLINICAL SOCIETY: THE PRESIDENT'S ADDRESS.

To the Editor of THE LANCET.

SIR,—I find that the President of the Clinical Society, in his inaugural address, has borrowed certain expressions from a private letter of mine, and reproduced them as an indication of a too general confusion of thought with reference to the relationship of inflammation to the healing of wounds. Without referring at length to the circumstances which led me to correspond privately with Mr. Thomas Bryant on this subject, I will content myself with a brief statement of the points at issue.

As a teacher of surgical pathology I have deemed it in accord with ascertained facts to regard the healing of wounds as essentially an inflammatory process, and to recognise that inflammation may have a formative as well as a destructive termination. That there may be no uncertainty here I would go further, and say that the formative is even more typical of an inflammatory process than is the destructive termination. In my lectures, however, I never fail to point out, as clearly as possible, that this view is one which is necessarily dependent on a corresponding conception of the inflammatory process. Mr. Bryant, on the other hand, considers that inflammation, or anything like inflammation, is fatal to the healing of wounds; that repair and inflammation are, in short, incompatible; and that repair beginning "by what is called granulation," and ending in cicatrisation, is a physiological and not a pathological process, which is only possible in the absence of inflammation. It is manifest that these views are only tenable with a correspondingly limited comprehension of what is implied by inflammation. Mr. Bryant knows quite well that the real cause of the confusion he deplores is entirely traceable to different views as to what "inflammation" really implies; and by ignoring this he raises a false issue, which calls for a very considerable exercise of that generosity for which he asks. Mr. Bryant pleads for clear views and precise thought. In this I most heartily join, but I would point out that "clearness" is only a part, and not the most important part, of what is essential in our views. Not only must a view be clear, it must also be adequate, or, in other words, it must accord with facts. Lest this statement should present itself to Mr. Bryant as a "mixed expression"—which merely conveys a "cloud of words," whilst it "covers uncertain views,"—I will endeavour to illustrate what I conceive to be the distinction between a view which is clear only and one which is both clear and adequate at the same time. Under the circumstances, Mr. Bryant can hardly complain if I borrow my illustrations from his own writings. In the fourth edition of his work on Surgery is the following statement:—"Acetic acid dissolves the nucleus of a leucocyte"; and this is made a distinctive feature between white blood-corpuscles and pus-cells. The view thus expressed is clear enough, painfully clear, but it is not adequate, for it is not in accordance with facts. Again, the view that granulation and cicatrisation are physiological and not pathological processes is another example of a view which is clear but not adequate. In my opinion Mr. Bryant's views on the relationship existing between inflammation and the healing of wounds are throughout equally clear and equally inadequate.

To my mind inflammation is a continuous process, from the first deviation from health up to any of its terminations, whatever the termination may be. The practical surgeon finds, however, no difficulty in drawing a sharp line of demarcation between its destructive and formative terminations, nor even the most instructed pathologist finds himself able to make a trenchant distinction between that kind of nutrition which constitutes health and that of the first stage of inflammation; or between the minor degrees of inflammation which terminate in repair and the major degrees which terminate in destruction of tissue. Inflammation being regarded as a continuous process, the minor and major degrees graduate insensibly into one another.

To illustrate this from another source. It is an easy matter for even the uninstructed to hold fairly clear ideas of the distinctions between a horse and an oak tree, whilst the most learned find it impossible to draw a sharp line of demarcation between the lowest forms of animal and vegetable life. By ignoring inconvenient facts it is possible to draw sharp distinctions in cases where they do not actually exist, but though by so doing clear views may be formulated, they cannot be adequate, and must inevitably lead to that confusion which it is intended to avoid.

In conclusion, I cannot but regard Mr. Bryant's views as fatal to true teaching, and however ready I should be to defer to his judgment on a purely practical question in surgery, I feel it incumbent upon me to protest strongly against the idea that his position as an examiner entitles him to dictate, either publicly or privately, to teachers of pathology what doctrines they shall or shall not teach.

I am, Sir, yours truly,

A. H. YOUNG,
Lecturer on Surgical Pathology, Owens College, Manchester.

Feb. 24th, 1885.

THE MICRO-ORGANISMS OF YELLOW FEVER.

To the Editor of THE LANCET.

SIR,—With reference to the reissue of Dr. Domingos Freire's communication to you on the subject of the report on certain experiments on the propagation of yellow fever made by us for the Colonial Office, we hope you will kindly allow us, in the first place, to state that we undertook this inquiry not to show that Dr. Freire's theory was ill-founded, but, on the contrary, with the hope of being able to confirm his results. As the inquiry proceeded we found nothing to enable us to do so, and then, on comparison of his results with ours, and on careful perusal of his publication, "Etudes Expérimentales sur la Contagion de la Fièvre Jaune," we came to the conclusion that the Doctor had perhaps misread appearances, and, carried away by enthusiasm, had written what, in the cold light of discussion, could not be, at least fully, sustained. In the second place, we would ask your permission to reply to the strictures of Dr. Freire on our experiments as given in your summary of his letter as it appears in your issue of Sept. 27th, 1884.

1. It is objected that we performed our experiments with cultures of grave mould, &c., whereas Dr. Freire used the mould itself diluted with water. We also used a simple solution of mould; but, not getting any result, we made no mention of the matter in the report. We beg, however, to point out that on page 43 of the above-mentioned pamphlet Dr. Freire states: "A cet effet, nous avons inoculé premièrement *la même culture* qui avait servi dans l'expérience précédente à un cochon d'Inde," where he refers to a culture of the supposed "cryptococcus xanthogenicus" in gelatine, and goes on to say: "Le cinquième jour l'animal était mort. ..... L'examen microscopique montra une quantité extraordinaire des microbes caractéristiques," &c. Here surely is a "culture" that produces fatal results. But again, as to the diminished virulence of cultures by transplantation, we did not use a single transplantation; we injected cultures of the moulds direct. Dr. Freire seems to forget that we do not complain of the absence of virulence in our cultures; they proved extremely and very rapidly fatal. What we noted and wish now again to draw attention to, is the fact that a little pure soup exposed to the open air outside the laboratory for fifteen minutes and then placed in the incubator at a temperature of 98·6° F. for twenty hours, under the same conditions as the other materials as to plugging, &c., proved equally fatal with a culture of grave mould, common field mould, or that made direct from a dead body (yellow fever case). The symptoms during the illness of the animals and the post-mortem appearances being in every case very similar, and not at all like those of yellow fever in the human body, it will be seen that we had not the slightest grounds for believing that any of the animals died of yellow fever.

2. It is next objected that we used earth from limed graves. So we did, but only in two out of some twenty cases, and we have plainly stated the difference of our results in these cases.

3. Next as to the statement that "it is likely the organisms would have perished"—that is, during the additional year only that elapsed before our experiments were made. Surely the spores of these organisms would not have perished in that time, and the use of a plain deal shell coffin could not be credited with the power to prevent the spread of contagion from a putrefying yellow fever corpse to the surrounding soil.

4. Dr. Freire points out that we got fatal results when experimenting with solutions of dead bodies, and claims that as in favour of his theory; but surely he must have

overlooked the fact that one of the bodies thus experimented with was not a yellow fever corpse at all, and yet the symptoms produced by the injection of a little juice from this were exactly the same as those produced by the solution of a yellow fever body, the only difference being that the body which had not died of yellow fever, perhaps as it was but six months old, killed somewhat quicker than the two-year-old yellow fever body!

5. Dr Freire asks, "How was it, supposing the disease to have been septicæmia, that no bacteria were discovered in the blood?" Why, if the Doctor's theory be true, should not the question be, "How is it that, if the disease were yellow fever, no bacteria were discovered in the blood?" But surely Dr Freire is not ignorant that there are several forms of fatal septicæmia, in which, if the body be examined immediately after death, no trace of bacterial life will be found.

6. The Doctor then goes on to give accurate descriptions of the condition of the viscera of guinea-pigs after death by what he considers yellow fever; but surely these are not the appearances found in the human body after death from that disease. "Grey colour of brain," "swollen and blackish liver," "full bladder," "stomach full of food," &c., are not what one would expect to find in corpses dead of yellow fever. Albumen in the urine is certainly a constant symptom of fatal yellow fever, but it does not follow that albuminuria is yellow fever. On the whole, we are inclined to think that when Dr. Freire wrote his last letter to you he had not had our report translated correctly; at least, that seems the easiest way to account for some evident misunderstandings.

It is with regret that we find ourselves obliged to consider that Dr. Freire's experiments are still in need of verification, and this regret is deepened when we remember the difficulties that are thrown in the way of any attempt of ours to help to elucidate this most interesting question. It will scarcely be believed, but it is nevertheless a fact, that during the absence in England of the Governor-in-Chief, at whose request our inquiry was instituted, the officer temporarily administering the Government, supported by the opinion of some gentlemen of the Army Medical Department and others, which he requested, formally prohibited any further prosecution of our work on some such grounds as that such inquiry was valueless and dangerous to the public health, the work we were at the time engaged on being an examination of the toxic properties of various media cultivated at a high temperature and impregnated by exposure to the open air or by garden mould; and, further, an inquiry as to how far fresh lime might be depended on as destructive of bacterial germs in earth, no grave having been touched by us for about a twelvemonth. Obstacles have been put in our way also by other means, and when it is remembered that we undertook the inquiry only when everyone else in the West Indies had declined to have anything to do with it, and at the request of the authorities it will, we think, be admitted that we have some ground for complaint.

Before closing we would beg to remark that a healthy guinea-pig that had been inoculated with a weakened culture, and seemed proof against fresh inoculation afterwards, as mentioned in our report, succumbed some months ago to an inoculation by soup impregnated by the open air. We should wish, on our part, to ask Dr. Freire, with reference to his recent statement to the Académie des Sciences, as to his pigs dying in numbers of yellow fever on exposure to the impregnated air of his laboratory, how is it that such animals do not die *outside* his laboratory during the prevalence of an epidemic of yellow fever?

We are, Sir, your most obedient servants,
J. H. SUTTON MOXLEY, B.A., &c., &c.
J. B. HARRISON, B.A., Island Professor of Chemistry.

Barbadoes, Jan. 28th, 1885.

COCAINE IN CHRONIC CYSTITIS AND IRRITABLE BLADDER.

To the Editor of THE LANCET.

SIR,—Mr. Bellamy's note on the above in THE LANCET of the 14th inst. determines me to send you a confirmatory observation, though used in one case only.

I have been treating a gentleman, over sixty-eight years of age, for chronic cystitis, bladder sacculated, dependent on prostatic disease; latterly the symptoms have been much aggravated, micturition every few minutes, with intense pain at the neck of the bladder, thick muco-purulent discharge when the bladder is washed out (twice daily with boroglyceride), and diarrhœa. Almost every remedy has been used—by mouth, injections, suppositories—all fruitlessly. A fortnight ago I injected into the bladder one-third of a grain of hydrochlorate of cocaine in four or five ounces of tepid water, and retained for ten minutes. Next morning I was pleased to find he had been perfectly free from pain, and the diarrhœa soon ceased. I have since used it four times, the freedom from pain lasting from twenty-four to thirty hours, but the frequency of micturition and quantity of sediment remain unaltered. The last few days he has complained of similar pain along the urethra, and I intend using the gelatine bougies medicated with cocaine as suggested by Mr. Bellamy. I am, Sir, yours, &c.,

Seaforth, Liverpool, Feb. 1885. F. F. GERMAN.

THE TREATMENT OF GONORRHŒA, ETC., BY A NEW DRUG.

To the Editor of THE LANCET.

SIR,—I wish to draw the notice of the profession to the therapeutic action of the Jacaranda lancifoliata. This plant is indigenous to Columbia, South America, and was brought over to this country by an acquaintance, who, whilst travelling in the above State, found that the drug was used by the natives as a remedy in venereal diseases. Some of it was placed in the hands of my partner, Dr. Murray Smith, and myself to see what effect it had; and we were very much gratified by its influence in gonorrhœa, acute and chronic, and in vesical affections attended with purulent and muco-purulent urine. The drug acts specially on the genito-urinary mucous membrane, and appears to have no deleterious effect in any way; whilst it is taken without nausea, contrasting very favourably with most drugs given internally for these affections. As a remedy for gonorrhœa, I believe it will, when known, take the place of all other drugs used internally for this disease. In my hands, it has proved most efficacious in diminishing pain and stopping discharge in acute cases; and in cases of gleet I have found it most valuable, having succeeded in effecting a speedy cure by its use in several cases which had resisted previous treatment, both local and general. A liquid extract is made from the leaf, and may be given in doses of twenty minims or half a drachm three or four times daily. The introducer of the drug is prepared to send a small supply free of charge, prior to its being placed in the market, to any medical man who will try it and report his opinion to him. It is to be obtained of Mr. E. H. Lawton, 38, Trinity-square, Tower-hill, E.C. I am, Sir, yours truly,

Romford, Feb. 10th, 1885. ALFRED WRIGHT.

REVACCINATION.

To the Editor of THE LANCET.

SIR,—I herewith send you a copy of a memorial praying for further encouragement and facilities for the revaccination of adults, which I have this day forwarded to the President of the Local Government Board.

I am, Sir, yours truly,
FRANCIS VACHER, Hon. Sec.

Office of North-Western Association of Medical Officers of Health, Feb. 25th, 1885.

MEMORIAL PRAYING FOR FURTHER ENCOURAGEMENT AND FACILITIES FOR THE REVACCINATION OF ADULTS.

To the Right Hon. Charles Wentworth Dilke, Bart., M.P., President of the Local Government Board.

The memorial of the North-Western Association of Medical Officers of Health respectfully sheweth,—

1. That your memorialists are a body of medical officers of health practising in the counties of Lancaster, Chester, and Derby, and the West Riding of the county of York.

2. That there is still a considerable annual mortality from small pox in some of the districts served by your memorialists and in many districts throughout the kingdom.

3. That efficient vaccination of infants and revaccination of adults would prevent this mortality.

4. That while fairly satisfactory regulations obtain for securing the efficient vaccination of infants, no adequate steps have yet been taken to secure the revaccination of adults.

5. That the usefulness and expediency of the revaccination of adults is already recognised by many Government departments, inasmuch as military and naval recruits, post-office employés, &c., are required to submit to the operation.

6. That the principle thus admitted is capable of legitimate extension, by making proof of vaccination a qualification for all Government employment, and by making revaccination compulsory on all adults residing in premises which may become infected with the contagion of small-pox, and on all adult applicants for poor-law relief.

7. That the fee at present allowed for successful revaccination is not sufficient to excite any interest in the performance of the duty on the part of the public vaccinator, and does not fairly repay him for his expenditure of time and trouble.

8. That efficient revaccination would be promoted and encouraged by furnishing to all legally qualified medical practitioners, on request, an ample supply of calf and humanised lymph.

9. That your memorialists trust your honourable Board will consider the slight encouragement at present given for the promotion of revaccination and the propositions respectfully submitted by your memorialists, and will take such steps as your honourable Board may deem desirable for increasing and furthering the practice of revaccination.

And your memorialists will ever pray.

(signed on behalf of the North-Western Association of Medical Officers of Health),

EDWIN RAYNER, M.D., F.R.C.S., President,
FRANCIS VACHER, Hon. Sec.

16 King-street, Manchester, Feb. 23rd, 1885.

EXAMINATION OF DRINKING WATER.

To the Editor of THE LANCET.

SIR,—I should be glad to have an opinion of the value of Horsley's pyrogallic acid test in the determination of the presence of nitrates and nitrites in water. Wanklyn's method is no doubt the best, but takes too much money and time in rural districts, where every other house has its own well, and sanitary pay is small. If there are any grave objections to Horsley's process, I should be thankful to be informed where I can get a description of any other simple process of water examination which will supplement the silver test and the microscope.

I am, Sir, your obedient servant,

Feb. 21st, 1885. RURAL HEALTH OFFICER.

*** We have never used the method above referred to, nor doubt its trustworthiness. Of satisfactory processes, the simplest is the brucine process, described in *The Analyst*, vol. vi. It must be remembered that the presence of nitrates and chlorine is a very fallacious guide. The determination of albuminoid ammonia cannot be dispensed with unless the much more difficult combustion process is used. It is a good plan to keep the water in a warm place, loosely covered, for several days. If bacteria and bacilli increase readily, there must be some suitable pabulum for them in the water.—ED. L.

LIVERPOOL.

(*From our own Correspondent.*)

THE LIVERPOOL MEDICAL INSTITUTION.

THE members of the profession in this city are fortunate in the possession of their medical institution. Formed in 1857 by the amalgamation of the Medical Society and the Medical Library, it now numbers 185 members, 24 associates, and 4 honorary members. It has its own buildings, erected in 1873 on a central and very convenient site granted by the Corporation, who also gave £1000 towards the building, the remainder being provided by the donations of members and their friends. The meetings are held on alternate Tuesdays during the winter months, and are well attended. In a large a city as this, with its numerous hospitals and dispensaries, furnishes an unlimited amount of material for interesting papers, cases, and discussions, while the numerous pathological specimens shown by members form an additional feature of interest. The microscopical section of the institution, which was formed some years ago, meets on alternate Fridays, and has proved a most valuable adjunct to it. At the annual meeting held last month it was resolved to admit at a reduced subscription members of the profession residing beyond a radius of ten miles. It is believed that this will enhance greatly the benefits of the institution, and its members present and prospective. The library contains nine thousand volumes.

HYDROPHOBIA.

Recently there have been several cases of persons having been bitten by dogs, apparently mad, in the streets. One case, that of a boy, terminated fatally with all the symptoms of hydrophobia. There would in all probability have been more fatal cases had it not been for the bravery of a police constable, who pursued and killed the savage animal, and was warmly commended for his courageous conduct by the county coroner and jury at the inquest. In the course of a year several cases of police officers bitten by dogs came under the notice of the police surgeons. The danger is a very real one, and it is very important that means should be taken to prevent it.

DEATHS OF CHILDREN FROM OVERLAYING.

This city has an unenviable notoriety for the large number of children who are annually suffocated while in bed with their parents, one or both of whom have gone to sleep in a more or less drunken condition. The majority of these cases occur on Saturday and Sunday nights, days which are still devoted to drinking by too many of the lower orders, notwithstanding the advance of temperance among all classes. Many efforts have been made to prevent this wholesale slaughter of children, but without avail. Fifteen years ago a jury, acting under the guidance of the borough coroner (Mr. Clarke Aspinall), returned a verdict of manslaughter against the parents of a child who was found dead in bed with them. The case was a very aggravated one, it being proved that the parents, who were both intoxicated, went to bed in the afternoon, and, though remonstrated with, insisted upon having the child with them. They were committed for trial upon the coroner's warrant, but the grand jury threw out the bill. More recently, in a case little if any less shocking, the parents were committed for trial by both the coroner and the stipendiary magistrate. A true bill was found, but the case ended in an acquittal. It is clearly impossible to draw the line between crime and accident in these cases in the present state of the law.

THE LOCK HOSPITAL.

The clinical lectures delivered by Dr. Bernard during the first part of the winter session were resumed by Mr. F. W. Lowndes after the Christmas recess. They have now been replaced by clinical demonstrations in the male wards, which are given every Saturday at 12.15 P.M., and are greatly appreciated by the students. The wards have been very full lately, and both surgeons have excellent opportunities of pointing out to the clinical class all the various appearances in primary and secondary syphilis. Cases of tertiary syphilis are much more rare than they were in this hospital twenty years ago, when it was not uncommon to see several cases at a time in a very severe form, both in the male and female wards. A case of sloughing ulcer, involving the whole of the prepuce, was recently admitted under Dr. Bernard, and has done remarkably well. Iodoform in fine powder was found very useful in this as in previous cases, partly to promote healing and also as a deodoriser.

THE EYE AND EAR INFIRMARY.

The retirement of Mr. Stradford Walker from the acting to the consulting staff, and the resignation of Mr. Stone, the senior assistant surgeon, have made great changes in the surgical staff of this important charity. Mr. Edgar Browne, well and favourably known as a successful oculist, as well as for his work on the ophthalmoscope, becomes senior surgeon. His colleagues are Mr. Richard Williams, who has for some years done very useful work, first as assistant-surgeon, and subsequently as surgeon; and Mr. Charles George Lee, who has for seven years worked as assistant-surgeon. Mr. Shears, the late house-surgeon, now becomes senior assistant-surgeon, and the committee are inviting candidates to apply for the vacant office of assistant-surgeon. It is much to be regretted that the infirmary has lost the services of Mr. Stone, who has served it faithfully for some years as assistant-surgeon. The ophthalmoscopic demonstrations,

which were commenced at the hospital by Mr. Browne some time ago, have been resumed, and are well attended by local practitioners. Mr. Liptrot succeeded Mr. Shears as house-surgeon.

THE DISPENSARIES.

Some idea of the enormous amount of medical relief afforded by the North, South, and East Dispensaries of this city may be formed from the following details given at the annual meeting held on the 24th inst.: Total number of patients treated during the year 1884, 69,754; total attendances, 151,807. This work was done at a cost of £4506.

Liverpool, Feb. 25th.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

SUNDERLAND HOSPITAL SUNDAY.

THE twenty-first annual collection on behalf of the Sunderland hospitals was taken on the 15th inst. The past year witnessed the largest number of in-patients the infirmary has ever received, 1482 having been treated in the wards, and the number of out-patients was 1665. The collections last year amounted to £729, and this was the largest amount ever contributed on Hospital Sunday. I regret to hear that the present commercial distress in the North has seriously affected the income of the infirmary, which is stated to be £4000 in debt. I trust this is exceptional, as the Sunderland Infirmary is well deserving of public support, being conducted on the free system, and thus a boon to the suffering poor of the borough.

DURHAM COUNTY HOSPITAL.

The annual meeting has been held of the Durham County Hospital, and the report shows that 1566 cases were treated during the year, being an increase of 285 over the number treated last year. The Durham Hospital Sunday Collections are considerably less than last year; but, on the other hand, it is gratifying to read in the report that the Hospital Saturday Collection shows a very marked increase. The excess of expenditure for the year is to be accounted for by the increase of patients, as well as the unfortunate illness of several members of the hospital staff, involving considerable expense in the way of providing substitutes, the complete rectification of the drainage of the hospital, and the preparation for building a new wing, towards which the munificent donation of £2000 has been presented by John Eden, Esq., Beamish-park.

GATESHEAD DISPENSARY.

At the annual meeting of the Gateshead Dispensary, Dr. Robert Purdie presented the medical report, which shows that the number of patients treated by letter during the year was 2815, as compared with 2873 in the previous year; the number of casuals was 10,003, as compared with 14,966 in the previous year. The diminution in the work done was accounted for by the healthier state of the town during the past twelve months, which was most satisfactory, considering the depression in trade and the distress which had existed. The report of the committee refers to the want of hospital accommodation at Gateshead. Indeed, this want is felt and admitted on all sides. At the same time, they say that the matter should be left to the town at large to be dealt with; but it is to be feared that if it is left to "the town at large," there it will rest. It is a long time now since Dr. Newcombe and others drew attention to this want, and yet here is a prosperous town of 70,000 inhabitants without even a cottage hospital. The sick poor of Gateshead flock to the Newcastle Infirmary and to the special hospitals of our city. Dr. Newcombe, at the same meeting, when returning thanks for the complimentary vote passed to the honorary medical staff, also animadverted very strongly on the practice of making even a small charge to the casuals at a time like the present, when so many were out of employment. Speaking from his own knowledge, he knew of cases where poor persons were prevented from seeking aid at the dispensary from the existence of this casual charge, but he also objected to it as having a bad tendency in the way of giving an idea of "cheap physic" to the working classes.

Newcastle-on-Tyne, Feb. 17th.

BELFAST.

(From our own Correspondent.)

THE THOMPSON MEMORIAL HOME, LISBURN.

THIS very handsome building is now completed and open for the reception of patients. It stands on an elevated piece of ground, about half a mile from Lisburn and eight miles from Belfast. Including the building site, the total area of the surrounding grounds is nine acres. The expenditure on the whole range of buildings, together with the fitting and furnishing of the patients' downstair- and day-rooms, as well as the apartments for the lady superintendent, the servants, and nurses, will be close on £25,000. In addition to this large sum, £35,000 has been placed by the founders in the hands of trustees, the annual interest of which will go to the support of the institution. I understand that, according to the trust deed, the home is to be devoted to the reception and support, as well as to the medical and surgical treatment, of respectable poor persons suffering from incurable diseases. Applicants for admission must be able to show that they have resided for five years in some one or more of the counties of Antrim, Armagh, Derry, Down, Monaghan, and Tyrone. The Thompson Memorial Home has been founded by the widow of the famous medical practitioner, the late Dr. Thompson of Lisburn, his daughter, Mrs. Bruce, and his son-in-law, Mr. James Bruce, D.L., of Thorndale House, Belfast. Mr. Ferguson, son of Dr. Ferguson of Belfast, is the architect; and Dr. H. George of Lisburn has been appointed medical attendant. There can be no doubt that this home, to the building and endowing of which one family has given the large sum of £60,000, will be an immense boon to many incurables in Ulster.

THE BELFAST ROYAL HOSPITAL.

It is very gratifying to find by the report read at the quarterly meeting of the Board of Management on Monday that the financial position of this excellent charity has greatly improved. At the last quarterly meeting the hospital was over £2000 in debt. Now all this is paid, and a substantial balance is in the hands of the treasurer. The bazaar yielded the net sum of £2839 1s. 10d., besides £355 contributed specially to create life governors, thus benefiting the hospital to the extent of £3294 1s. 10d. By these means the hospital is freed of debt. The report states that in continuation of the good work going on of putting the wards of the hospital into most efficient condition, the Sinclair Ward has been completed by the members of the Sinclair family. Two small wards for the use of the extern patients connected with the gynæcological department have been thoroughly fitted up and furnished by Mrs. Dunville, and Mr. Dunville is proceeding with the work of completing the remaining wards in the body of the hospital.

THE QUEEN'S COLLEGES COMMISSION.

The Commissioners have just handed in their report, and, as I anticipated in a previous letter, they are divided. The two Roman Catholic Commissioners (Rev. Dr. Molloy and Mr. Carton, Q.C.) report on the low arts standards in Cork and Galway contrasted with the Intermediate and Royal University examinations, the inadequate medical education in Galway, the absence of Roman Catholic students in both colleges owing to religious considerations, and the justice of Roman Catholics obtaining a share of State endowment for collegiate education. The majority of the Commissioners (Dr. J. J. Stoney, secretary to the late Queen's University, Dr. Jack, Glasgow University, and Deputy-Surgeon-General Marston) are satisfied with the arts standard, praise the arts professors, and suggest increased equipment. All the Commissioners agree as to the efficiency of Queen's College, Belfast. Among the recommendations of the majority of the Commissioners are:—"That funds should be provided for the payment of a limited number of assistants to professors who require them for the more efficient teaching of their classes. That provision should be made for the erection of a suitable laboratory for practical chemistry, and for the improvement of the chemical buildings in Belfast. That the medical professors who are not prohibited from private practice be entitled to retiring pension. That the chairs of Anatomy and Physiology and Histology in Queen's College, Belfast, and in Queen's College, Cork, be separated; that in view of this separation compensation be given to the present occupants, and sufficient salaries provided for these chairs."

Belfast, Feb. 25th.

PARIS.

(From our Paris Correspondent.)

COLLECTIVE INVESTIGATION.

At a recent meeting of the Société Médicale des Hôpitaux it was decided that a Collective Investigation on the Contagiousness of Tuberculosis should be instituted, and that printed instructions should be forwarded to all the medical *men* practising on French territory. Although this decision was almost unanimously adopted by the members present, yet there are some misgivings as to the success of the undertaking after what has been experienced from the results obtained in England and other countries where the *practice* has been introduced. A writer in *La Semaine Médicale* makes out that from 23,000 medical men in England to whom questions on a certain subject were recently forwarded only 1500 replies were received, and of this figure, which is very small, several hundreds were considered worthless, as the cases brought forward did not seem to be founded on precise personal observation. In Germany, according to a report recently read by Dr. S. Guttmann before the Medical Society of Berlin, the results obtained by a collective investigation were still less satisfactory; it was with great difficulty that the committee could collect 200 replies of any value out of those from 16,000 medical men practising in the country. It has therefore been decided to address to the medical practitioners in Germany a more simple form of questions. In Italy it is nearly the same as in Germany, and in France it is anticipated that matters will not be any better. But whatever form of inquiry be adopted on the present occasion—that is, on the contagiousness or non-contagiousness of tuberculosis,—it would be equivalent to a medical "plebiscite," and the writer referred to alleges that, however useful figures may be in other cases, they are of little or no value in scientific questions, and cannot therefore be made law. The greater or smaller number of replies, favourable or unfavourable to the contagiousness of this malady, will only prove that this contagion exists or does not exist in reality. It will therefore simply be a document which may *contribute* in some measure to the solution of the question, but this solution may be obtained by the adoption of other means, which, however, the writer has omitted to mention.

CREMATION IN FRANCE.

Cremation is gradually being introduced into this country, and will soon become recognised as a legal mode of disposing of the dead. At the last meeting of the Council of Hygiene, Professor Brouardel, who was charged to report on the measure, proposed to establish a crematory at Père la Chaise, to be employed as a commencement for the incineration of bodies that have been used for anatomical purposes. The following is a summary of Dr. Brouardel's report on the subject: 1. As regards salubrity, the establishment of a crematory apparatus in the cemetery of Père la Chaise would present no danger. 2. Three apparatus working for eight hours would be sufficient to destroy the debris of corpses. 3. It will be necessary to establish a separate mortuary room, so as to prevent any delay in the prompt disappearance of the débris.

PARISIAN VITAL STATISTICS.

In the statistical report which has just been published by the Prefect of the Seine for the year 1884, it is shown that there have been in Paris 63,060 births, 20,424 marriages, and 55,555 deaths, 5746 of which were caused by zymotic diseases, 10,653 by pulmonary phthisis, 5105 by bronchitis and pneumonia, and 34,051 by other causes. In short, the number of deaths was 56,616, or 1061 more than that of last year. Population, 2,239,928.

Paris, Feb. 25th.

MACCLESFIELD GENERAL INFIRMARY.—At the twelfth annual meeting of the subscribers to this institution, which was held on the 19th inst., it was decided that the engagement of the house-surgeon should be terminable by one month's notice, instead of by three as heretofore, and it was also resolved that the matron shall superintend the establishment in conjunction with the house-surgeon, an office hitherto filled by the latter official alone.

MAHOMED MEMORIAL FUND.

THE following additional subscriptions have been received or promised:—

	£	s.	d.
Sir Thomas Acland, Bart.	10	0	0
R. T. Bedford, Esq.	1	1	0
W. Crosbie, Esq.	1	1	0
E. Montague Day, Esq. ...	1	1	0
Dr. Walter Edmunds ...	2	2	0
Dr. A. L. Galabin	5	5	0
Dr. Longstaffe	2	0	0
F. G. Larkin, Esq.	1	1	0
Henry Moon, Esq.	15	15	0
Dr. T. Morton	2	2	0
R. J. Pye-Smith, Esq. ...	1	1	0
Dr. H. Sutherland	1	1	0
Frederick Wallace, Esq. ...	1	1	0

The treasurer or hon. secretaries would be glad to receive the names of any who still wish to contribute to the fund, inasmuch as a meeting of the committee will shortly be held, at which it is desirable to present as full a statement as possible.

ARTHUR E. DURHAM, Treasurer.
JAMES F. GOODHART, } Secretaries.
W. H. A. JACOBSON, }

MEDICAL NOTES IN PARLIAMENT.

Scarlet Fever in a Training Ship.

IN the House of Commons on the 23rd inst., Mr. Caine, in reply to Mr. Halsey, stated, with respect to the outbreak of scarlet fever in the *Britannia*, that the number of cadets in the hospital at Dartmouth was twenty-four. All were doing well. Every investigation was being made as to the cause of the outbreak, which was of a very mild character.

Small-pox and Vaccination.

On Thursday, Mr. G. Russell, replying to Mr. Picton, said he was aware that in Leicester, Keighley, Dewsbury, and other towns, there is a large number of persons who are in default under the Vaccination Acts on account of non-vaccination of their children. In these towns, and in some three or four others where there has been no recent experience of small-pox epidemics, there is no doubt that a strong anti-vaccination feeling exists; but although these places have for some years past been practically free from small-pox, the same may be said of many other towns. London had suffered from severe epidemics, and small-pox had been prevalent in Birmingham, but in London especially epidemics were dependent on a number of conditions besides the universality of infantile vaccination. More to the purpose than a proposal to compare small-pox incidence in particular towns is a comparison between the incidence of small-pox upon the vaccinated and upon the unvaccinated, when small-pox became epidemic in a town. He had no evidence of any general increase of a feeling of resistance to the Vaccination Acts. The last returns showed no falling-off as regarded the proportion of children vaccinated, less than five per cent. of the children born being reported as unaccounted for. The whole subject had been fully considered by a Select Committee of the House in 1871, and he did not think there would be any advantage at the present time in a further inquiry being instituted by a commission or committee of the House.

The Medical Act Amendment Bill.

Mr. Mundella, in reply to Mr. O'Connor, said he was unable to make any definite statement with regard to his intentions with reference to the Medical Act Amendment Bill, but the matter was still under consideration.

Lunacy Law.

Mr. R. H. Fowler, in reply to Mr. Corbett, said the Lord Chancellor was about to bring in a Bill for the reform of the Lunacy Law, which would deal with the whole question, and the Government did not think, considering the extent to which the subject had been dealt with by committees, that it was necessary another committee should be appointed.

Dispensary Doctors as Land Agents.

Mr. Campbell-Bannerman, in reply to Mr. Henry, said that, as a medical officer of a district is not bound to give his whole time to the duties of his office, it would not be illegal, although it was not usual, for him to act as a land agent. If, however, it was shown that a medical officer undertook work of any kind which interfered with his official duties, the Irish Local Government Board would take such steps as it deemed necessary to secure due attention to the sick poor.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 19th inst.:—

Botham, Richard Henry, King's College.
Cherry, George A., Toronto, Canada.
Hocken, James Preston, Charing-cross Hospital.

DR. CECIL WESTROPP has been placed on the Commission of the Peace for the county of Fermanagh.

THE salary of Mr. J. Gray, assistant medical officer of Islington Workhouse, has been increased from £100 to £110 per annum.

A DRAMATIC performance was given on the 20th inst. at St. George's Hall, Langham-place, in aid of the funds of the North-West London Hospital.

A SMALL hospital for Jewish children has been opened by Dr. Young in the Ghetto at Rome, in connexion with the medical mission he conducts in that quarter.

A NEGRO has confessed that he set fire to the lunatic asylum in Philadelphia at the instigation of one of the attendants, who had quarrelled with the superintendent.

DR. SULLIVAN of Kingston, Ontario, who was last year president of the Canada Medical Association, has been appointed by the Government a Life Senator of the Dominion of Canada.

ROYAL INSTITUTION.—Professor Arthur Gamgee, M.D., F.R.S., Fullerian Professor of Physiology, R.I., will on Tuesday next, March 3rd, begin a course of twelve lectures on Digestion and Nutrition.

OLD EPSOMIANS will hear with deep regret of the death of Sergeant Daniel Gough, who from 1858 to 1885 occupied the post of drill instructor at the Royal Medical College, Epsom.

WESTMINSTER HOSPITAL.—The Duke of Westminster will lay the corner stone of the new medical school now being erected in Caxton-street, Westminster, at three o'clock to-day (Saturday).

PRESENTATION.—Dr. Atkinson, late assistant medical officer to the Kensington Infirmary and Workhouse, was on the 19th inst. presented with a clock and bronzes by the nurses of the institution and others.

SHARMAN AND OTHERS *v.* GILLIES.—The arbitrator to whom this matter was referred to ascertain the damages sustained by Messrs. Sharman, Harris, and Clark, has assessed them at £300, and directed Mr. Gillies to pay this sum together with the costs of the reference.

A CONCERT was held at the London Temperance Hospital, Hampstead-road, on the 16th inst., the object of the gathering being to increase the public interest in the National Temperance Bazaar to be held in May next, in aid of the funds for the completion of the new wing of the institution.

NATIONAL AID SOCIETY.—The above Society is sending out more medical aid for the wounded, in connexion with the Egyptian expedition. Mr. W. Lake and Mr. F. C. Piggott left in the *Ganges* on the 26th inst.; Mr. C. H. Newby, F.R.C.S., sails in a day or two; and Dr. Squire will leave for the same destination, Suakim, in a few days.

VICTORIA HOSPITAL FOR CHILDREN.—The Committee of Management of this institution, prevented hitherto by lack of funds, have at length resolved to erect a new out-patient wing, on land already the freehold property of the charity, at a cost of £6550, of which £3000 have already been subscribed. The memorial stone will be laid by H.R.H. the Princess Louise, and the ceremony will take place in June.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN.—On the 20th inst., at the annual general court of governors of this hospital, it was stated that there had during the past year been a considerable increase in the out-patient department, and an increase in the number of in-patients, and also in that of home visits to sick children. It having become necessary to entirely reconstruct the sanitary arrangements and drainage of the hospital, at a cost of £300, the committee appeal to the public for funds, both for this work and to clear off the present deficit of £400.

UNIVERSITY COLLEGE, LONDON.—At the annual general meeting of members of the College the following gentlemen were admitted as Life Governors: Rev. Henry Allon, D.D.; Prof. Cassal, LL.D.; Prof. Berkeley Hill, M.B.; Prof. Lodge, D.Sc.; George Palmer, Esq., M.P.; R. S. Poole, Esq., LL.D; Prof. G. Croome Robertson, M.A.; Prof. Schurman, D.Sc.; Right Hon. G. O. Trevelyan, M.P.; and R. Wormell, Esq., D.Sc.

THE DARENTH CAMP HOSPITAL.—At a meeting of the St. Pancras vestry on the 18th inst., a resolution to the effect that, having regard to the unsatisfactory statements prevailing relative to the management of hospitals and other institutions under the Metropolitan Asylums Board, the vestry respectfully urges upon the Local Government Board the necessity of immediately holding an inquiry into such management, was unanimously adopted.

ROYAL COLLEGE OF SURGEONS.—Professor Charles Stewart, M.R.C.S., will commence his course of three lectures on the "Structure and Life History of the Hydrozoa," in the theatre of the College, on Monday next, the 2nd prox.; and on the following Monday he will be succeeded by Prof. Alex. Hill, M.B., M.R.C.S., who will deliver the first of three lectures on the "Grey Masses of the Cerebro-Spinal System, their relations to one another and to the Peripheral Nerves." These lectures will be delivered on Mondays, Wednesdays, and Fridays, at four o'clock each day.

DEATH FROM HURRY AND EXHAUSTION.—On Saturday last Dr. Danford Thomas held an inquiry respecting the death of Professor Thomas Croxon Archer, aged sixty-nine, Director of the Museum of Science and Art, St. Margaret's, Edinburgh. The Professor, who was staying at the Midland Hotel, St. Pancras, was hurrying to catch a train, and when in the act of kissing one of his daughters fell backwards on the floor and expired. Dr. John J. Hartnett, surgeon to the hotel, was called in, and found the patient quite dead. From a history of rheumatic fever and a well-marked arcus senilis, Professor Archer must have suffered from a weak and fatty heart, and the excitement of the moment brought on the syncope which proved fatal. Attention to the warning given in our last issue might in this case have saved a valuable life.

BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, London.

Practical Manual of Diseases of Women and Uterine Therapeutics. By H. Macnaughton Jones, M.D. &c. Second Edition. pp. 472, Illustrated. 7*s.* 6*d.*

Annals of Surgery. Edited by L. S. Pilcher, M.D., and C. B. Keetley, F.R.C.S. Vol. I., No. 1. 2*s.*

Aids to the Analysis of Food and Drugs. By H. Aubrey Husband, M.B., C.M., &c. pp. 77. 1*s.* 6*d.*

Lectures on Diseases of Children. By R. J. Lee, M.A., M.D.Cantab. pp. 100.

BLAKISTON, SON, & CO., Philadelphia.

Transactions of the College of Physicians of Philadelphia. Third Series, Vol. VII. pp. 326.

CALCUTTA GOVERNMENT PRINTING PRESS.

Cholera: What can the State do to Prevent it? By J. M Cuningham, M.D. pp. 144, with Appendix.

CHURCHILL, J. & A., London.

Year-book of Pharmacy, 1884. pp. 628.

Principles and Practice of Gynecology. By Thos. A. Emmet, M.A., M.D. Third Edition, thoroughly Revised. pp. 876, with 150 Illustrations.

St. Thomas's Hospital Reports. New Series. Edited by Dr. Seymour J. Sharkey and Mr. Francis Mason. Vol. XIII. pp. 526, Illustrated.

Syllabus of a Course of Lectures on Physiology. Delivered at Guy's Hospital by P. H. Pye-Smith, M.D., F.R.C.P. pp. 116, with Diagram.

Electricity and its Manner of Working in the Treatment of Disease. By W. E. Steavenson, M.D. pp. 35.

DUCK, E., London.

Health and its Appliances. By Donald Nicoll, Assoc. Inst. C.E. pp. 65, Illustrated.

EFFINGHAM WILSON, London.

Burdett's Official Intelligence for 1885. By H. C. Burdett. pp. 952.

FUNK & WAGNALLS, New York.

The Sabbath for Man. By the Rev. Wilbur F. Crafts, A.M. pp. 638.

JOHNSTON, W. & A. K., Edinburgh and London.

Contributions to the Topographical and Sectional Anatomy of the Female Pelvis. By D. Berry Hart, M.D., F.R.C.P.E. 12 Plates.

KEGAN PAUL, TRENCH, & Co., London.

Curability and Treatment of Pulmonary Phthisis. By Prof. S. Jaccoud. Translated and Edited by Montague Lubbock, M.D. pp. 407.

The Training of the Instinct of Love. By F. B. Money-Coutts. pp. 78. 2s. 6d.

KIMPTON, HENRY, London.

The Elements of Pathology. By Edw. Rindfleisch, M.D. Translated from the First German Edition by W. H. Mercur, M.D.Penn. Revised by J. Tyson, M.D. pp. 263.

On Acne, Acne Rosacea, Lichen, and Prurigo. By Tom Robinson, M.D. pp. 105.

The Medical Annual and Practitioner's Index, 1885. pp. 371.

KREIDEL, C. W., Wiesbaden.

Die Methoden der Bakterien-forschung. Von Dr. F. Hueppe. S. 174, mit 2 Tafeln und 31 Holzschnitten.

LEWIS, H. K., London.

Photo-Micrography. By A. Cowley Malley, B.A., M.B. Second Edition, Revised and Enlarged. pp. 166, with Illustrations.

Bodily Deformities and their Treatment. By H. A. Reeves, F.R.C.S.E. pp. 460, with 228 Illustrations.

Dental Surgery, for General Practitioners and Students of Medicine. By A. W. Barrett, M.B.Lond., M.R.C.S., L.D.S. pp. 83.

LONGMANS, GREEN, & Co., London.

Louis Pasteur, his Life and Labours. By his Son-in-Law. Translated from the French by Lady Claud Hamilton. pp. 300.

On Renal and Urinary Affections. By W. Howship Dickinson, M.D.Cantab., F.R.C.P. In 3 Parts. Part III.: Miscellaneous Affections of the Kidney and Urine. pp. 1329.

NEW SYDENHAM SOCIETY, London.

Selected Monographs: Senator on Albuminuria, A. P. Stewart on Typhus and Typhoid Fever, and Laudau on Movable Kidney. pp. 370. Illustrated.

Lexicon of Medicine and the Allied Sciences. By H. Power, M.B., and L. W. Sedgwick, M.D. Part 10, Ext—For.

ROKKER, H. W., Springfield, Illinois.

Sixth Annual Report of the State Board of Health of Illinois.

SHAW & SONS, London.

The Local Government and Public Health Orders. By R. Cunningham Glen, Barrister-at-Law. pp. 600.

SMITH, ELDER, & Co., London.

A Practical Treatise on Urinary and Renal Diseases, including Urinary Deposits. By William Roberts, M.D., F.R.S.; assisted by Robert Maguire, M.D.Lond. Fourth Edition. pp. 697, Illustrated.

St. Bartholomew's Hospital Reports. Edited by Dr. W. S. Church and Mr. J. Langton. Vol. XX. pp. 382-97.

SPON, E. & F. N., London.

The Animal Food Resources of Different Nations. By P. L. Simmons. pp. 461.

SWAN, SONNENSCHEIN, & Co., London.

Elementary Text-book of Zoology. Special Part: Mollusca to Man. By Dr. C. Claus. Translated and Edited by Adam Sedgwick, M.A., with the assistance of F. G. Heathcote, B.A. pp. 352, with 706 Woodcuts.

Cruise of the *Alert*. By R. W. Coppinger, M.D., Staff Surgeon R.N. pp. 256, with 16 full-page Woodcuts.

Anna, the Professor's Daughter. By Marie Daal. Translated from the Dutch of Col. Charles Mueller. pp. 340.

THOMAS & EVANS, Baltimore.

A Text-book of Hygiene. By Geo. H. Rohé, M.D. pp. 324.

VOSS, L., Hamburg und Leipzig.

Lehrbuch der Physiologie. Begründet von R. Wagner, fortgeführt von O. Funke, neu herausgegeben von Dr. A. Gruenhagen. Vierte Lieferung.

The Revival of Ovariotomy; an Address delivered at Birmingham by Sir Spencer Wells, Bart. (Churchills.)—Clinical Observations on the Blood of the Insane; by S. R. Macphail, M.D.Ed.—Annals of Surgery, Vol. I., No. 1. (Baillière, Tindall, & Cox, London.)—Sandefjord Sulphur Bath, Norway; by Dr. C. A. Knutsen.—The Bradshawe Lecture on the Pathology of Cancer; by W. S. Savory, F.R.S.—On the Limits of the Infectiveness of Tubercle; by A. Ransome, M.D. (Cornish, Manchester.)—Meddelelser om Skarlagensfeber; af Aug. Reen.—Journal of the Hospitals Association for 1884; edited by J. L. Clifford-Smith.—Suggestions for the Organisation of the Volunteer Medical Service; by Surgeon-Major G. J. H. Evatt, M.D.—Notes on Anatomy; by G. M. Dartnell, L.R.C.S. Part I. (Cornish.)—Abbott's Stock and Share Almanack, 1885.—One Hundred Years of Publishing. (Lea Brothers, Philadelphia.)—Is the Operation of Tracheotomy in Diphtheritic Croup Dangerous? by Dr. J. E. Winters.—*The Confessional* in the Mission; by the Rev. J. Macnaught, M.A.—John Bull to Max O'Rell. (Wyman & Sons.)—Report of the Peking Hospital for the Years 1880-81-82-83.—Over-work from the Teacher's Point of View; by Mrs. S. Bryant, D.Sc.—The Physiological Action of Cocaine on the Frog; by H. M. Biggs, A.B., M.D. New York.—Beobachtungen während einer gut abgegrenzten Scharlachfieber-Epidemie 1883-84; eine epidemiologische Studie von Dr. Axel Johannessen.—Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for the Fiscal Year 1884.—Good Words and Sunday Magazine for March.—Boy's Own Paper, Girl's Own Paper, Leisure Hour, and Sunday at Home, March.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

CLAYTON, WILLIAM KITSON, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Inkberrow District of the Alcester Union, vice Green, resigned.

COCKS, HORACE, M.B., C.M.Edin., has been appointed Junior Assistant Medical Officer to the Norfolk County Asylum, Thorpe, near Norwich.

DAVIES, D. REES, M.B. & C.M.Ed., has been appointed Medical Officer of Health for the Borough of Aberystwith.

DAVIES, MORGAN, M.D., C.M.Aber., L.R.C.P.L., M.R.C.S., has been appointed Assistant Medical Officer to the Infirmary of the Whitechapel Union, vice Voss, resigned.

GOSTLING, THOMAS PRESTON, L.R.C.P.Lond., M.R.C.S., L.S.A.Lond., late House-Surgeon and Senior Obstetric Assistant to University College Hospital, has been appointed House-Physician.

HERSCHELL, GEORGE, M.D.Lond., has been appointed Honorary Physician to the Farringdon General Dispensary.

HURLEY, JAMES, M.D., M.Ch. Q.U.I., has been appointed Medical Officer for the Queen Camel District, Wincanton Union, vice M'Clure, resigned.

KERR, ELIAS W., M.B., M.Ch.T.C.D., L.M.K.Q.C.P.I., has been appointed Medical Officer for the Fourth District of the Cerne Union, vice Greenwood, resigned.

LIDDELL, JOHN, M.B., C.M.Ed., has been appointed Medical Officer for the First (A) District of the New Winchester Union, vice England, resigned.

LOCKWOOD, HARRY, M.R.C.S., L.S.A.Lond., Senior Assistant House-Surgeon to the Sheffield Public Hospital and Dispensary, has been appointed House-Surgeon, vice Sinclair White, M.D., F.R.C.S., appointed Medical Officer of Health to the Borough of Sheffield.

MAURICE, WILLIAM JAMES, B.A.Oxon., M.R.C.S., L.R.C.P.Lond., has been appointed Surgeon to the Reading Dispensary.

PARSLOE, HENRY HEATH, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Shibbear District of the Torrington Union, vice Jones, resigned.

ROCH, SAMPSON, Deputy Surgeon-General, M.R.C.S., has been appointed Medical Officer of Health for the Cheltenham Urban Sanitary District.

SYMONS, J. GEO. RENNY, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer to the Workhouse, Holsworthy Union, vice Pearce, deceased.

Births, Marriages, and Deaths.

BIRTHS.

BERRY.—On the 20th inst., at Queen's-road, Watford, the wife of F. Haycraft Berry, M.B., of a daughter.

COBBETT.—On the 23rd inst., at Auckland, New Zealand, the wife of Dr. Charles Newberry Cobbett, of a daughter.

HOUGHTON.—On the 16th inst., at Amersham, Bucks, the wife of Lambert Houghton, L.R.C.P. &c., of a son.

MARRIAGES.

BARNES—WATKINS.—On the 5th inst., at All Saints, Malabar Hill, Bombay, by the Rev. F. L. Sharpin, M.A., Surgeon Raglan W. Barnes, Her Majesty's Medical Staff, only son of J. Wickham Barnes, Esq., F.R.C.S., of Gower-street and Stanwell Moor, Middlesex, to Ethel Bretwalda, second daughter of G. Watkins, Esq., of Richmond, Surrey.

CARTER—BEAUMONT.—On the 12th inst., at Chudleigh, Devon, by the Rev. Walter Moyle, M.A., cousin of the bride, assisted by the Rev. Theophilus Bennett, M.A., T. E. Carter, Esq., M.B.Lond., of Stamford, Lincolnshire, to Edith Cecilia, youngest daughter of the late Col. Wm. Beaumont, of Her Majesty's Indian Army, and of Fairfield, Chudleigh, Devon.

DANE—YATE.—On the 27th ult., at Morar, Central India, Arthur H. C. Dane, M.D., son of Surgeon-Gen. Dane, C.B., to Isabella Francis, second daughter of the late Rev. Charles Yate, Rector of Holme, Yorkshire.

GREEN—HAWKINS.—On the 16th inst., at Holy Trinity Church, Bournemouth, J. Lardner Green, M.R.C.S., of Salisbury, to Eliza Ann, daughter of Francis Hawkins, Esq., of Palmerston Lodge, Bournemouth, and formerly of Tintinhull Court, near Yeovil, Somerset.

MUIRHEAD—WAGON.—On the 16th inst., at St. Peter's Church, Aylesford, Islay B. Muirhead, M.A., M.B., second son of the late John Wm. Muirhead, solicitor, Glasgow, to Edith Caroline, second daughter of Silas Wagon, merchant, Forstal, Aylesford.

STIRLING—RUNDER.—On the 16th Dec., at St. Peter's Church, Brighton, W. Boughton Stirling, M.D., to Mary Jane Runder, of Buckhurst-hill, Essex, and Brighton.

DEATH.

BARNETT.—On the 4th ult., at Tintilara, Australia, Dr. J. K. Barnett, second son of the late Horatio Barnett, of Bescot Hall, Staffordshire.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, March 2.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.
ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Casual communications by Messrs. Oakley Coles, W. St George Elliott, W. Hern, W. A. Hunt, Alexander Cartwright, and Newland Pedley.—Mr. E. Charlesworth: Fossil Teeth of Extinct Animals in the Museum of the Odontological Society.
MEDICAL SOCIETY OF LONDON.—8 P.M. General Meeting. Election of Officers and Council, the ballot closing at 9 P.M.—8.30 P.M. Dr. Allchin: The Diet of the Febrile State.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Annual Meeting. Election of Officers and Council. President's Address.

Tuesday, March 3.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 P.M., and Thursdays at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M., and on Fridays at 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Gamgee: Digestion and Nutrition.
PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Semon and Dr. Payne: Rhino-scleroma.—Mr. Eve: (1) Lympho-sarcoma of Bladder; (2) Enchondroma of Pelvis (card).—Dr. Hobson: Congenital Obstruction of Intestine.—Dr. Turner: (1) Neuro-sarcoma of Brain; (2) Aneurism of Aora opening into Œsophagus (card); (3) Necrosis of Renal Pelvis (card).—Mr. Lane: Unusual form of Pott's Fracture.—Dr. Silcock: Intercular Pyo-Salpinx.—Dr. Hale White: (1) A case of Renal Disease; (2) A Cryptorchid diving.—Mr. D'Arcy Power: Synovial Cysts in connexion with Joint Disease.—Mr. John Poland: Ununited Fracture of Internal Condyle of Humerus (card); Mr. Jonathan Hutchinson, jun.: Lupus Lymphaticus (card).—Dr. Beevor: Nerve Tissues Stained by Weipert's New Method (card).—Mr. M. Sheild: Tumour of Humerus (card).—Mr. C. Gross: Œsophagus and Parts from Fatal Case of Sword Swallowing.—Mr. Bruce-Clarke: (1) Unilateral Distribution of Warts (living); (2) Croupous Enteritis of Ileum (card).

Wednesday, March 4.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour. Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. Herman, Dr. Horrocks, Mr. W. S. Griffith, and others.—The President (Dr. Potter) will deliver the Inaugural Address.—Adjourned Discussion on Dr. Wm. A. Duncan's paper on Extirpation of the Uterus, to be opened by Sir Spencer Wells, Bart.—Dr. Murphy: Sequel to a case of Ovariotomy.

Thursday, March 5.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Dewar: The New Chemistry.
HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Mr. T. W. Carmalt Jones will show an Instrument for the Transfusion of Defibrinated Blood.—Dr. C. Y. Biss: Notes of a Case of Pleuro-pneumonia in a Child, with an unusual course and symptoms.—Dr. C. J. Hare: Emetics, their Present Neglect in the Treatment of Disease.

Friday, March 6.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—8 P.M. Mr. Percy Dunn: Morbid Specimens.—Mr. Menzies: Various Clinical Cases.—Dr. Thorowgood: A case of Enteric Fever followed by Abdominal Abscess, with Double Perforation of the Diaphragm and Discharge of Pus through both Lungs.—Dr. Herringham: A case of Descending Lateral Sclerosis in a Child, probably from lesion of right crus cerebri.
ROYAL INSTITUTION.—9 P.M. Mr. C. T. Newton: German Discoveries at Pergamus.

Saturday, March 7.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. C. Armbruster: Richard Wagner.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, February 28th, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Feb. 20	29·65	E.	37	34	...	41	32	...	Overcast
,, 21	30·18	E.	31	...	...	42	29	...	Hazy
,, 22	29·91	S.	41	39	...	46	30	...	Cloudy
,, 23	30·06	S.W.	43	42	...	52	36	·06	Cloudy
,, 24	29·79	S.W.	47	43	...	59	43	...	Cloudy
,, 25	29·87	S.	49	49	...	52	47	...	Raining
,, 26	30·09	S.W.	46	45	...	...	44	·15	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

DEATH CERTIFICATES AND CASES OF INJURY.

Inquisitor.—The Registration Act of 1874 requires every registered medical practitioner to certify the cause of the death of any person attended by him during his last illness according "to the best of his knowledge and belief." The law does not *require* the medical practitioner to report any case of violence to the coroner, but it is undoubtedly expedient, in the interest alike of the public and the profession, when a deceased person has recently suffered from any kind of injury, that this fact should be stated in the medical certificate, even if in the opinion of the certifying practitioner it did not contribute to the death. The suppression of such a fact might be misunderstood by the coroner, in case an inquest were subsequently held. It would be the duty of the registrar, on being applied to to register the death, if he heard of the supposed injury, to report the case to the coroner, even if the fact of such injury was not stated in the certificate.

Mr. C. H.—It would, we think, be a great mistake to give such a reviewer greater publicity by inserting his note and impertinent proposal in THE LANCET.

Dr. J. Oliver.—Probably next week.

TREATMENT OF SPINAL INJURY BY EXTENSION.

To the Editor of THE LANCET.

SIR,—It gives me much pleasure to find that the treatment of spinal injury by extension under chloroform has been equally successful when adopted by Mr. Thomas Jones in the Manchester Infirmary, described in your last issue, as in a somewhat similar case of Dr. Wollaston's, which occurred during my house-surgeoncy at the Southern Hospital, Liverpool, about sixteen years ago (see THE LANCET, Jan. 23rd, 1869). It has always been a pet case of mine, as I found and helped to haul up the man from the river bed after a fall from the pier, a distance of 40 ft.

I am, Sir, yours truly,

Piccadilly, Manchester, Feb. 21th, 1885. W. R. DAMBRILL-DAVIES.

COFFEE ROASTING.

A DISCUSSION is now taking place in the pages of the *Grocer* on the best means for retail grocers to roast their own coffee. As a rule, they buy it roasted, as the usual process requires expensive apparatus and considerable skill. They are, however, beginning to be alive to the fact that their customers will not drink much coffee unless they can get it really freshly roasted. In this way the "Stores" and large dealers are generally able to out-do the small retailers, who, we should be glad to know, had found a satisfactory solution of the problem.

T. W.—We do not prescribe.

Mr. P. Ness.—The suggestion would certainly not be favourably received by the profession.

PROTECTION AGAINST SUNSTROKE.

AT the Japanese Village, Albert-gate, there is now being made by order of Government a most ingenious contrivance, which will, it is hoped, effectually protect the soldiers at present serving in the Soudan from the rays of the sun, and render an attack of sunstroke almost impossible. It is formed of light bamboo and paper, and may be thus described: On each shoulder is fixed a piece of bamboo bent in the form of an arch; in the centre of each arch a piece of bamboo somewhat resembling an umbrella-stick, eighteen inches in height, is securely fixed, and these sticks support a light awning two feet in length by eighteen inches in breadth; the frame of the awning is composed of bamboo, and the covering of paper painted green inside; the weight will scarcely be felt, and the wearer will enjoy all the comforts of a large umbrella without experiencing the inconvenience of holding it up, and his hands will be left entirely free to carry his rifle or other articles.

Dr. J. T. Shepherd (New York).—We know nothing of the ointment named.

CAFFEINE IN BRIGHT'S DISEASE.

To the Editor of THE LANCET.

SIR,—I am glad to bring before the profession an instance (among many) of the beneficial effects of caffeine and its salts in certain cases of "water-logging."

I have had a case of subacute Bright's disease (following presumably on an acute attack) under my care for some two months, with scanty, highly albuminous urine, and gradually increasing ascites and œdema of the lower part of the body and lower limbs. The only treatment which had benefited the patient in the least was the milk diet; but, in spite of a temporary improvement on this account, symptoms of approaching uræmia and the inefficacy of any medicinal treatment or hot-air baths, &c., rendered the case an anxious one. I then tried caffeine in the two forms supplied by Messrs. Burroughs, Wellcome, and Co. for use at this hospital. First the effervescent citrate of caffeine, an elegant and agreeable preparation, but which only contains a grain to a drachm, and is therefore hardly as convenient as the Wyeth's tablets, each of which contains a grain; being readily soluble, they constitute a very convenient method of administration. The result of three or four days' treatment at the rate of fifteen grains a day in three doses was to increase the flow of urine from half a pint to between three and four pints of clear urine, though still slightly albuminous. The epigastric and lumbar pains disappeared, together with the cerebral and visual troubles, and the condition of the patient has uninterruptedly improved ever since, and she has left the hospital quite convalescent.

I am, Sir, your obedient servant,

ALFRED S. GUBB, M.R.C.S., L.R.C.P.Lond.

Hôpital Français, Leicester-square, W.C., Feb. 23rd, 1885.

"AN EASY METHOD OF APPLYING THE FORCEPS."

DR. JAMES MILLAR in a letter to us describes the method he adopts as follows:—"The patient is brought conveniently near the edge of the bed, not laid across the bed, but in the usual position, or at an angle of 45°, which is preferable for various reasons. The patient's thighs being flexed on the abdomen and the lower blade introduced in the usual way, I then, leaning well over the edge of the bed, get the flexed elbow of the right arm between the patient's knees or thighs, and thus raise the upper thigh without the aid of an assistant or the patient herself. The wrist being free, the handle of the upper blade is brought well up towards the abdomen, and held lightly, like a fiddlestick, between the thumb and two fingers; the point of the blade is introduced in the axis of the outlet and along the curve of the sacrum, as described by Dr. Lewis, bearing in mind that one of the elementary principles in the employment of the forceps is that no force must be used."

Hospital, Vincent.—The hon. secretary is R. G. Salmond, Esq., 73, Cheapside, E.C.

"PRURITUS VULVÆ."

To the Editor of THE LANCET.

SIR,—Allow me to mention for the information of "M.D.," and also with reference to the remark that pruritus vulvæ associated with diabetes might be relieved by half-grain doses of codeia, that a case of diabetes mellitus has been under my treatment with grain doses of codeia for the last three months; and last week, while still taking this drug, the patient suffered from a most distressing attack of this troublesome complaint, but was completely relieved by fomentations of hot water.

I am, Sir, yours faithfully,

J. G. W. BULLOCK, L.R.C.P.Ed.

Stradbroke, Wickham Market, Feb. 21th, 1885.

GLYCERINE AS A SOLVENT FOR PODOPHYLLUM RESIN.

To the Editor of THE LANCET.

SIR,—On making some experiments a short time ago on the solubility of podophyllum resin, I found that glycerine formed a good solvent, and an unirritable vehicle for its administration. Four grains of podophyllum resin added to one ounce of glycerine gently heated till the resin dissolves, produces a clear solution, and makes a pleasant preparation.

I am, Sir, yours obediently,

Liverpool, Feb. 25th, 1885. C. J. S. THOMPSON.

PHYSIOLOGICAL EFFECTS OF MAGNETISM.

DR. OCHOROWICZ publishes in a French scientific journal some observations on the effect of a magnet on different persons. His instrument is an incomplete tube of steel, about an inch and a half in diameter and two inches and a half in length, strongly magnetised, the edges of the slit being the poles. The forefinger of the person to be examined is introduced into the instrument, so that it is in contact with both poles. It is allowed to remain for two minutes, and is then removed and observations taken of the phenomena produced. In 30 to 37 per cent. only of average persons is anything observed, 20 per cent. having itching and formication, 17 per cent. sensation of heat or of a cold blast, 8 per cent. painful sensations, 5 per cent. sensation of inflation of the skin, 2 per cent. sense of weight in the finger or arm. In addition to these subjective sensations, objective phenomena are observed—analgesia, anæsthesia, motor paralysis, rigidity of muscles, and rarely involuntary movements. Dr. Ochorowicz finds that sensitiveness to the magnet exists in the persons who have a capacity for being affected by hypnotism, which, he says, depends upon peculiar reflex relations between the cerebro-spinal and ganglionic systems, and especially between the brain and the vaso-motor nerves, this special aptitude being for the most part innate and unconnected with any disease whatever—hysteria, epilepsy, neurasthenia, or anæmia.

"THE ADMISSION OF PATIENTS SUFFERING FROM FITS TO ASYLUMS FOR IDIOTS."

To the Editor of THE LANCET.

SIR,—Referring to Earlswood Asylum in your issue of the 21st inst., Dr. J. R. White writes: "The majority of the patients in that asylum are subject to fits." This statement calls for correction from me. Of 579 patients at present in this asylum, 143 (rather less than 25 per cent.) are subject to epilepsy. We have no hard-and-fast rule rendering epileptics ineligible, but the circumstances of each case are carefully considered by the Board of Management. Recent and possibly curable epilepsy would not be regarded as a disqualification, but confirmed epilepsy usually renders its victim incapable of improvement under the system of education and industrial training, the due carrying out of which was the primary object of the founders of the charity. Every patient thus afflicted who is maintained here fills a bed which might be occupied by an educable patient capable of profiting by the instructions of our large educational staff. Epilepsy leads often to maniacal attacks, and usually, sooner or later, to dementia. Patients suffering from these mental conditions are ill suited for treatment in idiot asylums, the domestic arrangements of which are rather those of large training schools or industrial homes than those of asylums for the insane. The managers of the younger idiot asylums, recognising the above facts and wishing to reserve the benefits of their institutions for improvable and educable cases, regard epilepsy as a disqualification for admission; but a few mild cases occasionally creep in. At the Metropolitan District Schools at Darenth, idiotic and imbecile children, whether epileptic or not, are received upon the order of the Poor-law Guardians of the Metropolitan Unions. Epileptic idiots and imbeciles whose friends are able to pay remunerative rates for their maintenance are sometimes received at Earlswood and other idiot asylums, but an enhanced rate of payment is usually required, owing to the extra care and attention which is necessary when epilepsy exists as a complication. For epileptic idiot children of the poorer classes (with the exception only of the metropolitan area) no suitable accommodation exists, that provided in workhouses and public lunatic asylums not being adapted to the requirements of the patients. I am, Sir, yours faithfully,

C. S. W. COBBOLD, M.D.,
Medical Superintendent, Earlswood Asylum.

Red Hill, Feb. 23rd, 1885.

"DISREPUTABLE ADVERTISEMENTS IN METHODIST PAPERS."

DR. COLEY of Newcastle-on-Tyne writes a most excellent letter to the Editor of the *Methodist Times* on the above subject. He congratulates himself that the new Methodist paper is free from the great scandal which disgraces many religious periodicals—the admission of disreputable advertisements, but says that the publications of the denomination are by no means free from reproach. Dr. Coley denounces all advertisements of sham things, whether sham jewellery or sham physic, in religious newspapers as specially discreditable; and all those who believe in "whatsoever things are true" will agree with him.

Dr. James Gairdner.—It is not our custom to enter into written communication with those whose professional conduct is impugned. We endeavour to remember and to allow for any incompleteness in the version of the facts, and to form the best judgment we can. We see no essential difference between ourselves and Mr. Styrap.

ALCOHOLISM.

To the Editor of THE LANCET.

SIR,—I am anxious to obtain all the information available on the subject of leg and other pains due to alcoholism. Could you or any of your readers kindly direct me to the best and latest authorities, English or foreign? I am, Sir, yours faithfully,

Feb. 23rd, 1885. ENQUIRER.

THE LATE MR. CÆSAR HAWKINS.

A CORRESPONDENT calls our attention to a few errors in the brief sketch of the life of the late Mr. Cæsar Hawkins included in the Hunterian oration published in our last number. Mr. Cæsar Hawkins was not the grandson of Mr. Charles Hawkins, but his nephew; he was the grandson of Sir Cæsar Hawkins, the first baronet in the family. He was never assistant-surgeon to St. George's Hospital. The statement that he was partially trained in the school of Great Windmill-street is inaccurate, as that was his only school; and he lectured there, not "late in life," but at the age of twenty-eight. Then, again, he was not the last of his family in the profession; the Roll of the College of Surgeons still contains a Cæsar Hawkins, a descendant of the first Sir Cæsar Hawkins (see the obituary notice of Mr. Cæsar Hawkins in THE LANCET of July 26th, 1881).

Country Surgeons' question is too vague to admit of a definite reply. What is meant by a "poor person?" and what was the reason assigned for the refusal of an order?

Mr. R. T. Smith (University College).—The matter is engaging our attention. We hope ere long to examine a series of the preparations mentioned, and shall be able to utilise the experiments of our correspondent.

SCHOOLS FOR IMBECILES.

To the Editor of THE LANCET.

SIR,—In reply to "F. F. G.'s" query in your last issue, may I be allowed to suggest that the child to whom he refers might probably derive benefit from training in one of the special institutions for imbeciles, which are, in fact, schools for children of peculiar and defective mental constitution. The Royal Albert Asylum at Lancaster (which has special accommodation for payment cases) is within easy range of your correspondent's address, and he would receive full information as to terms of admission on application to the secretary.

I am, Sir, yours faithfully,

Feb. 24th, 1885. M.D.

DEATHS FROM LIGHTNING IN FRANCE.

THE bulletin of the Association Scientifique de France says: "Lightning has killed 4609 persons in France alone since 1835. An equal number have been seriously, though not fatally, wounded, and five times as many struck. The hot years were the most fatal, and these are remarkable as having been the best wine seasons. There has not been a single death from lightning in Paris or the Department of the Seine since 1884, though there have been many violent storms there during that time.

H. C. has not enclosed his card.

Mr. G. E. Walker.—We shall be glad to receive the paper.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. A. T. Norton, London; Sir J. Fayrer; Dr. Bristowe; Mr. Rushton Parker, Liverpool; Dr. Glaister, Glasgow; Dr. R. J. Lee, London; Dr. R. Sinclair, Dundee; Mr. Reginald Harrison, Liverpool; Dr. Osler, London; Dr. S. Cobbold, London; Dr. Herbert Stowers, London; Mr. Dambrill Davies, Manchester; Mr. Whitefoord, London; Mr. E. S. Pearse, Brierley Hill; Mr. Patrick Ness, London; Mr. B. Thorpe, Middleton; Dr. Ewart, London; Mr. Campbell Hyslop, Church Stretton; Mr. Bullock, Stradbrooke; Dr. Longshore Potts; Dr. Doyle, Christchurch, N.Z.; Dr. Campbell Pope, London; Dr. Allchin, London; Lady John Manners; Mr. Hawkins-Ambler, Leeds; Mr. Hestor, London; Dr. J. Millar; Messrs. H. B. Amerling and Son, Williamsport; Mr. Buhicrosan, London; Mr. C. Day, London; Mr. G. R. Walker, Liverpool; Messrs. Christy and Co., London; Mr. W. Brown, Carlisle; Dr. T. R. Lewis, Bywood; Mr. Mackie, London; Mr. Alfred Wright, Romford; Mr. Birchall, Liverpool; Mr. Davies; Mr. Fry, Swindon; Mr. Hutton; Mr. Fleming, Rotherham; Messrs. Wood and Co., New York; Mr. Scott, Westray; Mr. Weymouth, London; Messrs. Newman and Co., London; Mr. Fox, Bristol; Dr. Campbell Black, Glasgow; Messrs. Knight and Co.; Mr. Glover Williams, London; Mr. Prowde, Sunderland; Mr. W. Gem, London; Mr. P. Vacher, Birkenhead; Dr. Hutchison, Loughborough; Dr. Finby, London; Mr. Freeman, Bath; Dr. C. S. W. Cobbold, Earlswood; Dr. James Gairdner, Crieff; Mr. F. R. Fisher, London; Dr. Jas. Murphy, Sunderland; Dr. Chas. Denison, Denver; Mr. Hamilton, Dublin; Mr. Hannay, Shrewsbury; Mr. Shadwell, London; Dr. Pope, South Hayling; Mrs. Macnamara; Dr. Lewers; Messrs. Mullner and Co., Leamington; Dr. Heywood Smith, London; Mrs. Tillet, Dudley; Mr. Jacobs, London; Mr. Ranson, Stafford; Messrs. Oliver and Boyd, Edinburgh; Messrs. Loeflund and Co., London; Mr. Armstrong, Manchester; Mr. Buckby, Bulwell; Messrs. Machachlan and Co., Edinburgh; Mr. Brooks, Hull; Messrs. Squire and Sons, London; Dr. Weiss, Vienna; Mr. Barrow, Notts; Mr. Martindale, London; Messrs. Chew and Son, Biggleswade; Mr. A. S. Gubb, London; Mr. Kough, Derby; Mr. Moseman, London; Mr. C. J. S. Thompson, Liverpool; Mr. R. Jeffreys, Chesterfield; Mr. Wherry, Cambridge; Dr. Angus Mackintosh; Dr. Gibbon, London; Mr. A. H. Young, Manchester; Mr. Paul, Liverpool; Mr. Wharton Jones, Ventnor; Mr. Davidson, Alnwick; Mr. Richardson, Birmingham; A. K. B.; A Young Practitioner; The Director-General of the Army Medical Department; T., Bath; W. B. B.; Inquisitor; Rural Health Officer; Country Surgeon; The Director-General of the Naval Medical Department.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Saul; Mr. Barrow, Notts; Messrs. Beal and Sons, Brighton; Mr. Moore, Edinburgh; Mr. Hunt, Hull; Mr. Fulton; Messrs. Dawson Bros., Montreal; Dr. Paxon, Dorking; Mr. Butt, Newmarket; Mr. Morris, Basingstoke; Mr. Weymouth, London; Mrs. Gallaher, Bishop Auckland; Messrs. Devonport, London; Mr. Thomas, Bath; Mr. Fuge, Taunton; Mr. Wilson, Cambridge; Mr. Strong, Liverpool, New South Wales; Mr. Berry, Wisbech; Mr. Cooper; Messrs. Mackay, Edinburgh; Mr. Jenkins, Risca; Mr. Fyte, Minchinhampton; Dr. Tate, Notts; Dr. Douglas, Perth; Mr. Fulton, Toronto; Mr. Highton, Derby; Dr. Eberle, Thirsk; Dr. Horne, Sandwich; Mr. Kane, Kingston; Messrs. Gale and Co., London; Dr. Dixon, Bournemouth; Mr. Baxter, London; Mr. Williams, Brixton; Mr. Jelley, Turnhamgreen; Dr. O'Hanlan; Mr. Thomas, Dover; Mr. Mayer; Mr. Marsh, Hindley; Dr. Taylor, Newcastleton; Dr. Davies, Cymmer; Mrs. Crabbe, Brixham; Messrs. Roberts and Co., London; Mr. Smailes, Hanley; Lady Superintendent, Bath; D.; M.D., New Brompton; Beta, London; M.D.; W. S., Aberdeen; A. B., Ramsgate; A. B. C.; W.W., Woolton; Matron, Liverpool; V. Z.; Alpha, Uxbridge; Medicus, Aldgate; W. H., Ramsgate; Richmond; A. L. S., Wimbledon; H., Loughborough; M.D., Swanage; Galen, Nelson; A.M.D., Sheffield; Surgeon, St. John's-wood; Medicus, Mill-hill-park; J. B., Birmingham; R. J. H., London; G. G.; J. C., Oldham; Beta, Croydon;

Liverpool Courier, Bedfordshire Express, North-Western Gazette, Cornish Telegraph, Macclesfield Courier, Calcutta Englishman, Birmingham Daily Gazette, Eastbourne Gazette, Kensington News, Indian Daily News, Liverpool Evening Express, Amateur Gardening, Electrical Review, &c., have been received.

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Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

Gulstonian Lectures
ON
MALIGNANT ENDOCARDITIS.

Delivered at the Royal College of Physicians.

BY WILLIAM OSLER, M.D.,
PROFESSOR OF CLINICAL MEDICINE AT THE UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA.

LECTURE I.

MR. PRESIDENT AND GENTLEMEN, — It is of use from time to time to take stock, so to speak, of our knowledge of a particular disease, to see exactly where we stand in regard to it, to inquire to what conclusions the accumulated facts seem to point, and to ascertain in what direction we may look for fruitful investigations in the future. With your permission, Sir, I propose to do this in the case of that most interesting disease generally known as ulcerative endocarditis, a disease the phenomena of which were first clearly explained by the late Dr. Kirkes, from whose investigations in 1851-52 we date our accurate knowledge of the affection. Some of those who listen to me to-day can doubtless recall, and recall with pleasure, the Gulstonian Lectures of 1851, in which Dr. Ormerod dealt so fully and so ably with valvular affections of the heart; but a reference to them will show how much the past twenty-five years have done to widen our view of cardiac disease, more particularly in regard to the effects of emboli and the association of valvular inflammation with grave constitutional disorder, and the probable connexion of the disease with the presence of micro-organisms. By the labours of Drs. Ogle, Wilks, Simpson, Moxon, Bristowe, and others in this country, of Charcot, Vulpian, and Lancereaux in France, and of Virchow and a host of observers in Germany, a large amount of material has been accumulated, and we may assume that the etiological, clinical, and anatomical characters of the disease have been fairly well ascertained, and that we have got about as far towards a full knowledge of the affection as the ordinary means at our disposal will permit. The inquiry now enters upon another stage, and it remains for experimental investigation to determine, if possible, the relation of the endocarditis to those diseases with which it is most frequently associated. This being the case, the present time has seemed to me a favourable opportunity to summarise our knowledge to date, and for this purpose I have reviewed the records of over two hundred cases, which, from the description of the symptoms and lesions, were evidently of the type of malignant endocarditis; and these, with the considerable experience I have had at the General Hospital at Montreal, may perhaps enable me to give a somewhat more comprehensive account, in some respects, than has yet been attempted.

In discussing the subject of endocarditis we are met at the outset by difficulties of nomenclature and classification. The designation *acute* may be used to indicate those forms which are accompanied by proliferation of and exudation upon the endocardial surface, with or without loss of substance, as opposed to *chronic*, in which there are sclerotic changes without vegetations. Subdivisions of the acute form have been arranged on an anatomical basis as the terms *plastic*, *papillary*, *verrucose*, *fungous*, *ulcerative*, indicate. On the other hand, from an etiological point of view, the forms of endocarditis are as numerous as the diseases in which it occurs, and we constantly hear the expressions *puerperal*, *rheumatic*, *scarlatinal*, &c. Some speak of primary and secondary forms, while from a clinical standpoint they are arranged in two classes, simple and grave. Anatomically there appear to be no very essential differences in the various forms of acute endocarditis. Between the small papillary excrescence and the huge fungating vegetation with destructive changes all gradations can be traced, and the last may be the direct outcome of the first; the two extremes indeed may be present in the same valve. They represent different degrees of intensity of one and the same process. A classification of cases based on the ordinary macroscopic characters of the inflammatory products into warty or verrucose and ulcerative will in many instances group together cases widely different in their clinical aspects, and, contrariwise, a clinical subdivision into cases of simple and cases of malignant endocarditis by no means of necessity implies that the lesions in the former case are all of the plastic or warty variety, and in the latter of the ulcerative or destructive. The term *ulcerative* has come into very general use to describe the grave form, and it expresses well an anatomical feature present in a large proportion of cases; but in others it is very inapplicable, as there may be no actual loss of substance, and no more destruction than occurs in the verrucose form; and, on the other hand, there may be great destruction and ulceration from causes of an entirely different nature. The numerous other terms employed, *septic*, *infectious*, *diphtheritic*, *mycosis endocardii*, *arterial pyæmia*, while each expressing some special feature, and so far suitable, have never come into very general use. On the whole, it seems to me that the names *simple* and *malignant*, which we use so often to separate the milder and severe forms of many diseases, might appropriately be employed in describing the cases of acute endocarditis; the *simple* being those with few or slight symptoms, and which run a favourable course; the *malignant* the cases with severe constitutional disturbance and extensive valve lesions, whether ulcerative or vegetative, the term being more clinical than anatomical.

Malignant endocarditis occurs under the following conditions:—1. As a primary disease of the lining membrane of the heart or its valves, either attacking persons in previous good health or more often attacking the debilitated and dissipated or those with old valve lesions. 2. As a secondary affection in connexion with many diseases, particularly rheumatic fever, pneumonia, scarlet fever, diphtheria, ague, &c. 3. As an associated condition in septic processes, traumatic or puerperal. We shall discuss first the anatomical characters, then the clinical features, and lastly the etiological and pathological relations.

The lesions of malignant endocarditis are by no means uniform, and may be vegetative, ulcerative, or suppurative; and these various forms may occur alone or in combination. The belief that there is always ulceration has led to some confusion; and we must recognise that there are cases with the clinical history of the malignant form in which, post mortem, the valvular condition has been that of a severe vegetative or verrucose endocarditis. Such a case was a lad aged eleven, a patient of Dr. Molson's, from whom I obtained the specimen which I pass round. He had chorea in July, 1880, the second attack. Rapid improvement and recovery under Fowler's solution, five minims every four hours hypodermically, took place. There was a slight murmurish condition of the first sound. When seen again on March 3rd, 1881, the chorea had returned, having begun ten days before. The patient improved until the 10th, when he began to get feverish; had exacerbations each evening; temperature rising to 104° F. He became unconscious. There was slight paresis of the left side, and death took place on the 16th. The temperature on the 15th was nearly 106°. There were irregular, soft, greyish-white vegetations on the mitral valve, infarcts in spleen and kidneys, and a small spot of red softening in the right corpus striatum. These photographs from a case of Dr. Musser's illustrate a more advanced condition of the same kind; the vegetations were larger, more abundant, and some were a little irregular and soft on the surface, but unless a mass was removed no actual loss of substance was seen. Even in the smallest vegetation there is some destruction of endocardial itssue, if only of the endothelium and superficial layer, while the larger outgrowths are more deeply set in the valve, or may involve the entire thickness. More commonly with or without vegetations there is ulceration, the frequency of the occurrence of which has given the name most often attached to this form of endocarditis. The loss of substance may be superficial, involving only the endocardium, or it may be deep and destructive, leading to perforation of a valve, of the septum, or of the heart itself. On the valves extensive outgrowths usually accompany the process, and may conceal the ulcer or project as fungating masses from its edge, as is well illustrated by this coloured drawing. In many instances the process appears simply ulcerative, without any vegetations to speak of. In the slightest form only a superficial abrasion exists, perhaps scarcely recognisable, in others a process of erosion may go on by which half a valve may be destroyed, or there may be (as shown in this drawing) a deep excavation extending beyond the valves and destroying the muscle substance of the heart, leading to

perforation of the septum or of the wall of the ventricle. These are well-known features, however, upon which I need not dwell. In two instances I have seen superficial necrotic changes without ulceration or vegetations, circumscribed patches, the size of a sixpence, opaque yellow-white in colour, resembling the necrotic pleura, over a pyæmic infarct of the lung or portion of dead peritoneum at the base of a deep typhoid ulcer. Doubtless these would in time have formed ulcers. I find this condition noted by one or two observers. Lastly, the process may be suppurative, in which case the deeper tissues of the valve appear first involved and the endocardium only implicated by contiguity. The occurrence of small abscesses at the base of extensive vegetations is not uncommon, but there are also instances in which the suppuration seems the initial step. The combination of ulcerative and fungating outgrowths is perhaps the most common condition. The vegetations vary a good deal in appearance and consistence. Soft greyish-white masses with roughened friable surfaces, to which thin blood-clot adheres, are numerous; or there may be large cauliflower excrescences with deep jagged fissures; or, again, long pendulous stalactitic masses. In the latter form we often see, as Dr. Moxon pointed out, the effects of friction, and such a long vegetation from an aortic cusp may produce by contact a whole series of smaller outgrowths along the ventricular wall. The pressure of the valves against each other and the action of the blood tends to loosen and break the vegetations, and one can sometimes see where masses have been torn off either entire or by a gradual process of disintegration. Considering the force with which the valves come together it is curious that the soft vegetations, occupying as they generally do the lines of closure, can resist the constant compression to which they are subjected. Some vegetations present a remarkable greenish-grey or greenish-yellow colour. Changes in a conservative direction may go on when the disease is much prolonged. Fibroid induration may take place in the deeper parts, while the superficial portions remain unchanged and necrotic, perhaps also getting a little harder and shrinking. Such a process can be seen in this specimen of endocarditis from an ox, in which there were most extensive vegetative and destructive changes. Not unfrequently the vegetations are gritty from the deposit of lime salts, which may take place in very acute cases, and is not necessarily an indication of age. It is interesting to note how often inorganic material is deposited in the neighbourhood of micro-organisms, as here on the endocardial outgrowths, in the tonsillar crypts, and about the tufts of actinomyces. Two conditions must be distinguished from the lesions of malignant (mycotic) endocarditis: the atheromatous degeneration in sclerotic valves, which leads to ulceration and extensive destruction of segments; a process which has nothing in common, except in its effects upon the valves, with the acute ulcerative changes above described, but is similar to the atheromatous processes in the aorta. It must not be forgotten, however, that an acute mycotic process may be engrafted, and indeed often is, upon old sclerotic valves, the seat of atheromatous changes. The firm white globular thrombi of the auricular appendices and of the interstices of the columnæ carneæ of the ventricles have sometimes an appearance closely resembling endocardial outgrowths, and when softened in the centre and ruptured the resemblance may be very close indeed. It is possible that the granular débris of an atheromatous abscess or a softened thrombus may possess irritating properties when discharged into the blood.

Histological characters.—The study of a small fresh endocardial vegetation shows it to be made up of cells derived from the subendothelial layer, round and fusiform, which by their proliferation have produced a small nodular projection on the surface of the endocardium. Varying with the rapidity of the growth, the mass will present the characters of a soft granulation tissue or a tolerably firm fibrous outgrowth. Usually the round cells predominate, but there may be many elongated, spindle-formed cells with three or four processes. What part the endothelium plays in this growth has not been determined. Tiny outgrowths may be seen in which the process appears to be entirely subendothelial, but usually before the mass attains any size the smooth surface is lost, and there is deposited upon it a cap of fibrine in the form of a granular, sometimes stratified, material, of variable thickness. Though this resembles an ordinary coagulable exudation, it is probably deposited directly from the blood, and is of the nature of a thrombus. Upon and in this layer may be found, sometimes in large numbers, those remarkable little bodies which have so long been known, when collected together, as Schultze's granule masses, and which have of late become so prominent as the blood-plates of Bizzozero and the hæmatoblasts of Hayem. Occasionally they are very abundant, and I have seen soft warty vegetations composed (superficially) in great part of them. As their connexion with endocardial and endarterial outgrowths has not, so far as I know, been referred to, I may be permitted to call attention to these two drawings, which further illustrate this point. The first represents the aorta from an old man dead of carcinoma, in which just above the bifurcation three irregular masses are shown, one nearly an inch in length, which projected fully a quarter of an inch from the intima of the vessel. They were attached to atheromatous ulcers, were soft greyish-white in colour, and were composed exclusively of the elements of Schultze's granule masses, with fibrine fibrils, and here and there a few white corpuscles. The second drawing illustrates a small aneurysm of the aorta, which has perforated the œsophagus. On the wall of the sac the artist has represented a number of irregular whitish lines, which were narrow elevated ridges, also made up microscopically of these small discoid elements, the connexion of which with fibrine formation has been so strongly insisted upon by Bizzozero. Scattered in and beneath the fibrinous exudation are numerous small granular bodies, which have the appearance and reaction of micrococci.

The larger vegetations, more characteristic of malignant endocarditis, consist of a granular material composed of altered and dead tissue elements, fibrinous exudation, and colonies of micrococci; the deeper parts present the appearance of a granulation tissue, while at the attachment in the valve there is always more or less infiltration and increase of the cell elements. The granular substance is structureless, and resembles diphtheritic exudation, the resemblance at times being so close that one can readily understand the application of the term "diphtheritic" to the inflammation. It may be distinctly laminated, and with a high power fine filaments can be seen, though usually the granules conceal all appearance of structure. Strands of translucent material may occur throughout the mass, as if portions had undergone a sort of hyaline transformation. In some instances this is very marked. Pale spheres filled with granules also occur, and may be very abundant. They have been described as colonies of micrococci, but some regard them as altered endothelial elements. I have seen them too numerous to be explained on this view. At the attachment of the vegetation there is a zone of tissue deeply infiltrated with leucocytes, and deeper still the tissue elements of the valve present an increase of nuclei and cells. The destruction of tissue appears to result in two ways: first, a gradual extension inwards of the necrotic process, doubtless induced by the micrococci; secondly, the softening and separation of valve tissue caused by the rapid development of leucocytes at the base of the vegetation.

The micrococci are constant elements in the vegetations. All granules of a uniform size met with in the sections are not micro-organisms, nor, indeed, are all which stain by some methods recommended for the detection of these bodies. By far the most satisfactory method is that of Gramm,[1] in which the section, after staining in gentian violet, is transferred for a few minutes to a dilute solution of iodine and iodide of potassium, and then to the alcohol, when it is found that the colour has been extracted from all tissue elements and nuclei, leaving only the micro-organisms stained. They vary a good deal in number and arrangement, and may be scattered singly in the granular substance or arranged in groups. They are usually very numerous at the deeper part of the vegetations, just where the structureless material joins the granulation tissue, and they may penetrate deeply into the substance of the valve. Sometimes the smaller vegetations seem made up exclusively of them. Several of my specimens appear to confirm the view of Klebs,[2] that the micrococci lodge first on the endocardium and penetrate into the substance, often as distinct columns. In their immediate vicinity there is a zone of necrosis, and beyond this an accumulation of leucocytes and signs of reactive inflammation. The micro-organisms found in connexion with the malignant endocarditis are not all of the same kind. Klebs distinguishes two forms, one met with in

[1] Fortschritte der Medicin. Berlin, Bd. i.
[2] Archiv. f. Experiment. Pathologie, Bd. vi.

septic, and the other in rheumatic, cases. In some instances the micrococci are all arranged in zoogloea-like masses, in others, particularly the septic cases, they are in chaplets. Some present distinct capsules. Small elongated bacilli have also been found; I have seen them in one instance—short, stout rods often joined in pairs. Delafield and Prudden[3] have recently noted the presence of bacilli in the vegetations of a very acute case of malignant endocarditis. Cornil, in a recent lecture,[4] stated that the bacillus tuberculosis had been found in the vegetations on the valves in cases of phthisis, and expressed the opinion that before long we should have accurate knowledge of a variety of micro-organisms in endocarditis depending upon the nature of the primary disease. By culture experiments alone can we hope to have the question settled.

The following figures give an approximate estimate of frequency with which different parts of the heart are affected. The aortic and mitral valves were affected together in forty-one cases, the aortic valves alone in fifty-three, the mitral alone in seventy-seven, the tricuspid in nineteen, the pulmonary valves in fifteen, and the heart-wall in thirty-three. The right heart is rarely affected alone, in only nine instances, in which five the tricuspid and four the pulmonary valves were involved. The valves are most often attacked along the lines of closure, as in the simple endocarditis, the auricular faces of the mitral flaps and the ventricular surfaces of the aortic cusps suffering most severely. Mural endocarditis is most often seen at the upper part of the septum of the left ventricle, just below the aortic ring, in which situation some of the most extensive and deep cardiac ulcers occur, leading to perforation of the septum. Next in order is the endocardium of the left auricle on the postero-external wall, as noted by Lepine.[5]

The local effects of the ulcerative changes are important. Perforation of a valve segment is extremely common, sometimes there is a clean-cut punched-out hole with scarcely any irregularity of the edges; more frequently, however, there are great fungous vegetations which completely close and conceal the perforation. Erosion of the chordæ tendineæ is frequently met with, and an entire group passing to the papilla may be destroyed, the ends curled and encrusted with vegetations. Ulceration of the heart muscle leading to perforation of the septum or of the wall of a chamber is a much less frequent occurrence. I have collected notes of eleven instances; three of the septum close to the aortic ring. Ulcers at the aortic ring perforated the left auricle in three instances, the right auricle in one and the right ventricle in one. In a remarkable case of Dr. Stephen Mackenzie[6] the left ventricle was perforated by an ulcer at the apex. In a case of Dr. Curnow[7] the ulceration extended between the coats of the aorta, and then perforated into the lumen of the vessel, and in one of the Montreal cases there was perforation of an aneurysm of the aorta by ulceration, an instance of extensive ulcerative endarteritis with the production of multiple aneurysms. Another common result of ulceration is the production of valvular aneurysm. The anterior flap of the mitral is most frequently affected, and then the aortic cusps. In the records of the cases which I have reviewed I was surprised not to find this condition noted oftener, only in about 12 per cent. of the cases; but in very many cases the record of the anatomical condition was meagre. I shall not refer further to this interesting point, as Dr. Legg has dealt with it very fully in a recent lecture at this College.[8] I may observe, however, that the atheromatous ulceration is also a frequent cause of aneurysm of the valves.

It was Sir James Paget,[9] I think, who first referred to the frequency with which sclerotic and malformed valves are attacked by acute disease. Chronic valvulitis is met with in a large number of cases of malignant endocarditis. The records which I have examined give only a percentage of about twenty-five, but the condition of the valves, except as regards ulceration, was often omitted, and this represents a very much smaller percentage than actually occurs. In more than three-fourths of the Montreal cases sclerotic changes were present, and Dr. Goodhart found[10] in a series of sixty-nine cases that sixty-one presented old thickening of the valves. In very many of the cases the condition of fusion of two of the aortic cusps was present. This abnormality is almost invariably accompanied by sclerotic changes, and to the existence of these is probably due the frequency with which they are attacked by ulceration. In seventeen instances of fusion of two of the aortic cusps of which I have notes there were ulcerative changes in eight, in two or three of an atheromatous nature.

In a few instances the aorta is involved with the heart. The most frequent site is the sinuses of Valsalva, the vegetations growing through the segments spread on to the aortic wall, or it is affected by friction. It is rare for the vegetations to extend into the arch. I have met with one remarkable instance of ulcerative endocarditis in which there was also ulcerative endarteritis, involving the arch and producing multiple aneurysms. The specimen which I here demonstrate was taken from a man aged about thirty, who had been the subject of syphilis and was known to have had aortic incompetency for some time. He was admitted to the General Hospital, Montreal, on June 4th, 1880, with diarrhœa, chills, headache, cough, and fever. Temperature 104°. There were signs of pneumonia at the left base. He became delirious, a low typhoid condition supervened with chills at intervals, and death took place on July 1st. The aortic valves were curled and hard, and presented extensive recent vegetations, the arch of the aorta presented four aneurysms, three small, not larger than cherries, and one the size of a billiard ball. The small ones were not noticeable as aneurysms from the internal surface, but presented the appearance of fresh fungous vegetations, on separating which little slits could be seen leading to saccular dilatations of the middle and outer coats. The large aneurysm was thin-walled with no laminated fibrine, and presented at the edges of the orifice and over the whole lining membrane of the sac many greyish-green vegetations, some of which had perforated the sac and caused a rupture into the pericardium. It may be presumed that in this instance the ulcerations led directly to the production of the aneurysms, certainly in the case of the smaller ones; and the larger sac presented a condition of mycotic endarteritis unique in my experience of aortic aneurysms.

Of associated pathological changes we have, in the first place, those connected with some primary disease, to which the endocarditis is in the majority of cases secondary. Thus, in the endocarditis of septic processes there is the local lesion, a suppurating wound, a phlegmonous inflammation, or puerperal processes of a septic nature. In a very considerable proportion of cases there is evidence of recent pneumonia, in others rheumatic affections of joints, and in a few diphtheritic processes. In the group of primary cases the lesions are entirely those of endocarditis, local and general. In the second place, there are the extensive pathological changes due to embolism, and these constitute interesting features in the disease, and may produce a very great variety of lesions in every portion of the body. I do not propose to deal very fully with these, but to call attention only to some special points. The cases may be divided into those without any embolic processes, cases in which the infarcts are simple, not suppurative, those in which there are innumerable suppurative infarcts, and cases in which some of the infarcts are simple and some suppurative. It is remarkable how variable these embolic features are. They may be entirely absent in well-marked malignant cases. They are not necessarily associated with suppuration; indeed, in a very considerable number of cases they present the characters of ordinary hæmorrhagic infarcts, but in the traumatic and puerperal cases the infarcts are invariably septic. They may be few in number, only one or two perhaps in the spleen or kidney, or they may be in thousands throughout the various organs of the body. When suppurative, micrococci, in my experience, are always present; but the micrococci may exist in the vessels without inducing this change. In severe forms of the disease hæmorrhages are very frequent upon the skin, serous and mucous surfaces. The cutaneous ones will be referred to again in connexion with the symptomatology. They appear, in many instances, to be due to the effect of the poison, just as in other infectious diseases; in others they are undoubtedly embolic, and a minute necrotic or suppurative centre can sometimes be seen. In the membranes of the brain I have twice met with extensive superficial extravasation. Litten[11] has called attention to the frequency of retinal hæmorrhages, particularly in the endocarditis of puerperal sepsis. In some instances, there are innumerable miliary

[3] Text-book of Pathological Histology, New York, 1885.
[4] L'Abeille Médicale, No. 51, 1884.
[5] Bull. Soc. Biologie, 1869.
[6] Pathological Society's Transactions, vol. xxxiii.
[7] THE LANCET, vol. i., 1883.
[8] Bradshawe Lecture, 1882.
[9] Medico-Chirurgical Transactions, vol. xxvii.
[10] Pathological Society's Transactions, xxxiii.
[11] Charité Annalen, iii., Berlin.

abscesses, more particularly in the heart and kidneys. They are often associated with hæmorrhage, and the smaller ones look like little extravasations, but the presence of micrococci and suppuration can be easily determined in stained sections. The spleen is most often the seat of infarction, and next in order the kidneys. The lungs are usually affected when the endocarditis is on the right side, and there may be suppuration or even extensive gangrene, but even with destructive lesions of the pulmonary valves there may be no suppurative infarcts in the lungs, as in a case of Dr. Church.[12] Or again, as in a case of Dr. Moxon's,[13] there may be with aortic valvulitis suppurative infarcts in the lungs, and simple ones in the other organs. The gastro-intestinal canal may present very remarkable changes, due to the presence of numerous infarctions, from the size of a pin's head to a split pea. They are slightly elevated, greyish-yellow in colour, often surrounded by a zone of deep congestion or extravasation, and on section may show a suppurative centre. Micrococci are present as in other miliary abscesses, and in several instances I was able to find small embolic plugs in the arteries of the submucosa. The abscesses may discharge and leave a small ulcerated surface. In the stomach there may be similar minute infarcts, and occasionally larger ones. Carrington[14] has described a remarkable case in which there was a gastric ulcer, apparently due to embolic process, in a case of severe endocarditis; and Magill,[15] a case in which the stomach was intensely inflamed, the mucous membrane at the greater curvature being black, almost gangrenous. The liver may present minute abscesses, and in a number of cases in which there has been jaundice degeneration of the cells has been observed.[16] The serous surfaces are often inflamed, pleurisy and pericarditis being not uncommon complications. The pericardium is most frequently affected in rheumatic cases in which endocarditis and pericarditis may occur simultaneously. Pleurisy is met with chiefly in connexion with the traumatic and puerperal cases, and also with pneumonia, which, as I shall show, plays such an important part in the history of this form of endocarditis. The cerebral lesions are of the substance and of the membranes. Embolic softening, simple or suppurative, is extremely common, and in very many cases head symptoms supervene and there is paralysis of one side or the other. There may be a single embolus, producing extensive suppuration or red softening, or there may be multiple infarcts in various regions.

The meningeal complications of endocarditis have not received much attention. Considering the frequency with which it has occurred in the Montreal cases, five instances out of twenty-three, I was quite prepared to find such a large number as twenty-five cases—i.e., somewhat over 12 per cent. In the majority of these cases it occurred in connexion with pneumonia. It is almost always cortical, but many extend to the base and involve the nerves, leading in one case, which I saw with Dr. Ross at the Montreal Hospital, to strabismus, and also to ulceration of the cornea from involvement of the fifth nerve. In rare instances the spinal meninges are involved, and the clinical picture may be that of an acute cerebro-spinal meningitis.[17] Acute suppurative parotitis was noted in three cases.

THE DIET OF THE FEBRILE STATE.[1]

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THE search for a perfect diet has been an object of solicitude and study from the earliest times, to the physician and the quack, to the learned and the empiric. From the resulting mass of crude suggestion and ignorant assertion it may not be said that we have gained no positive knowledge, but we should still be far from stating that the principles of dietetics have been reduced to a certainty. To the already vast literature of this subject, the dietetics of health, I have no present intention of adding, but I propose to direct attention to the question of the fitting diet for the febrile state, a morbid condition of the body which is of the commonest occurrence, and which, as affecting the system generally, may be placed in contrast to that other general state of body we denominate "health."

The problem to the solution of which I am desirous of contributing is that we should aim as far as possible at formulating some general scheme for a febrile diet, to be modified as special cases—e.g., enteric fever—may demand, just as the usual diet of health is modified in certain persons. Clearly, to lay down such a scheme, the principles of a normal diet no less than the nature of the febrile state should be first considered.

Regarding the diet of the healthy state, though much still remains *sub judice*, the profession has succeeded in ascertaining a very definite and useful series of data, that we are accustomed, and I believe with good reason, to accept as true. The one that mainly concerns us is that the essentials of a healthy diet must correspond with the component materials of the body, or, in other words, that the alimentary principles of food must correspond with the proximate principles of the human tissues; and further, that, speaking generally, they should be combined in the following proportions:—

Proteids	4½ ounces	Free from water.
Hydrocarbons ...	3 "	
Carbohydrates ...	14 "	
Salts	1 "	
Water	100 fluid ounces.	

That is to say, for an average adult with average exercise of mind and body. We have further learned that we cannot sacrifice *one* of these substances without doing harm; all must be present, and though of course it would be practically impossible to maintain existence on these crude principles, they nevertheless are the important essential components of the various articles of diet that form the food of mankind. Since no single article of diet contains the necessary alimentary principles in the proportions required for an adult, they have to be distributed among the various food stuffs in such a way as to furnish the desired amount. Doubtless we are in the habit of exceeding the absolutely necessary quantity, and the effect and destination of our surplus ingesta is a question of the greatest interest, both in health and disease, though apart somewhat from the present subject. It is further significant that a monotonous adherence to a diet, however complete, is insupportable, and results in starvation, though some articles of food are capable of being longer tolerated than others. It is interesting and pertinent to the question to note how these data were arrived at. The quantity and quality of the alimentary principles may be said to have been determined partly by the experience of mankind based upon instinct, but more recently by the accurate methods of tissue analysis, which demonstrates the structures which have to be repaired, and the excreta analysis, which equally shows what has to be supplied to make good the deficit and maintain the balance. I shall have occasion to consider how these methods are further applicable, or indeed have been applied to the subject in hand. But, however exact we may in time come to be in our results, however accurately we may demonstrate the nature and source of the excreta, and thence with equal certainty define the requisite ingesta, there will still remain a factor with which we must cope, and which has been termed "idiosyncrasy." There can be no doubt that a very considerable difference exists between what may be termed a theoretically perfect diet and the diet which best suits a given individual; and I think Dr. Austin Flint has done good service in drawing attention to the harm that may be done from a too rigid adherence to a presumed scientific dietary based on chemical analysis, to the exclusion of what appetite, experience, both personal and general, and common sense would dictate.

A further consideration preliminary to my subject is the destination of such a diet as I have mentioned; in short, the need for the food, or the object of its ingestion. That the energies manifested by a living being are the resultant of an alteration in the physico-chemical condition of some of the materials of its structure is now regarded as an axiom; and it necessarily follows therefore that, if the manifestation continue, the material, to changes in which it is due, must be as continually renewed. Hence, we are in the habit of saying that our need for food is to repair the tissue consumed in the production of living energy. The distinctive forms of energy that characterise living beings, and that in

[12] Path. Soc. Trans., vol. xxvi. [13] Ibid., vol. xix.
[14] THE LANCET, vol. i., 1884. [15] Brit. Med. Journal, vol. ii., 1884.
[16] Schnitzler, Wiener Med. Presse, 1865.
[17] Hunolle, Bull. de Soc. d'Anatomie, 1874; and Heineman, Med. Record, New York, vol. ii., 1881.

[1] A paper read at the annual meeting of the Medical Society of London, March 2nd, 1885.

our present state of knowledge are not regarded as correlated to the physical forms of force, however much they may come to be shown to be but "modes of motion," are muscular force or contractility, nervous irritability, and gland force. An arrangement of tissues and organs that liberates these is undoubtedly living and probably an animal. But be it observed that in addition to these, heat and electricity are evolved at the same time, and these are precisely identical in nature with the same named forces that we can develop from non-living material. The exact relationship of animal heat to the producing organism needs to be set forth. It is well-known that the tissue metabolism underlying the manifestation of the vital energies above mentioned is invariably accompanied by a rise of temperature; the contractions of the muscles are associated with heat production, the secretion of glands the same to a less extent, the activity of nervous tissue to a still less degree, and an infinitely small amount of heat is liberated by the slight changes in the protoplasmic constituents of the connective tissues. Observations and analysis have shown that muscular contractility, and almost as certainly nervous energy, are not produced at the expense of the actual nitrogenous constituents of muscle and nerve cell, since the resulting nitrogenous waste is not proportioned to the work done; but in all probability they are due to the oxidation of some hydrocarbon material intimately involved and incorporated with the protoplasmic substance, the latter suffering a wear and tear (also in the nature of oxidation) comparable to that of the bars of a furnace, the fuel contents of which are the actual source of the heat produced. In accordance with this view the oxidation of the hydrocarbon included in the muscular fibre results in the liberation of a form of energy which, under the influence of the complex, unstable, nitrogenous protoplasm, is translated into what we call "muscular contractility;" but at the same time there is evolved a certain amount of heat, also due to the oxidation of the same material. The heat, then, is an accompaniment, or bye-product, of the same process, and may be produced at the expense of so much muscular energy, just as in mechanical arrangements heat is developed by friction in the operation of the various parts, often at a positive detriment to the total result, and certainly not being the object for which the machine is worked. The other aspect of the relationship of the animal heat to the body is that for the manifestation of the activities of the living tissues a certain temperature is necessary, since many chemical decompositions will only take place under the influence of heat. This obviously is, if I may so say, the necessity for the body temperature, and the question at once arises whether the total quantity of heat requisite for this purpose is derived from the metabolism of muscular, glandular, and nervous tissue (including therein the extremely small increment derived from the oxidation of the protoplasmic structure); or whether there be any special combustion of certain of the ingesta for heat-production only, and if so where may this take place? The general opinion would seem to be that the heat under conditions of health is derived entirely from the tissue disintegration accompanying the liberation of the specific vital energies. There is not much doubt that the destination of the various fat, sugar, and starch ingesta is to maintain the supply of the hydrocarbon material by the oxidation of which the living energies and the heat of the body are produced. There is good reason to suppose that the carbohydrates ultimately reach the site of their combustion as hydrocarbons, although the exact chemical steps of the conversion are as yet unknown. Nor are these thought to be the sole sources of the fuel. It is very generally believed that only a small portion of the total nitrogenous ingesta is ultimately concerned in the restitution of the protoplasmic waste; in fact, that far more proteid material is taken as food than is actually required to make good the proteid decomposition, although on grounds of experience, and for other reasons, such an amount as that above stated is found most suitable. The excess of such substances in all probability undergoes a decomposition, perhaps in the liver, which results in the formation of some carbohydrate (glycogen) or fat, leaving a nitrogenous residue akin to urea, which is excreted, the other directly or indirectly helping to furnish that hydrocarbon which is oxidised in association with the living tissue. Among the many interesting questions which surround this part of the subject, I might mention the value of the nitrogenous ingesta apart from their constructive function, as seen in the influence they exert over fat accumulation, and the exceedingly important inquiry as to the existence and conditions of the "reserve pabulum." With such a conception of the relation of the energies produced to the tissues of the body, it only remains for me say that calculated upon the waste resulting from the disintegration of these tissues, as excreted by kidneys, lungs, skin, and bowels, is the quantity and quality of the diet that experience also shows is most consistent with a healthy existence.

Turning now to the state of fever, although we must admit our knowledge of its intimate pathology to be deficient, we are nevertheless in a position to affirm that it is a general morbid state characterised by a marked perversion of function, and associated with an equally marked alteration in the quality and quantity of the excreta, itself a material index of abnormal tissue change, the actual existence of which within certain limits the microscope reveals to us. The most prominent and obvious functional perversion is an elevation of temperature, and I think it worthy of notice that whilst this, the most characteristic feature, is excessive production of a by no means peculiarly vital force, but on the contrary of the most widespread form of energy known to us, those more distinctly characteristic features of living tissue—contractility, nervous irritability, and gland force—are all diminished in their manifestation. The muscular power of the febrile patient is deficient, his nervous energy is impaired, and the secretions are diminished. Whatever doubts one may entertain as to the seat of origin of pyrexia, whether the fever consists in disorder of the nervous centres whereby there is a diminished loss of heat from the body, with a consequent retention, and so elevation of temperature, or whether the process commences in the protoplasmic tissues generally, and only secondarily brings about the systematic disturbances, the broad fact remains that there is an undue consumption of material. We recognise this in the wasting and loss of body weight; adipose tissue, muscles, and even the bones suffer. Nor is the evidence of loss confined merely to gross alterations that may be measured by the scales. Analysis of the excreta shows the extensive disintegration of tissue that accompanies the pyrexia, and at the same time indicating the proximate principles of the tissues, the combustion of which liberates the heat, suggests the food that is demanded for their supply, just as we infer the materials of a normal diet from the nature of the excreta in health.

There is a general agreement that the nitrogenous waste represented by urea, which is the most important (although equally true of uric acid and creatinin), is considerably increased, commencing even before the elevation of temperature and continuing throughout the whole febrile course. In so much as we shall see it is only in rare cases that the febrile state is not accompanied by a diminished nitrogenous ingesta, it must follow that the urea excreted must be drawn from the proteid tissues of the body, which undergo a more extensive disintegration than in health, and this should be remembered in reference to those cases where the total nitrogenous waste is absolutely less than that of health with ordinary diet, but is absolutely greater when the same healthy person is put upon a fever diet, which is invariably deficient in proteid alimentary principles. Respecting the amount of CO_2 in fever, much difference of opinion exists. The experiments of Senator on dogs would at least render it doubtful whether there be an increased formation of it, though there may be an increased elimination, since in fever such circumstances as quickened respiration are favourable to excretion; but the observations of Leyden on febrile patients would seem to show that there is an excessive formation. It is noteworthy, however, that there is by no means the marked considerable excess as is the case with urea, and also with water, which is largely increased in the amount lost (not by the urine, where it is diminished, but) by the skin and lungs. Indeed, the loss of body weight is mainly to be attributed to the loss of water. The elimination of salts in fever affects chiefly those of potash, which are excreted in far greater abundance than in health, even to sevenfold; whilst those of soda are, on the contrary, much diminished in amount, and may even be suppressed. Concerning the acids, whilst hydrochloric acid is certainly diminished, phosphoric and sulphuric acids would seem not to be increased. The urinary pigments are largely increased in amount. Of the hydrocarbons usually excreted in the fæces and by the skin, nothing is known in the febrile state. From such general conclusions as to the excreta of the pyrexial condition, conclusions which I have

not attempted to express in figures, we gather that whilst the increased excretion of water may be regarded as a withdrawal of that fluid from the tissues generally, and is but very partially the result of tissue metamorphosis, it is the nitrogenous tissues of the body that give the most positive evidence of excessive disintregation; the increased elimination of urea and uric acid and of potash salts unmistakably indicates an excessive wear and tear of the protoplasmic tissues of the body, nerve, muscle, and gland, as well as the blood-corpuscles. Remembering, as we have seen, that the main source of heat in health is the oxidation of hydrocarbon material, which is intimately associated with the protoplasm, and that only a very small increment of the total quantity of heat produced is derived from the oxidation of the machine itself, it would seem at first sight that in fever we have a reversal of the process, and that we are in face of an excessive oxidation of the nitrogenous material of the tissues ("tissue albumen" of Voit), as indicated by the excreta, whilst the hydrocarbon suffers but little if any increased consumption—that is, if we are justified in estimating the CO_2 formation as being but slightly increased, this gas being one of the chief products of hydrocarbon combustion. In this way we might be inclined to expect the nitrogenous excreta would be a measure of the heat production; were that so, the maximum temperature should coincide with the period of greatest nitrogen formation, and both should correspond. But it is doubtful if this be so, for preceding the period of elevation of temperature the urea excreted is in excess of normal, and the same excess continues for some time after the defervescence. The latter may be in part explained by the continued removal of what had been produced in the body during the period of fever, but this will not account for the prefebrile excess. If, then, in fever we are to base the quality and quantity of our ingesta upon the character of the excreta, as has been done in regard to the healthy body, the nitrogenous alimentary principles should obviously be administered in excess over the normal requirements, whilst there is no very positive indication for an increase in the hydrocarbon or carbohydrate food-stuffs, or, at all events, not to anything like the same extent.

Now, let us consider how far experience, or at least practice, supports this conclusion. The dietetics of fever, like many other principles based upon insufficient data, have had their fashions, and opinion has swayed now to starving, now to feeding; we pride ourselves, perhaps, at the present day on maintaining a wise medium. I think I may be fairly stating the case if I say that a patient suffering from any febrile disease is put upon a diet consisting of two to three pints of milk, and one to two pints of beef-tea. It is worth for a moment considering what this really represents in terms of alimentary principles. Taking the milk in round numbers at fifty fluid ounces, that would contain about two ounces of proteids, the same quantity of fats, rather more of sugar, and about half an ounce of salts. In regard to the beef-tea it is well at once to recognise that as a nutriment it holds a very inferior position. Supposing the meat from which it is prepared to contain about 20 per cent. of nitrogenous matter, certainly not more than 1 to 1½ per cent. of the proteids will be extracted by any ordinary process of cooking, but with them there will be as much again, or even more, of the meat extractives, such as creatin, creatinin, &c., which although nitrogenous are not nutritious (i.e., are unable to repair protoplasmic waste) and are members of the large group of bodies vaguely known as stimulants. A very variable amount of fat dependent on the quality of the meat used, and about one-half per cent. of salts, make up the 5 per cent. of solids which ordinary beef-tea contains. Such a diet therefore represents, as compared with the minimum requirements of a healthy adult in ordinary work, about half the proteids and fats, a third of the carbohydrates, and rather less than the necessary salts. This is clearly not in accordance with what we should consider to be called for in the febrile state, did we make the excreta the basis of our calculations; and yet we are accustomed to consider that such a diet is most suitable for the general disturbance of nutrition that fever indicates. Obviously, therefore, some other circumstance has to be considered, and that is the capacity for digestion exhibited by the fever patient. It is one thing to calculate on paper that such and such should be the diet, but it comes to be quite another thing when we are brought face to face with digestive organs that are as a consequence of the existing pyrexia greatly disturbed in their functional capability. The process of digestion essentially consists in effecting in the ingesta a series of changes of a physico-chemical character which shall enable them to be absorbed into the vessels. By mastication and the movements of the alimentary canal, and by the solvent and fermentative action of the various digestive juices this is brought about. Except with some gastro-intestinal lesions, fever usually tends to constipation, to be explained in part by the diminished power which the muscular coat of the bowel manifests in common with the muscular system generally. It is rarely, however, that this becomes a serious symptom. But with respect to the chemical process of digestion the case is different; here we meet with conditions which are very far from the normal. I need not mention the various parts played by the secretions of the digestive glands, or how the food-stuffs are reduced to a diffusible condition; but it is desirable briefly to consider the changes that have been recognised as taking place in these secretions when produced in a febrile state of body.

It may at once be said that observations distinctly indicate that they are all diminished in quantity—that is to say, the saliva and the gastric and pancreatic juices. The bile occupies a place apart, and of the intestinal juice in pyrexia I am not aware that any observations have been made. The secretion of saliva is so decreased that in many cases it can have practically no effect as a solvent of starch, and even when present, as shown by Mosler, it is far short of the normal juice in fermentative power, not unfrequently being of an acid reaction. Its absence also removes one of the stimuli to the secretion of the gastric juice, a secondary effect that it is regarded as producing when swallowed into the stomach. The recent experiments of Eringer (1882) do not confirm those of Manassein (1871), which went to show that the acid of the gastric juice is markedly deficient in fever. The former observer, however, asserts the contrary to be the case. But whichever be the truth, the digestive power of the secretion as a whole is far inferior to that of the healthy state; and owing to irregular decomposition induced in the ingesta, decompositions which tend to a putrefactive character rather than to the formation of normal peptones, certain irritant materials are liberated, to which I believe in great part may be attributed the gastritis so frequently accompanying the condition of fever. The pancreatic juice has been made the subject of special study by Dr. Stolinkow,[2] who by establishing a pancreatic fistula in a dog ascertained the characters of the normal secretion, which he compared with the juice after inducing fever in the animal. A temporary increase both of the fluid and its ferments occurred at first, soon followed, however, by a more prolonged decrease in amount, and impaired proteolytic and amylolytic power. Even admitting that our knowledge of the nature of the digestive juices in fever is very deficient, enough is known to justify the assertion that their capability in one direction or another is seriously deteriorated, affording thereby an opportunity for the formation of decomposition products, many of which are of a most noxious character. The obvious indications under such circumstances are to give aliment that requires the minimum digestion, to prevent as far as possible the delay of the food in the gastro-intestinal tract, and supplementing where we can the deficiencies of the secretions by artificially prepared ferments, acids, and alkalies. Heat, as we have seen, is one of the force manifestations of tissue change, as urea, carbonic acid, and water are some of the material expressions of the same. In fever the heat, the tissue changes, and the excreta are all increased. The demand for increased food is therefore obvious, provided it can be digested or can be administered in such a diffusible form as to require but little digestive change. With secretions that have suffered such considerable alterations as I have described, the digestion of the ordinary articles of diet is impossible, and experience dictates a departure from the usual meals.

I have already criticised what may be called a typical fever diet of milk and beef-tea, and a reference to the general rules laid down and followed by those who are entitled to speak with authority on these points shows a remarkably large proportion of the proteid alimentary principles in the permitted diet relatively to the fats and starches. Such would be quite in accordance with the indications afforded by the excreta, as I have shown; but I rather think the real ground for such exclusion of hydrocarbon and carbohydrate principles (materials which, be it observed, form by far the greatest proportion of the solid

[2] Virch. Archiv, 1882.

ingesta in a normal diet) is a widespread belief in the incapacity for their digestion by the febrile patient, and the injurious effect of the lactic and butyric acid fermentations that take place in the stomach from the improper fermentation of the amyloids. Some writers are very emphatic on this point, and doubtless with good reason. Quite recently the experiments of Dr. Tchernoff have demonstrated that there is an average of 7·2 per cent. less absorption of fats in a fever patient than in the same person in health, when from 80 to 90 per cent. of that ingested obtains entrance into the vessels, a marked exception to this occurring in the case of enteric fever, where the large increase of leucocytes in the mucosa is regarded as effecting an increased transfer of fat granules from the epithelial surface into the lacteals. But if these fats and starches are to be forbidden, and still more if the heat products of pyrexia be but slightly due to their combustion, one can see good reason for the larger relative share that nitrogenous material should take in the total aliment. But, notwithstanding this, I am doubtful whether there is not a flaw somewhere in the reasoning, and am justified by no less an authority than the late Dr. Parkes, who, in his memorable Croonian lectures on the Elimination of Nitrogen in 1871, spoke on this point as follows:—"Can we foretell from our present knowledge of the chemistry of fever what should be the treatment by diet? I do not think our knowledge is sufficiently precise for this, and practice alone can rightly guide us. Still, some suggestions present themselves. There is in fever a waste of albuminous tissues; it would, therefore, at first sight appear an indication to feed those tissues with nitrogenous food. But it may be questioned whether they can be fed. Some of Huppert's observations indicate that they cannot be, and that the nitrogen is eliminated without being used by the wasting parts. And if so, what becomes of the albuminous food? It must be disposed of by the the glandular elements, and add to the work already thrown on those organs. May it not be that, in the height of pyrexia, partial abstinence from nitrogen should be the rule, while the succeeding period of apyrexia is that in which it should be given, when the body retains it, and thus makes up the standard it had lost?" Continuing, the same writer expresses a belief, founded on experience, "that the almost exclusively animal diet sometimes given in fevers is not so useful in sustaining the strength as is supposed, and that if it were not for the loss of appetite which limits the supply, we should perceive more clearly the bad effects," and he has thought that "the vast deposit of urates which sometimes marks the end of fevers might be really caused by excessive animal food," and that he has actually seen "gouty attacks brought on by that system of feeding." Referring to fats and carbohydrates, Dr. Parkes observed "a supply of fat to meet the disappearance of the same from the body is rarely attempted in practice, and yet there is no doubt that if digestible fats are given to fever patients the degree of emaciation is much less, and at the end of the fever the body seems more speedily to recover itself. The fats are often considered hurtful, and are sometimes excluded from fever diets, so that with the large supply of animal food, the patients are brought almost into a state of Bantingism. The starches and sugars are generally given in fevers, and it cannot be doubted that this is right, though probably the amount given is usually far too small. An eminent physician desired for his epitaph the words, 'He fed fevers.' His pride in his treatment was legitimate; but it may be still a question with what they should be fed."

I do not know that we can honestly say we have reached a point much beyond this, even after the lapse of fourteen years: our knowledge is "not yet precise enough," and I am not sure that practice has guided us very far, it having preferred to pursue the old track without much question. I cannot help thinking that the strong objection held to the administration of amyloid food in fever is exaggerated. I am in the habit of insisting upon a fair share of it in the treatment of my patients, and I have not yet seen reason to attribute any ill effects to the proceeding. In the artificially digested foods that we have at our disposal now, I believe we possess alimentary principles that, in the form of partially digested proteids and amyloids, are quickly absorbed, and hence diminish the opportunities for butyric and allied fermentation, and also make less demand upon the digestive secretions. It cannot be too carefully remembered that one object to be aimed at in laying down a diet for fever is to prevent delay of the ingesta in the alimentary canal. Even the blandest and most nutritious aliment may become a source of noxious decomposition product when acted upon by juices secreted in the pyrexial state, but in reference to this the question of absorption has to be taken into account, and of the effect of fever on that I have no knowledge beyond what I have said respecting fats.

I think I need not further urge the importance of this subject, for clearly to know how to sustain our febrile patients, and, what is of equal consequence, to shorten thereby their period of convalescence, during which the tissues are getting back into their normal condition, would be of extreme value, and although exact information on many of these questions is still wanting, I have endeavoured without seeking to be original, though perhaps suggestive, to give a brief and coherent account of the state of existing views, to indicate what we know and what we do not, to formulate our ignorance no less than our knowledge, and to offer thereby the opportunity for a rational plan of further inquiry.

ONE HUNDRED AND ELEVEN CASES OF LITHOLAPAXY.

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(*Continued from page 378.*)

CASE 24.—A Mahomedan male, aged forty-eight, was admitted on Jan. 9th, 1883, with retention of urine which had existed thirty-six hours. He had suffered from symptoms of stone for nine months, being much exhausted, with pinched, anxious expression. On passing a full-sized catheter a small calculus was detected at the neck of the bladder, blocking up the urethral passage. This was pushed back with some force and the retention of urine relieved. The patient was at once anæsthetised and litholapaxy performed. The operation lasted only eight minutes; the débris weighed twenty grains.—10th: Passed very little urine since yesterday. Pain in region of the bladder. Catheter passed and a small quantity of urine drawn off. Hot fomentations and hot poultices to the hypogastrium were ordered; also one grain of opium internally every three hours. — 11th: Well-marked peritonitis present. Temperature 102° F.; respiration 44 per minute; urine scanty. The catheter was used twice daily.—13th: No pain. Great distension of abdomen; patient very weak; passing a little urine. He died quietly in the evening.

Post-mortem examination. — On opening the abdominal cavity it was found distended with clear serous fluid. The bladder was embedded in a mass of amber-coloured gelatinous lymph, which broke like cold jelly on application of the fingers; congestion of the cellular tissue at the base and neck of the bladder; mucous membrane of the urethra near the neck of the bladder highly inflamed; no congestion of the bladder or kidneys.

CASE 44.—A Hindoo, aged forty-five, was admitted on May 23rd, 1883, with symptoms of stone, the most prominent of which were agonising pain in the region of the bladder and passing of blood and pus in the urine. The symptoms had existed eight years, and the patient was in a very weak state. A large calculus was detected by the sound. On the 25th I performed litholapaxy. Considerable difficulty was experienced owing to the large size and hardness of the calculus, and the operation progressed very slowly, fourteen drachms being removed in seventy-five minutes. No more fragments could be felt by the lithotrite, but on passing the sound a large fragment was detected high up at the fundus of the bladder. As the patient was very much exhausted, I was afraid to keep him longer under chloroform, so I had unwillingly to postpone the completion of the operation to another day.—24th: He had great pain in the region of the bladder the whole of yesterday, which was controlled by one grain of opium administered every three hours. Urine scanty and blood-stained. Temperature 104° F.; great thirst. Fever mixture ordered and opium continued.—27th: Had a severe rigor last night; fever continued all night; patient anxious and depressed. Ten grains of quinine were ordered, and to be repeated in the evening. No pain in the abdomen, but great pain in the left hip.—28th: Abscess forming in the

left hip. All the symptoms of blood-poisoning present. Carbonate of ammonia and bark mixture ordered. The patient died at 10 P.M.

Post-mortem examination.—The walls of the bladder were greatly thickened, sacculated, and contracted; in the bladder were a large fragment of calculus (about one ounce in weight) in a sacculum at the fundus, several small patches of inflammation of the mucous membrane in the vicinity of the fragment of stone, and some milky urine. The tissues of the left gluteal region and round the left hip-joint were swollen and infiltrated with dark-red fluid. Cause of death pyæmia.

CASE 97.—A Mahomedan male, aged twenty-six, was admitted into the Bareilly Civil Hospital on August 12th, 1884, suffering from the usual symptoms of stone, which had existed six years. During the last three years the symptoms became much aggravated. On admission micturition was extremely painful and difficult, and the urine was mixed with pus and blood. The patient was in extremely bad health; very thin and anæmic; scarcely able to stand. On August 14th I performed litholapaxy. Chloroform was given by Dr. Corbett, Royal Medical Service, by means of Junker's inhaler. The calculus was a large hard one, weighing three ounces and a drachm a half, and consisted of oxalate of lime. The operation lasted fifty-two minutes. After slitting the floor of the meatus slightly a large lithotrite was passed, but, owing to the contraction of the walls of the bladder on the stone, it could not be grasped. The lithotrite was withdrawn and four or five ounces of water injected by the aspirator, and then the calculus was easily grasped after a little manipulation. I had to use all the force I was capable of before the stone gave way. The fragments were then disposed of one by one, great force being necessary in dealing with even the smallest fragment. The lithotrite had to be introduced six or seven times, and the evacuator as often, before the whole of the calculus was disposed of. My new large lithotrite did great execution amongst the fragments, the glass receiver of the aspirator being nearly filled each time after withdrawal of the lithotrite. Two or three times during the operation the patient was very faint and almost ceased breathing, and after the operation the pulse was extremely weak. Artificial breathing had to be maintained, occasionally, for an hour after the operation. Evening: Passed urine freely during the day, the earlier portions were blood-stained, the later clear; no sand or fragments passed; no pain in the bladder, but tenderness along the course of the urethra. Pulse 90 (very weak).—15th: Patient very weak; passed three loose stools during the night; urine passing freely, and quite clear; vomited twice this morning; pulse almost imperceptible; hands and feet cold; drowsy and restless; wanders in his conversation at times. During the course of the day the patient revived a little, but he grew weaker towards evening, and died at 9 P.M.

Post-mortem examination.—Bladder empty (not a trace of sand was present), contracted, and its walls much thickened; mucous coat was corrugated and slightly sacculated; urethra congested along its whole length; ureters dilated along their whole length, so that the tip of the little finger could be passed into them from the bladder; kidneys extensively diseased; the calyces were much dilated, and the medullary portions had almost disappeared; the cortical portions were hard and pale; pericardium distended with clear straw-coloured fluid.

The patient in Case 7 was almost moribund on admission to hospital. There was complete atony of the bladder, and the condition of the mucous membrane of the bladder may be imagined from the fetid state of the urine. The man was so weak and exhausted that I could not entertain the idea of performing lithotomy, so I gave him the only prospect of recovery in performing litholapaxy. In Case 24 death resulted from peritonitis, evidently produced by extension of inflammation from the neck of the bladder. It is difficult to say if this was due to the operation or to impaction of the calculus at the neck of the bladder, and the force necessary to displace it. I am inclined to think the latter was the cause. There was no difficulty whatever in performing the operation; the stone was very small, and the operation lasted only eight minutes. The bladder was healthy except at the neck, where the calculus had lain impacted for two days. The kidneys also were healthy. It is probable that the calculus, forced on by the accumulation of urine and efforts at micturition, acted as an irritant to the mucous membrane, and that the force necessary to push back the stone into the bladder increased the irritation, thereby producing inflammation. In Case 44 the cause of death was pyæmia, the result of cystitis supervening on the operation, and caused by the irritation of a large fragment, which it was found impossible to dispose of at the first sitting, owing to the exhausted state of the patient. Death in Case 97 resulted apparently from the shock of the operation and exhaustion produced by the chloroform, acting on a constitution worn out by the painful nature of the malady and extensive disease of the bladder, ureters, and kidneys. Emboldened by having previously removed a larger calculus successfully in Case 16—the details of which will subsequently appear—and by a long-continued series of successful cases, from Case 45 to Case 96 inclusive, in many of them the calculi being very large, I had no hesitation in attacking the stone in this case, and I feel confident the patient would have recovered but for the extensive disease of the kidneys which existed, and from which the patient must have succumbed to any operation. The large and powerful lithotrite sent me lately by Weiss worked admirably in this case. The manner in which a large oxalate of lime calculus, weighing over three ounces, and as hard as flint, was crushed to atoms and completely removed by the aspirator in fifty-two minutes, without the necessity of any dilatation of the urethra or injury to the urinary passage, shows what can be done by the new operation. Though the crushing power of this instrument is very great and the strength of the steel enormous, it was noticed both by the surgeons who honoured me with their presence during the operation and by myself that when dealing with a large and hard stone of this kind the leverage in the instrument is deficient. This might be easily remedied by having long knobs to the wheel-shaped handle of the male blade, and by the addition of a light crossbar to the cylindrical handle of the female blade, both the knobs and crossbar being removable, so that they might be applied only when large calculi are dealt with. With the exception of the four deaths above referred to all the cases made excellent recoveries. Cystitis, which so frequently followed on the old operation of lithotrity, and which often left the patients in almost as bad a condition as they were before the operation, seldom occurs after litholapaxy; and when it does occur, or had existed previous to the operation, it is very amenable to treatment.

The 111 operations were performed on 109 different individuals, the disease having only twice recurred. In one of these cases the patient, aged sixty-five, was suffering from enlargement of the prostate. Six months after the first operation, in which four drachms of a soft phosphatic calculus were removed, he returned and had a similar calculus weighing eighty-five grains removed. In old patients of this kind, with enlarged prostate, the disease frequently recurs, owing to the fact that the bladder is never completely emptied of urine during micturition. In the other case several small calculi, varying in size from that of a pea to that of an almond, and weighing in all one ounce, were removed, and the patient left the hospital quite well. A month afterwards he returned with symptoms of stone. At first I imagined that a fragment had been left behind at the first operation, but on applying the cannula and aspirator I removed twenty-seven minute calculi, weighing half a drachm in all. I then found that in the interval the patient had suffered from severe kidney colic, and that the minute calculi, each of which consisted of a uric-acid nucleus with phosphatic deposit, were the result of a shower of uric-acid particles from the kidney. The calculi removed varied in weight from five grains to three and a quarter ounces. There were fifty weighing half an ounce and upwards, twenty-seven one ounce and more, seven two ounces and upwards, and two over three ounces. The following are the details of the case in which the largest stone was removed, to which I wish to call especial attention:—

CASE 16.—Illaki Buksh, a Mahomedan aged sixty, was admitted into the Moradabad Civil Hospital on Dec. 3rd, 1882, with all the symptoms of stone in the bladder, which had existed eleven years. On admission the patient could only pass urine in drops continuously throughout the day and night, and the passage of urine was attended with great pain. His penis and foreskin were hypertrophied from the patient's constantly rubbing the organ to relieve the pain and irritation. A urethral calculus was felt in the fossa navicularis. When the patient tried to pass urine he had to rub and pull the penis, and in this way push the urine past the calculus in the urethra. The urine was mixed with pus and blood. The fæces passed were ribbon-shaped, due to pressure of the stone in the rectum. On passing the

finger into the rectum a large stone could be felt in the bladder. The patient's health was very bad. He was pale, thin, weak, and anæmic, and he had a pinched, anxious expression, the result of long suffering. On Dec. 5th I performed litholapaxy, the urethral calculus having first been removed after slitting the floor of the urethra slightly. The operation lasted sixty-six minutes, and the débris weighed three ounces and a quarter, the calculus being a hard uric-acid one. Considerable trouble was first experienced in grasping the stone, owing to the contraction of the walls of the bladder on it. This was obviated by injecting water into the bladder. The lithotrite was introduced at least a dozen times, and after each crushing a large quantity of débris was washed out through a No. 18 cannula. With the exception of slight pain in micturition during the first day or two the patient had no after-trouble. He made a rapid recovery, and on Dec. 15th, when discharged from the hospital, the following entry in my note-book describes his condition:—"Patient now rid of all bladder symptoms. Urine quite clear; bladder retains a large quantity at a time. Has grown fat and strong. Says he has not been so well for several years. This man was a miserable creature on admission to hospital ten days ago, and now leaves it in excellent health." This is, as far as I am aware, the largest calculus that has ever been removed from the bladder by the crushing operation at one sitting. The amount of manual labour required in crushing a large and hard stone of this kind is something excessive. I felt completely exhausted after the operation. My hands were blistered from the *lithotrite*, and the muscles of my arms ached for two or three days subsequently. I cannot too strongly advocate the desirability of removing the whole of the calculus at one *sitting*. This is the essential principle of the operation. This fact seems to be lost sight of by some surgeons, for I have noticed that in some of their recorded cases a second, and even third, operation was necessary. An operation prolonged over several sittings in this way involves all the dangers of the old operation of lithotrity and ceases to be litholapaxy in my acceptation of the term. Male patients of all ages, from sixteen to ninety-six years, were operated on. The average age was forty-seven years and a half. Several patients of eighty years and over had large calculi removed successfully; and in one case I removed a hard uric-acid stone weighing nine drachms and a half from a patient aged ninety-six, the operation lasting one hour. The details of the case are interesting, so I give them.

CASE 69.—This was a case in private practice. The patient, a Mahomedan of Moradabad, stated that he was close on 100 years of age, and by calculation he appeared to be ninety-six. He was a dried-up, withered creature, without a tooth in his head, and consisting almost of skin and bone only. Several of his sons were living, and one of them looked seventy years of age. Till about a month before coming under my treatment he had enjoyed good health, and used to walk about the bazaar daily. He was suffering from well-marked symptoms of stone, especially great pain in passing urine. He was very weak and unable to leave his bed. On October 28th, 1883, I performed litholapaxy, the débris weighing nine drachms and a half, and the operation lasting one hour. The patient made a rapid recovery and was able to walk about on November 13th. Five months afterwards I had the pleasure of showing this old gentleman to Surgeon-General W. Walker. He was then in excellent health, so much so that Dr. Walker writing of him at the time amusingly says: "He must certainly be ninety, and looks as if he might live for thirty years now, and then do service as an old rail."

My experience is that old patients bear the operation much better than young men, and in them it is less likely to be attended by urethral fever. The explanation of this is to be found, I have no doubt, in the fact that the mucous membrane of the bladder and urethra gets less sensitive as life advances, and also that the urethra is more capacious in old than in young men. In several instances very small calculi were removed. The diagnosis of such calculi by the sound is often a matter of extreme difficulty; and experience teaches us that a patient is often sent away from hospital with a stone in his bladder after an opinion to the contrary has been expressed. I cannot speak in terms of too high praise of Sir Henry Thompson's sound. Any sound will detect a large or moderate-sized stone; but when I have failed with all other sounds in detecting a small calculus, Sir Henry Thompson's sound has brought it to light. I find from experience, however, that, even with Sir Henry Thompson's sound, a small calculus lying in some peculiar position in the bladder may evade detection. In the *Indian Medical Gazette* of March last I called attention to a new method of diagnosis for small calculi by means of the aspirator. The method of employing it is indicated in Case 54.

(To be concluded.)

TWO CASES OF HYDROCELE IN THE FEMALE.

BY SAMUEL OSBORN, F.R.C.S. ENG.

HYDROCELE in the female subject is of sufficient rarity to warrant the following two cases being put on record. Both were admitted as out-patients to the Hospital for Women, Soho-square, within a few weeks of each other, and were sent to me as supposed cases of irreducible hernia. The first case is one of hydrocele of the femoral canal, and of greater rarity than the second, which is one of the canal of Nuck. The first is very similar to a case that was reported in THE LANCET on April 5th, 1879. It is, however, in a younger woman, and both are of especial interest, in showing, equally with hydrocele in the male subject, that if it is desirable to effect a permanent cure, simple tapping is not sufficient. I mean tapping and subsequently allowing the patient to return home, walking or travelling some distance to get there. I am of opinion that if, instead of treating these cases as out-patients, I had simply tapped them, manipulated the two sides of the sac by rubbing them together to set up superficial inflammation, and subsequently applied an ice-bag and kept the patients in bed, I should have succeeded in curing them at the first operation, in the same way as I was successful in the case previously reported. The diagnosis of these cases is not easy; the difficulty of examining them by transmitted light is great. An ordinary stethoscope is the best instrument to use for the purpose, but with this care must be taken, as it is very easy to direct the vision against the inner side of the tube and not directly to its opposite end. An absence of impulse on coughing, and sometimes fluctuation, are the diagnostic signs to aid us, but that of transparency by transmitted light is the only trustworthy one.

CASE 1.—Eliza W——, aged thirty, a married woman, first noticed a lump in the right thigh seven or eight weeks before she came under observation, which gradually increased in size until it became as large as an ordinary hen's egg. The tumour was exactly in the situation of a femoral hernia, for which she was sent by her medical man. It was soft, with no impulse on coughing; there was indistinct fluctuation, and, although transparent by transmitted light, it was somewhat difficult to obtain this means of diagnosis by reason of its situation. On July 9th the swelling was tapped, and a clear yellow fluid evacuated. A femoral truss was applied to keep up pressure upon the walls of the cyst, after they had been well rubbed together; and the patient returned to her home in Essex, and kept to her bed for a week. Three weeks from the date of the tapping the cyst refilled, and became the same size as at first. On Oct. 10th, the patient being in bed, the cyst was tapped, and, the walls having been thoroughly manipulated, tincture of iodine was injected. This occasioned momentarily great pain, and the cyst was allowed to empty itself of the injected fluid. An ice-bag was applied, and kept on continually for three days. Slight inflammatory swelling took place, but this soon subsided, and she got up after ten days, wearing her femoral truss; the swelling had entirely disappeared. On Dec. 4th there was no return of the swelling, and the use of the truss was discontinued.

CASE 2.—Jane P——, aged thirty-five, single, had noticed a lump in the right groin for seven years, which had gradually increased in size. She had never worn a truss, but had used a bandage, which was discontinued on account of its occasioning discomfort. The swelling was the shape and size of a large pear, with the stalk pointing downwards to the labia; it was transparent by transmitted light, with no impulse on coughing, and no alteration in size when lying down or after a night's rest. On Sept. 11th the cyst was tapped and rather more than half a pint of canary-coloured fluid withdrawn. A few movable glands were felt after the evacua-

tion of the fluid, but the cyst collapsed completely. The walls of the cyst were well manipulated by rubbing the two internal surfaces together. An ice-bag was applied for some four or five hours; and, a right scrotal truss having been applied, she was allowed to return home and ordered to keep her bed for three days. This she did, but immediately she commenced to go about the swelling returned, and became as large as ever. On Nov. 6th the patient was admitted into hospital, and, the cyst having been tapped, about forty minims of Morton's solution were injected. On the 7th she complained of much pain in the lower part of the abdomen and in the cyst. A considerable quantity of clear fluid came from the puncture during the night, soiling the linen and rendering it quite stiff. By the 9th the swelling had increased in size, being tense and red, although the pain was less. A trocar was inserted and about four ounces of clear claret-coloured fluid were evacuated. On the following day the patient felt much relieved; a considerable quantity of fluid had escaped during the night. On the 18th the cyst was nearly the same size. It was again tapped, and the fluid, which came away with difficulty, necessitated the cyst being well squeezed to thoroughly empty it. A certain portion of the swelling remained, as if partially solidified. About half a drachm of tincture of iodine was then injected, and a flannel spica bandage put on and an ice-bag. The next day the patient felt comfortable, experiencing no pain. On the 22nd an ice-bag, which had been kept on night and day, was discontinued. Swelling still present, but about half the size it was originally; no fluctuation, and apparently solid; pad and firm pressure applied. On the 27th the swelling was much less; pressure was still kept up by means of a spica bandage, and a small piece of mercurial ointment was placed on the swelling previous to the bandage. She left the hospital on Dec. 11th, quite cured; no sign of the swelling remained.

Maddox-street, W.

ACUTE PERFORATING ULCER OF THE ASCENDING COLON.

BY JAMES OLIVER, M.B. EDIN., M.R.C.P. LOND.

IT has been asserted, and doubtless correctly, that perforating ulcers—leaving out of consideration typhoid, tubercular, and such allies—may, and do, occur throughout the gastro-intestinal canal. The stomach and duodenum are, however, apparently the situations preferred. Few cases are on record where the colon itself has been the seat of perforation. Duodenal ulcer has frequently been noted in connexion with extensive burns of the body; the causation, however, must still remain a mystery. Simple inflammation of the gut rarely gives rise to perforation. Considering how common, comparatively speaking, inflammatory changes in and around the cæcum occur, it is somewhat astonishing that complete ulceration so seldom results. In the case which forms the basis of the few remarks I have to make the ascending colon was the seat of perforation. Two ulcers were discovered side by side longitudinally in the large intestine, two inches and a half above the ileo-cæcal valve. The larger was about half an inch in diameter, whilst the other was only large enough to admit the tip of a goose-quill. The surrounding tissue was apparently healthy, as well as that intervening between the two openings. Both perforations were round in shape, their margins being perfectly regular. The various coats of the bowel had necrosed to an equal extent throughout; the muscular, however, had retracted, and a partial prolapse, so to speak, of the apparently redundant mucous membrane had resulted. The larger opening from the outside gave the appearance of an artificial anus, whilst the smaller was barely to be detected because of the recoil of the elastic tissue of the gut. The position of the ulcers was as nearly as possible the middle of the posterior surface of the ascending colon. Posteriorly this part of the colon, deriving no covering from the peritoneum, is attached by connective tissue to the fascia covering the quadratus lumborum and the front of the right kidney. Gradually by necrosis, the bowel having become tunnelled, fæcal matter escaped into the areolar tissue, separating by degrees the colon and right kidney from the underlying structures. The peritoneum showed but little sign of inflammatory change, the lower margin of the liver alone betraying any sign of fibrinous exudation, and this but limited. The etiology of perforating ulcer is still a debatable question. It is more than likely, however, that thrombosis is a probable cause, the change resulting being comparable with that occurring under similar circumstances in the brain and spinal cord. Complete occlusion of the small blood channels brings about a gradual death of the part by staying effectually its nutrition. It is doubtful whether the gastric or intestinal secretions ever aid in its production.

Montague-street, W.C.

A NEW SPLINT FOR THE TREATMENT OF TALIPES.

BY F. T. PAUL, F.R.C.S.,
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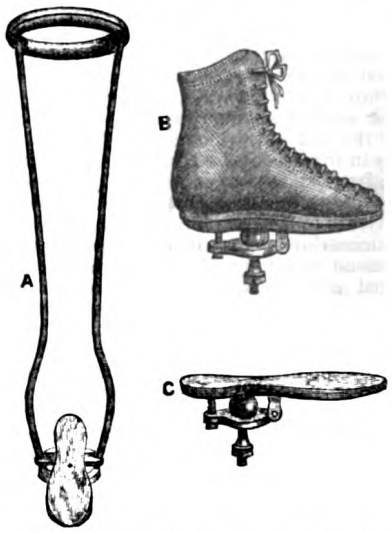
IT has always appeared to me, as a general surgeon, that in our ordinary hospital practice cases of confirmed talipes frequently do not obtain the full amount of benefit that is possible—more frequently, I mean, than other varieties of remediable defects. I suppose that this might be explained, if it be really a fact, in different ways by different surgeons. The explanation that has occurred to me is simply that the mechanical treatment following any operative procedure needs to be so prolonged, and so assiduous during the whole time, that the careful patience of either the surgeon or the



patient often breaks down before the cure has been effectually and permanently established. I have been in the habit of using sheet iron side splints with a foot-piece, fixed on by first firmly strapping the foot to the foot-piece while the foot is in its deformed position, and then forcing the side splint to the leg, and so reducing the deformity. This plan answers well enough if the splint be refixed every few days for six or twelve months. In my own practice I observe that I keep up a pretty close supervision of the case for a month or two, then it gradually drops entirely into the hands of my house-surgeon; subsequently it falls to the care of the nurse, and lastly is lost sight of for a time, and when seen again is often as bad as when it first came under treatment. For a long time I have felt that if a surgeon had the time to undertake a complete supervision of his cases of talipes he could usually cure them by simple mechanical means, and it was owing to the unsatisfactory results that I constantly met with in the practice of my colleagues as well as myself that I attempted to devise a splint which would be so easy to manipulate that the surgeon could himself take in hand the treatment of his talipes cases without that loss of time which at present frequently causes us to relegate the duty to someone else. The splint (see figure) consists of the ordinary side rods and padded ring of a Thomas's knee splint (A). Joining the side rods at the bottom is a ring to walk upon and a cross-bar from one to the other. This latter has a slot in the

middle part of it, in which a strong steel ball can be fixed. The ball works in a socket attached to a plain wooden foot-piece (C). The foot-piece is screwed to the socket by three or four ordinary screws, which can at any time be taken out and a boot attached instead when the treatment is sufficiently advanced (B).

The method of applying the splint is as follows:—The foot-piece with the ball-and-socket joint is taken out of the splint, the joint unscrewed, and the ball removed, so that strapping can pass under the foot-piece anywhere. The child's foot is then very carefully strapped to the foot-piece in such a manner that it will not require to be renewed for some time. The ball is then replaced and loosely screwed up, and the foot-piece with the limb fixed to the splint. It is unnecessary as a rule to put on more than a couple of straps round the leg and splint, but when inversion is marked a better fixation of the limb will be required in order to be able to evert the foot. All that is left to be done is to gently force the foot into a somewhat improved position and screw up the ball-and-socket joint. At the next visit this is loosened and refixed in a still better position; and as it is only the work of a minute, it can be undertaken by the surgeon as he makes his daily rounds. Children walk about easily in these splints, and so far I have met with very good success in using them. If only one leg is affected, a high sole should be made to the opposite boot to avoid obliquity of the pelvis.

The drawback for hospital use is the cost. There is a good deal of work in the splint, and it must be well done or the joint will not remain fixed when in active use. Mr. Critchley of Liverpool has taken great pains to carry out my instructions in making the splint, and has succeeded very well. He supplies them to the hospital at a sovereign each.

Liverpool.

A RARE CASE OF SPINA BIFIDA.

By W. T. CREW, F.R.C.S. Eng.

THE following case seems to me worthy of record in the pages of THE LANCET.

A full term, well-nourished infant, a day old, the first child of a mother aged twenty-one, was brought to me early in December of last year. Over the lumbar spine in the middle line was a sessile tumour measuring about one inch and a third longitudinally, and slightly less transversely, and raised five-eighths or three-quarters of an inch above the integumentary surface. Its appearance exactly resembled a blister, with two exceptions—namely, first, that a few minute bloodvessels could be detected on its surface; and, secondly, about its centre, over a circular area, the diameter of which was about half an inch, the spinal cord, or rather the cauda equina, was bare, and presented somewhat the appearance of an ulcer, from which a clear fluid exuded. By transmitted light (daylight was quite sufficient), the cauda equina could be clearly seen leading up to this spot. The tumour appeared to swell out as the child cried. For further examination I oiled my fingers, as I feared the sac would burst by rough manipulation. On slight pressure the edges of the fissure in the spinal canal could be easily defined, small buttresses of bone being distinctly felt all round the base of the sac, which I regarded as the edges of the deficient vertebral laminæ. On examining the head the fontanelles were unusually large, and the sutures between the various bones were excessively wide, and during violent expiratory efforts the meninges became very prominent. At the junction of the frontal and nasal bones was a rounded meningocele, and on the left side, through a large Wormian bone in the parietal region, was another meningocele the size of a large marble or small walnut. Several large Wormian bones were present in the frontal and parietal bones, and one in the occipital. Both thighs were tightly flexed on the abdomen, and both legs flexed on the thighs. The right foot was in a condition of severe talipes calcaneus, the left less so. The toes of the left foot were strongly flexed; the arms and fingers appeared to move naturally; there were no convulsions, and the child, otherwise well, took kindly to the breast. On the second day after birth the cerebro-spinal fluid began to escape through a small aperture which had formed in the sac, and continued to do so. On the fifth day the sac began to feel firmer at its base; the integument appeared to be spreading over the tumour. The clear fluid now became turbid, and on the ninth day the whole sac was much thicker and less translucent, partly owing to the cutaneous overgrowth, and partly to the deposit of inflammatory materials in its interior. Four weeks after birth the tumour was smaller; its surface resembled normal skin, except for bluish, almost nævoid congestion. Pus now came away freely from the aperture. That portion where the spinal nerves had been bare had now become covered over with skin. The meningoceles disappeared; but the protrusions of the cerebral membranes were more distinct between the various sutures, which showed no signs of contracting. The distortions of the lower extremities became more pronounced, and the child wasted. At the end of the fifth week slight convulsive seizures began, and in the sixth week the patient died. On opening the spinal canal after death, there was exposed a fissure in the whole of the lumbar region of the spine an inch and a half long and three-quarters of an inch wide. The bodies of the vertebræ appeared normal. Spinal meningitis was well marked, and the sac was filled with lymph and pus. The head was not interfered with.

Although it was impossible to verify it post mortem, I believe the sac was originally formed of the spinal arachnoid only, the bluish-white appearance said to result when the spinal dura mater is exposed being entirely absent. I may say that the mother, in describing its primary appearance, spoke of it as "like a water-bleb," which I thought very apt. The other point in the case which I thought remarkable was the long period (nearly six weeks) which elapsed before the fatal termination; and it was interesting to note the failure of development of the cranial bones in conjunction with those of the spine.

Nottingham.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

THREE CASES OF SARCOMA OF THE TESTIS; CASTRATION; RECOVERY.

(Under the care of Mr. SYDNEY JONES.)

THE importance of diagnosis in cases of enlargement of the testis is very great, for *early* removal of malignant disease is a large factor in the ultimate result aimed at—namely, complete cure. It is, however, difficult in the early stage of enlargement of a testis to give a decided opinion, and in many cases even the best authorities can give no definite diagnosis until various remedies have been tried and the tumour punctured; the latter with a view of examining the fluid withdrawn and any growth brought away in the cannula. Our readers will recollect that the chief difficulty at the commencement is to diagnose the disease from chronic inflammation of the body of the testis, and later from chronic hydrocele and from hæmatocele; and this task is rendered more difficult when the attention of the patient has been first directed to the diseased organ by a blow or other injury, as in two of the cases recorded by Mr. Sydney Jones. A progressive solid enlargement of the body of the testis, without evidence of inflammation, the surface being of unequal consistency, with dilatation of the scrotal veins, should always be looked upon with suspicion, more especially if treatment prove of no avail in arresting the increase of the growth.

CASE 1.—G. S——, aged twenty-one, a potter, was admitted under the care of Mr. Sydney Jones, Jan. 22nd, and left, apparently cured, March 5th, 1884. The family history was good, and the patient had enjoyed excellent health until four months and a half before admission; he had never suffered from any venereal complaint. Eight or nine months before admission he noticed a small hard lump about the size of a pea on the outer and upper side of the right testicle,

which slowly increased in size, but which was at first freely movable. Four months and a half ago he knocked his right testis against a table, and the injury was followed by rapid swelling; so much so that it was the size of the patient's fist on the following morning. It was quite soft and doughy at first, and diminished in size somewhat after the application of ice; but in a few days became quite hard, and had since grown slowly. The pain caused by the injury was not severe, and there had been no pain since. After the accident he could feel the small swelling which had existed previously in the middle of the soft swelling, it being then about the size of a walnut, but when the swelling became quite hard it could no longer be felt. When admitted he was complaining of the swelling of his right testicle, and appeared somewhat anæmic, pale, and was rather thin. On examination, there was an oblong, somewhat pyriform swelling occupying the right half of the scrotum and bulging into the left half. It was hard and elastic, and no decided fluctuation could be felt. It extended into the highest point of the scrotum, and could be traced as high as the external abdominal ring. Underneath the tumour a projection from it, like an enlarged testicle, could be made out, but no pain was felt on pressure, either over this or any other part of the tumour. There was no testicular sensation. There was no impulse on coughing, and the size of the growth did not vary. The superficial veins of the scrotum were enlarged on the right side. The glands in the groins were not enlarged, and no enlargement could be felt in the glands of the abdomen. The patient was otherwise apparently healthy. There was no albuminuria.

Jan. 22nd.—The tumour, which had been punctured in the out-patient department before admission, was again punctured, and, as on the former occasion, only bright blood flowed through the cannula; examined microscopically, this showed no evidence of new growth. From above downwards the growth measured 11¾ in., and the greatest circumference 8¾ in.

30th.—There had been no diminution in size under the application of ice, ordered on the 26th, and Mr. Sydney Jones decided to examine, and, if necessary, remove the tumour. The parts having been shaved and washed with 1 in 40 carbolic solution (the patient being under the influence of ether), a vertical incision was made, about an inch to the right of the raphe, through the scrotal tissues down to the tumour, which was found to be of sarcomatous nature; an elliptical incision was then carried from the external ring to the lowermost portion of the growth and back to the starting-point; the tumour was then rapidly dissected out, the numerous vessels being caught with clamp forceps; the cord was then seized with a stout pair of clamp forceps, the tumour being cut off below. Numerous ligatures were required to arrest the general bleeding, and the cord was ligatured. The edges of the wound were carefully adapted by means of silk and catgut sutures, a drainage-tube was placed from the highest point of the wound, and, after the parts had been thoroughly washed with carbolic solution, the ordinary antiseptic dressing was applied under the spray, which had been employed during the operation. When the growth was incised, the cut surfaces bulged out and presented a gelatinous structure, which appeared to have grown from the upper part of the testis; but this organ could not be distinguished. Microscopically the growth was sarcomatous, and consisted chiefly of small round cells. There was some clear fluid in the tunica vaginalis, into which small bosses of new growth projected. The patient vomited after the administration of the ether. At night the temperature was 98·8°.

31st.—At 2 A.M. the temperature was 100·2°; at midday 101·8°; at 8 P.M. 99·8°. There was no pain, and he had slept well.

Feb. 4th.—Wound dressed. Some purulent discharge from the upper part of the wound on pressure. Wound somewhat offensive in smell. Two stitches removed. The temperature has varied from 99° in the morning to 100·4° in the evening. No pain whatever.

6th.—Wound redressed; a good deal of pus came from the wound, especially from the upper part; edges of wound slightly red and tense. Carbolic dressings discontinued and boracic acid substituted. The temperature has varied from 98·4° to 100·2°. The bowels were freely open after enema on the 5th.

After the 6th the temperature became normal or subnormal, not reaching 100°, excepting during an attack of follicular tonsillitis, which lasted from the 14th to the 17th, when it rose to 102·6°. There was discharge from the wound, chiefly from the situation of the cord, until nearly the end of the month, when the wound had perfectly healed. There was some slight swelling over the canal in the position of the stump of the cord when the patient left.

On leaving the hospital the patient went to a convalescent home, where he remained for three weeks, resuming work as a potter on his return to London. He was readmitted into St. Thomas's on Oct. 7th, under the care of Dr. Ord, and died on Oct. 29th. It appeared that about three months before he had suffered from constipation, and had also had some vomiting; these symptoms passed off for a time, and he does not appear to have paid much attention to them until he found a lump in his abdomen during a more severe attack, three days before admission. When under care the symptoms were constipation, vomiting, distension of the abdomen, and the presence of a large tumour in the right side and in the iliac fossa. He died from exhaustion. There was a small growth in the inguinal canal, measuring about three-quarters of an inch in diameter, a growth as large as an orange over the iliac vessels on the right side, several tumours under the ascending colon on the same side, evidently of glandular origin, and another growth behind the duodenum, adherent to it about four inches from the pyloric end of the stomach; and on examination of the mucous membrane of the duodenum it was found that the growth had produced an ulcer about two inches long. The growths on section closely resembled each other, presenting a gelatinous appearance, some being more vascular than others. These secondary growths much resembled the original one.

CASE 2.—G. G——, aged fifty-one, a sawyer, was admitted into the Albert ward under the care of Mr. Sydney Jones, April 7th, and left cured April 28th, 1884. There was no family history of tumours. The patient, a strong, healthy-looking man, had had no severe illnesses; he had not had syphilis. The patient stated that between five and six years ago he had received a severe blow from a log of wood on his right testicle; this caused considerable pain, but he was able to return to work in about half an hour. The next morning he noticed some swelling on the right side, which became considerable in about three days, and the scrotum very red. He went to Guy's Hospital, where they wished him to remain as an in-patient, but he refused. He was unable to work for about a fortnight, because of severe aching pain in the testicle. The pain then ceased, but the swelling did not diminish, and remained about the same size until a year or eighteen months ago, when it commenced to steadily increase, and that without pain, excepting from its weight, which produced aching in the loins. On examination the scrotum was found to be occupied by a large pyriform tumour, measuring from above downwards ten inches. It occupied the whole of the right side of the scrotum, and the testicle on that side could not be discovered. The left testicle was normal, and could be easily separated. The tumour was very heavy, elastic, almost fluctuating in some parts, in others hard; the swelling was not translucent. It did not involve the cord to any extent, as this could be traced into the upper part of the tumour and presented no evidence of enlargement. The superficial veins of the scrotum were much dilated. No enlargement of glands could be discovered. General health good. Sp. gr. of urine 1010; no albumen.

April 9th.—Ether having been administered, and the parts washed with carbolic solution and shaved, two curved incisions were made from above downwards, including an oval piece of the skin, and meeting at the bottom of the scrotum; the remainder of the scrotum was then dissected off the tumour and the cord freed, clamped, and the tumour removed; the cord was ligatured. The vessels, which had been secured by clamp forceps as they presented themselves in the wound, were ligatured; a drainage-tube was introduced; the edges of the wound brought together with silk and catgut, and antiseptic dressing applied; the spray was used throughout the operation. On section of the tumour the cut surface was undoubtedly of a sarcomatous character; there was some fluid, especially in the tunica vaginalis, where some nodulated growths were found in its wall, projecting from the principal one. Examination of the growth some time later proved it to be sarcomatous, chiefly small round cells. The abdomen was carefully examined whilst the man was under ether, but no enlargement of the lumbar glands could be felt.

10th.—The patient had slept fairly during the night and

was without pain. Pulse 108. The temperature on the evening of the 9th was 98·4°. The wound was redressed antiseptically; there was very little discharge. On the 10th the temperature rose to 100·6° in the morning, and to 100·8° on the 11th, but fell again next day, becoming on the 13th and after the 15th subnormal, continuing so for the remainder of his residence (it had been normal before the operation). On the 16th carbolic oil was used instead of the antiseptic dressing, and warm water dressing was substituted for this on the 18th. The wound was healed when he left the hospital, nineteen days after operation.

CASE 3.—W. W——, aged thirty-six, a labourer, was admitted, under the care of Mr. Sydney Jones, on Sept. 22nd, and left, cured, on Oct. 8th, 1884. The family history was good; there was no history of any tumour. He had had no serious illness, and had never suffered from syphilis. He first noticed that the left testicle was enlarged a short time before Christmas, 1883; the swelling began at the lower part of the testicle, and had gradually increased in size. The growth had been unattended by pain, and had only caused inconvenience from its size. There was no history of injury. When admitted the patient was a strong, healthy-looking man, complaining only of enlargement of his left testicle; this enlargement was considerable, the swelling being very hard and lobulated at its posterior part and irregular on the surface. The hardness was almost cartilaginous in character, there was no testicular sensation, and the outline of the testicle was lost. The cord on the left side appeared larger than that on the right; the superficial veins were enlarged on the left side of the scrotum. No enlargement of the glands could be detected in the abdomen. The internal organs appeared healthy. Urine normal; sp. gr. 1015.

Sept. 23rd.—The tumour was tapped, but nothing flowed through the cannula; a little clot which remained in the end, on withdrawal, when examined microscopically, showed only red and white blood-corpuscles.

24th.—Ether having been administered, Mr. Sydney Jones removed the testicle, antiseptic precautions being adopted throughout the operation, as in the other cases. Two curved incisions were made, including an oval piece of skin, the tumour dissected out from the scrotum, the cord cleared and clamped, and the growth removed below. After this the vessels, which had been secured by clamp forceps during the progress of the operation, were ligatured, and then the vessels of the cord itself were separately ligatured. The edges of the wound were brought together by alternate silk and catgut sutures after the insertion of a drainage-tube, and the wound dressed antiseptically. Examination of the tumour showed a nodulated mass with the naked-eye characters of a sarcoma. On section there were several small cysts; the growth appeared of more recent origin in parts, and in one part it appeared as if there was some remnant of the testicle. No record of the microscopical examination was kept.

24th.—Slept after an injection of morphia, and was in no pain. Pulse 96.

25th.—Wound redressed under the spray; looked healthy.

27th.—Wound redressed; a few stitches removed. The patient complained of headache, but was otherwise well.

30th.—The wound was redressed, and all the remaining stitches and the drainage-tube removed.

After the operation, the temperature in the evening rose to 100·8°, to 100° on the following day, and to 100·6° on the day after. It did not again exceed 99·6°, becoming and continuing normal until his discharge, thirteen days after operation.

STATION HOSPITAL, HULME.

ENLARGEMENT OF THE BURSA BENEATH THE SEMI-MEMBRANOSUS AFTER INJURY; SUPPURATION EXTENDING TO THE KNEE-JOINT; ASPIRATION; AMPUTATION; RECOVERY; REMARKS.

(Under the care of Surgeon-Major G. C. GRIBBON, M.B.)

CORPORAL C——, 3rd Dragoon Guards, aged twenty-seven years, was admitted on Jan. 21st, 1884, with an obscurely fluctuating swelling on the inner and upper part of the left calf about three inches below the joint. He was employed in the saddlery workshop. Six months prior to coming under treatment his horse fell with him, and rolled over on his left leg, giving rise to considerable bruising. This passed away without any apparent ill effects, and he was able to resume his usual occupation as a saddler. Latterly, however, he had felt the left knee stiff, especially after sitting any length of time at his work, and he had got an uneasy feeling in the calf. The patient was a delicate-looking man of very strumous appearance. The left popliteal space appeared somewhat full.

Five days after admission the swelling had become more prominent and fluctuation distinct. It was rather tender, and occasional shooting pains were felt down the leg. Exploration with a fine needle showed the contents to consist of oily matter, with a few opaque streaks. Under antiseptic precautions about an ounce of fluid was evacuated through a small incision, and after a few days, during which there was a little thin oily discharge, the opening closed up. He was able to resume work on Feb. 4th. On the 17th, however, the man returned to hospital with a feeling of tightness and stiffness at the back of the knee, and some pain down the leg. There was no swelling in the calf this time, but the lower part of the popliteal space appeared fuller than normal. His general health was not good.

During the following two days the swelling increased rapidly, and as it was tense, it was again emptied, and rest and pressure employed, but without effect, for reaccumulation occurred; it was therefore determined to make a free opening and use continued drainage. This was done on March 23rd. Antiseptic precautions were used throughout.

The patient progressed satisfactorily enough for the following four days. All his discomfort was relieved, and he felt so well that, disregarding instructions to remain in bed and at rest, he got up and walked about in the hospital yard. The day was cold and damp, and on returning to his ward he felt his knee very cold and numb, and soon afterwards pain set in. Acute synovitis of the knee supervened, the temperature ran up to 103°, the febrile symptoms were marked, and the discharge from the wound became more puriform. On the supervention of inflammatory symptoms immobility was secured placing the limb in a long back splint with heel-piece. Cold, leeches, &c., were used, but to no avail. The synovitis became evidently suppurative.

On April 18th the joint was aspirated, and 4 oz. of healthy pus removed. This procedure, it was intended, should be merely preliminary to freely opening the joint and securing free drainage; but the relief given was so great that the latter operation was postponed, in the hope that repeated aspiration might prove effectual. Mr. Heath, Senior Surgeon to the Royal Infirmary, Manchester, thought similarly. He informed Surgeon-Major G. C. Gribbon that in a case under his care of acute suppuration of the joint aspiration had resulted in complete recovery (THE LANCET, Sept. 4th, 1880, p. 379). After each aspiration relief was experienced, and the febrile symptoms were temporarily allayed. The joint looked a little puffy, but there was no pain, and but little tenderness present. After ten days, however, the symptoms, indicative of progressive inflammatory mischief, recurred with severity. Hectic became marked, and the patient was much reduced and exhausted. The joint became more painful, with startings on the slightest movement, and slight œdema of the thigh appeared. As suppuration was undoubtedly extending along it, amputation of the thigh was decided on, and performed on May 9th. The patient made an excellent recovery. Examination of the joint presented the usual features of a destructive inflammatory process. The synovial membrane was thickened and softened, and the articular surfaces were eroded circumferentially. Subchondral caries allowed of easy removal of what remained, which was soft and discoloured. The periarticular tissues were swollen and infiltrated, and collections of pus were found extending along the muscles of the thigh. The opening made early in the case behind the joint could only be traced for an inch inwards. No communication through it with the joint could be made out.

Remarks by Surgeon-Major GRIBBON.—Cases of enlargement of the bursa under the semi-membranosus are not uncommon, but one of so active a kind as in the present case is, I think, exceptional. That the swelling first observed on the calf and afterwards in the lower part of the popliteal space was from inflammation of this bursa is hardly doubtful. In the place where it first showed itself—i.e., the calf—the case resembles some of those published by Mr. Morrant Baker in the thirteenth volume of St. Bartholomew's Hospital Reports under the title of "Synovial Cysts

of the Leg in connexion with Disease of the Knee-joint," but his are all connected with chronic disease and a result of it, whereas in this the swelling preceded the joint affection and became the predisposing cause. Perhaps the most interesting point in the case is whether there was any communication between the bursal swelling and the joint. Such a communication is said to exist in one out of every five cases. Here it was impossible to say, for though none could be detected on examination of the limb after amputation, it is far from improbable that it might have existed, but got blocked by the inflammatory processes going on near it. It is clearly important that this communication should be borne in mind in the treatment of enlargements of bursæ in close relation to joints. The treatment by incisions, after the valvular method of Abernethy and with antiseptic precautions, proved safe but inadequate. The free opening of the sac promised well until the patient's indiscretion subjected him to the acute inflammatory attack which ultimately destroyed the entire joint.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Annual General Meeting.—President's Address.

THE annual general meeting of this Society, for the election of officers and other members of the Council for the ensuing year, was held on Monday last, Dr. George Johnson, F.R.S., President, in the chair. The list of officers for the ensuing year was given in our issue last week.

Dr. DOUGLAS POWELL read the report of the President and Council, which showed that fourteen Fellows had died during the past year, including Dr. Allen Thomson, an honorary Fellow, and Dr. Samuel Gross, a foreign honorary Fellow. During the past year thirty-one Fellows had been elected. The total number of Fellows at the present time was 731. The report showed further that the average attendances at the meetings of the Society compared very favourably with those of the past years. The number of works in the possession of the Society was 29,222. An endeavour had been made to increase the number of engravings in the possession of the Society. Dr. Blandford had kindly undertaken to edit a catalogue of the Society's large collection of engraved portraits of members of the medical profession.

Dr. ALTHAUS moved that the report of the President and Council, together with the balance-sheet of the treasurer, be received, printed, and adopted.

Dr. BERNARD O'CONNOR seconded the motion.

Mr. COOPER FORSTER, as treasurer, made a few explanations connected with the balance-sheet.

The PRESIDENT then read the annual address, which was chiefly composed of obituary notices of deceased Fellows—viz., six resident Fellows—Dr. Barclay, Mr. Fairlie Clark, Dr. B. Baxter, Dr. A. King, Sir Erasmus Wilson, and Mr. Cæsar Hawkins; and six non-resident Fellows—Dr. S. Denton, Mr. Arnold, Mr. J. S. Daniell, Dr. W. Corley, Dr. Lashmere, and Dr. Worthington, and two honorary Members, Dr. Allen Thomson and Dr. S. Gross, had been erased from the muster-roll of the Society by the hand of death. After giving very full accounts of the more eminent of the deceased Fellows, the President made a few retrospective and prospective remarks on the work of the Society, which showed clearly that the papers, and discourses thereon, were in no danger of falling off. Allusion was made to the improved state of the drainage of the Society's premises, and the President suggested that a more efficient method of ventilation might be adopted for the room in which the meetings were held.

Dr. WILSON FOX proposed and Dr. BUZZARD seconded a vote of thanks to the President for his address.

The vote of thanks to the retiring members of the Council was proposed by Dr. CHOLMELEY and seconded by Mr. VICTOR HORSLEY.

Dr. GERVIS and Dr. LEGG officiated in the vote of thanks to the retiring treasurer, Mr. COOPER FORSTER.

The vote of thanks to Mr. Berkeley Hill, the retiring secretary, was proposed by Dr. DYCE DUCKWORTH, seconded by Mr. R. W. PARKER, and carried with acclamation.

PATHOLOGICAL SOCIETY OF LONDON.

Rhino-scleroma.—Sarcomata of Bladder.—Congenital Obstruction of Intestine.—Adeno-sarcoma of Pineal Body.—Fractures of Hyoid Bone and Larynx.—Tubercular Pyo-Salpinx.—Peculiar form of Nephritis.

AN ordinary meeting of this Society was held on Tuesday last, Dr. J. S. Bristowe, F.R.S., President, in the chair.

Dr. PAYNE and Dr. SEMON read a conjoint paper on a case of Rhino-scleroma which they had shown to the Society on Oct. 21st. 1884. Drawings and microscopical specimens were also shown. The patient was a Guatemalan, aged eighteen, who had suffered for four years. The disease began insidiously. Two rounded, reddish, firm swellings, each about the size of half a hazel nut, ulcerated on the surface, were situate below the nostrils; both nostrils were filled with similar masses. The bridge of the nose was considerably broadened, and on pressing it below the bones gave a sensation of stony hardness. Galvano-cauterisation was said to have caused the ulceration. The uvula had entirely disappeared. Upon the soft palate an irregular, raised, whitish, slightly ulcerated patch was seen. The palate had undergone considerable cicatricial contraction, fibrous bands running from the ulcerated patch in all directions, and greatly distorting the parts. Similar morbid changes were visible on the left tonsil and left lateral wall of the pharynx. The larynx and naso-pharyngeal cavity were unaffected. The patient was extremely anxious to have some operation performed, which should remove the external disfigurement and the impediment to breathing through the nostrils, although the impossibility of a radical cure, and the improbability of a lasting improvement, were strongly represented to him. Before proceeding to operative measures, energetic anti-syphilitic treatment was had recourse to, and continued for some months, but without any result. The day after he had been shown to the Society he was put under chloroform, the external tumours and the masses blocking the nostrils were radically scooped out with the sharp spoon, and the exposed surfaces on this and the following days freely cauterised with lunar caustic. In spite of these precautions, two months after the operation unmistakable signs of recurrence made their appearance. Further operative interference was declined, as apparently useless, and the patient was lost sight of. It was found that the greater part of the septum nasi had entirely disappeared. As no trace of bone was detected in any of the numerous sections which were made, it could only be assumed that the partition had been destroyed by the progress of the growth. The histological examination showed the skin and, in the upper parts, the mucous membrane to be invaded by a small-celled growth, resembling granulation tissue, with an admixture of some larger cells of a different form. The epidermis was also altered in a peculiar manner, producing concentric masses, with some resemblance to the "nests" of epithelioma. There were also firm masses of fibrous tissue. The whole structure was entirely different from epithelioma or sarcoma, or any other definite tumour formation, but formed a growth more resembling the granulation tumour, such as lupus, syphilis, tubercle, than anything else, though quite distinct from any of these. It was remarkable for the absence of any evidence of atrophy or degeneration. The histological appearances were, in the main, the same as have been observed in all cases of rhino-scleroma, though these appearances have been differently interpreted by different observers. This is believed to be the first case of this rare disease ever described in this country; and no other case but this has been described in France. In Germany (out of Austria) the disease is equally unknown, most of the reported cases having come from Vienna; a few had been seen in Italy.—Mr. BUTLIN asked whether any parasite had been found.—Dr. PAYNE replied that micro-parasites had been found, but not in the present case.

Mr. EVE showed two specimens of Sarcoma of the Bladder. The first specimen was a firm pale lympho-sarcoma, which occupied the anterior and upper walls of the bladder, which it fixed, except an elongated space, one inch in width, at its lower and posterior part. The greatest thickness of the tumour was three inches and a half; its free surface was not papillary. Microscopically, the tumour was composed of lymphoid-like round cells, forming ill-defined masses and groups in a scanty fibrous stroma, and

lying in the meshes of a reticulum of hyaline fibrils. The specimen was taken from a man aged sixty-eight, who suffered for two years from pain in the loins and slight hæmaturia. This bladder was several times sounded for stone. The second specimen was a mixed and probably myo-sarcoma of the bladder, forming a firm fibrous tumour, about an inch and a half in length, and situated within the left wall of the organ just above the ureter. It projected externally from the bladder wall, but the corresponding under-surface was unaltered, with the exception of a slight superficial erosion. Under the microscope, sections showed bundles of unstriped muscle fibre separated by tracts of connective tissue; the bundles were infiltrated with round and elongated nuclei, and with large spheroidal cells possessing a large nucleus, surrounded by a rim of clear protoplasm; the latter formed in parts small ill-defined groups in the muscular bundles, and in the connective-tissue, or were diffusely scattered. Indications of a new formation of unstriped muscle fibre from elongated nuclei were observed in many places. The bladder was taken from an elderly lady, but no clinical details of the case had been obtained.—Mr. H. T. BUTLIN agreed that the first specimen was one of lympho-sarcoma. With regard to the second specimen, he suggested that it might have originated from the prostate gland. He referred to a contribution by Dr. Coupland, which showed that true sarcoma of the bladder had been observed. He said that Mr. R. Williams had thought that sarcoma of the bladder was not so very uncommon, but that out of all the cases of vesical tumour recorded by Sir H. Thompson every tumour was found to be epithelioma or papillary tumour by Dr. Gibbes, and not one sarcoma.—Mr. BOWLBY said that he had seen at St. Bartholomew's Hospital recently two cases of sarcoma of the bladder, both of which had been under the care of Mr. Morrant Baker. Both occurred at about the age of forty. One case was that of a woman. The tumour was a mixed-celled sarcoma. The case of the man was first seen for dysuria. Though an operation was performed, yet extension of the growth and exhaustion led to death. The autopsy revealed the tumour in the bladder, which was of the mixed-celled variety. The growth did not affect the glands in either case, and he asked whether these structures were involved in Mr. Eve's cases.—Mr. EVE, in reply, said that he considered the second tumour could not have originated in the prostate. He had not made the autopsy and could not therefore answer Mr. Bowlby's question.

Dr. HOBSON showed a specimen of Congenital Obstruction of Intestine taken from a male infant less than three days old. The child was a seven months' one, and during life had vomited greenish coloured fluid. The rectum was imperforate. There was no evidence of recent peritonitis at the autopsy, but there were numerous delicate bands. The whole large intestine and lower sixteen inches of the small intestine resembled a solid tube a quarter of an inch in diameter, filled with semi-solid mucous matter; above this the bowel was dilated. A break in the continuity of the intestine occurred at a point just opposite to the occlusion, the mesentery being complete. The peritoneum, especially near the gap, was much pigmented. The mother stated that when five months pregnant she had had a violent fit of coughing which caused her great pain in the abdomen, and he thought that at this moment, either by the forcible bending of the fœtus itself or from some other cause, a rupture of the bowel had taken place, and that consequent inflammatory action had obliterated the gut at the opposite end of the loop.

Dr. CHARLEWOOD TURNER read a paper on a specimen of Adeno-sarcoma of Pineal Gland. The tumour had a nodulated and rounded flattened oval outline, and was about the size of a kidney. It filled and distended the left lateral ventricle, and the third ventricle, and had destroyed the corpus callosum. The tumour was found to have flattened the left optic thalamus, and to have pressed upon the corpora quadrigemina. A careful examination proved that the tumour had originated in the pineal body. The growth had extended forwards in the direction of least resistance into the third and lateral ventricles. The microscopical sections showed a lobulated structure separated by bands of fibrous tissue of loose structure, which contained elongated and angular cells, which stained with carmine. The lobulated portion showed a reticulum of spindle-celled sarcomatous structure, which was traversed by tracts of adenomatous growth. Cells having the character and arrangements of sarcoma and carcinoma were found distributed through the growth. Virchow had described hyperplasia of the pineal gland. Wilks and Moxon had described cystic tumours of this body. Dr. Turner dwelt at considerable length on the pathology of morbid growths. Dr. Hale White said that tumours of the pineal gland though rare had yet been found in every variety. A writer in Virchow's *Archiv.* had described cartilaginous and other kinds of tumours.

Mr. ARBUTHNOT LANE read a paper on Fracture of the Hyoid Bone and Larynx. He had seen nine instances out of 100 bodies examined in the dissecting-room. He said that Mr. Durham had collected seventy-five recorded cases of fractures of the larynx and hyoid bone, of which fifty-nine proved fatal. Fischer's statistics of fractures of the hyoid bone alone showed twelve deaths in twenty-three cases; so that out of a total of eighty-two cases of fracture of the larynx and of the hyoid bone, twenty-eight only recovered, or one-third of the total number. If the statistics given be correct, there must necessarily occur among every 100 people of the pauper class at least twenty-seven fatal cases, which proportion is absurd. Mr. Lane described (1) ununited fracture of the right great cornu of the hyoid bone (Pathological Society's Transactions, 1884); (2) fracture of the right great cornu, with ununited fracture of both superior cornua of the thyroid cartilage, with much separation of the fragments; partial dislocation of the lower cornu, deformity of cricoid cartilage, probably the result of fissuring (Pathological Society's Transactions, 1884); (3) fracture of the right upper cornu of the thyroid cartilage with bony union, and ununited fracture of the left upper cornu with much separation of the fragments; (4) fracture of the right upper cornu of the thyroid cartilage, no separation of fragments, fibrous union and probable fracture of the left upper cornu with bony union; (5) fracture of the right upper cornu of the thyroid cartilage with bony union; (6) fracture of the right cornu of the hyoid bone, chondritis of the thyroid cartilage, probably primary suppuration of both laryngeal glands; (7) fracture of the right upper cornu of the thyroid cartilage with much separation of fragments, fracture of the left upper cornu with fibrous union, no separation of fragments, cricord cartilage fractured in front to the right, considerable displacement of fragments with bony union, and fissure in front and to the left; (8) fracture of the left upper cornu of the thyroid cartilage with fibrous capsule; (9) fracture of the left upper cornu of the thyroid cartilage with fibrous union, no separation of fragments, and probable fracture of the left great cornu of the hyoid bone. Cricoid fractures are, as a rule, fatal. Gurlt found no difficulty in fracturing the thyroid cartilage in elderly subjects by backward pressure with both thumbs. Keiller, Cabasse, and Helwig had experimented on the subject with varying success in producing fracture; the age of the cartilage had something to do with the result. Mr. Lane found that fracture of the upper cornua of the thyroid can be produced with comparative ease by compressing the larynx by the hand and then exerting force backwards. If the perichondrium were torn, there was considerable separation of the fragments. He found that the cartilage of later adult life yielded more readily than that which had undergone ossific change.—Mr. BLACK asked whether there was any possibility of the fracture of the cornu of the thyroid cartilage being confounded with normal appearances, for there was normally a detached portion of cartilage in the thyro-hyoid ligament.—Dr. SEMON said that fractures of the larynx were supposed to be amongst the rarest affections of the larynx. If Mr. Lane's propositions were true, then we must alter our opinions of the fatality of fractures of the larynx. He (Dr. Semon) had recently collected cases of fracture of the larynx, and found that three-quarters of them were fatal.—Mr. LANE, in reply, said that most of the fractures occurred near the base of the thyroid cartilage, and he was well acquainted with the normal structures.—Mr. SHATTOCK said that not uncommonly the body of the hyoid bone articulated with the cornu by a false joint; in his opinion one of Mr. Lane's specimens of fracture was of this nature. The acromion articulated with the spine of the scapula by a kind of false joint at times, and this was a fact analogous to what was seen in the hyoid and its cornu.—A committee of Mr. Lane, Dr. Semon, Mr. Shattock, and Mr. Butlin was appointed, at the suggestion of the President, to inquire into the true nature of Mr. Lane's specimens.

Dr. QUARRY SILCOCK showed a specimen of Tubercular Pyo-salpinx taken from a female child aged five years, who was admitted into St. Mary's Hospital for tubercular

meningitis. At the autopsy the signs of a general tuberculosis were present which involved the cord and brain. The great omentum was adherent to the abdominal wall. There were signs of subsided peritonitis. Miliary bodies were scattered over the walls of the intestines. The Fallopian tubes and body of the uterus were distended with caseous matter; the distension was greatest near the fimbriated portion of the tubes, and was especially so on the right side. The uterus was adherent to the posterior wall of the bladder, and a condition of acute anteflexion seemed to be set up thereby. The cervix was healthy. The body of the uterus was largely distended with caseous matter. He showed the specimen as one of rarity in a child, though such cases were not uncommon in the adult. The uterine walls were hypertrophied, and this was possibly due to the efforts made to empty the cavity of its contents. There were no signs of vulvitis, and there was no history of such an affection.—Dr. GRAILY HEWITT concurred in the view Dr. Silcock had taken. The strong fibrous adhesions, no doubt, caused acute anteflexion, which had been of some standing. Had the patient lived this condition of anteflexion would have continued throughout life. With regard to the presence of distension of the body of the uterus, he thought such a condition might lead to distension of the Fallopian tubes, which was a subject that had received comparatively little attention. The state of the uterus might have been brought about by the obstruction to the outflow of the material owing to the strongly anteflexed condition of the organ.—Dr. A. MONEY had met with two specimens of caseous disease of the body of the uterus and Fallopian tubes in children aged about five years. These cases are recorded in the post-mortem records of the Hospital for Sick Children.—Dr. SEYMOUR SHARKEY questioned whether this condition was a rare one. He had seen several specimens in the adult. In a case of stricture of the intestines which he had shown to the Society there was caseous disease of one of the Fallopian tubes. Mr. EVE also said that he had recently seen two cases of this affection within a short space of time.—Dr. CARRINGTON said that the disease was not uncommon in the adult, though it might be rare in children.—Dr. HADDEN said that various degrees of the disease were to be met with in the adult, and Dr. K. Fowler had shown that the affection was by no means rare.—Mr. SHEILD said that some cases were not of a true tubercular nature, but were the result of disintegration of the caseous products of suppurative inflammation.—Dr. PERCY KIDD had seen only two cases of tubercular disease of the body of the uterus out of 200 autopsies on cases of phthisis in the adult. Disease of the Fallopian tubes was much more common.—Dr. GOODHART said that he had tabulated the results of an experience of ten years, and found that he had seen seven cases of tubercle of the Fallopian tubes; twelve cases of suppuration of these parts; eight of cystic disease, and seven of adhesions. The body of the uterus was but seldom affected by tubercular disease, and he had seen only two or three such cases. In his opinion suppurating cases had been mixed up with tubercular ones.—Dr. BRISTOWE said it was plain that the disease was relatively common, and he had recorded a few instances in the earlier volumes of the Transactions of the Society. He was perfectly certain that the disease might exist without giving rise to symptoms during life. Probably the organs were affected as a part of the general disease.—Dr. SILCOCK, in reply, said that he merely contended for the rarity of the disease in children. He had not been able to find the bacilli in the caseous matter of the organs affected, and Mr. Watson Cheyne had informed him that degeneration of the products might explain this want of success. Distension of the body of the uterus was not necessary to the production of a similar condition of the Fallopian tubes. In a post-morten examination of a case of abortion he had found pyo-salpinx without disease of the fundus of the uterus, so that the distension of the fundus was not necessary to the production of pyo-salpinx.

Dr. HALE WHITE showed specimens of a peculiar form of Acute Nephritis. The kidneys were taken from a man who was brought into Guy's Hospital in an unconscious condition. Twelve days before admission he had been knocked down by a cart, since then he had been ill; he was found in an unconscious state in the streets. On admission he was comatose, with stertorous breathing. There was no paralysis and no cardiac murmur. The urine was bloody. He soon died in the comatose state, during which an occasional convulsion was noticed. Croton oil and pilocarpin had no effect. At the autopsy there was no dropsy, sores, scars, or signs of injury, and no evidence of pyæmia. The bladder and urethra were healthy. The only abnormality of any importance was the condition of the kidney. The two were exactly alike, very bulky, firm, and weighed nineteen ounces together. The pyramids were very dark; there was no evidence of chronic Bright's disease. Projecting here and there on the surface were whitish patches, a little raised about the size of a split pea, and looking something like abscesses. Section of the kidney showed these patches to be most numerous in the medullary part. The largest was half an inch in diameter. Each had two zones, an outer crenated one of a pale yellowish-white colour with a greyish tint at its exterior, and an inner dark-brown zone, sometimes breaking down to pus. The kidney structure around each patch was red and inflamed; this inflamed part was sharply marked off from the healthy kidney substance. Those patches in the medulla were triangular with the apex towards the pyramid, and radiately striated in appearance. The diseased spots in the cortex were circular. The pelvis of kidney was normal. Microscopic examination showed that there was slight epithelial and interstitial nephritis. The part which to the naked eye was abnormal showed a large number of pus cells between and in the tubes; the whole had a broken-up appearance, bits of tubes being here and there visible among the pus cells; sometimes this process had extended far enough to form a definite abscess. The great rarity of this condition was pointed out. It was not scarlatinal, nor was there any history of scarlet fever; it could hardly be due to the injury; there was no evidence of pyæmia anywhere in the body, nor was there anything to suggest "surgical" kidney.

The following card specimens were shown:—Mr. Eve: Enchrondroma of Pelvis, and a recent specimen of Colloid Disease of Omentum. Dr. C. Turner: Necrosis of Renal Pelvis. Dr. Silcock: Croupous Enteritis of Ileum. Mr. John Poland: Ununited Fracture of Internal Condyle of Humerus. Mr. Jonathan Hutchinson, jun.: Lupus Lymphaticus. Dr. Beevor: Nerve Tissues stained by Weigert's new Method. Mr. Marmaduke Sheild: Tumour of Humerus. Mr. Gross: Œsophagus and Parts from a fatal case of Sword-swallowing. Dr. Hale White: A living specimen of a Cryptorchid.

CLINICAL SOCIETY OF LONDON.

Locomotor Ataxy without Disease of the Posterior Columns of the Spinal Cord.—Arrested Rickets.—Nephrolithotomy.

AN ordinary meeting of this Society was held on Feb. 27th, Mr. Thomas Bryant, F.R.C.S., President, in the chair. The first paper elicited considerable discussion, in which Dr. Wilks and Dr. Bristowe joined.

Dr. A. HUGHES BENNETT read notes of a case of Locomotor Ataxy, without Disease of the Posterior Columns of the Spinal Cord. The patient, a man aged forty-eight, suffered from all the usual symptoms of locomotor ataxy, including incoördination of movement, without loss of muscular power, a typical ataxic gait, Romberg's symptom, impaired and retarded sensibility of the lower extremities, lancinating pains, and loss of the knee-jerk phenomena. After death evidences of general acute cerebritis were found with patches of recent softening. In the medulla oblongata there was a mass of sarcomatous infiltration occupying its posterior and central aspects; with the exception of one anterior cornu in a limited portion of the lumbar region, the cord was perfectly normal throughout, as were also the posterior cornua and roots within the circle of the spinal membranes. Outside these the posterior roots in the dorsal and lumbar regions were found involved in a mass of sarcoma, which extended as far upwards as the cervical portion of the cord. In the lumbar region the anterior roots were implicated, but only to a very limited degree. Microscopical preparations and drawings illustrating these facts were shown at the meeting. In commenting on this fact special attention was directed to the pathological and clinical phenomena. It was pointed out that the patches of central softening were probably quite recent, and due to the acute cerebritis which supervened shortly before death. The sarcomatous growth in the medulla was stated to be a rare pathological condition; and the absence of pronounced bulbar symptoms was explained by the supposition that the morbid material had infiltrated the normal structure without

causing serious degeneration. Although one anterior horn was implicated, and some of the anterior roots slightly involved in the disease, it was evident that this had caused few symptoms during life, as the motor power was unimpared, there was no muscular wasting, and the reflex reactions were normal. The clinical point illustrated by this case, to which it was the object of the paper especially to direct attention, was the relation which existed between the spinal symptoms and the lesions in the posterior roots of the cord. It was pointed out that the patient during life suffered from all the prominent symptoms of tabes dorsalis, and presented a fairly typical clinical picture of what we understand of that disease. It was then stated that the universal belief is that the essential lesion of locomotor ataxy is sclerosis of the posterior root-zones of the cord. In the case under consideration there was no trace of disease of any portion of the posterior columns, proving that for the production of ataxy degeneration of the cord is not an essential factor. Reference was made to the cases published by M. Déjerine, in which there were all the symptoms of tabes, and after death only parenchymatous neuritis of the peripheral nerve-endings was found, the cord, roots, and nerves being intact. From this it was maintained that interruption of the different paths at the periphery was capable of causing ataxy in as characteristic a manner as when these tracts were diseased in the cord. The case under notice shows that lesion of a third locality may produce the same effects- namely, at the posterior spinal roots. It was asserted that this was a pathological confirmation of the experimental researches of Van Deen and Claude Bernard, who by dividing the posterior roots induced incoördination of movement without motor paralysis. It supported the view that those elements which convey the impulses regulating coördination are situated in the afferent paths of the nervous system. Whatever theory be advanced to explain the physiology of locomotor ataxy, this serves to show that the point at which, in the causation of the phenomena, the nervous path is interrupted, need not of necessity, as is generally asserted, be primarily situated in the posterior root zones of the spinal cord. Reflection on this fact suggests that we have not yet fathomed the anatomical substratum of that protean disorder which we at present recognise under the term "tabes dorsalis." This assemblage of symptoms probably consists of a combination of different pathological conditions, many of which are represented by phenomena common to all, and each of which may in time be differentiated. It is possible that a case such as the present may prove a link in the chain of discovery.—Dr. SAMUEL WILKS said that the case afforded another proof of the proposition that the pathology of the disease was still unknown. He had seen cases having many of the symptoms of locomotor ataxy end in recovery. With respect to the "classic lesion" of tabes dorsalis, he thought there had been but few cases brought forward corroborative of the dictum of Pierret, that the disease was limited to the posterior root columns of the cord. Cases of sclerosis of the whole of the posterior columns had been recorded in this and other countries. He thought that cases of tabes dorsalis were discussed too much from a physiological rather than clinical or pachological point of view, and he ventured to assert that we were not in a position to discuss the subject from this point of view. Many views had been held of the pathology of tabes dorsalis; cutaneous anæsthesia, loss of muscular sense, and other physiological disturbances had been put forward as the cause of locomotor ataxy. He considered that we had not yet got to the real source of the pathology of locomotor ataxy. He ventured to say that we were too apt to follow the French, and to accept their teachings without sufficient examination. He could not think that the pathological condition of sclerosis of the posterior root zones was sufficient to give rise to every possible symptom of nervous disease. There was not an organ in the body which could not be diseased in tabes dorsalis, and he did not think that such a protean affection could be due to disease of the posterior root columns.—Dr. ALTHAUS said that in general paralysis of the insane the pupils were unequal, whilst in locomotor ataxy the pupils are equal, with a very few exceptions. He considered that Dr. Bennett's case was one of an exceedingly rare condition, for sarcoma was said by Virchow to be of great rarity in the spinal cord. Much speculation had been made concerning the symptoms to be attributed to disease of the posterior roots, and he agreed with Dr. Wilks that we had still much to learn. The duration of Dr. Bennett's case was very brief; locomotor ataxy lasted even as long as twenty-five years, and then the patient died of a complication rather than of the disease itself. He could not follow Dr. Wilks in regard to the belief that cases of recovery from locomotor ataxy could not be due to sclerosis of the posterior columns. Such cases may recover from the clinical symptoms, whilst they continue to have the disease of the posterior columns. He referred to cases which had been recorded in which sclerosis of the entire extent of the posterior columns was found, the patient having died of another disease. He considered that a vicarious action of other parts of the spinal cord could supply the lost functions.—Dr. C. TURNER had made an autopsy and microscopical examination of a case which died at an early stage, which was probably one of commencing sclerosis. There was exudation in the central parts of the posterior columns between the columns of Goll and the root-zone. The serous or albuminous exudation was very extensive. The patient had had some symptoms of tabes dorsalis, such as ataxic phenomena and ocular symptoms. Death followed tracheotomy, which was performed for some laryngeal trouble. He had also seen a case somewhat similar to that of Dr. Bennett's. There was a growth in the fourth ventricle which encroached on the cerebellum; many tumours were disseminated down the spinal cord; in parts the new growths had invaded the posterior columns of the cord. There was loss of reflex action in this case, which occurred in a child. He thought that the occurrence of these exceptional cases did not throw any doubt on the ordinarily accepted views of the pathology of tabes dorsalis. Disease at any part of the course of the circle might give rise to similar groups of symptoms, so that there was nothing strange in the occurrence of the phenomena when the peripheral nerves were alone affected.—Dr. BEEVOR said that Dr. Bennett's case bore on the question whether the disease begins primarily in the nerve tubules or whether it begins in the neuroglia. The growth evidently began outside the nerve tubules, and these were secondarily damaged. In a specimen which he had examined the nerve tubules were seen to be surrounded by a very thick band of fibrous tissue. The pains were probably due to the nerve tubules being compressed by the sclerotic tissue. Cases had been recorded by Buzzard and Adamkiewicz in which the bloodvessels were the primary seats of disease.—Dr. HADDEN said that in cases of alcoholic paralysis symptoms of tabes dorsalis may be present. Dr. Wilks had described cases of alcoholic disease which were very like those of ataxy. He (Dr. Hadden) had reported two cases of alcoholic paraplegia in which there were very marked changes in the peripheral nerves, but none in the spinal cord. The paralysis of the third or sixth nerve could hardly be due to disease of the posterior root zones. He mentioned a case which he had lately seen in which locomotor ataxy was diagnosed by many physicians. At the autopsy sclerosis of the columns of Goll, and symmetrical sclerosis of the lateral columns, were the lesions found. Optic nerve atrophy was also present.—Dr. BRISTOWE thought that Dr. Bennett's case helped to throw a good deal of light on the pathology of tabes dorsalis, for it seemed to show that in the posterior roots there must be all those elements which entered into the formation of the postero-external columns of the cord. The pupils were unequal perhaps in the majority of cases of locomotor ataxy which he had observed. He had never seen recovery of a case of undoubted locomotor ataxy, though he had seen cases in which symptoms which might be mistaken for those of tabes dorsalis have disappeared. He narrated the case of a middle-aged woman who suffered from severe headache, giddiness, and double vision, with staggering gait; there were attacks of profound nausea without vomiting; paralysis of both external recti, of the right internal rectus, and of the portio dura was present. There was also paralysis and tingling of the right arm, with stiffness in the legs, the reflexes of which were exaggerated, and ankle clonus could be obtained. The patient also became colour blind, and there was contraction of the field of vision. The illness had lasted from three to four months, when gradually first one symptom and then another disappeared. Now this happened two years ago, and the patient was still well and performing her accustomed duties.—Dr. WILKS said that cases of organic disease of the central nervous system were treated by the usual remedies, and yet when one was cured, then we believed that the diagnosis was at fault.—Dr. BENNETT briefly replied.

Dr. SEYMOUR TAYLOR related the case of Arrested Rickets shown by him at the last meeting. The patient, aged six, came under notice in June, 1884. He is the twelfth child out of sixteen, and was born at term. His parents are healthy and temperate. His brothers and sisters enjoy good health, but two sisters are "knock-kneed." His mother dates his illness from a fall from his cot when a year and a half old. Subsequently he was treated by different practitioners for bronchitis and also "enlarged liver," and there was also at that time a history of laryngismus stridulus and profuse sweatings, especially about the head. The child now presents the typical pigeon breast, with beading of the sternal ends of the ribs. He has chronic bronchitis. The heart is depressed and pushed towards the right side. There is no cardiac murmur. He is stunted in growth; the limbs are shortened with marked curvatures of bones; he is "pot-bellied," and the spine is curved to the right; the fontanelles are closed; the frontal bone is "prow-shaped"; the girth at the occipital protuberance is 20¾ in. As regards the causation of the disease in this case, there is a remarkable absence of the recognised influences. He was born and reared in fairly healthy surroundings. His parents are healthy, but his mother has borne children very fast (sixteen in twenty-two years), but has had no premature nor stillborn children. This child is the only weakly one in the family. The injury to the child from a fall is interesting, as showing what may be the starting point of the disease in a child predisposed to rickets.—Mr. R. W. PARKER thought that there was no doubt that a large percentage of rickets became arrested, and it was not uncommon for all traces of the disease to disappear. It occurred to him to ask whether this case was one of arrested rickets. The extreme stunting and deformity at such an age seemed to him to point to the conclusion that a dyscrasia was still present, and he suggested seaside treatment, with systematic shampooing and gymnastics.—Dr. CHARTERS SYMONDS said that the case seemed to him to be one rather of continued than arrested rickets. He referred to a case of juvenile osteomalacia, which Mr. Davies-Colley had placed on record, and which somewhat resembled the present one.—Dr. ANGEL MONEY thought a paper by Dr. J. S. Bury of Manchester, on Osteomalacia in Rickets, had not received the attention it deserved. It was read at the British Medical Association in July, 1883.—Dr. SEYMOUR TAYLOR said that the patient had been treated by gymnastics and shampooing, and he hoped to continue this mode of treatment systematically.

Dr. CHARTERS J. SYMONDS read a paper on a case of Nephro-lithotomy. It was that of a man, aged fifty, who had suffered for twenty-four years from left renal colic. The attacks occurred at varying intervals, and lasted from a day to a week. During the last four years this pain had nearly left him, and his health improved. Seven months ago micturition became frequent, and three months later blood appeared in the urine, in amount sufficient at times to obstruct the urethra by the coagula. Blood generally appeared after working, particularly gardening, and he had a dull pain in the left loin. No tumour could be felt. The case being under Dr. Mahomed's care, Dr. Symonds was called to see him, and it was decided to cut down on the left kidney. This was done on July 11th, 1883, the incision being parallel and close to the last rib. The lower end of the kidney was first isolated, and at once a stone was felt fixed in the commencement of the ureter. The tissues were scratched through with a director, but on enlarging the opening the stone fell back into the pelvis of the kidney, which was greatly dilated. Finally the cortex was cut into, the finger introduced, and the stone removed. Very little bleeding followed. The operation was performed antiseptically, and by the 20th the wound had entirely closed. Attention was directed to the importance of isolating the lower end of the kidney first and examining from the anterior surface, in the way pointed out by Mr. Howse; also to the rapid union which followed, notwithstanding the amount of injury inflicted upon the kidney. In the subsequent history of the case, it was stated that six months after there still remained some blood in the urine, that the pain still continued to some extent, and it was feared that a calculus existed in the other kidney. When last heard of, Nov. 10th, 1884, the man was free from pain except when he overexerted himself. The urine contained pus and some blood.

Mr. HENRY MORRIS read a paper on a case of Nephro-lithotomy. The patient, aged twenty-four, a jeweller, was admitted under Dr. Powell into the Middlesex Hospital on April 10th, 1884, suffering from symptoms of calculus in the left kidney. Since his schoolboy days he had complained of pains in his loins, but in spite of this he had enjoyed fairly good health until about two years ago, when he was attacked by "kidney complaint." This came on without any assignable cause, and was chiefly marked by pains in the left loin, shooting down at times to his left testicle. For three weeks before admission these pains had been too severe to permit of his working, and he attended during this period at the out-patient department. On admission he had pain in his left renal region, and tenderness on deep pressure in the left loin. His urine was neutral, of sp. gr. 1010, and contained blood and triple phosphates. There was frequency of micturition, though the urine was stated to be somewhat deficient in quantity. Five days after admission, however, it was noted that the average daily quantity of urine voided had been forty-five ounces. From April 10th to 25th the pain was diminished and inconstant; but there was still tenderness on deep pressure in the left lumbar region. When the pain occurred there was retraction of the testis. Moreover, the left testis was discovered to be much atrophied. The urine at this time was acid, sp. gr. 1024, and contained a trace of albumen due to the presence of pus. Nephro-lithotomy was performed on May 10th, 1884. A calculus was felt by the finger on the front of the kidney near the inner border and below the hilus. Digital examination of the posterior surface and acupuncture of the kidney had previously failed to detect it. The sensation communicated to the finger by the calculus through the renal substance was simply that of increased induration, as compared with the resistance offered by the rest of the kidney. With his finger-nail Mr. Morris scratched through the renal tissue covering the calculus, and thus verified the nature of the induration; then with a bistoury he incised the inner free edge from the posterior surface, and partly by pushing the calculus with the left index finger (which was kept all the while in front of the kidney) and partly by the aid of a narrow curette the stone was dislodged and removed. There was no hæmorrhage of any moment from first to last. A large drainage-tube was introduced into the wound, but not into the kidney; the edges of the wound were held together by sutures; and terebene oil on lint and a thick layer on cotton-wool were retained over the wound by a tight bandage. The operation was performed at 2 P.M. At 1 P.M. he had micturated for the last time before the operation, and no urine was passed, after the operation, by the penis until 7.30 A.M., on May 11th, when fifteen ounces of lightly blood-stained urine were voided naturally. At noon on the same day (May 11th) nine ounces more were voided, so that twenty-four ounces were passed naturally in the first twenty-four hours after the operation. The dressings were changed once in the evening of the day of operation, and three times on the following day, but on May 12th there was so little discharge from the wound that this frequency of dressing was considered quite unnecessary. Urine had, in fact, ceased to pass by the wound. During the second period of twenty-four hours the urine was passed as follows:—May 11th: 2.50 P.M., 4 oz.; 5 P.M., 4 oz.; 10 P.M., 4 oz. — 12th: 12.15 P.M., 5 oz.; 2 A.M., 4 oz.; 5.15 A.M. 6 oz.; 7.50 A.M., 10 oz.; 10.45 A.M., 6 oz.; 1.21 P.M., 5 oz. Making a total of 48 oz. The urine voided continued to be blood-stained until May 14th. On the 15th it was neither blood-stained nor did it contain albumen. Its specific gravity was 1023, and there were 40 oz. voided in twenty-four hours. On the 16th the quantity of urea was estimated, and found to be 495 gr. in 42 oz. passed in twenty-four hours. On May 17th the wound was in great part united, and the stitches were removed. The patient had had no pain since the operation, and his only discomfort had been the enforced detention in the recumbent position. On May 20th the bowels had not acted since the operation, and so an enema was given. This had the desired effect, and the defecation was unattended by pain; but on May 21st, from the state of the dressing, it was inferred that a little urine had again been discharged through the torn wound. The temperature rose on this day to over 101°, 101·8° being the highest. On the following day, the 18th, and on part of the 19th, the temperature remained just below 100°. With these exceptions the temperature throughout never exceeded 99° F. Sixty ounces of urine were passed per urethram, so that the chief part, if not the whole, of the urine from the left, as well as the right, kidney, must have come the proper way. On the 23rd the bowels again acted twice, and again a small quantity of urine was thought to have come subsequently through the wound, but the amount so escaping was extremely small.

It would seem as if the passage of the fæces along the descending colon caused some disturbance to the wound in the kidney, which, however, must have nearly healed. This interference was the less improbable owing to the situation of the wound in the kidney. Forty-six ounces of urine were passed the natural way; it was of good colour, sp. gr. 1027, acid, and contained no albumen. On May 28th the patient, who had been on ordinary diet since the 26th, was feeling quite well, and only the track of the drainage-tube remained unhealed. On June 3rd this track had closed, so that not even a fine tube could be introduced. On June 10th he got up for the first time. On June 12th he went into the garden and there took walking exercise. He continued to gain strength daily, and was considered to be well, when on June 25th, at 8 P.M., after taking a good deal of exercise outdoors, he passed urine coloured deeply with blood. At 4.30 A.M. on June 27th the urine was still more blood-stained than that passed at eight the previous evening. At 9 A.M., June 27th, the urine was much less mixed with blood, and on June 28th 51 oz. of urine were passed in twenty-four hours: it was acid and of sp. gr. 1020, and contained neither blood nor albumen. The bowels had been acting twice a day, so that the hæmorrhage could not have been due to pressure on the kidney by an overloaded colon. No pain, sense of discomfort, or feeling of illness of any sort, attended this attack of hæmaturia. For a few days he was kept in bed, but there was no return of the hæmaturia, and on July 8th he left the hospital quite well and with the cicatrix in his loin throughout perfectly firm. On several occasions since (the last being Jan., 1885) he has been seen at the hospital. He has had no return of the hæmaturia, never suffers pain, has been at work regularly since leaving the hospital, and has never felt better in his life than now. The calculus consisted of a nucleus of oxalate of lime coated first with urate of ammonia, and outside this with oxalate of lime again.—Mr. BARWELL thought that it would have been better if the kidney had been removed at the time of the operation in Dr. Symonds's case, for the kidney was evidently considerably diseased. He did not think that the danger would have been increased by nephrectomy. He did not think that the other kidney should be inspected, at any rate until an estimate of the amount of urea discharged had been estimated.—Dr. CHARTERS SYMONDS said that though the kidney was practically useless, nevertheless it was merely atrophied from pressure; and, as no active disease was present, he decided to leave it.

Mr. Morrant Baker showed a living specimen of Floating Kidney in a Man.

MEDICAL SOCIETY OF LONDON.

Annual General Meeting.—Diet in the Febrile State.

THE annual general meeting of this Society was held on Monday last, Mr. Arthur E. Durham, F.R.C.S., President, in the chair.

Mr. A. P. GOULD read the report of the Council, which congratulated the meeting upon the prosperity which has marked the one hundred and twelfth year of the Society's existence. The Proceedings of the Society would continue to be published annually. Only one essay had been received in competition for the Fothergillian medal, and the adjudicators had not yet completed their report. The financial position of the Society had been materially improved.

The report of the hon. librarian, Dr. ALLCHIN, stated that upwards of 2500 volumes on the subjects of Anatomy, Physiology, Medicine, Surgery, and Midwifery had been repaired and catalogued and placed in their respective sections for easy reference.

The adoption of the reports was moved by Dr. SEWELL, seconded by Mr. DAVY, and carried.

Sir JOSEPH FAYRER moved a vote of thanks to the retiring President, which was seconded by Mr. GOODSALL, and duly acknowledged by Mr. DURHAM.

A vote of thanks to Dr. Wiltshire on retiring from the position of honorary treasurer, the duties of which he had discharged during a very anxious period, was proposed by Dr. THEODORE WILLIAMS, and seconded by Dr. WALTER SMITH. After a vote of thanks to the retiring vice-presidents and members of Council had been carried, a similar vote to the retiring honorary secretary, Mr. Pearce Gould, was put and carried by acclamation.

Dr. ALLCHIN read a paper on Diet in the Febrile State, which appears in full on another page.—Dr. ROUTH advocated the use of inunction to check cutaneous respiration and so diminish the pyrexia. As to diet, he strongly recommended raw beef-juice, made with tepid water, which was very easily absorbed; he estimated that three claret wine-glasses were equivalent to a mutton chop. He agreed with Dr. Allchin in recommending fats, especially cod-liver oil, in fever to supply the waste of hydrocarbon.—Dr. DE HAVILLAND HALL regretted the absence of practical observations drawn from Dr. Allchin's experience. Dr. Dupré had provided an excellent practical recipe for the beef-tea or beef-juice recommended by Liebig. Take one pound of meat and one pint of distilled water, from two to four minims of hydrochloric acid, and from fifty to ninety grains of common salt. The meat must be finely minced and soaked in water for one hour; the fluid was then to be strained through a fine sieve without pressure, and the filtrate made up to one pint. The whole of the albumen was thus extracted.—Dr. T. H. GREEN thought Dr. Allchin's paper gave an excellent *résumé* of the physiology of diet.—Dr. PARAMORE made some remarks on the value of various articles of diet which might be used either as food for children or in fever.—Dr. ALLCHIN, in reply, said that he had specially advocated the use of partially-digested amyloid foods.

Reviews and Notices of Books.

A Practical Treatise on Urinary and Renal Diseases. By W. ROBERTS, M.D., F.R.S., Professor of Medicine at the Victoria University, and Consulting Physician to the Manchester Royal Infirmary; assisted by R. MAGUIRE, M.D. Lond. Fourth Edition. London: Smith, Elder, and Co. 1885.

TWENTY years have nearly elapsed since the first edition of Dr. Roberts' work on Renal and Urinary Diseases was brought under the notice of the profession, and during that period it has undoubtedly held a foremost position among works on the same subject, both as a text-book for the student and as a practical work of reference for the practitioner. The cause of its great success lay both in its comprehensiveness and conciseness. Other works, indeed, were before the profession, but they either dealt with part only of the subject or else were too diffuse for practical purposes. Another attractive feature of Dr. Roberts' treatise was its eminently clinical character and the graphic manner in which the essential features of the disease under consideration were portrayed. The third edition of the work has now been exhausted for some years, and hitherto Dr. Roberts, for want of leisure, has been unable to undertake the preparation of a fourth; but, having obtained the assistance of Dr. Maguire, he has at length been able to accomplish it. The task must have been no slight one, for during the few years that have elapsed since the appearance of the last edition our knowledge with regard to renal and urinary pathology and physiology has extended so enormously that nearly the whole of the subject matter of the work required to be either revised or entirely rewritten. In many points the authors have succeeded in this difficult task, but at the same time we must confess to some disappointment that the work does not always keep itself quite in touch with existing views. This, no doubt, is occasioned by a natural desire to keep to the old lines as much as possible whilst importing new material; but this has resulted in places in a want of harmony between the new and the old.

The opening chapters, describing the Physical Properties and Chemical Constituents of the Urine, together with the methods of examining that fluid, are excellently arranged, and are full of information. In the section describing the colouring matter of the urine we find the interesting observations of Dr. Maguire, on the occurrence of certain urines which become brown on exposure, owing to the presence of pyrocatechin, which he believes to be identical with Bödecker's alkapton. Speaking of the presence of bile acids in the urine, he mentions only Harley's view that they are charac-

teristic of jaundice from obstruction, and does not mention the fact that they are constantly present in small quantities in normal urine, nor the view, now generally accepted, that bile acids are found only in the earlier stages of all forms of jaundice, and that they disappear as the destruction of the liver tissue proceeds. With respect to the physiological variations in the reaction of urine, Dr. Roberts still considers that the "alkaline tide" is caused by the preponderance of alkaline bases taken in as food. Though this may possibly explain its occurrence after a meal, it altogether fails to account for it when no food is taken, such as after cold bathing, &c. Dr. Roberts does not believe "that there is any constitutional state specially characterised by an excessive elimination of phosphates." Although undoubtedly in a considerable number of cases the so-called "phosphatic diathesis" is nothing more than a deposit of earthy phosphates, without any excessive elimination, still there are many well-authenticated cases on record which show that the total amount of phosphoric acid excreted daily may be increased considerably, out of proportion to the other urinary constituents, and which can only be accounted for on the supposition that there is increased metabolism of the phosphorus-yielding tissues. No mention is made of the occurrence of partially oxidised phosphorus in urine, in the form of glycerin-phosphoric acid, protagon, or lecithin; it has, however, been found in the urines of patients suffering from various nervous disorders, diabetes mellitus, and phthisis.

In the chapter on Micro-organisms in the Urine, Dr. Roberts, in addition to the usual forms, describes an organism he met with in the form of beaded threads, or micrococcic chains, in freshly passed undecomposed urine. He has never met with a similar case, and, on account of its rarity, believes the parasite to be of exotic origin. As the patient had resided some years previously in South America, this opinion is likely to be correct.

The chapter on Diabetes, both insipid and saccharine, is characterised by the author's usual clinical insight. We must demur, however, to the statement that the classification of the former into a disorder characterised by a profuse discharge of water without an increase in the amount of solids, and into another characterised by only a moderate discharge of water but an excessive elimination of solids, is "valueless in practice" or difficult to determine. Surely there must be a vast distinction between the mere draining off of water unattended with any definite increase of solids, and those cases in which the solid matters are doubled and trebled. In the one instance the hydruria is caused by mere increase of pressure in the capillaries of the kidneys under vaso-motor influence; in the other the drain of solid matters is occasioned by increased metabolism throughout the body generally. Nor is the difficulty in the way of recognising the condition so stupendous as Dr. Roberts imagines; the collection of the twenty-four hours' urine once a week and the determination of the specific gravity of the collected urine being all that is required. With regard to diabetes mellitus, we must express a somewhat similar regret that the distinction between the more permanent forms of diabetes and those in which sugar appears as a more or less fleeting symptom is not more clearly defined. In this we think the suggestion originally made by Dr. Lauder Brunton extremely valuable—viz., to restrict the term diabetes to the more permanent forms, whether mild or severe, whilst the purely symptomatic forms should be simply referred to as glycosuria. Again, with regard to the unity or multiformity of Bright's disease, we fancy the statement that the belief in the multiformity of the disease has "steadily gained ground" in this country will be received with considerable reserve; certainly it is not borne out by reference to the recent contributions of younger pathologists. Dr. Roberts still includes the waxy kidney among the many forms of chronic Bright's disease, though he admits that many pathologists now distinguish between it and the changes resulting from diffuse inflammation.

The chapter devoted to Suppurative Inflammations is perhaps the least satisfactory in the work, and yet within the last few years it has been much discussed and made the subject of extensive research. Little allusion is made to perinephritis. The valuable investigations of Mr. Marcus Beck (published in 1879) into the pathological conditions that give rise to "surgical kidney," or, as he terms it, consecutive nephritis, are dismissed in a foot-note. This is hardly a fair recognition of what perhaps may be considered one of the best contributions to original pathological research, published during the last five years, and one which has done so much to throw light on this difficult question. Mr. Beck's work is now generally recognised. Mr. Doran, in his recent volume on Diseases of the Ovaries, &c., has pointed out how frequently the morbid conditions noticed by Mr. Beck are found in the kidney after death from operations on the internal genital organs. This observation, taken in conjunction with the fact communicated by Dr. Matthews Duncan, that albuminuria is frequently associated with parametritis (a communication which Dr. Roberts has overlooked), seems to show a probable connexion between the kidneys and the internal genital organs. This connexion, which Dr. Matthews Duncan considers to have reference to embryonic development, may probably be due to communication through the lymphatics, a supposition which the recent researches of Dr. Steven of Glasgow render extremely probable. Finally, we imagine surgeons will dissent from the opinion that the question of the removal of the kidney in unilateral pyonephrosis must still "be considered *sub judice*."

In bringing our remarks to a conclusion, we would observe that our criticism has been made in no adverse spirit. The present edition deserves all the praise that we have already bestowed on previous issues of the work, but we have felt that a systematic and representative treatise of this kind should adequately represent the views held by the working pathologists of the day. We do not say that their views should be adopted, but they are certainly deserving of more recognition and criticism than have been accorded them in the volume before us.

In War Time. By WEIR MITCHELL. Boston: Houghton, Mifflin, and Co. 1885.

Charley Kingston's Aunt. By "PEN OLIVER." London: Macmillan and Co. 1885.

IT cannot be doubted that success in our profession is not unfrequently due to the possession of powers of exposition above the ordinary. We have known men to owe their position, both in the profession and outside it, almost solely to their mastery of the English language. It would perhaps be going too far to say that success is impossible without the possession of the literary faculty, but it is certain that where this power is combined with fair intellectual abilities success is sure to come sooner or later. Dr. Weir Mitchell is known to the profession at large as a man of unusual mental capacity, endowed with the powers of original research and literary expression in a remarkable degree. As a work of shrewd observation and sound inference his first essay in prose is a thorough model. The true physician ought to have the gift of clear insight into the nature of men and things; he should be able to penetrate the thin coating of veneer which civilisation has developed as an exoskeleton about the hearts of men. Even where civilisation exists in its earliest dawn, as amongst savages living in tribes, the heart is invested with a thin covering which mostly takes the shape of artfulness, and is easy to dismantle. The most prominent character in Dr. Weir Mitchell's novel is that of

Dr. Wendell, for whom one can but have the heartiest contempt, notwithstanding that he manages to engage the serious affections of Mrs. Alice Westerley, a creation with which we are in love, and a few specimens of which we believe we are acquainted with in actual life. Dr. Wendell is presented as capable in a measure of high intellectual abilities, but utterly wanting in any of those traits which deservedly call forth our admiration and sympathy; he is a weak-backed, insignificant piece of human nature, which we would fain believe is not represented in the ranks of the medical profession of to-day; of courage he has none; of instability he is a perfect example; his powers of application are of the feeblest. Blest with extraordinary powers of taste for colour, form, and music, his is a gentle intellectuality, totally unfit to cope with the serious business of the medical profession. Indeed, as the author says, "it seems probable that he should never have been a doctor at all." The novel is decidedly interesting; its dramatic features are good; the plot is not very strong, but the interest in the story seldom flags; the conversation is for the most part natural, the sentiments are of the refined orthodox order, and the language, though occasionally savouring a little too much of poetic licence, is taken from the well of English undefiled. "Where the barren soil seemed to give back no least return" reads more like a line of verse than of prose.

The interest of "Charley Kingston's Aunt" is of a rather more exciting kind than that of the tale above noticed. We think "Charley Kingston's Aunt" will be widely read, not as a serious literary attempt, but as an attractive story of the lighter kind. There is nothing improbable in the plot, and the story is well narrated. Besides the incident—in the dissecting-room—on which the novel hangs, there is scarcely more than a little by-play in the form of a love-chase, the course of which runs fairly smoothly. The novel might be compared to a star company at a theatre or to one of Doré's pictures, where the central figure is everything, and where the setting simply serves as a foil to the principal character. In this respect it contrasts with Dr. Weir Mitchell's narrative, which abounds in skilful delineation of character.

ARMY ESTIMATES.

IN the army estimates which have just been published the sum required to defray the "expense of the medical establishment and services" is stated as £320,960. In the estimates for 1884-85 it was only £303,000, but a sum of £15,000 was provided in a supplementary estimate on account of the war in the Soudan, thus raising the total to £318,000. The increase for the coming year, therefore, is only £2960, but as there is shown a decrease of £6000 in the charge for militia surgeons and civilian medical practitioners, the increase would be more correctly stated at about £9000. A considerable portion of this increase, however, is due to the transfer to the medical vote of the officers of the Medical Staff Corps, formerly included under the vote for regimental pay. The estimates show an increase in the *personnel* of the medical staff of twenty-four executive officers and a decrease of four acting medical officers and of two apothecaries; the number of administrative officers remains unchanged. The strength of the department, exclusive of the officers employed in India, will be 1 director-general, 7 surgeons-general, 20 deputy surgeons-general, 51 brigade surgeons, surgeons-major and surgeons, 52 acting medical officers, and 1 apothecary. For the pay and allowances of these officers, and including surgeons on probation at Netley, the sum of £245,065 is required. A further sum of £4000 is taken for the pay of civilian medical practitioners and medical bills, of which £380 are for colonial stations and the rest for home districts. The Army Medical School at Netley requires £7268, but this includes an "allowance to the examiners of candidates for the medical service" of £700. For the Army Sanitary Committee £1150 are taken, being the same amount as in previous years. The strength of the Medical Staff Corps is stated at forty-nine officers and 2400 non-commissioned officers and men. The sum estimated for their pay and allowances is £87,955; in addition to this there is a charge of £25,500 for departmental and extra duty pay. For pay of nurses, extra duty pay of regimental hospital orderlies, and miscellaneous labour £8650 are required, but we cannot find any statement of the number of nurses included under this head. We are glad to observe that it is intended to continue the instruction of the men of the medical staff corps in hospital cookery, £550 being taken for the pay and allowances of civilian instructors. The estimate for medicines, &c., amounts to £25,000, being £2000 above that of the preceding year. The number of medical officers on half-pay eligible for employment is very small, amounting only to eight, of whom one is an administrative officer and seven are executive officers. On the retired list the numbers are 407, and the estimated amount required is £160,000. There are 258 widows of medical officers in receipt of pensions, and fourteen medical officers receive £100 per annum, each as reward for distinguished or meritorious services; in the list of the latter no change has occurred during the past year.

NAVY ESTIMATES.

THE sum which appears in the Navy Estimates under the head of medical establishments at home and abroad amounts to £67,650, being only £200 in excess of that for 1884-5; for medicines and medical stores £80,810 are required, being £2490 more than in the preceding year. As we have pointed out on previous occasions, these sums are very misleading, since the first does not include the pay of medical officers afloat, and the second comprises many things which are certainly miscalled medical. So far as we can ascertain from the Estimates, in their peculiar form, the *personnel* of the department to be provided for consists of 1 director-general, 2 inspectors-general, 10 deputy inspectors-general, 72 fleet surgeons, 75 staff surgeons, and 187 surgeons. A sum of £415 is allowed for the expenses connected with the examination of candidates, and allowances of £150 to one of the fleet surgeons and £50 to one of the surgeons at Haslar Hospital are granted "for duties in connexion with the medical course of instruction,"—the miserable substitute for the course of which the young officers formerly had the advantage at Netley. An allowance of £50 is also given to one of the surgeons for "instructing boys training for Sick Berth Staff." In connexion with this we are much pleased to see that the promised introduction of female nursing into the naval hospitals has taken place. At Haslar Hospital one head sister and eight sisters, and at Plymouth Hospital one head sister and five sisters, are now placed on the establishment, and a sum of £410 is put down for providing accommodation for the female nursing staff at Haslar. On the half-pay list there are 33 officers who are liable to be called upon to serve. The retired list has 21 inspectors-general, 70 deputy inspectors-general, 66 fleet surgeons, 71 staff surgeons, and 40 surgeons, and there are 243 widows of medical officers in receipt of pensions. We are glad to observe that sanitary works have not been quite overlooked, for under that head the following charges appear fairly to come:—At Chatham Dockyard £500 for boring for water-supply, at Pembroke Dock £1800 for fresh water reservoir, at Bermuda £1100 for sanitary improvements, at Haslar £2500 for hospital kitchen, at Forton Barracks £1200 for a new swimming bath, and at Walmer £250 for new latrines in drill field.

THE TOKIO MEDICAL LIBRARY AND MUSEUM.—In order to hasten the coming of the time when Japan may begin, in a measure, to repay the debt she owes to the Western World for the wealth of learning made available to her, it has been decided to establish a library in Tokio, in which may be found the principal foreign and native publications relating to medicine. The library has been established under the auspices of the "Sei-I-Kwai," or Society for the Advancement of Medical Science in Japan, to encourage the more extensive reading of Western medical works, and to endeavour to raise the standard of medical literature by furnishing sources of reference now only available to very few.

THE LANCET.

LONDON: SATURDAY, MARCH 7, 1885.

WHILST almost every department of medical science has of late years been subjected to searching investigation and reform, Forensic Medicine has been sadly neglected. This is deeply to be regretted, since the application of medical knowledge to the administration of justice is one of the highest functions of the profession. Instead, however, of the medical witness being credited as the possessor of an enviable position, he is too often regarded as an object of suspicion. The cause of this is not far to seek. In civil trials especially it is customary for the litigants on each side to be supported by doctors of their own selection, and, as everyone knows, the latter are frequently so imperfectly informed of the facts that they only become conversant with the merits of the case when under the lash of the cross-examiner, and when it is too late to withdraw unconditionally from a position, however untenable, without loss of prestige. The fault lies rather with the system than with its supporters and exponents. Many a medical man has entered the witness-box with the strongest determination to "speak by the card," and consistently with the terms of the oath he has taken, but has left it disgusted with himself and discredited by others. He is led into deep water by the contentions of opposing counsel, and bewildered by the "legal jargon" let fall as a cloud before him. The natural remedy for this blot on our judicial procedure lies in the appointment of medical assessors to assist the presiding judge in adjusting the balance between contending suitors. If such a practice were instituted it would inevitably diminish the number of vexatious actions—actions brought on the chance of a verdict being obtained through the misunderstanding or sympathies of a jury. The medical witnesses would rest secure in the support of a competent and disinterested arbitrator, and there would be less temptation to "rising young witnesses" to seek the favour of wealthy but unscrupulous clients. Moreover, legal medicine in its administrative aspect would be freed from the stigma that rests upon it, and physicians and surgeons would not feel, on taking part in a "trial for damages," that they were placing their reputation in jeopardy. The difficulty as regards the payment of an assessor in civil actions might be got over by an enactment that his fee should be included in the "costs" in the case, and, like the other charges, be subject to taxation. What has been said in reference to the procedure in the equity and common law courts applies with double force to criminal trials, in which something more than the professional morality of the medical jurist is concerned. Here the liberty of the subject is at stake and public opinion widely exercised. Surely, if it is not derogatory to the status of the judge in the Admiralty Court to be assisted by Trinity brethren, there can be no objection to an assessor at a tribunal where questions based upon the most inexact of sciences, and one that requires special and extensive knowledge to interpret, are raised. Our continental neighbours are ahead of us in this matter; but then legal reform in this country is painfully slow and half-hearted.

But of greater interest to the practitioner of medicine than his relations to the High Court of Justice is the position he holds with respect to coroners' inquests—of greater interest because, whilst he may be called upon only once, perhaps, in his professional career to give evidence in one of the superior courts, he is practically certain to take part in many an inquiry as to "when, where, and by what means" a certain individual came by his death. A great deal has been written, and many suggestions have been made, upon the desirability of experts being appointed and attached to the office of coroner in order that that official may have the assistance and guidance obtainable only from those specially learned in pathological science and medico-legal practice. There is something to be said in favour of the proposal, yet nevertheless it is a question beset with dangers, against which it would be absolutely necessary to provide efficient safeguards. In the majority of cases the general practitioner is perfectly competent to conduct a post-mortem examination, and to bring the requisite knowledge to the interpretation of his observations. The privileges conferred upon him by his diploma and the Coroners Act are not to be assailed with impunity; and although we freely admit that in cases of unusual complexity, especially where the fate of a fellow-creature is involved, it would be wise to have a second opinion in order that one might serve as a check upon the other, and the responsibility be divided, we hold that any attempt to supplant the ordinary medical witness by an expert would be dangerous in principle and ruinous in practice. It is quite true that forensic medicine as an experimental art is all but ignored in our schools, as shown by the superficiality of the acquirements of candidates presenting themselves before the examining boards. At the same time it is equally clear that a student learns most of what is useful to him in professional life, not from attending lectures on theoretical or constructive cases, but by actual experience of the difficulties inseparable from an investigation which embraces not only medicine proper, but many cognate sciences. We do not hesitate to say that jurisprudence, instead of being practically taught at our colleges, is treated as though it were an ornamental appanage to medical education. It may be argued that classes in toxicology are conducted with a view to furnishing the student with knowledge that will serve him in good stead when he enters on the active exercise of his profession. So far it is a praiseworthy undertaking, but when we consider how comparatively small a part toxicology plays in the inquiries before a coroner's jury, and that for this particular branch of forensic medicine special provision has been made by the appointment of Government analysts, it is obvious that our present code of instruction only touches the fringe of a subject included in the prescribed curriculum of study. We would suggest that, whenever possible, medico-legal investigations, including an examination of the body, should be held at our hospital schools; and further, that ordinary post-mortem examinations should be conducted as though they were the bases of official inquiry, and not made merely for the purpose of illustrating some point in transcendental pathology.

To return to the question of the advisability of appointing

medical experts as assessors to coroners' courts, we repeat that there can be no objection to such a course, provided that the rights of the general practitioner are not curtailed. The system should be permissive, not compulsory. If a medical man, for instance, is requested to make a post-mortem examination of a body dead of some infectious disease, and at the same time he is likely to be summoned to a case of midwifery, then it is obvious that it would be to the advantage of all parties that he should have the assistance of a colleague upon whose attendance he could rely. Again, it might happen that in a particular instance he might not feel justified in formulating his opinion for presentment before the coroner's court without confirmation by one specially versed in the subject. It would save time—an important element in medico-legal inquiries—if, instead of referring the matter to the coroner he were empowered to consult at once an authority appointed for the purpose. It should be a matter of mutual understanding that the coroner should not in the first instance commission the expert to assist in making the inquiry except in cases of urgency or difficulty. It would be reasonable for the general practitioner to give one half the fee to the expert whenever he requested his services, and for the coroner to be responsible for the remuneration of the expert, without making any deduction from the fee of the general practitioner whenever he ordered the former to serve as an additional witness.

THOSE excellent people who are made unhappy by hearing—as we hear far too often—from the pulpit of the hostility of science to religion should really be a little less fearful. Their fears do not seem to be shared by the best members of every section of the Church. Only the other day we reported a very valuable contribution to science by Dr. DALLINGER, a Wesleyan minister, in the shape of the discovery of a new septic organism, with a description of its habits and history, which would have done honour to PASTEUR, or KOCH, or CHEYNE. The whole press has recently been eloquent in praise of the Bampton Lectures of the new Bishop of London, and we desire to-day to take our share in the recognition of this great service, as one of deep interest to that large section of scientific men who are not vain enough to doubt that there are many facts, and possibly some forces, in the universe not yet included in their philosophy, and that there exists behind all these facts and forces a great essential Being whose Will preceded and continues to dominate all physical laws, and whose deity is only confirmed by His own eternal recognition of moral law. It would indeed be a pitiable thing for the human race, even in its most gifted members—its NEWTONS, and HARVEYS, and DARWINS,—if it were to lose the conviction, hitherto so strong in the greatest minds—that there is such a Being, compared with whom our wisdom shows as foolishness and our keenest glances into the mysteries of life and nature are but as blind gropings. It is only fair to many even of the most sceptical scientists to admit that they display no jaunty irreverence, no deep satisfaction with their cold scientific conclusions, and that they are quite ready to believe that intelligence and conscience have not reached their consummation within the bounds of their nature.

The Bampton Lectures of Dr. TEMPLE[1] illustrate, in our opinion, the attitude which Christian men should assume towards science and those who promote it. He is no friend to religion who thinks to promote it by denouncing and discouraging science. Science "falsely so called" is contemptible. But every ascertained fact about matter, animate or inanimate, from the smallest particle up to the largest sun, is a real gain that should excite the gratitude of all men, and that must ultimately increase our advantage, as well as our admiration for Him who preceded all and dominates all.

Dr. TEMPLE is by no means the first eminent Christian who sees no enemy in science, and who can regard its most far-reaching discoveries with equanimity. But he is entitled to the credit of having, in the Bampton Lectures of 1884, taken in hand with equal boldness and candour, and we may add piety, a consideration of the relations of religion and science as affected by the latest suggestions of the latter, especially that of Evolution. It would perhaps be premature to say that the theory of evolution is established in the sense that gravitation or the main conclusions of geology are established. There are yet gaps in the evidence, missing links in the chain; but Dr. TEMPLE is quite right in perceiving the steady set of scientific opinion in the direction of the theory of evolution, and with a wise sense of past errors on the part of religious men, who are always apt to be unnecessarily anxious about the "ark of GOD," he cautions them against repeating the error of those who in the first burst of light of the astronomical and geological sciences saw dangers to revelation. We commend the stately and well-sustained argument of the Bishop to the attention of all devout men, whether they ostensibly range themselves on the scientific side or on the religious. We are more than ever disposed to abolish this distinction, readily admitting that, as there is now more than ever on the part of religious teachers a disposition to look at religious dogmas in the full light of science, so there is in scientific men of the first eminence a devoutness and a reverence contrasting most happily with the flippancy of unbelievers in other times. We could have no finer illustration or justification of this remark than the language and spirit of Mr. KITCHEN PARKER in his recent admirable lectures as Hunterian Professor at the College of Surgeons, especially when alluding in terms of high praise to the Bampton Lectures of which we are now writing. Dr. TEMPLE maintains that the doctrine of evolution as held by the most authoritative biologists in no way invalidates the doctrine of Creation, or even that of Design as elaborated by PALEY; but, on the contrary, that it greatly magnifies both. There is nothing in the present discoveries of science to explain the beginning of Life or the beginning of that spiritual faculty in man, in virtue of which he distinguishes all over the world, with more or less clearness, between right and wrong. The doctrine of evolution throws back to a more remote past the creative acts, and reduces the frequency of the necessity for the intervention or the interference of the Creative Will; but it in no way contrives to do without this factor, and apart from the assumption of it has no account to give of the origin of life even in its humblest forms—to say nothing of that highest manifesta-

[1] Macmillan and Co., London.

tion of life, the faculty of Conscience. Dr. TEMPLE readily admits that much of recent science tells heavily upon many of the dogmas and formulæ in which men have tried to crystallise religious truth; but the dogmas of men are as different from the truth of GOD as a crystal is different from an organised cell. It is no part of Dr. TEMPLE'S task to maintain every article of faith which exacting men would impose on their fellow-men. He allows that different parts of the Bible appeal to us with varying degrees of power and effect, and that even different alleged *miracles* have very different degrees of authentication. The one "miracle" for which he sees clear, unmistakable, and sufficient evidence is the Resurrection. But while he thinks other miracles less effectually attested, he fully admits that the miraculous element in the New Testament cannot be excluded "without a complete surrender of the position taken by the first Christian teachers." Here we must leave these admirable lectures, not without a further expression of our obligation to Dr. TEMPLE for a worthy and well-sustained argument, that may well help religious and scientific men to regard each other with more mutual respect, and to try to see from each other's point of view.

THE prominence we have given to the subject of school hygiene for many years past has been slowly bearing fruit, and is now attracting sufficient public attention to bring forth leading articles in the lay press. The reports of "THE LANCET Sanitary Commission on Public Schools," issued several years ago, indicated the importance we attached to this subject. At that time we found ourselves beset by one great difficulty, as we do now; and that difficulty is the secrecy maintained by all the public schools in the country on the subject of health and sickness among the pupils. We ask, Is it expedient that this secrecy should be longer observed? Have not the parents of English schoolboys a right to such information as will enable them to judge of the relative merits of the different schools with respect to the general health of the boys? That our public schools differ much in this respect is well known. At one typhoid fever recurs term after term, at another diphtheria, at a third scarlatina, and at a fourth "blood-poisoning." The only information parents can obtain is for the most part such as may be written home by the boys, or which is communicated by tutors interested in the good repute of the school. There is indeed no sufficient information available upon which the English parent can form a judgment of the suitability of any particular school to the health requirements of his boy's constitution. The school has therefore to be selected at haphazard.

This state of things is eminently unsatisfactory to parents, and is oftentimes attended with permanent injury to the health of pupils, and in some cases with fatal results. Many of our public schools are in low-lying, damp localities. To send a boy with an inherited disposition to struma or its allied diseases to such institutions will weaken his constitutional powers and lessen the value of his life, and in some instances bring it to a premature end. The upper classes of this country are exceptionally prone to such diseases, and many families "die out" and become extinct from these inherited dispositions, which judicious tending during the period of growth and development would help to subdue or counteract. Sufficient thought is not given by the well-to-do classes of this country to the bearing of school life on the health of manhood; yet it is a subject which must grow more and more in importance with each generation. A parent in selecting a school for his child should not lose sight of the inherited tendency to certain maladies in his family, and schools which favour the development of such tendencies should be eschewed. Yet the information upon which a parent can judge in this case is very insufficient.

The masters of public schools make widely known their educational successes—the number of scholarships gained and the competitive examinations passed. These have a far more intimate relation to the health and physical vigour of the boys than parents and schoolmasters are disposed to believe. Health and success in a scholastic career are essentially correlative. If the locality of a school is such that lassitude and debility prevail among the boys as a result thereof, no amount of ardour in the masters can raise the scholarship of the school up to a fair average. There will be a deficiency not in honours alone, but in success at the ordinary competitive examinations for entrance into the army, navy, or other professions. A certain standard of health must be maintained, and this can only be accomplished under medical supervision and direction, with freedom of judgment and liberty of action. Between masters and doctors there always has been a clashing of authority, and while the position of one is dependent on the will of the other there can be no freedom of thought and action. Nothing short of the appointment of medical inspectors to all grades of schools, independent of all authority except that of the Local Government Board, and responsible to and acting with the authority of this department, can put this matter on a proper footing.

Annotations.

"Ne quid nimis."

THE ROYAL COLLEGE OF SURGEONS.

ON the 4th inst., on the invitation of the President of the College, a deputation of the Association of Fellows waited upon the Committee of Charters and Bye-laws to consider certain recommendations proposed by the Association to be included in the new Charter. The deputation consisted of Messrs. Pollock, Willett, Norton, Davy, Macnamara, Jessett, W. Barnes, Couper, Tweedy, and Morgan (sec.); and the members of the Committee by whom they were received were Sir J. Paget, Sir S. Wells, and Messrs. T. Smith, Marshall, Cadge, Holmes, Erichsen, Lund, Savory, and Cooper Forster. The conference lasted over two hours. Until the Committee has reported the result to the Council no decision can be arrived at. Whatever that decision may be, nothing but benefit to the College can ultimately accrue from a free and friendly interchange of views between the Council and the more active Fellows. Both parties may be credited with a sincere desire to promote the welfare of the College and enhance its dignity and importance. The problem is the reconciliation of two lines of policy.

THE PHYSIOLOGICAL ACTION OF COCAINE.

DR. HERMANN M. BIGGS of New York has recently published the results of an exhaustive inquiry into the physiological action of cocaine on the frog, his observations having reference more especially to the influence of the drug on the various organs and tissues of the body. The experiments, which were conducted under the direction of Professor Christiani in the physiological laboratory of Professor du Bois-Reymond at Berlin, are of considerable interest. The salt employed was the uncrystallisable hydrochlorate prepared by Merck of Darmstadt. The solutions were all made with water, and varied in strength from 1 to 4 per cent. In the first place it was noticed that in frogs where the 2 per cent. solution was applied to the skin of the leg or to the mucous membrane of the mouth, complete anæsthesia of the part was quickly produced. The action on the pupil was not constant, but usually a moderate degree of mydriasis resulted. When a small toxic dose, say, a fifteenth of a grain, is injected under the skin, there is at first no perceptible effect, with the exception, perhaps, of a short period of excitement, which is never very marked and is often absent. The frog soon becomes quiet, moves languidly when touched, and breathes with increased frequency. In a few minutes it becomes motionless, or moves only after considerable effort. There is loss of power in the extremities, and this appears earlier and is more marked in the hind limbs than in the front. In a short time these effects pass off, and in an hour or two the animal seems as well as ever. After the injection of what may be called a moderate dose, say, a sixth of a grain, more decided symptoms are produced, and at the end of seven or eight minutes the animal lies prone and makes no effort to move, even when stimulated freely. In from two to three hours there are signs of recovery, and in about five hours irritation produces characteristic clonic contractions. When large toxic doses are given to a frog—a third of a grain and upwards—the effects manifest themselves almost instantly. All the usual phenomena follow in rapid succession, and in a very marked form. In two or three minutes respiration is laboured, there is decided opisthotonos, the pupils are dilated, the heart's action is slow, and the reflexes are abolished, or at all events greatly diminished. The animal has an anxious expression, and in a few minutes lies motionless on the table. After some hours signs of returning life begin to show themselves, but it is many days before recovery is complete. After the exhibition of a lethal dose the heart continues to beat for twenty-four or thirty-six hours, and then stops in diastole. The action of cocaine on the heart and on respiration is well marked. In small doses it at first increases the number of respirations and then decreases them, but in larger quantities death ensues from paralysis of respiration. It has a depressant action, too, on the heart, reducing the force and frequency of its pulsations, and finally arresting it both auricles and ventricle—in diastole. The action on the nervous system is still more marked. Small doses increase the reflex irritability of the cord for a short time, but when larger doses are given the period of heightened reflexes is lessened, and is followed by a period of longer duration, in which they are decidedly diminished. It appears from the researches of B. von Aurep that small doses heighten the irritability of the sensory fibres, but exert no effect on the motor filaments. Large doses almost completely paralyse the sensory filaments, and diminish greatly the irritability of the motor. It is found that cocaine in one per cent. solution when applied directly to the nerve-trunks will, after a transient period of increased irritability, depress greatly, and finally paralyse the nerve. If a nerve muscle preparation be made from a frog after poisoning by cocaine, the irritability of the nerve is found to be much diminished, and the strength of current required to produce a muscular contraction is decidedly greater than in the case of the normal frog. Small doses given hypodermically have little effect on the excitability of the voluntary muscles, but large doses diminish their contractility very decidedly. The pulsations are shorter, slower, and more feeble, and muscular excitability is soon exhausted. Dr. Biggs thinks that from the local and constitutional effect of cocaine on the different organs and tissues it is highly probable that its general action is a purely local one, exercised on those parts for which it has a chemical affinity through the medium of the blood. He concludes as the result of his experiments that the use of cocaine is indicated both in tetanus and in strychnia poisoning.

EXPENDITURE AT HOMERTON HOSPITAL.

TROUBLE has for some time past been brewing as to the expenditure at Homerton Hospital, and a subcommittee appointed to investigate the matter has now reported on it. This committee finds that, on a sudden increase of stimulants being ordered for a certain ward, the wine in question was not consumed by the patients, that the officers' dietary has been profuse and exceptional, that from the committee downwards there has been a lack of adequate supervision and an apparent indifference to responsibility, and that although actual collusion has not been shown to have existed between officials, contractors, and others, yet the condition of affairs was favourable to such collusion. The report then went on to refer to Dr. Collie, and a hope was expressed that he would in the future prove himself as efficient an administrator as he has been a physician. A resolution was also passed requesting the Local Government Board to make further inquiry, and on this a rider was proposed by Mr. A. Pell, M.P., and carried, to the effect that the investigation had shown the unfitness of the present medical superintendent for the office he holds. With the facts before us we think this rider should not have been proposed. It was admitted that the inquiry, not having been on oath, needed to be supplemented by an official one, that Dr. Collie had in every instance contended he was justified in acting as he did as regards stimulants issued to patients, and that for fourteen years past he had rendered able services to the Board. We can fully endorse the opinion as to the respect in which Dr. Collie has been held as physician and medical administrator, and we hope that official inquiry may lead to the withdrawal of all that is implied in the rider. The question generally is, from an administrative point of view, very serious. The stimulants at Homerton are stated to have cost between £4000 and £5000 in six months, and during the course of the inquiry the chairman of the Hospital Committee, the clerk to the committee, and the steward of the hospital, resigned their respective positions.

PULMONARY DISEASES IN WILD ANIMALS.

THE progress which has been made during the past three or four years in comparative pathology is certainly of the most remarkable kind, and has been owing in a great degree to the activity and ability of Mr. J. B. Sutton. We have had occasion during former sessions of the Pathological Society to comment upon the work of this observer. At the last meeting of this Society Mr. Sutton contributed an elaborate paper which gave an account of the zoological distribution of certain forms of lung disease among wild animals. We have elsewhere given a full abstract of this important communication. The main conclusions which have been arrived at are two in number. First, it seems to have been completely proved that tuberculosis is by no means a common disease of wild animals dying in captivity.

Secondly, it would appear that lung disease, not of a tubercular kind, is very frequent amongst the group of animals under consideration. Primates, when they are brought to this country, excluding man, appear to suffer from bronchitis, atelectasis, and lobular pneumonia. Carnivora under similar conditions are exceedingly liable to double pleurisy, lobar pneumonia, and bronchitis; whilst ruminantia suffer from "Perlsucht" or "bovine tuberculosis," bronchitis, and "worm-bronchitis." Mr. Sutton believes, probably correctly, that the vicissitudes of the English climate as contrasted with the tropical climate, from which many of these animals come, are to be set down as the causes of these bronchial and pulmonary affections.

THE OUTBREAK OF SMALL-POX AT THE THREE COUNTIES ASYLUM.

THE report of Mr. Swain, medical superintendent of the above institution, to the Committee of Magistrates, on the recent severe outbreak of small-pox, affords interesting evidence with regard to vaccination. Fifty-six persons in all were attacked. Twenty-two had three or more vaccination marks: of these, twenty recovered and two died. Of twenty-four cases having less than three marks, nineteen recovered and five died. Of seven cases having no vaccination marks, one recovered and six died. Of three cases described as "not known," two recovered and one died. Another table (of which there are seven appended to the report) shows the "percentage of recoveries and deaths on the various conditions of vaccination." Of the cases having three or more marks, 90·9 per cent. recovered and 9·09 died; of those with less than three marks, 79·16 recovered and 20·83 died; while of those who had no marks only 14·28 per cent. recovered and 85·71 died. The outbreak, of which we gave an account in our issue of Jan. 17th, appears now to be at an end. To vaccination and immediate isolation of the cases the medical superintendent attributes in great measure the checking of so severe and general an outbreak.

NO MEDICAL EVIDENCE.

AN inquest was held at Clayton-le-Moors on Feb. 19th on the body of a woman aged forty-five years. It transpired that the deceased, who had been addicted to habits of intemperance, was picked up in the streets partially insensible, and conveyed home by a constable. The husband of the woman was in bed at the time, but refused to come downstairs to assist his wife, on the ground that he had done it too often. Some hours afterwards he discovered her in a helpless condition, and, calling in a neighbour to assist him, placed her on a sofa and went to bed again. In the morning she was dead, and signs of profuse hæmorrhage were seen on the floor of the lower room, but none on the stairs or in the bedroom. The police constable deposed that he found the skull broken at the back part. No medical evidence was taken, and the jury returned a verdict "that deceased had fallen backwards downstairs whilst in a drunken state, and received injuries that caused her death," and severely censured the husband for not attending to his wife. Now, although it seems probable that the woman was in a helpless state from intoxication, it is not absolutely certain that she was not suffering from apoplexy. There are too many cases on record in which the diagnoses of policemen have proved to be erroneous. Partial or complete insensibility is apt to be interpreted by the terms "drunk and incapable," and for this reason alone we contend that it was very desirable that a medical man should have been called at the inquest. If the deceased did not fall downstairs, the most probable alternative, as suggested by the coroner, was that she had been pushed down. On the latter hypothesis suspicion would naturally rest upon the husband. As regards this point we offer no opinion; but we contend that if ever there was a case in which it was desirable to have skilled advice it was here. Coroners are too apt to rely upon the evidence of policemen, who, however well intentioned, are scarcely the proper witnesses to testify to the nature of an attack of coma, or of a fracture of the skull. In the interests of all parties concerned it is much more satisfactory to have these attested by medical men. That the husband was to blame there can be no doubt. It was his duty to see that his wife was placed beyond the reach of a fatal accident; but in extenuation of his conduct it is just to add that long suffering had blunted his humanity and warped his sympathy. He stands acquitted of any graver offence by the verdict of the jury. At the same time, it would have been better had the evidence, strong as it was, been further strengthened by such testimony as would satisfy public feeling generally. We trust that the mode of procedure in the above case will not serve as a precedent in future inquiries.

DEATH FROM ELECTRICITY.

IN the course of a correspondence in the *Electrician* on personal safety and electric currents, Mr. Trotter, observing that the case of the unfortunate man who lost his life at the Health Exhibition by touching the dynamo was not taken down in shorthand by a reporter, but that the coroner made very full notes, mentions that there was "first a spasmodic contraction of the arms and chest—in fact, of the muscles in the path of the current, described by a gesture by the witness which corresponded exactly to that which is tolerably familiar to those who occasionally receive an accidental shock. The man fell away from the dynamo, collapsed, rolled over, and became unconscious. He was probably dead before he fell. A slight mucous foam appeared at the lips; the body speedily became discoloured. Rigor never set in; and this, coupled with the fact that the blood never coagulated, is in accordance with several authentic records. All the bloodvessels in the path of the current were highly congested, more so in the chest than in the back; the brain was normal, and the heart empty."

THE PEKING HOSPITAL.

THE hospital at Peking, which is under the medical supervision of Dr. John Dudgeon, appears to have been of much service to the Chinese of that city and its surroundings. As seems to be customary with hospitals generally, the funds are in a bad state, but this lack does not seem to have affected the good work done. From the report which has recently reached us, we find that the annual attendances at the hospital are about 20,000, of which number about 8000 are new patients. There has never been a large in-patient practice. Cases of suicide by opium poisoning are of very frequent occurrence. Law and custom make it almost impossible for the common people to purchase any of the other deadly poisons. Blindness is very prevalent in China, and is largely due to small-pox as well as to neglected ophthalmia of new-born children and adults. Congenital blindness is said to be very rare. The diseases due to the long-continued use of opium, such as diarrhœa, dysentery, and a papular affection of the skin, are both very common and almost incurable. Œsophageal stricture is not infrequent, and seems to result from excessive drinking of native spirits, which contain large quantities of fusel oil. "Harakiri" is the term applied to a form of self-destruction in which the individual rips his abdomen open from the pubes to the sternum. One such case in a man aged eighty came under treatment in 1882. The large wound, through which the omentum, though not the intestines, protruded, was sewn up, and the patient ultimately recovered. Several fatal cases of hydro-

phobia have occurred during the past few years, and rabies is very common among the dogs of Peking. The efforts to reclaim the victims of opium-smoking occupy much of the time and attention of the medical missionary. Amongst the curious superstitions of the Chinese the following one may be mentioned. During pregnancy the woman is supposed to have four eyes, and her husband is credited with a like number of visual organs. Under such circumstances the belief exists that the husband cannot perspire. A pregnant woman came one day to the hospital beseeching for some medicine to cause abortion, in order that her husband, who was in a fever, might be able to perspire. It was supposed that if perspiration could be induced his life would be saved.

"NON-COMBATANTS."

"RIFLE firing had ceased; and the doctors, who had shared with a courage and zeal beyond all praise in all the dangers of the day, had got a temporary hospital in order, and were each doing his utmost to alleviate the sufferings of our wounded. Surgeon-Major Fergusson, the principal medical officer, Surgeons Briggs, Parke, Dick, Maconochie, and others, with the regimental surgeons, worked untiringly through the night helping the wounded." This was at Abu Klea. A war correspondent is the witness. It is the same story all through: the doctors share "all the dangers," and yet, because they do not draw their swords and rush at the foe, they are pooh-poohed as "non-combatants." Happily, the cold recognition of medical services does not cool the courage of our brethren in arms, as we may perhaps, in a journal which is "only civilian," be permitted to call them.

BABY-FARMING IN FRANCE.

THOUGH the birth-rate in France cannot be increased by any Parliamentary enactment, legislation has certainly contrived to protect the lives of such children as are born. In December, 1874, the National Assembly adopted what is known as the "loi Roussel." The results already attained by this measure are most significant and encouraging. According to this law, all persons taking children to nurse are placed under the superintendence of the district prefect of police, assisted by the local authorities, medical inspectors, and committees of lady visitors. Statistics for the year 1883, relating to this work, have just been published; they show that in Paris and its suburbs 20,071 children were put out to nurse. Of this number no less than 15,520 were sent into the provinces; where, however, they also came under the Roussel law. Indeed, this enactment is becoming more and more popular, the nurses themselves finding it to their advantage to submit to its stipulations. Thus, while in 1881 the number of women who claimed official inspection amounted to about 17,000; this figure increased to more than 20,000 in 1883. Of the 4551 children that remained in the immediate neighbourhood of Paris, 2311 were given out to wet-nurses, 1582 were brought up with the bottle, and 558 were undergoing the process of weaning. Of the 414 children who died in 1883, 217 were fed from the bottle and 180 from the breast. Thus the mortality equalled 14 per cent. and 8 per cent. respectively. From 1880 to 1883 the total mortality of children put out to nurse had been reduced from 9·99 per cent. to 9·30 per cent. This improvement is due principally to medical inspection. The doctor attached to this service visits the home of the nurse, and also examines her personally. Of the 15,085 nurses examined in 1883, 355 were declared incapable of acting as wet-nurses, and compelled to content themselves with feeding by hand; while permission to nurse was absolutely refused to 33 applicants. Some improvement has also been realised in the sanitary condition of the homes where the children are kept, and here and there the permission to nurse has been withheld when the dwelling was considered exceptionally unwholesome. In this respect, however, the progress is not so marked. On the other hand, the fact that all persons who nurse infants other than their own are compelled to submit themselves and their homes to medical examination and superintendence has been the means of eradicating many injurious superstitions with respect to the rearing of children, and of spreading knowledge based on a scientific foundation. The French authorities seem, among other things, to have waged successful war against feeding-bottles with long tubes. These contrivances are rarely kept in a state of sufficient cleanliness, and the tubes are fouled long before the contents of the bottle show any signs of decomposition. Altogether, what has sometimes been termed baby-farming on this side of the Channel is rapidly becoming a profession in France offering certain State-regulated guarantees, and constantly imposing on its licensed members a higher standard of excellence.

POWERFUL REFRIGERANTS.

SOME experiments recently made by M. Olszewski appear to show that liquid oxygen is one of the best of refrigerants. He found that when liquefied oxygen was allowed to vaporise under the pressure of one atmosphere a temperature as low as −181·4° C. was produced. The temperature fell still further when the pressure on the liquid oxygen was reduced to nine millimetres of mercury. Though the pressure was reduced still further to four millimetres of mercury, yet the oxygen remained liquid. Liquefied nitrogen, when allowed to evaporate under a pressure of sixty millimetres of mercury, gave a temperature of −214° C., only the surface of the liquid gas became opaque from incipient solidification. Under lower pressures the nitrogen solidified, and temperatures as low as −225° C. were recorded by the hydrogen thermometer. The lowest temperature obtained by allowing liquefied carbonic oxide to vapourise was −220·5° C.

INTEMPERANCE AND PAUPERISM.

SEVERAL different causes have been assigned for the pauperism which is increasingly prevalent in our great cities. It is well that everything which has an influence on this subject should receive due attention at the present time, when the greatness of the evil is rendered more apparent by a general depression in trade, and when the minds of all are turned to consider any possible schemes for the proper maintenance and housing of the poor. The destitute man, if he were now asked to state the cause of his condition, would almost certainly blame the times, and would be largely justified in so doing. Whatever be the origin of the present inaction, whether business competition, the store system, the spendthrift extravagance of many whom a false ambition tempts to live above their means, or other circumstance, the fact remains that work is more difficult to find and to hold than formerly. Nor does the very poor man alone suffer, but the shoe pinches everyone in some degree. This want of employment and lapse of the regular habits which belong to it, have doubtless very much to do with such poverty as is generally felt. It does not, however, account for all the misery of the so-called "outcast" population. Other factors enter into that dismal pressure which rests upon each member of many households, not alone in our days, but even in more prosperous times. It was not for the first time at a recent meeting in Exeter Hall that drunkenness and unthrift were condemned as the twin and chief producers of abject poverty. The connexion between those vices is too much a matter of daily remark to call for proof. It is as real as the opposite

union between thought and thrift. Words are not needed to explain how the poor must go to the wall when trade is slack, if their exchequer, never too full, is in literal liquidation on behalf of a morbid appetite, while the giving hand of the employer is restrained by an enforced economy. On our own part, also, as medical men, we cannot but speak in support of these opinions of the political moralist. Science recommends alcohol to no one who has health; but, on the contrary, enjoins abstinence in this particular to all such, and in reference to all states of labour, mental or bodily, to exposure, worry, and even fatigue. In circumstances of exposure and exhaustion, indeed, testimony goes to prove that such drinks as tea and coffee afford a stay nearly as speedy in action as, and much more trustworthy and enduring than, any that alcoholic stimulants can give.

A NEW TEST FOR BILE ACIDS IN THE URINE.

DR. OLIVER of Harrogate has, during the past week, been demonstrating in several of the London hospitals what he believes to be a new test for the detection in the urine of the derivatives of the bile salts. It is in the form of a test solution, and also in that of test paper. The reaction of the test is founded on the physiological fact that where the bile mingles with the acid solution of peptones in the duodenum, the proteids are instantly and completely precipitated. The test solution is an acidulous antiseptic solution of peptone, and does not present to the urine a constituent extraneous to the organism. When brought into contact with a urine containing a bile-salt derivative, a precipitate resembling that of albumen when thrown down by nitric acid at once appears. By using a standard of opacity to represent the very delicate reaction induced in normal urine, Dr. Oliver showed how the quantity of the bile derivatives, as they appear in the marked deviations encountered in disease, can be readily gauged. He has, we learn, found bile acids plentifully present not only in the urine of jaundice and of other hepatic affections, but in that of several cases of anæmia (simple or idiopathic, leucocythæmic or malarial), and of other morbid conditions; and his observations generally appear to be of some clinical interest. We understand that Dr. Oliver is preparing for early publication the data he has collected.

PROPOSAL FOR A HOSPITAL FOR INFECTIOUS DISEASES IN BARCELONA.

THE Royal Academy of Medicine and Surgery of Barcelona is trying to persuade the municipal authorities to construct a hospital for infectious diseases, the want of which has been very much felt; and with this object in view publishes some suggestions on the subject, of which the following are the most important. The Academy decidedly objects to the plan of building a single hospital to contain a hundred beds, which is the number the new establishment would accommodate, but prefers a number of small pavilions, each devoted to a different form of infectious disease. The City Hospital should, according to the views of the Academy, contain six pavilions—two for "typhus" (for males and females), one each for small-pox, measles, scarlatina, and diphtheria, a movable partition being employed when necessary to separate the sexes. The Academy intentionally refrains from recommending a convalescent pavilion or quarter, because of the risks which would thus be incurred of, for example, a typhoid convalescent contracting scarlatina from some desquamating convalescent. The hospital should be situated far from the city, so that the focus of contagion might be sufficiently removed to be harmless to the inhabitants, and also prevent the possibility of its being stigmatised as the cause of any cases of infectious disease which might occur in its vicinity. The site should be an elevated one, so as to be above the miasms and mists of the low-lying ground, and also to favour the removal of its own sewage, which should be previously disinfected. It should lie to the north of the city, so that it could enjoy as much freedom as possible from the effluvia which the prevailing winds carry with them, and be at some distance from the sea, so as to be beyond the influence of the deleterious emanations from the port and the adjoining marshes. No plantations of trees, except of certain kinds—as, for example, the eucalyptus—should be permitted within the grounds of the establishment. The laying out of the site should be undertaken with special reference to the facility of drainage, and the surface should be covered with cement or other impermeable material.

THE MACLEAN MEMORIAL FUND.

WE observe that Dr. McLeod, secretary to the above Fund, has addressed a circular to Indian medical officers on furlough inviting subscriptions, no one of which is to exceed a guinea. Our readers are aware that it is proposed that the memorial should take the form of a portrait of Professor Maclean, to be hung on the walls of the Netley Hospital, and that, if funds permit, a replica of the portrait will be presented to Mrs. Maclean. Subscriptions should be forwarded, with the least possible delay, to Messrs. Grindlay and Co., 55, Parliament-street, Westminster.

NO MEDICAL OFFICER OF HEALTH.

A NUISANCE connected with a show of fat women, giants, and Zulus having been the subject of much complaint in Woolwich, the Local Board commissioned Mr. Lett, the parochial medical officer (Woolwich not possessing a medical officer of health), to visit and report upon the condition of the premises. He certified them to be in a most dirty state. A discussion arose as to why Mr. Lett had been appointed in preference to other practitioners, and it was stated that it was the usual custom to ask the union medical officer to report upon such cases in his own district. The fee for such report was half a guinea. The case shows the unsatisfactory way in which sanitation is conducted without a medical officer of health. If there had been such an officer, he would probably have taken action in this case some weeks before the board saw fit to issue a special request to the parochial medical officer, whose responsibility, besides, ends as soon as he has made his report.

THE VACCINATION LAWS.

MR. HANNAY, of Worship-street Police-court, has granted a warrant to levy on the goods of a person in Hackney for non-compliance with the Vaccination Acts, with the approval of the Home Secretary. It is unsatisfactory to find Mr. Picton plying the President of the Local Government Board with irrelevant questions on the Vaccination Laws. It is some set off to see that they did not make much impression on this member of the Government, who said there is no falling off in the proportion of vaccinated children to those born, and no intention to propose any further inquiry into the working of the Acts.

DR. ANGUS MACKINTOSH has issued, in the form of a card, a "Memorandum of Infectious Diseases," which presents in a concise form the leading facts known as to the latent period, the time of the appearance and cessation of eruption, and the date at which the patient ceases to be infective after the fever, in small-pox, typhoid, typhus, and scarlet fevers; diphtheria, measles, and whooping-cough. The card is likely to serve a useful purpose, and appears to be drawn up on the best-established data.

FROM the report of the examination made by Colonel Sir Francis Bolton, C.E., of the water supplied by the several metropolitan water companies during the month of January, it appears that the Thames water sent out by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies contained on the whole the same proportion of organic matter as the previous month's samples, the amount being, except in the case of the Southwark and Grand Junction Companies, decidedly below the average for the time of year. Of the water drawn from the Lea, the New River Company's supply contained very much less organic matter than any of the other river waters, whilst the East London Company's water resembled in this respect the average of the samples derived from the Thames. All the samples were clear and bright.

THE Hon. Joseph Docker, M.R.C.S. Eng. (1824), L.S.A. Lond. (1852), M.L.C., died at his residence in Sydney on December 11th, in his eighty-third year. Mr. Docker, some time after settling in New South Wales, became a member of the Legislative Council, and in 1866 Postmaster-General. In 1868 he was appointed to the office of Colonial Secretary, and in 1870 again became Postmaster-General, remaining in office until 1872. In 1875 he was Minister of Justice and Public Instruction, and latterly he filled the office of Chairman of Committees in the Upper House.

AT Sydney, on December 10th, Dr. Donovan, charged by the Board of Health under the Infectious Diseases Suppression Act with failing to report a case of eruptive fever reasonably supposed to be small-pox, was fined £50, the highest penalty, or in default three months' imprisonment. On the 16th of December Dr. Donovan was again prosecuted for neglecting to report three other cases of small-pox which had come under his treatment, and, pleading guilty, was in each instance mulcted in the same penalty as on the previous occasion.

THE Canal Boats Act of last year is being carried out with vigour by the Local Government Board, an inspector having already visited many of the lines of canal traffic and reported on the action of the local sanitary authorities in regard to what the law requires. It is, however, stated that local bodies have to a great extent failed to enforce the provisions of the Act, and a circular letter is about to be addressed to them urging them to bestir themselves.

RUMOURS deemed false having been circulated as to the cause of the death of the great painter M. Bastien Lepage, Dr. Watelet, his medical attendant, wrote to the *Matin* stating what, in his opinion, was the true cause. The *Temps* has recently announced that a prosecution *ex officio* of Dr. Watelet is being undertaken for violation of professional secrecy, and against the *Matin* as his accomplice in the misdemeanour.

PLAGUE is stated to have broken out at Ojagh, sixty miles from Hamadan. Ninety deaths have been already recorded. Measures have been taken to prevent the spread of the disease.

MESSRS. LONGMAN will very shortly issue a new edition, edited by Dr. Lauder Brunton, of Murchison's "Clinical Lectures on Diseases of the Liver, Jaundice, and Abdominal Dropsy."

AT a meeting of the Medical Society of Bordeaux, M. Durodié exhibited a case of sweating limited to the right side of the body in a man aged fifty.

THE first annual report of the Medical Women for India Fund has been issued. The receipts have amounted to 41,842 rupees, and the disbursements to 13,799 rupees. Twelve female students have completed their first year of study at the Grant Medical College in a satisfactory manner.

A MEMORIAL in favour of Dr. Bradley, signed by ninety-six members of the medical profession of Sheffield and its vicinity, has just been forwarded to the Home Office.

THE fourth meeting of the German Medical Congress will be held at Wiesbaden on April 8th and three following days, under the presidency of Professor Frerichs.

MR. G. BAINBRIDGE has been appointed to act as Professor of Surgery in the Grant Medical College, Bombay, vice Mr. W. Gray, on furlough.

ZIEMSSEN'S Cyclopædia is being translated into Spanish by Dr. Francisco Vallina, and is being published in Madrid in monthly parts.

DR. COOK has been elected Dean of the Medical Faculty of the Bombay University, vice Mr. Hojel.

Pharmacology and Therapeutics.

"CONSTANT" TINCTURES.

IT is a fact which has long been familiar to every practical therapeutist that all the pharmacopœial tinctures may vary enormously in strength and in the proportion of active ingredients they contain. A patient, let us say, is taking tincture of belladonna; the dose is gradually and cautiously increased, and no ill effects result. In consequence of a change of residence or from some other accidental cause the prescription is dispensed by another chemist, and suddenly, and without any apparent reason, the full physiological action of the drug is produced, the physician is discredited, and the life of the patient is placed in imminent danger. This is no fancy sketch, for we have known this occur quite recently in London under circumstances almost identical with those we have indicated. The fact is—and it cannot be too generally known—that such terms as "tincture of belladonna," "tincture of opium," "tincture of nux vomica," and so on, have no definite meaning. For example, one specimen of tincture of nux vomica may contain just twice as much strychnia as another. There is a growing tendency, especially in hospital practice, to obtain drugs at the lowest possible rates, and in many cases the price paid is so low that it would be impossible for any druggist to supply a really trustworthy article for the money. It of course looks well in an annual report to be able to state that the expenditure on drugs is much less than it was in the previous year, and that the cost per head is less than at any other hospital; but these results are too often obtained at the expense of the sick and suffering, who at all events have a right to expect that they will have the best medicines obtainable. We are glad to see that a firm of chemists so well known as Messrs. Squire and Sons of Oxford-street have determined to do their best to oppose this pernicious system. They keep only one quality of tinctures, and these are standardised. Their method of procedure is as follows:—They obtain a typical specimen of the pure crude drug, which is then "hand-picked"; that is to say, all doubtful and damaged seeds or leaves, or whatever it may be, are rejected and thrown away. A tincture is then prepared according to the pharmacopœial process, and the amount of alkaloid—or of combined alkaloids, should there be more than one—is ascertained by actual analysis. This is repeated several times, and the mean of these results is taken as the standard. Every batch of tincture subsequently prepared is analysed in the same way, and, by the careful addition of crude drug or of spirit, as the case may be, is made to conform to this standard. Tinctures so prepared are called "constant tinctures," a

term which undoubtedly expresses in a convenient form their chief characteristic. The advantage of having a tincture which is always of one strength is incalculable, and Messrs. Squire and Sons undoubtedly deserve the best thanks, both of doctors and patients, for the enormous labour they have undertaken in connexion with this subject. We have given these tinctures a prolonged trial, extending over some months, and can speak of them in the highest possible terms. They are very little dearer than the common tinctures (only a few pence in the pound), and we trust that the day is not far distant when they will be in use in every hospital throughout the country.

SWEET SPIRITS OF NITRE.

The composition of sweet spirits of nitre and kindred preparations is a subject which seems destined to disturb the equanimity of dispensers and pharmaceutical chemists. It is stated that the Council of the Pharmaceutical Society have recently thought it necessary to convey their views on the matter to the authorities of the Inland Revenue at Somerset House. The exact nature of their communication is not known, but it is understood that the Council maintain that there is no positive evidence that the medicinal value of sweet spirits of nitre depends on the presence of nitrous ether, and that any specimen which is of proper specific gravity, and gives indications of containing *some* nitrous ether, may be regarded as having been prepared according to the directions of the British Pharmacopœia. With respect to the sweet spirits of nitre of the old London Pharmacopœia, they are of opinion that the proportion of nitrous ether which it contains often amounts to little more than a trace, and that the only tests necessary to show that such an article may be considered to be of good quality are those of odour, flavour, and specific gravity. They further state that the tests laid down in the British Pharmacopœia, and other tests devised with a similar object, cannot be supposed to be applicable to preparations sold for domestic use. A common argument used by druggists is, that an article supplied by a large manufacturer chiefly to medical men has a density of ·887, and that although it contains little or no ethyl nitrite, few complaints are made. These views, we must admit, have taken us somewhat by surprise. It would seem that the authorities of the Pharmaceutical Society are of opinion that the absence of the chief constituent from a preparation is a matter of very little importance if only the omission is not detected. This is a code of morality to which we are unaccustomed, and we are decidedly of opinion that no pharmacist or body of pharmacists has any right to change the character of a well-known preparation, or to supply an article essentially different from that which the medical man supposes his patients are taking. It is a subject of considerable importance, and one by no means which should be overlooked.

HYDROCOTYLE ASIATICA.

There can be no doubt that there are in common use in India many drugs the properties of which might be investigated with advantage with the view to their introduction into practice in this country. We understand Messrs. T. Christy have just received a large consignment of Hydrocotyle asiatica, a plant which in the East bears a high reputation in the treatment of leprosy, syphilitic and skin affections, ozæna, and a number of other diseases. At present very little is known with certainty about it; but we understand that it belongs to the natural order umbelliferæ, and that it has many native names, the most common of which are "Bráhmamanduki," "khulakhudi," and "thalkuri." It grows freely in the neighbourhood of Bombay, although it is more frequently found in gardens than running wild. It flowers abundantly if watered, sending out long runners like the strawberry, and producing leaves and root and fruit at the joints. The fresh herb has an aromatic ivy-like odour, and when crushed a nauseous bitter taste; but these qualities are to a great extent lost on drying. Its properties have recently been investigated by Mr. A. Jayesingha, sub-assistant colonial surgeon of the Government Dispensary, Ballapitimodera, Ceylon, and we have been favoured with a statement of his results. The drug was administered in the form of powder in ten-grain doses three times a day. It was also used locally as a poultice to ulcers, as a snuff in ozæna, and as an ointment mixed with lard in various skin diseases. The list of cases treated includes two of parangi, five of ozæna, two of leprosy, three of itch, two of secondary syphilis, one of herpes zoster, seven of parangial ulcer, and three of common ulcer. In twenty-one of these cases a cure was effected, or at all events the patient obtained marked relief. The failures are attributed to the irregular way in which many of the patients attended at the dispensary.

ARMY AND INDIAN MEDICAL SERVICES.

IN the papers on the subject of the Indian Army reorganisation, printed by order of the House of Commons, there is an interesting document on the Medical Service in India. The Reorganisation Commission pointed out the importance of abolishing the costly system of maintaining a double staff, and submitted their views of the mode in which this change should be effected. The Government of India were fully impressed with the necessity for a radical reform of the Medical Service, and were satisfied "that the needful improvement, both economical and administrative, is to be found only in some measure of unification." They were not, however, satisfied with the scheme proposed by the Commission, and invited the two heads of the Medical Service in India, Dr. Crawford, Surgeon-General to Her Majesty's Forces (now Director-General of the Army Medical Department), and Dr. Cuningham, Surgeon-General with the Government of India, to prepare a memorandum on the subject based upon two conditions which were deemed essential: "First, that there should be only one medical service for India; and, secondly, that complete authority over the medical service serving in India, as to employment, distribution, and remuneration, shall rest with the Government of India." A joint memorandum, prepared by these two officers, and dated Simla, 12th August, 1881, was submitted to the Government, and considered by them "to satisfy all the essential conditions of the case and to provide a satisfactory solution of the difficulty." It is a document of some length and bears evidence of careful consideration, having regard to efficient and economical administration and to respect for the rights and privileges of the existing officers. The memorandum recommends that there should be but one medical department, to be styled the Royal Medical Service, and to be divided into two branches, one for general and the other for Indian service, but that in any national emergency the Indian branch should be available, with the sanction of the Indian Government, for service in any part of Her Majesty's dominions; and the general branch, with the sanction of the Home Government, for service in India. It proposed that the Indian branch should be recruited by volunteers from the general list of officers under three years' service, that they should form one service for all India, primarily military, but also civil; the first two years to be spent in strictly military duty; after that period officers to be eligible for civil employ if they have passed the language test, but liable at all times to be recalled for military service if wanted. After ten years' continuous civil service, if they do not return to military duty, they must look for promotion to the administrative grade in the civil branch only. It is recommended that exchanges should be freely allowed between the general and Indian branches, but no Brigade Surgeon of the Indian branch to be eligible for promotion to Deputy Surgeon-General of that branch unless he has had five years Indian service above the rank of surgeon, and no Deputy Surgeon-General to be allowed to exchange into the Indian branch who has not had this qualifying service. Transfers also should be permitted from one branch to the other, when required in the interests of the service, and subject to the concurrent approval of both Secretaries of State. The memorandum proposes one administrative head, with the Government of India, for the whole Indian Medical Service, with a special rate of pay, who should recommend for all departmental promotions, and distribute officers to the several sections requiring them, civil, military, and sanitary; transferring medical officers from military to civil service and *vice versâ*, as may be necessary, but not interfering with the employment of any officer after being so posted, which would rest with the administrative medical

officer immediately concerned. The Indian Director-General "would communicate with the Director-General of the Royal Medical Service in all matters regarding recruiting, exchanges, and transfers, and would report all casualties by death, retirement, &c.; he would also, as Sanitary Commissioner, prepare, as at present, an annual sanitary report for the whole of India." Under the Director-General there would be a Surgeon-General for the army, on the staff of the Commander-in-Chief, charged with the medical administration, and having the control of the medical staff of the forces, and provided with the necessary administrative staff. The civil medical administration would continue much as at present, but without the local rank of Surgeon-General, the chief in each local government and administration being designated simply as "Principal Medical Officer." Such are the most important of the recommendations for the reorganisation of the Royal Medical Service. For the subordinate civil service, it is proposed to constitute an "Indian Medical Service," consisting of two classes—Assistant Surgeons and Civil Medical Officers, recruited from natives of India who are licentiates or graduates of medicine of an Indian college, the admission to be by competitive examination and the promotion by seniority on passing an examination test, but with power to promote specially assistant-surgeons who have distinguished themselves, or for the Governor-General to appoint direct to the higher grade should he think fit. The officers of this branch of the service to be liable to be called upon, on emergency, to perform work in military hospitals within their own province, or with troops of their own province serving elsewhere.

The reporters have fully considered and reported the mode in which this proposed system may be carried out with greatest advantage to the service and without inflicting any injustice upon the officers now serving, but it does not appear necessary here to enter upon such details. They also have discussed the question of pay and allowances, and recommended the abolition of the distinction of *unemployed* pay—a recommendation which has been already acted upon. We are glad to find also that they call attention to the injustice so frequently inflicted on officers who are required to pay their own expenses on being removed to a new charge. "An officer so moved from a doing-duty, or a so-called 'unemployed,' position to an officiating medical charge, which may not bring him more than one hundred rupees a month, but who, in consequence of the increased rate of pay he will draw, is obliged to join at his own expense, is frequently involved in expenses which months of such allowances will not cover." We trust that this regulation, against which we have so frequently protested, will soon be abolished, and one of the causes of justifiable discontent on the part of the Indian medical officers be thus removed. They also recommend a revision of the regulations by which charge pay is drawn by officers going on furlough or accepting civil appointments, while the officer who actually discharges the duty receives only a modified allowance; the rule adopted in the Army Medical Staff should be followed, that charge money be drawn by the officer on whom the duty and responsibility devolve.

A letter from the Under Secretary of State for War reviews these recommendations, and states that Mr. Childers, who was then Secretary of State, did not concur in the views of the reporters. The principal grounds of dissent were that he thought the proposed change would have the effect of diminishing the supply of candidates, as "the attraction of Indian service as an inducement held before the whole body of candidates would be seriously diminished;" that the least eligible of the candidates would be left for the British branch of the service; that both India and Great Britain would be losers in the matter of varied experience on the part of medical officers; and that the proposed scheme would be more expensive to India than a simple unification. Mr. Childers approved, however, of the proposal for the amalgamation of the two services, and suggested that, as the number of appointments to be supplied by the Army Medical Department would be increased, the term of five years for service in India should be raised to seven, and that an officer selected for a civil appointment should be allowed to volunteer for another term of seven years.

We have endeavoured to summarise as briefly as possible the recommendations contained in the memorandum. It gives the carefully considered opinions of two officers of long and varied service, representing the two branches of the existing Medical Service. The dual service in India has already been considerably modified, and it appears desirable, in the interests alike of the public and of the officers of the Medical Service, that still further improvements should be introduced. The form which these should take is clearly laid down in the memorandum now published, as well as the objections to it from a War Office point of view. It is obvious that the present system of two distinct and independent services working together in India is open to very serious objection, and that measures must be adopted to remedy the inconvenience and reduce the expense arising from such an arrangement. The principles laid down by Dr. Crawford and Dr. Cuningham appear well calculated to effect these objects, and at the same time to preserve intact the rights of the officers in accordance with the conditions of the warrants under which they joined the service. Whatever form of departmental organisation may be adopted, we trust the Government will give due effect to the recommendations bearing upon the existing system of charge pay and of travelling expenses.

POOR-LAW MEDICAL OFFICERS AND THE MEDICAL REGISTER.

AT a meeting of Council of the Poor-law Medical Officers' Association, held at their rooms, 3, Bolt-court, Fleet-street, on March 3rd, attention was drawn to the case of Mr. H. C. Linden, district medical officer of the Bingham Union, Notts. This gentleman had applied for and obtained a Poor-law medical appointment, his election to which was annulled by the Local Government Board on account of his name not appearing on the Medical Register through his not apprising the Registrar of his change of residence. Proof having subsequently been given to the board of guardians that his name had been restored to the Register, he was re-elected; but on his applying for his quarter's salary he was told by the clerk that the Local Government Board had declined to sanction the payment. The Council desires to express its opinion that a great injustice has been done to Mr. Linden, and that he is entitled to the sympathy and support of the profession, and it also wishes to impress upon Poor-law medical officers the importance of immediately informing the Registrar of any change of residence.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Alnwick and Canongate Urban District.—The mortality during 1884 was at the rate of 20·3 per 1000. The need for some means of isolation has often been referred to, and during the cholera prevalence of last year there was some hope that it would at last be provided. But the disease did not reach beyond the coast line and the matter appears again to be set aside. Hence Dr. Davidson once more presses it, and he shows that for scarlet fever alone it is much needed. Diarrhœa was somewhat exceptionally prevalent, and phthisis is also a leading disease of the place, the cause of the latter disease being attributed to the wetness of the subsoil and the breathing of vitiated air due to deficient ventilation and to overcrowding. Some parts of Alnwick are in a notoriously bad condition; one locality is described in the report as disgraceful, and in many of the yards surrounded by tenemented houses the same description would hold good. The soil is sodden with filth and water, and in summer foul emanations are the result. Old bye-laws are in force which fail to meet pressing sanitary needs as regards new buildings, and the committee appointed to deal with the matter does not appear to further the object required with the needed promptitude. As regards the common lodging-houses, the state of affairs which inspection has revealed is such that it cannot, we hope, be allowed to continue. Alnwick has just now an unenviable notoriety. The public have complained of its condition, a coroner's jury have blamed the authorities, and the Local Government Board have directed inspection of its sanitary state. Notwithstanding the changes in the post

of officer of health, Dr. Davidson does not fail faithfully to show the authority the direction in which its future work should lie; and we trust that both for the sake of the inhabitants whom they represent, and for their own sakes, the Town Council will during the present year set themselves earnestly to work.

Stroud Urban District.—The town has a death-rate of 17·2 per 1000, and a birth-rate of 21·3. The number of uncertified deaths amongst infants is high, and Mr. Partridge attributes it to an important extent to the practice which prevails amongst ignorant mothers of dosing their children with soothing syrups and other nostrums instead of securing that medical aid which is open to the poorest in the country. Some enteric fever and diphtheria have occurred in connexion with the use of polluted well water, and, as a result, some extension of the town mains has been made. Inspection of bakeries, slaughter-houses, &c., continues, and a good list of sanitary work is recorded.

Stroud Rural District.—In this rural district certain works of drainage are in progress; the water-supply is subject to frequent and careful inspection, all suspicious sources being examined and dealt with. Horsley is spoken of as being much in need of a proper supply in place of the present one, which is subject to the risk of pollution. Stonehouse, which has more than once been to the front as a place needing sanitary measures, is again referred to in connexion with the prevalence of enteric fever. The place is, however, now being drained.

Huntingdon Rural District.—In the Alconbury and Sawtry division of this district steady work is in progress as to the prevention of disease and nuisance. Alconbury brook has been cleansed in so far as the duty devolved on private owners, and so a large improvement has been effected; but further action in the same direction is required by the authority. Sawtry is also in urgent need of a good water-supply. The death-rate for the district was 13·3 per 1000 during 1884. There was one death from scarlatina and two from non-spasmodic croup.

St. George, Hanover-square.—During the year ending March 25th, 1884, this parish exhibited a lower death-rate than for years past—namely, one of 15·7 per 1000. Apart from diphtheria, infectious diseases caused but few deaths, and a majority of the diphtheria deaths occurred in St. George's Hospital. The report is in the main statistical; but the inspector of nuisances compiles a goodly table, showing the current sanitary work of the year; and Dr. Corfield shows also that a large amount of disinfection is carried out in the hot-air chamber with which the parish is provided. In view of the possibility of cholera appearing, arrangements were made for the isolation of the sick. Dr. Corfield communicated with the Duke of Westminster as to the site he regarded as the one most applicable, and the Duke gave his assent, and went so far as to issue notices to the then occupiers to quit. Fortunately, no use had to be made of the permission thus acquired.

Woodford Urban District.—Dr. Groves attributes some occurrences of diphtheria to emanations from sewer ventilators which open on the road level, and he quotes THE LANCET as endorsing his views on the subject. On this matter being brought before the authority they determined to make inquiry of the sanitary authority of Surbiton, where, according to Dr. Groves, a system of ventilating the sewers at a high level is in existence. The death-rate in Woodford was 14·2 per 1000 during 1884 and 12·1 in 1883, and so far as the medical officer of health can ascertain there was not last year even a single case of enteric fever.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5937 births and 3660 deaths were registered during the week ending the 28th ult. The births exceeded by 123 and the deaths by 33 the average weekly numbers during 1884. The annual death-rate in these towns, which had steadily declined in the preceding four weeks from 24·5 to 20·5 per 1000, rose again last week to 21·4. During the first eight weeks of the current quarter the death-rate in these towns averaged 22·8 per 1000, against 24·6, the mean rate in the corresponding periods of the nine years 1876-84. The lowest death-rates in these towns last week were 13·9 in Portsmouth, 14·3 in Huddersfield, 15·7 in Hull, and 16·9 in Halifax. The rates in the other towns ranged upwards to 29·6 in Sunderland, 30·3 in Newcastle-upon-Tyne, 31·7 in Cardiff, and 32·2 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 398 and 384 in the previous two weeks, further declined last week to 377; they included 113 from whooping-cough, 102 from measles, 44 from scarlet fever, 32 from "fever" (principally enteric), 31 from diphtheria, 31 from diarrhœa, and 24 from small-pox. No death from any of these zymotic diseases was recorded last week either in Derby or in Halifax, whereas they caused the highest death-rates in Preston, Norwich, Cardiff, and Sunderland. The highest death-rates from whooping-cough occurred in Preston, Bristol, Wolverhampton, and Norwich; from measles in Cardiff and Sunderland; from scarlet fever in Preston; and from "fever" in Norwich. The 31 deaths from diphtheria in the twenty-eight towns included 16 in London, 3 in Nottingham, 3 in Liverpool, and 2 in Leeds. Small-pox caused 38 deaths in London and its outer ring of suburban districts, 2 in Birmingham, 2 in Sunderland, 1 in Brighton, and 1 in Liverpool. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had been 1223 and 1141 on the preceding two Saturdays, further declined to 1103 at the end of last week; the admissions, which had been 255 and 163 in the previous two weeks, were 170 last week. The Highgate Small-pox Hospital contained 98 patients on Saturday last, 19 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had steadily declined in the preceding four weeks, from 556 to 343, rose again last week to 384, but were 105 below the corrected weekly average. The causes of 79, or 2·2 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leeds, Bristol, Leicester, Portsmouth, and in six other smaller towns. The largest proportions of uncertified deaths were registered in Sheffield, Preston, and Newcastle-upon-Tyne.

HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had steadily declined from 30·2 to 23·1 per 1000 in the preceding four weeks, rose again to 24·6 in the week ending the 28th of February, and exceeded by 3·2 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 13·3 in Perth and 16·0 in Edinburgh, to 26·2 in Dundee, 29·0 in Glasgow, and 35·2 in Paisley. The 600 deaths in the eight towns included 31 which were referred to whooping-cough, 17 to scarlet fever, 15 to measles, 11 to diarrhœa, 6 to "fever" (typhus, enteric, or simple), 2 to diphtheria, and not one to small-pox; in all, 82 deaths resulted from these principal zymotic diseases, against 95 and 81 in the preceding two weeks. These 82 deaths were equal to an annual rate of 3·4 per 1000, which was 1·2 above the mean rate from the same diseases in the twenty-eight English towns. The 31 deaths from whooping-cough showed a slight further increase upon the numbers in the previous two weeks. The fatal cases of measles, which had been 25 and 21 in the previous two weeks, further declined to 15 last week, of which 12 occurred in Glasgow and 2 in Dundee. The 17 deaths from scarlet fever, however, showed a considerable increase upon the numbers in recent weeks, and included 14 in Glasgow and 2 in Paisley. Of the 11 deaths attributed to diarrhœa 5 occurred in Dundee. The 6 deaths referred to "fever" were considerably below the average. Both the fatal cases of diphtheria (a lower number than has been returned in any recent week) occurred in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had declined in the preceding four weeks from 214 to 139, further fell last week to 125, but exceeded the number returned in the corresponding week of last year by 17. The causes of 17, or nearly 12 per cent., of the deaths registered last week in the eight Scotch towns were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 36·2, 34·9, and 30·4 per 1000 in the preceding three weeks, further declined to 30·3 in the week ending the 28th ult. During the first eight weeks of the current quarter the death-rate in the city averaged no less than 32·7 per 1000, the mean rate during the same period not exceeding 21·9 in London

and 20·6 in Edinburgh. The 205 deaths in Dublin last week showed a further decline of 1 from the numbers in recent weeks, and included 18 which were referred to the principal zymotic diseases, against 20 in each of the previous two weeks. Of these 18 deaths, 8 resulted from measles, 6 from scarlet fever, 2 from whooping-cough, 1 from "fever" (typhus, enteric, or simple), 1 from diarrhœa, and not one either from small-pox or diphtheria. These 18 deaths were equal to an annual rate of 2·7 per 1000, the rate from the same diseases being equal to 1·8 in London and 1·9 in Edinburgh. The fatal cases of measles in Dublin, which had been 10 and 11 in the preceeding two weeks, declined to 8 last week; the deaths from scarlet fever, on the other hand, rose to 6 last week, from 3 in each of the previous two weeks. Only 2 deaths from "fever" have been recorded in the city in the past fortnight, whereas they averaged 4 per week in the first seven weeks of this year. Seven inquest cases and 2 deaths from violence were registered within the city; and 61, or nearly a third, of the deaths were recorded in public institutions. The 39 deaths of infants showed an increase upon the number in the previous week, while the deaths of elderly persons were fewer than in any previous week of this year. The causes of 34, or more than 16 per cent., of the deaths registered in the city last week were not certified.

CLASS MORTALITY IN DUBLIN.

The death-rate in Dublin last year was equal to 27·9 per 1000 of the estimated population in the middle of the year. This high rate of mortality, although showing a decline of 1·3 per 1000 from the mean rate in the preceding ten years, bears most unfavourable comparison with the rates prevailing in the capitals of the other portions of the United Kingdom. In London the rate last year did not exceed 20·3, and in Edinburgh it was only 20·0. In the Registrar-General's yearly summary for Dublin and other large Irish towns further statistics are published with a view to elucidate that interesting but difficult problem of class mortality. The recorded death-rates during 1884 in the families of eighteen different occupational subdivisions grouped in five social classes are given in this report. Class mortality, as distinct from occupational mortality, is a branch of vital statistics that has not yet secured its due share of attention, in great measure owing to the inherent difficulties which the subject presents. The figures published by the Registrar-General of Ireland bearing upon class mortality in Dublin, crude as they are at present, form a welcome addition to our slender knowledge on the subject. Some time since, when we noticed these class death-rates in Dublin, we pointed out that such rates of mortality were practically useless for comparative purposes unless due allowance was made for the wide differences of age distribution in the various social classes. In order to estimate the true import of a death-rate, it is absolutely necessary to know the age constitution of the population upon which it is calculated. We have been pleased to notice that the Registrar-General of Ireland now affords the means for correcting his class death-rates for differences in the age constitution of the population in the several classes. A table is published in the yearly summary, recently issued, giving the ages of the Dublin population in each social class, and in each group of occupations for which the deaths are given. This information affords the necessary assistance for calculating the disturbing influence of age distribution upon this recorded class mortality. By applying standard life table rates of mortality to the varying proportions of persons living at five groups of ages in the four social classes adopted by the Registrar-General of Ireland, we find that the normal death-rate ranged from 19·5 per 1000 in the Middle class, to 25·2 in the Professional and Independent class. Bearing in mind that this difference of 6·3 per 1000 is entirely due to difference of age distribution in the living population of each class, it is impossible to doubt that the recorded death-rate in these two classes is useless for comparative purposes, unless due correction be made for this disturbing influence. The explanation of this important effect of age distribution upon recorded class death-rates is patent. It will be found from the Registrar-General's table to which we refer that in the Professional and Independent class population 15·8 per cent. are persons aged upwards of sixty years, whereas in the Middle class only 4·8 per cent. are returned at the same group of ages. This remarkable difference in the age distribution of two classes, between which the barrier must be ill-defined and more or less artificial, points to difficulties of classification of the social class and occupation of living and deceased persons, to which we shall probably hereafter refer.

THE SERVICES.

THE EGYPTIAN EXPEDITION.

We learn from our Indian contemporaries that the following Indian medical officers proceed on active service with their respective regiments forming the Indian contingent for the Soudan:—Surgeon-Major G. Hutcheson, M.D., 9th Bengal Cavalry, to which is attached for duty Surgeon G. Jameson; Surgeon-Major Kelly, M.D., 15th Sikhs; Surgeon-Major R. T. Lyons, M.D., 17th Bengal Infantry; Surgeon F. Burness, M.B., 28th Bombay Infantry; and Surgeon-Major R. V. Power, M.D., 12th Madras Infantry.

At Aldershot a further draft of the Medical Staff Corps, the officers and men for which have been drawn together from various outlying stations, is being prepared, and will probably embark at the end of the week for Suakim.

The Indian troopship *Crocodile* left Portsmouth on the 4th inst. for Bombay, having embarked, amongst other officers, on the previous day, Surgeon-Major Macpherson and Surgeons Dodd and Hunston, medical staff.

The Greenwich Hospital pension of £50 per annum, vacant by the death of Deputy Inspector-General of Hospitals and Fleets Alexander Crawford Macleory, has been awarded by the Lords Commissioners of the Admiralty to Deputy Inspector-General of Hospitals and Fleets William Hoggan.

WAR OFFICE.—Army Medical Staff:—The following officers are granted the local and temporary rank of Deputy Surgeon-General whilst serving with the Expeditionary Force, Suakim: Brigade Surgeon George Langford Hinde; Brigade Surgeon Samuel Black Roe, M.B., C.B. Surgeon-Major John Candy, M.D., has retired upon temporary half-pay.

ADMIRALTY.—Staff Surgeon Richard William Coppinger, M.D., has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet.

RIFLE VOLUNTEERS.—3rd Lancashire: Andrew Alexander Watson, Gent., to be Acting Surgeon.—2nd Battalion, the Queen's Own (Royal West Kent Regiment): Henry William Roberts, Gent., to be Acting Surgeon.

Correspondence.

"Audi alteram partem."

SLOW PULSE, WITH EPILEPTIFORM SEIZURES.

To the Editor of THE LANCET.

SIR,—The interesting case narrated by Dr. Gibbings in your issue of Feb. 14th reminds me of one, the notes of which I have long had by me with the object of publishing whenever a suitable occasion should present itself. I was much interested in it because it seemed to me to show conclusively the effect of cerebral anæmia in the causation of epileptic or epileptiform attacks.

The following is a copy, with only a few verbal alterations, of the case as I wrote it out at the time.

W. P——, aged thirty-one, was admitted under the care of the late Dr. Goolden on May 4th, 1869. He had been a soldier, and was in India for four years, during which time he contracted syphilis and suffered from "fever and ague." Was discharged after twelve years' service on account of "weakness of constitution." He has never had rheumatism, and never suffered from shortness of breath or palpitation previously to his present illness. This came on two weeks before admission. At that time, under some mental excitement, he jumped over some palings in order to prevent a fight. He was immediately attacked with faintness, but recovered from it very shortly. The next morning in bed he woke up with "heavy" breathing, which also soon subsided. In the evening it returned, and he had a fit in which he lost consciousness. From that time he has had to give up work, and attacks of dyspnœa, followed by losses of consciousness, have recurred frequently night and day up

to the time of admission. The fits have all been preceded by "faintness at the chest," followed by flushings, on the occurrence of which insensibility has supervened. He once bit his tongue slightly. Has had no pain in the chest or elsewhere. He was ordered to take quinine and iron and two glasses of wine.—14th: I saw him to-day for the first time, and learnt that almost constantly since admission his pulse had been beating very slowly, sometimes not more than 26 in the minute, and that he had had frequent fits night and day. These had been of very short duration and attended with a little struggling. He had been carefully watched by several of the advanced students in some of these fits, and according to them it seemed clear that the fits always came on at the end of an unusually long interval between successive cardiac beats; that while the pulse was at the rate of one beat in three seconds, or even four seconds, no fit occurred; but that whenever, and only when, the intermission was prolonged to five seconds a fit followed at the end of that period. He is free from fits this morning, and his pulse is beating regularly at the rate of 26 in the minute. There is a loud roaring systolic murmur above and to the right of the apex, and prolonged thence to the base.—18th: No fit from the 14th to the 17th; but since the middle of yesterday, and especially during the night, the fits have been very frequent. They vary in length, but insensibility only lasts for a few seconds. He becomes very pale before each fit, then flushes, and while insensible his hands twitch a little. When I saw him the fits had ceased, but the pulse was very irregular. A few regular beats at the rate of 80 in the minute were followed by one or two beats occurring at intervals of about three seconds. Systolic murmur loudest towards the base. A little later his pulse was quite regular at 80 per minute. —21st: Has had frequent fits night and day since the 18th, and has had several this morning. At the time of my visit the pulse is somewhat more irregular than it has been. There is an interval sometimes of three seconds, sometimes of four, without a beat, and then follows a succession of beats at the rate of 80 per minute. On listening to the heart, its sounds correspond accurately to the pulsations at the wrist; but between all the beats (attended with sound and perceptible at the wrist) separated from one another by intervals of between two and four seconds, there are one, two, or three slight impulses of the heart distinctly to be felt, and seen by the imparted movements of the stethoscope. These latter beats are wholly unattended by cardiac sound or pulsation in the arteries. It seems to me that the action of the heart is quite regular as to rhythm, but that many of its beats are ineffectual. These intermediate impulses are felt at the base of the heart; are they due to the action of the auricle or to the hardening of a relaxed but empty ventricle?—25th: Has been pretty free from fits, but had a slight one last night; slept well; feels better. Pulse about 80, but irregular. Rough murmur, loudest and roughest towards the base.—28th: No fits, but occasional sensation as if they were coming on. Pulse 58, regular.—June 1st: No fits; pulse 72, occasionally a little irregular; murmur as before; complains of pain in left shoulder, running down inner side of the upper arm.—4th: No fits; pulse 72, quite regular; feels much better.—8th: No fits, but pulse irregular; murmur as before; feels well. On this day he left the hospital, but he attended as an out-patient until the 21st. During this time, though his pulse continued to be somewhat irregular, he remained free from shortness of breath, palpitation, and fits, and expressed himself as feeling fairly well. I never heard of him subsequently. What my views of the morbid anatomy of the case were formerly I have not recorded, and do not recollect. I am inclined now to suspect that the cardiac disease was syphilitic.

It may be interesting in relation to the above case to record another in which similar epileptiform fits were the consequence of the opposite condition of temporary cerebral congestion. About ten years ago I was consulted by a gentleman sixty years of age, who was very fat and had been liable to bronchitis for many years. For several weeks or longer he had been suffering from severe prolonged paroxysmal attacks of cough with whooping inspiration, in the course of which he frequently became insensible and slightly convulsed for a few seconds. In my consulting-room one of these paroxysms of cough came on. It was much like an attack of whooping-cough, and after it had lasted for some time (half a minute or a minute) respiration suddenly ceased, he became increasingly livid in the face, his head fell upon his chest, and he was insensible and slightly convulsed for a few seconds. He then came to, and appeared in his usual condition. Whether he was really suffering from whooping-cough or not I do not know. I could not determine that point at the time, but I know that these phenomena continued unchanged for some considerable time after his visit to me, and that even during the next five or six years he still occasionally whooped, and still occasionally lost consciousness during severe attacks. I saw him again six years later, when he was suffering from the effects of advanced bronchitis, and about a month before his death from that disease. Attacks like the above are not uncommon, and occasionally cause death in children suffering from whooping-cough, but so far as I know they are rare in adults. Your obedient servant,

Old Burlington-street, Feb. 16th, 1885. J. S. BRISTOWE.

"WHAT WAS THE CAUSE OF DEATH?"

To the Editor of THE LANCET.

SIR,—As you have alluded to the case of the Norwegian sailor, Johnson, under the above heading in your issue of Feb. 21st, I hope you will allow me to explain briefly the facts. They are as follows:—

About 1 A.M. on the morning of Jan. 2nd the man, Johnson, was brought to the hospital, and found to be dead. On the 3rd, by the coroner's order, a post-mortem examination was made by me, at which there were present Dr. Little, honorary surgeon, and Mr. Gordon and Mr. Dixon, the two other house-surgeons. The examination occupied three hours, and every organ and every cavity was carefully examined. All those who were present were quite agreed as to the condition of the organs described below. What we found amounted briefly to this: Externally, several cuts and bruises about the head and face; internally, congestion of all the organs, considerable atheroma of the aorta, and nothing else. On Monday, the 5th, about 10 P.M., Dr. Whitford, called and said he had been engaged by the defence, and would like to see the body. Accordingly an appointment was made for eleven o'clock the next morning, the 6th. Dr. Whitford was not punctual, and before he arrived I had left for the coroner's court. However, he was shown the body by one of the other house-surgeons, and he made a hasty examination of the organs and the external injuries, the whole process occupying not longer than twenty minutes. The coroner's inquest was held the same day. The evidence of the witnesses was this: That one of the prisoners first engaged in an altercation with Johnson, and then the other two came to the assistance of the first; that Johnson was struck violently on the head several times with the buckle of a belt, and afterwards with a ginger-beer bottle, and that he died in a few minutes after receiving these injuries. After hearing this evidence I gave it as my opinion that the probable cause of death was concussion of the brain, and that the congestion of *all* the internal organs was due to his mode of death. Dr. Whitford then got into the box, and, without any previous communication with me, stated that he took a wholly different view of the matter; "that there was extensive and long-standing disease of the heart"; "that the left lung was *nearly entirely semi-solid*." When asked by the coroner to state the cause of death, Dr. Whitford replied, "I should find that difficult after all the examinations I have made, for none of the wounds I have found left sufficient traces of being enough to cause death. The deceased was much enfeebled by the condition of his lungs." The jury returned a verdict of "Wilful murder." In subsequent conversation with Dr. Whitford, I pointed out to him that the heart and the aorta were not quite the same, and I believe we agreed that the heart and its valves were healthy, but that there was considerable atheroma of the aorta. At the assizes Dr. Whitford described the left lung as "completely solid," and the right as "semi-solid." The jury without the least hesitation returned a verdict of "Manslaughter" against all the prisoners. On the next day Dr. Commins, addressing the Court in mitigation of sentence, was stating that the condition of the deceased man's lungs must have enfeebled him greatly, when he was interrupted by the Judge, who intimated that it was useless for counsel to pursue that argument, as the Court believed that the congestion of the organs was consequent on the assault.

To the questions asked in your article, I reply—1st. The congestion of the lungs was not greater than the congestion of the kidneys, and some of the other organs (which Dr.

Whitford omitted to mention), and was the same in kind and degree as that which is frequently found in persons who have died a violent death. 2nd. There was no consolidation in either lung. 3rd. The aortic degeneration was not more than might have been expected in a man of deceased's age and mode of life. 4th. This last question Dr. Whitford answered at the assizes. He was asked, "If deceased had not *received* these injuries how long would he have lived?" *He* replied, "He might have lived a week;" but as far as I can see there was no reason why he should not have lived for years. That the pathological changes found in the body had no apparent effect on the man's previous health may be assumed from the fact that he was considered by his wife to be a perfectly healthy man; and there can be no doubt whatever that he died from the effects of the brutal assault which was committed on him. For this assault there was no defence.—I am, Sir, yours faithfully,

F. KNIGHT, M.B. Lond.,
House-Surgeon, Royal Southern Hospital.

Liverpool, Feb. 25th, 1885.

MR. LEAKE AND THE ANTI-VACCINATIONISTS.

To the Editor of THE LANCET.

SIR,—I trust that you will permit me, in the public interest, as well as on professional grounds, to state what *I know* of the revaccination cases referred to by Mr. Leake. As the subject has now become public property, there cannot, I presume, be any reasonable objection to the exact circumstances being calmly narrated from the medical standpoint. On May 17th, 1881, eight members of Mr. Leake's household were revaccinated by me, six on the 18th, and four, including Mr. Leake himself, on the 22nd. All were then residing in a large roomy house in Hill-street, Berkeley-square, taken for the season; as to its sanitary state I have no information. Two of Mr. Leake's relatives residing in an adjoining street were "done" on the 18th, and their maid on the 22nd. To be exact, therefore, the operations numbered twenty-one, and, if I recollect rightly, at least one of the servants was, properly speaking, vaccinated. It was understood between Mr. Leake and myself that Brussels calf lymph was to be used, and I personally obtained the necessary supplies fresh as they were needed, in tubes, from Dr. Warlomont's agent in town. The operations were done by cross-scratching three places, at the usual distance apart from each other, over the deltoid, with the point of a clean Spratt's vaccinator; in one child, who did not look so strong as the rest, the lymph was applied in two places only. In short, every care and precaution was taken to ensure success.

On visiting the patients on May 23rd, 24th, 25th, and 26th, I found everything going on so well that I did not consider it necessary to call next day; but I left word that, if required, I was to be sent for at once. On the evening of the 27th my immediate attendance was requested. I found one of the servants, whom I had revaccinated on the 22nd, ill in bed. She had complained in the morning, but the housekeeper did not report the illness until shortly before my arrival. The quickened pulse, high temperature, sore-throat, and as yet faint blush on the front of the chest, could not, and did not, fail to arouse suspicion; but I declined to express a final opinion till next morning. As there was then no longer any doubt that we had scarlatina to deal with, not a minute was lost. The patient was quickly carried out of the house into the ambulance, which the London Fever Hospital sent at once in response to Mr. Leake's telegram. The bedclothes, &c., were bundled up and cast out of the top back bedroom window into the garden, and finally removed through the stable; sulphur was burnt for hours in the bedroom; and either carbolic acid or Condy's fluid was thrown down the waterclosets and sinks. Nothing was left undone to prevent the extension of the outbreak, and we were happily successful. Now began our anxieties as to the possible consequences that might follow the importation of scarlatina—how we knew not—into a household passing, hitherto normally, through the vaccinal process. Unfortunately, on June 1st, or thereabouts, one of the daughters, aged about sixteen years, fell ill, the arm became reddish and swollen, and gradually the vesicles broke down into deep ulcerated sores discharging unhealthy pus. She was taken home to near Manchester on the 7th, and her medical attendant there informed me in his letter of the 13th that a large abscess having a threatening aspect for a time formed in the axilla attended with erysipelas. There my information ends. I am under the impression that in another daughter the revaccination was a failure, owing to the vesicles running an irregular course, but after this lapse of time I am obliged to speak with some reserve. To the best of my knowledge and belief these two were the only patients out of twenty-one operated upon in whom the process, where it "took," did not pass through the normal phases. A third daughter accidentally made a very small puncture into the skin in front of the knee with the point of a pair of scissors. At that spot cutaneous erysipelas appeared, spreading downwards to the ends of the toes, and then upwards to the groin, where it stopped. This attack had no connexion whatever with the vaccinal puncture on the arm, which was unaffected. My last visit was on June 22nd.

If any of your readers have had a similar experience to the above, I hope they will make it known in your columns. My own opinion at the time, as stated to Mr. Leake, was that the untoward results just described could not, in fairness, be wholly, if at all, imputed to the lymph or the operation, but that the scarlatina had a good deal to answer for, and might have had more. The rule not to vaccinate in a house where scarlatina is known to prevail implies that scarlatina is hostile to vaccinia. There were no other cases of this disease at the time in the neighbourhood, to my knowledge.

As to the cost, my charges were ten guineas for twenty-one revaccinations, and four guineas for four visits—that is, fourteen guineas. The visits subsequently made to the scarlatina patient and to the children numbered thirty-seven, which at one guinea each brought my claim up to fifty-one guineas; but I do not see how the revaccinations can be debited with more than fourteen. In order to err on the side of moderation I made no extra charge when I had to attend a good many times on two or more patients at the same visit. Mr. Leake's error seems to me to consist in the fact that he lays all the blame on the revaccination, and no blame at all on the scarlatina.

I am, Sir, yours obediently,

Hertford-street, Mayfair, March, 1885. GEO. MOORE, M.D.

RECOVERY AFTER APPARENTLY FATAL CHLOROFORM NARCOSIS.

To the Editor of THE LANCET.

SIR,—Perhaps you may think the following instance of recovery from apparently complete death from chloroform worthy of insertion.

Some two years ago I was asked by a friend to remove a cataract from the eye of a favourite fox-terrier, the request being made with many apologies. I replied that I was as willing to give relief to the dog as to a human being, so the dog was brought. I found that it had necrosis of the central half of the cornea; so having chloroformed it, I made several incisions round the periphery of the necrosed portion. When I had finished, the dog was to all outward manifestation quite dead. My friend, Mr. W. O. Pughe, employed artificial respiration vigorously, but to no purpose. Suspending the animal by the heels had no better result. Artificial respiration was again tried, but still without avail. We next tried nitrite of amyl, but there was no response. All this had taken some time, and the case seemed hopeless, when it occurred to me to employ both artificial respiration and nitrite of amyl together. Two or three compulsory breathings of the amyl caused the dog to jump up and stagger about the room most actively. The eye recovered with scarcely an opalescence to mark the site of the necrosis. Since that time I have never knowingly given chloroform or had it given for me without having amyl nitrite at hand, although I am happy to say it has never been so imperatively necessary to use it as in the foregoing case.

I have seen only one case of chloroform death, and that occurred before the action of amyl nitrite was generally known; but I believe that had we treated the patient then as we treated the dog death would not have resulted. Now that ether has been used so much, is it not time to take stock to see whether it be so much safer than chloroform? My contention is that in the production of complete anæsthesia there is little or no difference between the two drugs, whilst in the after-effects, especially as regards vomiting, nausea, and depression of spirits, chloroform is much superior to ether.

I am, Sir, yours truly,

Liverpool, Feb. 22nd, 1885. GEORGE E. WALKER, F.R.C.S.

"INTEMPERATE ADVOCACY OF TEMPERANCE."

To the Editor of THE LANCET.

SIR,—I observe in your issue of the 21st of last month that you make some severe strictures on a speech I am supposed to have made somewhere and somewhen. You accuse me of making three assertions, which are in effect—(1) That medical men prescribe alcohol to increase their practices; (2) that under no possible circumstances ought it to be used; (3) that increasing death-rate is the gauge of our retrogression in drunkenness. I am surprised that you credit any member of the profession with making such absurd and silly statements without proper inquiry. I have before me a report of a speech in the *Weymouth, Portland, and Dorchester Telegram*, to which I suppose your remarks refer, and, though it is difficult for me to recognise my own speech, so imperfectly are the medical points stated, I defy anyone to find the slightest foundation for supposing I hold such opinions or have given expression to them. I did not go beyond what several medical men of great eminence have stated on the question. While holding most strongly the opinion that healthy persons do not need stimulants, I think in some cases it may prove valuable as a medicine, though it is not required even here so frequently as is generally supposed. I am, Sir, your obedient servant,

Southampton, March 2nd, 1885. JOHN H. ALDRIDGE.

*** Dr. Aldridge has misunderstood the extent of our reference to his lecture. We attributed to him only the third of the above assertions, and that on the authority of a report in a daily paper. His letter shows that in the main his theory of the use of alcohol is identical with our own.—ED. L.

MANCHESTER.

(*From our own Correspondent.*)

PROVIDENT DISPENSARIES.

AT the annual meeting of the provident dispensaries a report was presented which was considered by the committee to be of a very satisfactory character. Practically, they are now self-supporting; four out of the nine branches are making an annual profit on their work. The total subscriptions from members amounted to £3400, of which sum £1865 was paid to the medical staff, not including fees for confinements. One of the chief objects the Society has in view is to prevent abuse of medical charity whilst promoting the independence of the working classes in obtaining medical relief in time of sickness. Investigations are made into the means and position of applicants for relief at the various hospitals in the city, and the general result of this action has been to cause a large diminution in the number of those applying for gratuitous advice who are in a position to pay something for the same. Thus, at the Royal Infirmary the applicants found able to pay during the past year were 12 per cent., against 17 per cent. in 1878. Ten years ago more than 40 per cent. of the cases applying at our charities were found not to be fit objects of charity, whilst last year the percentage was only 14·9. This cannot but be regarded as a satisfactory result, if among this army of would-be medical paupers none truly deserving have been included. The charges at one time made by some members of the medical profession, that patients were allowed to become members of a dispensary who were really in a position to pay the ordinary fees of a medical man, have been of late but little heard, so that it may be assumed that this fairly legitimate complaint has been looked into and remedied.

MANCHESTER MEDICAL CHARITIES.

We have lately had rather an animated discussion going on in the daily papers in relation to the New Eye Hospital. It was at first intended on the completion of the new building to remove entirely the work of the hospital from the centre of the city, where it has hitherto been located, to the new hospital in Oxford-road, situated some mile and a half from the present site. This has led to a scheme being proposed for establishing another eye hospital near the old situation to provide for emergencies, and for the convenience of out-patients who live on the eastern side of the town and in Salford. As a result it seems that the present hospital authorities have decided to retain a portion of the old building in John-street to meet these requirements, and thus render a new institution unnecessary. It would certainly be a pity to still further multiply our now too numerous medical charities, most of them being constantly in difficulties to make their income balance their expenditure; the Lock, the Ear, the Children's, the Clinical Hospitals are all asking for increased subscriptions unless the work is to be curtailed. At the annual meeting of the last named, presided over by the Bishop of Manchester, it was advocated by some that wards for private patients should be tried as an experiment for those willing to pay; the experience gained, however, at the Children's Hospital, Pendlebury, does not give much encouragement to this proposal. At the first annual meeting of the newly-established Victoria Dental Hospital the financial statement showed that there was a balance in hand on the year's work of £226, and now that it has issued an annual report and an audit of its accounts it will be eligible for a grant from the Hospital Sunday and Saturday Funds. The amounts collected this year for these two funds combined was, up to the 28th ult., £7224, being £4665 for the Hospital Sunday and £2559 for the Saturday Fund. These amounts show a little falling off from last year; but there will be a few more sums yet to come in. Unfortunately, Hospital Sunday this year was a very wet day, and that may have influenced the result. It has been pointed out that our Saturday collection does not equal that of other similar populations, and that if it were made in a more systematic or revised manner the returns from this source might be considerably augmented.

THE MEDICO-ETHICAL SOCIETY.

At the last meeting of the above Society the newly-elected President, Mr. Walmsley, gave a short address on the present and future position of the Society, and in his remarks alluded to many matters which he thought might fairly claim attention. A somewhat animated discussion ensued, bearing especially on the illegitimate practice of medicine by unqualified men, and the unprofessional conduct of legally qualified men in connexion with the same. This evil would appear to be on the increase, and it was resolved that the special attention of the committee be directed to that subject during the ensuing year. Another matter set down also for early consideration was the relation of medical men in regard to coroner's inquests, more particularly the conducting of post-mortem examinations.

THE SALLORD GUARDIANS AND THE MEDICAL STAFF OF THE NEW HOSPITAL.

The new hospital at Hope belonging to the Salford Guardians has been rather prominently before the public of late: some of the members of that board have been bringing forward rather serious charges against the medical administration. First, it was stated that at some Christmas festivities held there patients were neglected while these were proceeding, and that they were prolonged too far into the night; and a resolution has been passed by which such festivities in the future will be very much curtailed. Still more recently, on the application of some of the members of the same board, a Local Government Board inquiry has been held to inquire into certain allegations made against the medical superintendent; but, so far as appeared from the published reports of the inquiry, the charges were not of a very serious character. The decision of the Local Government Board has not yet been received. Last week an animated discussion took place as to the administration of alcoholic stimulants by the medical staff, some of the guardians wishing to go so far as to prohibit their use altogether, until it was pointed out that they would be exceeding their powers to endeavour to carry into effect any such resolution.

Dr. William Roberts is at present delivering a weekly series of lectures, at Owens College, upon "Dyspepsia and Dietetics," which are open to all members of the profession, and to students in the medical department. They have been very numerously attended. As they will, in all probability, be published at their conclusion, further notice of them in these columns is unnecessary.

Dr. Morrison Watson, who was seized with an apoplectic attack at the College three weeks ago, has so far recovered as to permit of his removal to a private nursing institution, but his condition is still one of exceeding gravity.

Manchester, March 3rd.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

NORTHERN COUNTIES CHEST HOSPITAL.

THE annual meeting of this institution was held last week, the Mayor of Newcastle presiding. The report showed that of 541 out-patients under treatment during the past year 143 had been cured and 387 relieved. Of the 22 in-patients, 1 was cured, 19 were relieved, and 2 died. The financial condition of the hospital was shown to be satisfactory, but the committee in the present state of trade could not venture on any extension of the premises, though very desirable, as it would involve an expenditure not covered by the present income.

NEWCASTLE CLINICAL SOCIETY.

The Newcastle Clinical Society gave its second annual banquet at the Central Station last week. Nearly forty sat down to a well-spread table, and the proceedings altogether were very spirited and harmonious. Dr. Mearns of Gateshead presided, and he was awarded well-deserved encomiums as ruler of the feast. Dr. Napier (Dunbar) and others made capital speeches.

TYNE PORT SANITARY AUTHORITY.

Some interesting statistics are afforded in the report of the Tyne Sanitary Authority for the past year. The number of ships during the year was 12,078, of which 9505 were British. The sanitary condition of 9425 of these was good, of 2152 "passable," of 501 defective. The total number of crews visited by the inspectors was 135,938, and of passengers, a large proportion of whom were emigrants, 9468. The measures taken by the authority to suppress the smoke nuisance on the river had brought about some improvement. The medical officer (Mr. H. E. Armstrong) stated that there had been a decrease of patients admitted to the floating hospital during the year as compared with 1883. It was decided at the same meeting to adopt the plan submitted by the city engineer for a new floating hospital on pontoons, in preference to the conversion of an old war-ship, which, even if the vessel were got without price, would involve an expenditure of at least £2000.

NEWCASTLE HOSPITAL FOR CHILDREN.

The annual meeting of the governors of the Hospital for Sick Children was held last week, under the presidency of Sir W. G. Armstrong. The number of in-patients—156 new cases—was stated to have been the largest on record; but there has been a slight decrease in the number of attendances of out-patients, which was still very large, representing no less than 6275 separate attendances on the physicians and surgeons. A vote of condolence with Dr. William Murray, consulting physician to the hospital, and who has been intimately connected with it since its commencement, on the great domestic affliction he has lately sustained by the death of his wife, was unanimously carried. The question of providing a convalescent institution was again brought forward for consideration, and may be said to have advanced a step; for, on the suggestion of Sir W. Armstrong, it was referred to a committee to report upon.

EPIDEMIC OF MEASLES AT SUNDERLAND.

There has been a severe epidemic of measles at Sunderland, causing a marked rise in the death-rate—viz., 37·7 per 1000. Of 91 deaths in the week, 26, all children, were due to measles alone. There were 20 deaths from chest diseases, and many of these cases are supposed to have been unrecognised measles. Mr. Harris, the medical officer of health, has taken very active measures to arrest the spread of the epidemic, in the way of ventilation and disinfection of the public schools.

Mr. Frederick Page, one of the surgeons to the Newcastle-on-Tyne Infirmary, and a lecturer here, has been appointed Assistant Examiner in Clinical Surgery to the University of Edinburgh.

Newcastle-on-Tyne, March 2nd.

THE Corporation of Exeter propose to light the new asylum now in course of erection with the electric light. The building is to accommodate 300 patients.

IRELAND.

(From our own Correspondent.)

QUEEN'S COLLEGES, IRELAND, COMMISSION.

CONSIDERABLE dissatisfaction has arisen in consequence of a solitary newspaper in Ireland having been favoured with a report of the Commission held last year in reference to the condition of the Queen's Colleges in Ireland. The matter has very properly been brought before Parliament, and it has been elicited from the Chief Secretary that the journal in question obtained the information it published from one of the commissioners. It is a strange occurrence that even up to the earlier part of this week the Queen's printer in Dublin could not supply a copy of the report, and the President of the Belfast College recently wrote to ask information as to where he could obtain one, as it so deeply concerned his own institution. The action of the commissioner in question must be regarded as a breach of parliamentary privilege. The report of the majority of the five commissioners—viz., Mr. G. J. Stoney, F.R.S., Professor Jack, LL.D., and Deputy-Surgeon-General Marston, M.D.—is a very elaborate document, covering nearly sixty pages. In addition to the suggestions referred to in last week's issue, these gentlemen recommend the following:—"That, as at present, non-matriculated students shall be admitted to the Colleges. That the matriculation examination programme in arts and law in Cork and Galway be made practically equivalent to that of the Royal University. That the Colleges be permitted to enter students entitled to compete for scholarships in medicine and engineering on a different programme, designed in view of the requirements of those professions. That the Colleges should admit students who have passed the first university examination in arts in the Royal University to compete with their students for the scholarships at the beginning of the second year, subject to the usual conditions of residence. That the senior scholars should be freed from the duty of teaching, which tends to diminish the competition for the scholarships and their practical value. That in Galway medical scholarships shall cease to be awarded in the third and fourth years. That summer classes be instituted in Cork, as in Belfast, for the benefit of medical students. That the distribution of the scholarships be reconsidered with a view to making some difference in the amount payable to the scholars according to their places in the list, and with a view to transferring unawarded arts scholarships to medical students where the number of probable competitors seems to warrant it." As regards the clinical facilities available to the students in medicine, they state that in none of the Colleges are they quite satisfactory. In their judgment they are best in Belfast, very fair in Cork, but certainly inadequate in Galway. In all of them some improvement might be effected. To sum up, the majority of the commissioners state that in their opinion the general standard of education maintained in the Queen's Colleges is in the main satisfactory.

DEATH OF DR. MARCUS EUSTACE.

I record, with regret, the death of this gentleman, which took place at Elmhurst, Glasnevin, on the 1st inst., from cardiac disease. The deceased, who was only fifty-three years of age, was engaged in the treatment of mental affections, and was the proprietor of a private lunatic asylum at Glasnevin near Dublin, and the author of various communications bearing on insanity. Dr. Eustace was a Fellow of the College of Physicians in Ireland, and his decease will be much regretted by a large circle of friends, who esteemed him highly.

THE LABOURERS ACT (IRELAND).

A considerable amount of uncertainty has existed since the passing of this Act as to whether medical officers who had to inspect labourers' dwellings were entitled to extra remuneration for their services. Some time since Dr. Rogers of Youghal sued, at the instance of the Irish Medical Association, the Youghal guardians for a sum of £36 3*s*., and a verdict in his favour was obtained. The guardians brought the case, however, into the Court of Exchequer, when it was ruled that, as the duties were performed by Dr. Rogers in his capacity of medical officer of health, he was not entitled to recover the fees, with the exception of an outlay for car hire. From this decision a

further appeal was taken, and last week, before the Lord Chancellor and Lord Justices Barry and Fitzgibbon, it was finally decided that the plaintiff was entitled to the sum claimed, inasmuch as the duties for which remuneration was asked had not been assigned to him by the Local Government Board. The appeal was allowed, with full costs.

Dr. F. MacCabe of the Local Government Board has been appointed a Medical Commissioner under the Irish Prisons Board.

Dublin, March 3rd.

PARIS.

(From our Paris Correspondent.)

THE PARIS FACULTY OF MEDICINE.

THE Summer Session of the Paris Faculty of Medicine begins on the 16th inst., and will be continued in the following order: — Medical Natural History, Professor Baillon; Physiology, Professor Béclard; Surgery, Professor Guyon; Medical Jurisprudence, Professor Brouardel; Pharmacology, Professor Regnauld; Pathology and General Therapeutics, Professor Bouchard; Medicine, Professor Damaschino; Experimental and Comparative Pathology, Professor Vulpian; Hygiene, Professor Bouchardat; Materia Medica and Therapeutics, Professor Hayem; Clinical Medicine at the Hôtel Dieu, Professor Germain Sée; Clinical Medicine at La Charité, Professor Hardy; Clinical Medicine at the Hôpital Necker, Professor Potain; Clinical Medicine at La Pitié, Professor Jaccoud; Clinical Surgery at the Hôtel Dieu, Professor Richet; Clinical Surgery at La Pitié, Professor Verneuil; Clinical Surgery at La Charité, Professor Trélat; Clinical Surgery at the Hôpital Necker, Professor Le Fort; Mental Pathology and Diseases of the Encephalon at the Sainte Anne Asylum, Professor Ball; Clinical Diseases of Children at the Hospital for Diseases of Children, Professor Grancher; Syphilitic and Cutaneous Affections at the Hôpital Saint Louis, Professor Fournier; Clinical Diseases of the Nervous System at the Salpêtrière, Professor Charcot; Clinical Ophthalmology at the Hôtel Dieu, Professor Panas; Clinical Obstetrics at the Clinic of the Faculty of Medicine, Professor Pajot. Besides his lectures at the School of Medicine, Professor Brouardel delivers a practical lecture three times a week at the Morgue. In addition to the above lectures, the following is a list of the principal supplementary lectures that will be delivered in the course of the session:—Medical Chemistry: Dr. Hanriot, agrégé. Natural History: Dr. Blanchard, agrégé. Physics: Dr. Gariel, agrégé. Physiology: Dr. Rémy, agrégé. Morbid Anatomy: Dr. Straus, agrégé, who will lecture on the Anatomical Lesions determined by Microbes, the Morbid Anatomy of the principal Infectious Diseases, &c. Practical lectures, with demonstrations and experiments, will also be delivered on Chemistry, by Dr. Hanriot; Physics, by Dr. Guébhard; Physiology, by Dr. Laborde; Histology, by Dr. Cadiat; Operative Surgery, by Dr. Farabeuf.

PRIZES AT THE ACADEMY OF SCIENCES.

At the annual meeting of the Academy of Sciences, which was held last week, the following prizes for the year 1884 were announced, but I give only those concerning medicine and its collateral branches:—M. Alfred Durand-Claye, for his work on the Epidemic of Typhoid Fever in 1882. Honourable mention was accorded to M. Chervin for his memoir on the Medical Geography of the Seine-Inférieure. The Prix Montyon was divided among three candidates, 2500 francs being awarded to each: the first to M. Testut for his treatise on Muscular Anomalies in Man explained by Comparative Anatomy; the second to M. Cadet de Gassicourt for his clinical treatise on Diseases of Children; the third to M. Leloir for a series of memoirs on Cutaneous Affections. The Prix Godard was awarded to M. Tourneur for his researches on Embryonic and Fœtal Anatomy. The Prix Serres was divided between Dr. Cadiat for his treatise on General Anatomy applied to Medicine, and M. Kowalevsky for his works on Embryogeny. The Prix Sallemann was awarded to Professor Brown-Séquard for his series of works on Inhibition and Dynamogeny. Another portion of the Prix Montyon was divided between MM. Jolyet and Laffont for their researches on the Vaso-dilator Nerves. The Prix Ponti was awarded to M. Joseph Boussingault for his work on Fermentation.

Paris, March 3rd.

VIENNA.

(From our own Correspondent.)

TUBERCULOSIS IN VIENNA.

WHILST through the salutary influence of the "Hochquellen" aqueduct, which supplies Vienna with drinkable water from the Styrian Alps, the cases of diseases of the stomach and of the intestine have considerably diminished and cases of typhus have become rare, the number of phthisical persons increases every year. The number of people who yearly die in Vienna from phthisis pulmonalis is not less than 5000, and according to the last report of the Vienna "Allgemeines Krankenhaus" in this hospital alone 18,096 patients suffering from pulmonary diseases sought relief during the last decennium, of whom 10,172, that is 562 per cent., died. Doubtless the dust of our granite pavement is the cause of much pulmonary disease, but certainly other social circumstances contribute largely to the spread of the affection. The Austrian Home Minister recently instructed the authorities of the various hospitals to take into consideration the advisability of separating patients suffering from phthisis pulmonalis from the other patients, and to adopt any other precautionary measures which might be deemed necessary. The answers have not yet been returned.

VAGUS PNEUMONIA.

The changes in the lungs caused by cutting through the vagus nerves have formed since the time of Valsalva the subject of very deep research. All animals whose vagi have been divided in the throat perish sooner or later. Most of them die of broncho-pneumonia. Traube is of opinion that this vagus pneumonia is caused by the penetration of mucus and of food-matters into the trachea. Schiff, however, gave the following explanation: The vagus is the nerve which supplies the muscles of the vessels of the lung; if it is severed, paralysis of the muscles with hyperæmia and inflammation occur. In order to decide the controversy, only the branches of the vagus which proceed to the lungs should be cut through, whereas the recurrent laryngeal nerves must remain intact. Dr. Gärtner and Dr. Amrüs have, in Professor Stricker's laboratory, cut through the vagus below the recurrents after two methods. According to the first, they divide the recurrent laryngeal in the neck, and connect it with the vagus at the throat, where it heals up, after which they cut through the vagus below this spot. A dog which was thus operated on on both sides died after sixteen days, and showed no broncho-pneumonia at the autopsy. The second method is more exact. The pleural cavity is opened, and then resection of the vagus is performed under antiseptic precautions. The branches proceeding to the heart and to the larynx remain intact, and only those branches are divided which supply the lung and stomach. A dog in which, on the thirtieth day after the operation, a gastric fistula was produced, perished on the forty-sixth day, obviously owing to the latter operation. At the autopsy no pneumonia could be detected; the lungs were pale, without the slightest infiltration. Consequently the question of vagus pneumonia is definitively settled according to the views of Traube.

A CORN-GRAIN IN THE MUSCLE OF THE HEART.

Dupuytren and Balch relate cases in which bullets have remained embedded during several years in the substance of the right side of the heart without producing obvious disturbance. Carnocha has also reported a similar instance affecting the ventricular septum. The following case will, however, be found none the less worthy of interest. On Nov. 19th of the past year, a locksmith, aged thirty-four, happened to discharge a gun loaded with hail-shot against the left side of his thorax. He walked without any support to the hospital, distant an English mile. The hail-shot entered about one centimetre below and one centimetre and a half to the inner side of the nipple. The patient coughed and spat blood. The left side showed dulness as far as the middle of the scapula. On the next day dulness of the entire left side of the thorax was noted, which was referred to hæmothorax. After the lapse of seven days pleuritis supervened, and twenty-one days after the accident the thorax was punctured owing to urgent dyspnœa,

when 500 centimetres of a bloody liquid were discharged. After another seven days thoracentesis had to be performed, as the dyspnœa had become very urgent, when two litres of dark putrefying blood were discharged. Into the pleural cavity about two tablespoonfuls of a thin emulsion of iodoform were poured; a drainage-tube was inserted, bandages applied, and the wound healed well. At the beginning of January symptoms of Bright's disease were remarked, from which the patient died on Jan. 19th. At the autopsy an opening corresponding to the left ventricle, with pigmented borders, was found in the pericardium, and in the substance of the right chamber of the heart a grain of corn was embedded. Professor von Mosetig, in whose division this case occurred, stated that the substance of the heart showed no obvious change.

GASTRIC ULCER ASSOCIATED WITH DIPHTHERIA OF THE STOMACH.

Professor Kundrat exhibited in the last sitting but one of the I. a. R. Society of Physicians a rare preparation of an enormously dilated stomach, on the back and partially on the front wall of which, near the pylorus, an ulcer existed as large as the palm of the hand, the borders of which were of a spiral shape, and the whole of which was typical; the surrounding parts were discoloured and diphtheritic. The pylorus was lying sideways and narrowed in the form of a semilunar slit, the scarred retraction of the ulcer having dragged it towards the middle, whereby the antrum pyloricum was pushed forwards and the dilatation of the stomach continually increased. In consequence of the abnormal position of the pylorus, the symptoms of the stenosis multiplied. A diphtheritic condition of the mucous membrane of the stomach, which has been repeatedly observed in cases of diphtheria of the throat, even without involving the œsophagus, is a rare complication. Professor von Bamberger, at whose clinic the case in question occurred, stated that the decrepit patient, though only forty-four years of age, suffered for four years from severe indigestion and constipation. Vomiting took place, but no hæmatemesis. Blood-corpuscles could not be found in the vomited matters, whereas the Teichmann crystals could be distinctly seen. Free muriatic acid was lacking in the contents of the stomach, in spite of Van der Velden's and Riegel's statement that this want of muriatic acid is a sure symptom of carcinoma. The patient died of internal hæmorrhage.

OPERATION FOR TUMOUR OF THE BLADDER.

Sir H. Thompson, in his work on Tumours of the Bladder, has recommended perineal section to be made for the purpose of digital exploration of the bladder in cases of cystitis, in various kinds of cystodynia the cause of which cannot be found otherwise, and in cases of hæmaturia vesicalis of unknown origin. Herr Dr. Hofmockl adopted this method in the case of a very decrepit man, who showed strong symptoms of anæmia, and who had suffered for three years from hæmorrhage from the bladder, and, when the coagula prevented the flow from the urethra, also from ischuria. Dr. Hofmockl first found, by means of the catheter, a floating body on the right side of the bladder, which he believed to be a tumour of that viscus. By the performance of perineal section he succeeded in extracting a villous mass, which was connected with the bladder by a pedicle, and which proved to be a papilloma villosum. The pedicle was nearly wholly removed with the rasp spoon. The bleeding soon ceased. An iodoform bandage, no drainage, and injection with a solution of nitrate of silver (1 in 100) was the treatment adopted. The patient soon after the operation became apyretic, and the urine, which formerly was ammoniacal and cloudy, became of a clear bright yellow; but after the lapse of about three weeks he died of violent bleeding from the rectum, which was caused, according to the necropsy, by an ulcer in the duodenum. The rest of the pedicle could not be found in the bladder. Professor von Dittel states that he prefers, as a rule, to convince himself of the presence of a tumour by means of the Nitze-Leiter's electro-endoscope, and then to perform the supra-pubic operation, although Hofmockl's operation succeeded very well.

THE BACILLUS OF SYPHILIS.

The researches respecting the syphilis bacillus are now finished, and will shortly be published. Dr. Lustgarten attributes real diagnostic value to the proof of the existence of this organism. In sixteen cases of syphilis he succeeded in rendering visible this bacillus by a mode of decolourisation peculiar to itself. It is very similar to the tubercle bacillus, but always occupies a cell. In cases of sclerosis, gumma, and in the contents of syphilitic ulcers, the same micro-organism was found; in the soft chancre, however, the presence of a bacillus could not be proved.

Vienna, Feb. 13th.

Obituary.

WILLIAM GILLBEE, M.R.C.S.

MR. WILLIAM GILLBEE, one of the oldest practitioners in Melbourne, expired on Jan. 4th, aged sixty years. The deceased was born in Hackney and received his medical education at Edinburgh. In 1848 he became a member of the Royal College of Surgeons of England, and in the following year visited Tasmania and Victoria. Proceeding to California, he for two years lived an adventurous life in the wild gold-fields of that country. Returning to England, he again took ship for Geelong, and at once commenced practice in Melbourne. In the early part of 1854 he was elected surgeon to the Melbourne Hospital, then about one-tenth of its present size. With this institution his professional life was closely identified, and in every movement made to enlarge and improve it he took a very active share. He held the position of honorary surgeon to the institution for twenty-two years, till the election of 1875, when he was not one of the successful candidates. He, however, retained his place in the committee of the hospital, and in 1877 became its vice-president, and in 1882 its president. In 1853 he assisted in the formation of the Medical Society of Victoria, of which, ten years later, he became president. In 1879 he warmly assisted in the formation of the Victorian branch of the British Medical Association, and was elected its first president. In 1872 he was elected by a vote of the whole profession to a seat on the Medical Board of Victoria, and about six years ago he was appointed its president, which office he held at the time of his death. The cause of his death was disease of the lungs, which a visit to England in 1883 had entirely failed to benefit.

Medical News.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At examinations held last week the following gentleman was admitted a Fellow of the College:—

Frederick Heuston, A.M.D.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 26th ult.:—

Arnold, William, Manchester School of Medicine.
Blachford, Jem, London Hospital.
Cundell, William Hatch, St. Mary's Hospital.
Hebblethwaite, Septimus Montague, St. Bartholomew's Hospital.
Innes, Charles Barclay, St. Bartholomew's Hospital.
Sutton, James Bryan, Charing-cross Hospital.

DR. T. J. MACLAGAN has been elected a member of the Royal Institution.

PNEUMONIA has lately been unusually prevalent and fatal in New York.

QUARANTINE is now imposed at Alexandria on all arrivals from Bombay and Madras.

A TELEGRAM from Paris states that the Ecole Normale has been closed on account of several cases of typhoid fever.

AT the annual festival of the Earlswood Asylum for Idiots held on the 3rd inst., subscriptions to the amount of £1518 were announced.

RIVER POLLUTION.—A deputation from the National Society to Secure Effective Legislation against River Pollution waited upon the Lord Mayor on the 3rd inst., and arranged for a public meeting at the Mansion House, under his lordship's presidency, at an early date.

TYPHUS FEVER is reported to be rife at Kieff, which is at present crowded by persons attending the fair for negotiating beetroot contracts.

THE Home for Incurables at Aubert-park, Highbury, which has been erected at a cost of £4000, and is intended to accommodate forty patients, was opened on the 4th inst.

THE tender of £74,571 submitted by Messrs. Kirk and Randall, for the erection of a new infirmary at Championhill, has been accepted by the guardians of the St. Saviour's Union.

DR. W. O. THRAILKILL of San Francisco communicates to a recent number of the *Philadelphia Medical World* the discovery at Point Sal in Santa Barbara county of a male and female petrifaction.

THE Gillingham (Kent) Local Board have at length decided to erect an infectious disease hospital for the parish, and are advertising for two or three acres of land for that purpose.

THE workhouse and infirmary in connexion with St. George's-in-the-East Union are about to be enlarged, at a cost of £9500. Messrs. Wilson, Son, and Aldwinckle are the architects.

VACCINATION GRANTS.—Mr. J. Payne Massingham of the Wolstanton district, Mr. H. Whiting of Haslemere, Mr. D. Mackintosh of Downham, and Mr. J. Hamilton of Swadlincote, have received Government grants for efficient vaccination.

MR. WILLIAM RUSSELL, of Barnwell, Northampton, has given £5000 to the authorities of the University of St. Andrews to found entrance bursaries in memory of his brother and himself, both having received their education at that university.

THERE is a difference of opinion in Ramsgate about the merits of the corporation drainage scheme, a somewhat noisy meeting having been held for the purpose of opposing it and substituting a plan suggested by Mr. H. J. Johnstone, J.P.

PRESENTATION.—Dr. Henry Tomkins, late resident medical officer of the Monsall Fever Hospital, has been presented with a handsome dressing-case by the nurses and others of the staff of that institution, on his resignation after a tenure of office of more than six years.

THE ASSOCIATION OF PUBLIC SANITARY INSPECTORS.—At the monthly meeting of this Association, to be held to-day (March 7th) at 6 P.M., at 1, Adam-street, Adelphi, an address will be delivered entitled "Disinfectants and their Sanitary Uses," by Dr. John W. Tripe, medical officer of health for the Hackney District.

THE Dover Board of Guardians have increased the salary of Dr. Finn, the surgeon to the workhouse, from £100 to £130, Alderman Dr. Marshall bearing witness from his own knowledge to the efficient manner in which the duties had been carried out. It was stated at the board meeting that the work had increased considerably, and that there were now 113 patients in the workhouse hospital.

MAINTENANCE OF SMALL-POX PATIENTS. — The Woolwich Board of Guardians have sued a man whom they sent with his own consent to the small-pox hospital for 1*s.* a day. The judge asked to be referred to an Act giving boards of guardians power to recover for maintenance of a patient removed by them to a hospital. As such an Act could not be produced the Board were non-suited.

DRINKING-WATER CONDENSING MACHINERY FOR EGYPT.—The *Calabria*, a telegraph ship chartered by the Admiralty for the Egyptian expedition, is (says the *Engineer*) fitted with the largest installation of condensing machinery ever put in one ship. It is for the purpose of converting sea-water at Suakim into drinking-water for the troops and other persons connected with the expedition. It is capable of condensing 64,000 gallons a day; and is very simple in construction, only occupying a deck space of 21 ft. by 18 in., and weighing 33 cwt. The enormous cable tanks will contain 750 tons of water, and these are supplemented by forty-eight 400-gallon tanks, so that a very large quantity can be sent on shore in boats at once.

HOMES FOR INEBRIATES.—At the recent annual meeting of the Homes for Inebriates Association it was stated that in the Dalrymple Home there had been forty-nine admissions, and of those discharged 50 per cent. were doing well, and 25 per cent. were improved. The majority had been admitted under the provisions of the Habitual Drunkards Act, nine having entered for twelve months each. The sum of £15,000 is solicited for a Home for the Poor.

PROVIDENT SURGICAL APPLIANCE SOCIETY.—At the thirteenth anniversary festival in aid of the funds of this institution held on the 27th ult., it was stated that since its establishment nearly 35,000 persons have been relieved by the Society, which last year treated 4151 cases. The annual expenditure exceeds £1700, of which about £1100 represents the cost of instruments, to which patients contribute £500, the remainder of the funds being supplied by subscriptions and donations, which are much needed.

TESTIMONIAL TO DR. DENHAM, OF DUBLIN.—The fund which has been formed in Dublin for the purpose of presenting Dr. Denham, a well-known obstetric surgeon of that city, with an address and testimonial on the occasion of his retiring from practice, has reached £370, and will shortly be closed. In the meantime any of the pupils or friends of Dr. Denham who wish to subscribe and have their names added to the list should communicate without delay to Dr. Kidd, hon. treasurer, 58, Merrion-square, Dublin.

DEATH OF DR. DAMROSCH.—News has been received from New York of the sudden death from pneumonia and overwork of Dr. Leopold Damrosch, who was born at Posen in 1832, and took his degree as Doctor of Medicine at Berlin University. He afterwards studied music, and became a member of the Weimar orchestra under Liszt. He resided for many years in Breslau, but in 1871 he went to New York, where he organised the Oratorio Society, the Symphony Society, the May Festival, and lastly a season of German opera, which is still in progress.

SEAMEN'S HOSPITAL SOCIETY.—The sixty-fourth annual court of this Society was held on the 4th inst. From the report, which was read and adopted, it appears that the number of patients under treatment in the hospital last year was 1751, and that 7360 out-patients were relieved. The drainage of the hospital has been found to be so radically defective that nothing short of the reconstruction of the whole system can place the hospital in a safe sanitary condition. The estimated cost of the drainage works is £3000, and towards this the Lords Commissioners of the Admiralty have agreed to contribute £1500.

LONDON SANITARY PROTECTION ASSOCIATION.—At the annual meeting of this Association, which was held on the 28th ult. at their offices, 1, Adam-street, Adelphi, Lord Chelmsford (who took the chair in the absence from town of the President, the Duke of Argyll) announced that the number of members was now close upon 1000, having been 887 on Dec. 31st last. This number included about forty medical men who were members in respect of their own private residences. The annual report, which had been circulated, showed that there were now fourteen Associations working in the country on exactly the same principles as the London one, and mustering 2356 members on Dec. 31st; and that in the course of the year the engineers of the London Association had reported upon the sanitary arrangements of four of the smaller London hospitals and one large hospital at Chatham.

THE FOOD AND DRUGS ACT.—A case under this Act was heard recently before the Greenwich magistrate where the secretary to the Seamen's Hospital, who had contracted for a supply of milk with 10 per cent. of cream all the year round, noticing the continued poorness of what was supplied, took a sample, "telling the defendant's man it was for analysis. He divided it into three parts, giving one to the man, keeping another himself, and sending the third to the public analyst." A certificate was handed in which stated that 60 per cent. of cream had been removed, and that there had been about 5 per cent. of water added. The magistrate then asked whether he had explained to the man that he was going to have the sample "analysed by the

public analyst." The prosecutor replied that he had said it would be analysed. This, his worship decided, was fatal to the case, and dismissed the summons. He refused, however, an application for costs, though the defendant's solicitor stated that he had half a dozen grounds of defence.

MEDICAL SOCIETY OF LONDON.—The following is a list of officers and Council elected for the ensuing session:—President: William Miller Ord, M.D. Vice-Presidents: Richard Douglas Powell, M.D.; Sydney Jones; John Langdon Down, M.D.; Samuel Cartwright. Treasurer: Arthur Edward Durham. Librarian: William Henry Allchin, M.B., F.R.S.E. Honorary Secretaries: James Kingston Fowler, M.D.; John Henry Morgan, M.A. Secretary for Foreign Correspondence: Felix Semon, M.D. Council: Thomas Lauder Brunton, M.D., F.R.S.; Smith Houston Davson, M.D.; Sir Joseph Fayrer, K.C.S.I., M.D., F.R.S.; David W. Finlay, M.D.; Alfred Pearce Gould, M.S.; F. De Havilland Hall, M.D.; Francis Mason; Edmund Owen; Isambard Owen, M.D.; George Richard Turner Phillips; Thomas Pickering Pick; Walter Pye; Joseph Peeke Richards; Arthur Ernest Sansom, M.D.; Charles Brodie Sewell, M.D.; William Heath Strange, M.D.; T. Tillyer Whipham, M.A., M.B.; William Henry White, M.D.; Charles Theodore Williams, M.A., M.D.; Alfred Wiltshire, M.D.

WESTMINSTER HOSPITAL MEDICAL SCHOOL.—The corner stone of the new buildings for this institution, now in course of erection in Caxton-street, was formally laid on the 28th ult. by the Duke of Westminster. The building, which is in the Queen Anne style, is 160 ft. long, and is four storeys high. The site on which it stands is next to the Westminster Town-hall, and was acquired at a cost of £4000, while the building and fittings are estimated to amount to £10,000. It has been erected for the purpose of relieving the hospital, where the medical school has heretofore been carried on, and the space thus left vacant in the former will be utilised for extending the present out-patient accommodation. The new school will give room for the attendance of about 200 students, and is provided with all the necessary class-rooms, laboratories, and lecture-rooms, besides a refreshment and recreation department, and an extensive specimen museum. It is anticipated that the school, which is being constructed in red brick, with red Corshill stone facings, will be ready for use in October next.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BADDELEY, CHARLES EDWARD, M.B.Lond., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the First District and Workhouse of the Newport (Salop) Union, vice Thomson, resigned.

BUNDY, A. ST. CLAIR, F.R.C.S., has been appointed Assistant-Surgeon to the Western Ophthalmic Hospital.

DAVIES, EDWARD, M.D. St. And., M.R.C.S., L.S.A.Lond., has been reappointed Medical Officer of Health for the No. 2 Wrexham Rural Sanitary District.

FOX, W. PIERCY, L.R.C.P. &c., has been appointed Assistant Medical Officer to the Brownlow-hill Infirmary, Liverpool, vice J. Henderson Brannigan, resigned.

GABB, J. PERCY A., M.D.Lond., has been appointed Honorary Assistant Medical Officer to the Royal Surrey County Hospital, Guildford, vice H. Parson, resigned.

HARFORD, EDW. AUGUSTUS, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the First District of the Newcastle-on-Tyne Union, vice Scotland.

JONES, WILLIAM, L.R.C.P.Ed., M.R.C.S., L.S.A.Lond., has been reappointed Medical Officer of Health for the Ruabon District of the Wrexham Union.

LAPAGE, CHAS. CLEMENT, M.A., M.D.Cantab., has been appointed Physician to the Nantwich Brine and Medicinal Baths Company.

LEACH, ALFRED, L.R.C.S.E., L.S.A.Lond., has been appointed Attending Medical Officer and Accoucheur to the Provident Medical Institution and Free Dispensary, Pimlico-road, S.W., vice Arthur Graham, retired.

MORGAN, THOMAS W. LUVELL, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for No. 3 District of the Newport (Salop) Union, vice Baddeley.

OLDHAM, H. FALCONER, B.A., M.B., B.Ch. Trin. Coll. Dub., Resident Medical Officer to the Netherfield Institution for Infectious Diseases, Liverpool, has been appointed Resident Medical Officer to the Monsall Fever Hospital, in connexion with the Royal Infirmary, Manchester, vice H. Tomkins, M.D., resigned.

PALM, THEODORE A., M.D., C.M.Ed., has been appointed Medical Officer for the Thorncombe District of the Axminster Union, vice Wills, deceased.

PERKS, Dr. ROBERT HOWELL, F.R.C.S.E., has been appointed Resident Medical Officer to the Royal Albert Hospital, Devonport.

STEPHENS, WILLIAM J., L.R.C.P.Ed., has been appointed Honorary Physician to the Brighton and Hove Dispensary, vice E. G. Whittle, M.D.Lond., resigned.

STEVENS, ARTHUR FREDERICK, M.R.C.S., has been appointed Medical Officer for the First District of the Thingoe Union, vice Masters, resigned.

THOMSON, T. P., M.B. & C.M., has been appointed Medical Officer and Public Vaccinator for the Alberbury District of the Atcham Union, vice Lawson, M.R.C.S., resigned.

WATSON, ARCHIBALD, M.D., F.R.C.S., has been appointed Professor of Anatomy in the Adelaide University.

WEST, WILLIAM AUGUSTUS, L.K.Q.C.P.I., L.R.C.S.I., has been appointed District Surgeon of the Sydney Hospital.

WHITE, JOHN WILLIAM, L.K.Q.C.P.I., L.F.P.S.Glas., M.R.C.S., has been appointed Medical Officer for the Fifth District of the Bedminster Union, vice Cory, resigned.

WOOLERTON, EDWIN GOODBURN, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Wendover District of the Wycombe Union, vice Odling, resigned.

Births, Marriages, and Deaths.

BIRTHS.

HEPBURN.—On the 23rd ult., at 3, Bridge-road, Hammersmith, W., the wife of John Hepburn, L.R.C.P. &c., of a daughter.

JULER.—On the 2nd inst., at Wimpole-street, Cavendish-square, W., the wife of Henry Juler, F.R.C.S., of a daughter.

MICHAEL.—On the 1st inst., at Turnchapel, Plymouth, the wife of Surgeon H. J. Michael, Medical Staff, of a daughter.

WEST.—On the 24th ult., at Wimpole-street, Cavendish-square, W., the wife of Dr. Samuel West, of a daughter.

MARRIAGES.

CAMERON—SAVORY.—On the 3rd inst., at Stephen's Church, Westbourne-park, Robert Duncan Cameron, L.R.C.P. & L.R.C.S., of North Cave, Brough, Yorkshire, second son of Donald Cameron, LL.D., M.A., of Torquay, to Grace, daughter of the late William Savory, Esq., of Painswick, Gloucestershire.

CROOKSHANK—COLFOX.—On the 26th ult., at Bridport, Dorset, Edgar March Crookshank, M.B.Lond., youngest son of the late Captain Chichester Crookshank, 51st Foot (King's Own), to Harriet, only child of Thomas Colfox, Esq., J.P., of Rax House, Bradpole, Dorset.

CURD—DOYLE.—On the 26th ult., at St. Paul's, Camden-square, Charles Curd, M.R.C.S., of Bath, to Charlotte Emily, second daughter of Watkin Doyle, of Camden-road, N.W.

GILKES—DUNN.—On the 25th ult., at St. Augustine's, Highbury New-park, Norton Gilbert Gilkes, M.R.C.S., of Walthamstow, to Catherine Mabel, elder daughter of the late George Dunn, M.R.C.S., of Hales Owen, Worcestershire.

DEATHS.

BROWNE.—On the 2nd inst., at Crindan, Dumfries, W. A. F. Browne, M.D., LL.D., F.R.C.S.E., late Her Majesty's Commissioner in Lunacy for Scotland, in his 79th year.

GELL.—On the 29th December, 1884, at Thornborough, Queensland, suddenly, of apoplexy, Thomas Silvester Gell, M.D.Edin. (1870), M.B. & C.M. (1866), M.R.C.S.Eng. & L.S.A. (1866) Univ. Edin., late of St. John's Lodge, Kensal-green, aged 40.

HALPIN.—On the 27th ult., at Arklow, county Wicklow, Stopford W. Halpin, F.R.C.S.Eng. &c., aged 61.

HOPKINS.—On the 1st inst., after a long and painful illness, borne most patiently, at 93, Camberwell-road, Camberwell, S.E. (the residence of his brother, Dr. John Hopkins), Rees Hopkins, L.R.C.P., M.R.C.S.E., L.S.A.Lond., L.M., & M.R.C.V.S.Eng., of The Ash Grove, Pontypridd, Glamorganshire, in his 40th year.

HOWARD.—On the 28th ult., at his residence, New Buckenham, Norfolk, Horace Fulcher Howard, Esq., M.R.C.S.Eng. &c., in his 56th year.

SHILLITOE.—On the 1st inst., Richard Rickman Shillitoe, F.R.C.S., of Hitchin, aged 65.

WILLING.—On the 2nd inst., at Wood-green, George Frederick Brutton Willing, L.R.C.P., M.R.C.S., L.M., aged 64.

WOOD.—On the 1st inst., at his residence, Franklin House, South Norwood-hill, Surgeon-Major William Edward Wood, late of Her Majesty's Indian Army, aged 68.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

Medical Diary for the ensuing Week.

Monday, March 9.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. each day, and at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Macpherson: History of the Use of Ipecacuanha in Dysentery.—Dr. Sydney Coupland: A case of Endocarditis.—Dr. Samuel West: Hæmaturia in Granular Kidney.

Tuesday, March 10.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
ROYAL INSTITUTION.—3 P.M. Prof. Gamgee: Digestion and Nutrition.
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. Hermann Weber: Croonian Lecture on the Hygienic and Climatic Treatment of Consumption.
ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. Mr. James G. Frazer: Certain Burial Customs as Illustrative of the Primitive Theory of the Soul.—Rear-Admiral F. S. Tremlett: The Sculptured Dolmens of the Morbihan.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. F. Treves: The Treatment of Acute Peritonitis by Abdominal Section.—Mr. J. R. Lunn and Dr. Benham: Case of Aneurism of Abdominal Aorta.

Wednesday, March 11.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department: 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.
HUNTERIAN SOCIETY.—7.30. Council Meeting. Dr. Herman: Cases of Dermoid Pelvic Cysts.—Mr. Corner: Cases of Uterine Hæmorrhage with Impending Death cured by Removal of the Ovaries.
EPIDEMIOLOGICAL SOCIETY OF LONDON.—8 P.M. General A. C. C. De Renzy: The Prevention of Heat Apoplexy.
ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Mr. J. W. Stephenson: A New Catadioptric Illuminator.—Dr. J. D. Cox: Structure of the Diatom Shell; Siliceous Films too thin to show a broken edge.—Exhibition of Nobert's Original Machine for Ruling his Lines.—Messrs. J. R. Cheshire and W. W. Cheyne: The Pathogenic History of a New Bacillus.—Mr. F. Fowke: The First Discovery of the Comma Bacillus.
BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens by Drs. Aveling, Granville Bantock, Edis, and others.—President's Inaugural Address.—Dr. Aveling: A case of Double Pyosalpinx.

Thursday, March 12.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Dewar: The New Chemistry.
OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8 P.M. Living Specimens. Mr. Nettleship: Total Detachment of Retina of long standing, with retention of some sight.—Mr. A. S. Morton: Choroidal Atrophy.—Dr. Brailey: The Condition of the Ciliary Nerves in certain Diseases of the Eye.—Dr. Mules: Evisceration of the Globe (with living specimen).—Mr. Nettleship: Note on the Spontaneous Disappearance of Diabetic Cataract.—Mr. A. H. Benson: Tuberculosis of Cornea.—Mr. J. B. Lawford: Case of Tubercle of the Choroid (with ophthalmoscopic drawing and microscopical specimens).
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. Hermann Weber: Croonian Lecture on the Hygienic and Climatic Treatment of Consumption.
THE PARKES MUSEUM OF HYGIENE.—8 P.M. Mr. A. Wynter Blyth: Household Poisons.

Friday, March 13.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
CLINICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Bastian: A case of Thrombosis of the Basilar Artery, with profound coma, extreme lowering of the rectal temperature, and death in five and a half hours.—Mr. Barwell: An Unusual Sequela of Ovariotomy.—Mr. Davies-Colley: Three cases of Colotomy, with delayed opening of the intestine.
ROYAL INSTITUTION.—9 P.M. Sir F. A. Abel: Accidental Explosions caused by Non-explosive Liquids.

Saturday, March 14.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. C. Armbruster: Richard Wagner.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, March 5th, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp Shade.	Min. Temp	Rain Fall.	Remarks at 8.30 A.M.
Feb. 27	29·83	S.W.	50	48	...	53	46	·15	Raining
,, 28	29·91	S.W.	47	46	...	54	46	·06	Overcast
Mar. 1	30·19	E.	38	36	...	46	34	·06	Bright
,, 2	30·16	E.	37	36	...	46	33	...	Overcast
,, 3	29·71	S.	42	40	...	47	37	...	Cloudy
,, 4	29·41	W.	45	41	...	55	41	·41	Hazy
,, 5	29·55	S.W.	44	42	...	...	40	...	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

"WHAT CONSTITUTES A QUALIFIED MEDICAL ASSISTANT."

The Birmingham Daily Gazette gives a report, under the above heading, of an action by Mr. Frederick Westwood against Mr. Ashmead to recover a certain sum for alleged services as assistant, over and above £30, received in form of advances, and £18 1*s*., the amount of a charge by Mr. Ashmead for medical attendance on Westwood. Mr. Ashmead's case was that he took Westwood merely for assistance in bookkeeping and dispensing, on the understanding that the experience gained would be sufficient remuneration to the assistant, whose sole medical qualifications were that he had while in America read a few medical books, the names of which he did not remember. Yet he said that he occasionally visited patients and prescribed for them. The judge thought the sums he had received were sufficient. The serious part of the case is that such persons should be allowed to act as assistants.

C. H. H.—We receive every week letters calling attention to discreditable advertisements similar to the one enclosed. To reproduce them would be to extend the publicity the delinquents desire.

Ajax.—There is nothing to prevent the officer from holding the appointment, providing the duties thereof are duly fulfilled.

Mr. G. Cowell.—Next week.

SCHOOL BOARDS AND MEDICAL CERTIFICATES.

To the Editor of THE LANCET.

SIR,—In THE LANCET of Feb. 25th, 1882, the above subject was brought under notice by a letter from a medical man at Southwark, in which he wrote: "I hold in my possession a letter from the Education Department, Whitehall, ... confirming a statement previously made, that whenever a medical certificate is required by School Boards in explanation of the absence of a child from school, the cost of the certificate should be defrayed by the Boards themselves." In an annotation in the same number I read: "It is pleasant to find the imperious exercise of authority by School Board officials checked by magisterial interference..... If they [the children] are too ill to attend, the School Board would like to get that fact certified by the medical man in attendance. .....This attempt has been checked, we hope effectually, by a recent decision in the Southwark police-court, where the magistrate, Mr. Bridge, dismissed a summons obtained by the School Board and mulcted the Board in costs." Will you tell me, and, I may say, the profession, if you have any reason to alter your opinion on this subject? I hold that a medical man's duty is solely to attend the sick, and I persistently refuse to certify. There is a difference of opinion between me and some members of the Board. I showed the number of your journal to which I have alluded; but that is no authority, in their opinion. I should much like your opinion, and that of others of the profession.—I am, Sir, yours faithfully,

Feb. 26th, 1885. M.R.C.S.E.

*** We adhere to our expressed opinion. When public authorities require professional opinions, they must learn to pay for them.—ED. L.

HISTORY OF SMALL-POX.

X. Y. Z. should read Sydenham, Gregory, and Sir Thomas Watson. As later accounts none are better than the reports of the medical officers of the metropolitan small-pox hospitals, such as one before us by Dr. Gayton, in pamphlet form. In this, 10,403 cases are analysed. It is published by Messrs. McCorquodale, Cardington-street, N.W.

Mr. R. L. Collings.—It is a question of time and means, as well as of ability. As a general rule, the more practicable course at present is to try for a Scotch degree.

X. will find in our present number an answer to his question.

"HYSTERICAL PYREXIA."

To the Editor of THE LANCET.

SIR,—In your last issue I notice an annotation with this title, containing a reference to a communication made by M. Débove to the French Académie de Médecine. For the sake of British clinical medicine, I desire to say that the existence of this hysterical pyrexia is well known in this country, and I am surprised to hear that it should be regarded as a novelty. I should be prepared to give plenty of evidence of its existence, and I consider the occurrence of hyperpyrexia in hysteria by no means uncommon. I send for your inspection the charts, some of them recorded hourly, of the temperature of a girl whom I had under observation for some time. She never presented any sign of organic disease, and certainly was in good health for some time after her discharge, though I have recently lost sight of her.

I am, Sir, yours very truly,

Birmingham, March 3rd, 1885. ROBERT SAUNDBY.

To the Editor of THE LANCET.

SIR,—If you think the following case bears upon your remarks under the above heading in the current number of your journal, it is at your service.

On Saturday last I was called to see a young lady whom I had some months before been treating for mitral disease of rheumatic origin, and who had for some weeks past been in much better health than usual, and not under treatment. The evening before I saw her she was reported to have been remarkably well, and had been for a rather long walk. When seen by me she was in bed, having been very ill all night, delirious, and shrieking with pain referred to her back. I saw her about 1 P.M. after the bad night. She was then insensible, and evidently suffering much from pain in the back, with hot skin and furred tongue. Temperature 104° F. Considering the attack hysterical, I gave her tincture of valerian, sal volatile, and spirits of nitrous ether, twenty minims of each every four hours. At night the temperature was unchanged, but the patient was sensible, and complained of the globus, and frowned decidedly; the pain in the back was severe; there was no rheumatic odour, but some perspiration. I gave ten grains of Dover's powder. The patient slept well, and in the morning the temperature was normal, and but for soreness and weakness she felt fairly well. At 8 P.M. the pain returned, and the temperature again reached 104° F. Dover's powder was again given, and was followed by a good night and normal temperature in the morning, since which improvement has been maintained, and the patient is now fairly well, having had no further rise in temperature. Of course, the mitral condition is unchanged.

I am, Sir, yours faithfully,

Exeter, Feb. 28th, 1885. JAMES CHEESE, L.R.C.P.L., &c.

Mr. Stephens.—Our correspondent was bound to attend to the order of the relieving officer, unless he had received special instructions to the contrary, in regard to these particular cases. Such being the case, he can recover his fee from the guardians by action in the county court, as, of course, they are answerable for the mistakes of their servants. As to the policy of so doing, that will, of course, depend upon the relationship of our correspondent with the guardians.

M.R.C.S.E., L.R.C.P.Edin. is referred to our advertising columns.

Dr. Tomkins.—In an early number.

UNUSUAL CAUSE OF CONSTIPATION.

To the Editor of THE LANCET.

SIR,—As I am not aware that absolute obstruction of the bowel from eating fresh figs has frequently occurred or been referred to, I think the following case may not be devoid of interest.

A short time since a boy of ten years of age was brought to me, his mother saying he was suffering from constipation of four days' duration. As the patient walked with difficulty, and complained of a good deal of pain about the anal region, I made a local examination, and found the anus loose and flabby, and occupied by a hard, dense mass of fig-pips, to which a good number were adherent about the buttocks. Finding it impossible to introduce an enema tube, I proceeded to remove the mass by scraping away with the fingers, the relaxed condition of the anus readily admitting two fingers, though the acute pain the patient suffered made it necessary to administer chloroform. I removed in this way half a pound (weighed) of fig-pips, besides many which were washed out afterwards by an enema. The whole lower bowel for several inches seemed quite paralysed by the distension to which it had been subjected. On the following day the patient seemed quite comfortable, and his bowels had acted. As I have heard nothing of him since, I presume he is well.

I am, Sir, yours truly,

Bexhof, O.F.S., Jan. 28th, 1885. ARNOLD H. WATKINS, M.D.

A NEW FORM OF BLOTTING SHEET AND OF MEDICAL ADVERTISEMENT COMBINED.

THE following curious little handbill requires explanation:—

"[*Please use this Blotting Sheet.*]

"THE CITY OF LONDON MEDICAL AND SURGICAL ASSOCIATION.—An annual subscription of one guinea entitles a member to consult either of the medical officers at their consulting-rooms, which are situated in the heart of the City, whenever necessary. Full particulars of the Secretary, H. D. H. Charlton, Esq., Mansion House Chambers, 13, Size-lane, E.C."

Dr. Thos. Browne.—We have more than once expressed our abhorrence of the style of advertising referred to.

"THE ARABS WOUNDED IN THE SOUDAN."

To the Editor of THE LANCET.

SIR,—Mr. Allbutt's inquiry, "through the medium of your valuable journal, whether any provision is made for the surgical and medical treatment of the brave Arabs wounded in the battles in the Soudan," sounds a trifle comic, and akin to a stretch of the Exeter Hall sentimentalism. Our *confrères* in the Army Medical Department have, we should think, quite enough to do to minister to the wants of those who are legitimately under their care. Surely, it is too absurd to suppose or expect that they should bestow "the same humane treatment" on "the brave Arabs" as on "our own wounded soldiers." Cases have been reported by special correspondents of the London daily papers in which the "same humane treatment" was being attempted and practised by our surgeons on wounded "brave Arabs," with the result that attempts were made by way of thanks on the lives of the medical gentlemen aforesaid. I do not mean to assert that members of our profession should keep aloof from such of the wounded of the enemy as by chance come under their observation; on the contrary, they have in almost all campaigns stretched out a helping hand to them. But a suggestion that "provision" should be made for the wounded "brave Arabs" is surely impracticable.

I am, Sir, yours truly,

Feb. 24th, 1885. JOHN LUCAS, M.D.

AWARDS AT THE HEALTH EXHIBITION.

To the Editor of THE LANCET.

SIR,—By request of Jury No. 9 of the late Health Exhibition we forwarded, at the commencement of last August, several filters, which the circular stated were "to be tested." They have just now been returned to us, and, to our astonishment, we find that they have not been tested, not a drop of water having ever been passed through them. You will understand that the nature of spongy iron renders it easy to affirm this with certainty. It appears almost unnecessary to point out that the only known way to test filters as to their sanitary merits consists in a chemical and microscopic comparison of water before and after filtration through them. Such testing can, indeed, have been the only reasonable object in retaining filters for almost seven months, extending far beyond the close of the Exhibition. Surely, nothing could show more clearly the hollowness of at least some of the awards by the jury. Will the committee or the jury allow this stigma to rest on them as a body, or will they name those who are responsible for the blunder?

I am, Sir, your most obedient servant

(For the Spongy Iron Filter Company),

March 3rd, 1885. T. G. L. MILLER, Manager.

A. D. (M——).—The letter was certainly not calumnious, but entered rather too minutely into personal characteristics.

APPLICATION OF MIDWIFERY FORCEPS.

To the Editor of THE LANCET.

SIR,—I beg to say, in reference to the correspondence of Mr. Lucas and Mr. Cartmel respecting an easy method of applying the forceps, that to overcome the difficulty in question, which has now and again been alluded to in your columns, I suggested some time ago to Messrs. Arnold and Son a modification of the instrument. I pointed out the desirability of having a hinge placed on the upper blade where it joins the handle. This would allow—first, the handle to be bent on the blade in an upward direction, as the concavity of the blade looks downwards; secondly, it would keep the instrument from the bed, thus allowing the axes of introduction to be varied at pleasure, and would afford a better lever for the nurse to hold, whilst her hand would be kept out of the way of the manipulator. The hinge by a simple mechanism could be fixed at any angle.

I am, Sir, yours faithfully,

Finsbury-park, N., Feb. 25th, 1885. JAMES MACMUNN.

THE LATE MR. CÆSAR HAWKINS.

To the Editor of THE LANCET.

SIR,—I have to thank your correspondent (see page 414) for the corrections concerning the necessarily brief sketch of the life of the late Mr. Cæsar Hawkins given in my Hunterian Oration. I shall gladly avail myself of them when the address is published. I say he was "partly" trained in the great Windmill-street School, because, as I mention, he was *also* "a pupil" at St. George's Hospital. Then, I do not say he lectured at the Windmill-street School "late in life," but "later"—that is, after he had been a student there. In other particulars I stand "corrected."

I am, Sir, yours obediently,

Savile-row, W., March 2nd, 1885. JOHN MARSHALL.

MEDICAL ETIQUETTE AT CRIEFF.

WE have a closely-written letter of eighteen pages from Dr. Thom, giving minutely his version of the cases in regard to which Dr. Gairdner complains of his behaviour. On two or three points his defence seems to us weak; but he shows that there is another side of the questions raised. Dr. Thom protests that he, too, takes Styrap's medical ethics for his guide, and he ends his letter by saying that he still considers it his duty to hand over to Dr. Gairdner any case he may see *for him* during his temporary absence from home. We are still of opinion that the matters in dispute should admit of friendly settlement, perhaps with the help of a mutual professional friend. The publication of such lengthy correspondence is out of the question.

Mr. G. Holifield.—R. Kimpton, 126, Wardour-street, W.

Dr. Milner Fothergill.—Yes.

ELECTRIC ILLUMINATION OF THE VARIOUS CAVITIES OF THE HUMAN BODY.

To the Editor of THE LANCET.

SIR,—In your report of the meeting of the Medical Society in your issue of the 28th ult. Dr. Gilbart Smith states that "the difficulty of warming the mirror was great when the electric lamp was used." I would suggest that the mirror be smeared carefully with glycerine, which prevents the condensation of breath upon its surface, does away with the necessity of warming, and, besides, has the advantage that the mirror may be kept in position as long as the patient will allow, the view remaining as clear at the end as it is at the commencement of its introduction. I am, Sir, yours faithfully,

Bicester, March 2nd, 1885. EDWARD COTTERELL.

Inquirens.—The simplest way is to send a visiting card with the old address marked out and the new one inserted. It should be sent under cover, and, of course, only to actual patients.

W. B. B. will find instances of the kind in the work of Cornil and Ranvier.

"THE ADMISSION OF PATIENTS SUFFERING FROM FITS TO ASYLUMS FOR IDIOTS."

To the Editor of THE LANCET.

SIR,—With reference to Dr. Cobbold's letter in your issue of the 28th ult. I beg to say that, of course, the proportion of epileptic patients would vary considerably at different times. However, as I wrote from memory, and my only object was to correct what appeared to me to be a misapprehension on your part, I am willing to substitute the term "a large number" for "majority."—I am, Sir, yours faithfully,

Brentwood, March 2nd, 1885. J. R. WHITE.

Dr. James Gairdner.—We regret we cannot comply with our correspondent's request.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Dyce Duckworth, London; Dr. Heywood Smith, London; Mr. G. Cowell, London; Professor Humphry, Cambridge; Dr. Cobbold, London; Dr. Bristowe, London; Surgeon-Major Sargent; Dr. H. G. Sutton, Sittingbourne; Mr. H. Russell, London; Mr. H. C. Willey, Sheffield; Mr. Paul, Liverpool; Mr. Crew, Nottingham; Dr. Bakewell, Christchurch, N.Z.; Dr. Campbell Morfit; Mr. C. H. Hough, Derby; Mr. Collings; Mr. A. H. Young, Manchester; Mr. T. P. Stephens, Emsworth; Mr. C. E. Humphreys, Llanfair; Messrs. Woollams, London; Mr. Ayres Moore, London; Dr. Illingworth, Clayton-le-Moors; Mr. E. J. Gairdner, London; Mr. Newman, London; Ada S. Ballin, London; Dr. T. Browne; Lady John Manners, London; Mr. E. Cotterill, Bicester; Dr. J. Gairdner, Crieff; Mr. J. Cheese, Exeter; Mr. J. G. L. Miller; Mr. A. H. Allen, Sheffield; Mr. F. Knight, Liverpool; Dr. Gayton; Mrs. Longshore Potts; Mr. M. R. Sett, Bombay; M. Besançon, Paris; Dr. Rohé, Baltimore; Dr. R. V. Baraiz, Vienna; Messrs. T. and A. Constable, Edinburgh; Dr. Hale White, London; Dr. Aldridge, Southampton; Mr. J. R. White, Kelvedon; Mr. Hoey, Dublin; Dr. Suckling, Birmingham; Mr. J. Oliver, London; Mr. Braden, Lewes; Mr. Meadows, Hastings; Mr. W. F. Dale, Harrow; Dr. A. T. Keyt, Cincinnati; Dr. Radcliffe Crocker, London; Dr. Allchin, London; Mr. H. L. Pearson, Liverpool; Dr. Moore, London; Dr. Saundby, Birmingham; Mr. T. W. Thompson, Potter's Bar; Mr. Berry, Wigan; Mr. Vacher, Birkenhead; Dr. Wainewright, London; Dr. Thom, Crieff; Dr. J. J. McCarthy; Messrs. Doliber and Co., U.S.A.; Mr. Barrow, Notts; Mr. Ogilvie, Clerkenwell; Mrs. Phillips, Weston-super-Mare; Messrs. Burgoyne and Co., London; Mr. Lewers; Mr. Whitford; Messrs. Deane and Co., London; Mr. Tew, Bulwell; Mr. Gamgee, Birmingham; Dr. Woods, Southport; Mr. Collins, Ashford; Mr. Bourchier; Messrs. Street and Co., London; Messrs. Foster and Co., Brighton; Mr. Gurner, London; Messrs. Wood and Co., New York; Mr. Shapcott, Devonport; Messrs. Dawson Bros., Montreal; Messrs. Squire and Son, London; Mrs. Rahn, Ipswich; Dr. Biggs, Berlin; Mr. Scott, Edinburgh; Mrs. James, St. John's-wood; Mr. Kinder, Leicester; Mr. Armstrong, Manchester; Mr. Marr, Aberdeen; Mr. Edwards, Chester; Mr. Willison; Mr. Lee, Notts; Major Ormond; Mr. Brooks, Hull; Mr. Jeffrey, Eastbourne; Mr. Horme, Bath; Messrs. Evans and Co., Liverpool; Messrs. Macmillan and Co., London; Dr. Eberle, Thirsk; Messrs. Smith, Elder, and Co., London; Mr. Terry, Camberwell; Mr. Walsh, Quebec; Mr. Dickenson, Bow; Messrs. Bell and Co., Edinburgh. Surgeon E. H. Saunders; Mr. Blyth; Mr. Kershaw, Eastbourne; Mr. T. G. Evans; Mr. J. H. Keeling, Sheffield; M.R.C.S.; Inquirens; M.D.; Ajax; J. H. G.; W. A. G.; X.; An Irish Graduate; E. P., Dudley; J. B. S., Paris; A. C.; Medicus, Camberwell; Richmond; W.V.R.; Corpuscle.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Webb; Dr. MacDonald, Brompton; Mr. Stevenson, Liverpool; Mr. Wheeler, Manchester; Mr. Pentland, Edinburgh; Mr. Hawthorn, Uttoxeter; Miss Sidney, Dublin; Mr. Bradshaw, Salford; Messrs. Ford and Co., London; Mr. Eccles, Ramsbottom; Dr. Macaughton Jones, London; Dr. McCreadie; Mr. Townsend, Exeter; Mrs. Lawrie; Mr. Bates, New York; Miss Bristowe, Dunmurry; Mr. Mills; Mr. Arthur, Walsall; Mr. Hawksley, London; Mr. Forshaw, Smalley; Mr. Blythe, East Knoyle; Messrs. Partridge and Cooper, London; Mr. Graham, Cardiff; Mr. Merrell, Bury St. Edmunds; Dr. Douglas, Perth; Mr. Whipp, Burton; Dr. Jay, Leamington; Messrs. Mackay, Edinburgh; Mr. Thomson; Mr. Hopkins, Camberwell; Miss Barlow, Writtle; Mr. Page, London; Miss De Luttichau, Holloway; Mr. Lee, Notts; Dr. Turner, Finsbury; Mr. Palmer; Mr. Redwold, Stratford; Mr. Beach, London; Mr. Harris, Liverpool; Mr. Moore, Linkinhorne; Mr. Partridge; Mr. Howard, New Buckenham; Medicus; R. M. D., Brighton; Medicus, Bristol; F.S.A., Wye; W. W., Woolton; G. H., Exeter; U., Liverpool; E. L.; Gosport; J. E. G., Preston; Medicus, Brixton; E. B., Eastbourne; J. B. W., Gainsborough; Theo; W., London; Medicus, Liverpool; Lady Superintendent, Eastbourne; A. L. S., Wimbledon; J. B., Birmingham; G. N., Littleborough; Epsilon, Huddersfield; M.D., Manchester; Anon.; M. C., Wellingborough; A. B., Bourne; J D., Brixton; Sanitas, Canonbury; G. F. P., Macclesfield; Medicus, London; Medicus, Clapham.

Accrington Gazette, Alnwick and County Gazette, Liverpool Evening Express, Herts Advertiser, Oxford Chronicle, Westminster and London Gazette, Jackson's Oxford Journal, Wynberg Times, British and Colonial Druggist, Timber, Bridport News, &c., have been received.

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Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

Gulstonian Lectures
ON
MALIGNANT ENDOCARDITIS.

Delivered at the Royal College of Physicians.

BY WILLIAM OSLER, M.D.,
PROFESSOR OF CLINICAL MEDICINE AT THE UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA.

LECTURE II.

MR. PRESIDENT AND GENTLEMEN,—In considering the symptoms of endocarditis, it is important to bear in mind the manifold conditions under which the disease may develop. A limited number of cases may be grouped together as forming a primary, substantive disease; but in the great majority the affection is either an associated pathological state, or is of the nature of a secondary malady arising in the course of some other disease. In the primary cases individuals in perfect health may be attacked, or more frequently the disease affects those with chronic valvular endocarditis with perfect or failing compensation. Where the affection occurs after an injury or in the puerperal state, the cardiac condition must be regarded as part of the general sepsis, and is of the same nature as the pyæmic foci and the inflammation of serous membranes. The existence of the endocarditis in these cases has no special influence, and the phenomena may be just as marked without it. When the endocarditis supervenes in the course of some particular disease, as rheumatism or pneumonia, it is usually a secondary process, though indeed it may be regarded as directly produced by the causes which have excited the original diseases. The different modes of onset, and the extraordinary diversity of symptoms which may arise, render it very difficult to present a satisfactory clinical picture. The general symptoms are those of a febrile affection of variable intensity, which may be ushered in, like any acute fever, with rigors, pain in the back, vomiting, headache, &c. Arising in the course of some other disease, there may be simply an intensification of the fever or a change in its features. The pyrexia is constant, but variable in type and intensity, and more likely than any other symptom to lead to misinterpretation. Prostration of strength, delirium, sweating, and other signs of severe constitutional disturbance are usually present. Cardiac symptoms may be marked from the outset; pain, palpitation, sense of distress, and murmur; in many instances there has been old valvular disease, but in a considerable number of cases the heart symptoms remain in the background, hidden by the general condition and giving no indication; or they may be so slight that they are not even detected on special examination. The embolic processes give a special prominence to local symptoms, which may divert attention from the general malady. Thus delirium, coma, or paralysis may arise from implication of the brain or its membranes; pain in the side and local peritonitis from involvement of the spleen; bloody urine and pain in the back from affection of the kidneys; loss of vision from retinal hæmorrhage; and suppression in various organs or gangrene from the distribution of emboli.

So diverse are the features of malignant endocarditis, that a consideration of the symptoms is greatly facilitated by arranging the cases in groups, according as they display special characters. Dr. Kirkes, in 1852, called the attention of the profession to the occurrence of a typhoid-like condition in acute endocarditis, and he subsequently pointed out the fact that inflammation of the valves might lead to pyæmia. The investigations of Charcot and Vulpian,[1] of Virchow,[2] of Jaccoud,[3] and others, gradually led to the recognition of these two great types of the disease. Of late, still further separation has been made of the cases with features closely resembling ague or intermittent, and also of cases in which the cardiac symptoms are most prominent, and I shall call attention to certain cases in which the symptoms are those of an acute affection of the cerebro-spinal system.

First let me direct your attention for a few moments to those cases in which the endocarditis is merely a part of a septic or pyæmic state, the result of an external wound, a puerperal process, or an acute necrosis. Somewhat over 18 per cent. of the cases I have analysed were of this nature, the majority of them occurring in connexion with puerperal fever—11 per cent.,—the others in association with various wounds and injuries, or acute necrosis of bone. The puerperal cases appear most frequent after abortions, and the first symptoms usually develop within a week or ten days of delivery, beginning with rigors and fever, and running a course not essentially different from ordinary puerperal septicæmia or pyæmia without endocardial complication. Sometimes the onset of the symptoms may be much delayed, and the patient up and about her duties when the attack comes on. Usually, there is local inflammation of the uterus or ligaments; membranous diphtheritic endometritis and phlebitis are common. Occasionally there may be no special affection of the generative organs, as in a very severe case reported by Dr. Moxon,[4] in which there was extensive endocarditis of the right heart, and sloughing patches in the lungs. The woman had been delivered within the month, and the uterus appeared in a normal state for the period. The endocardial lesions are not necessarily ulcerative, but may be vegetative, and occasionally suppurative. It is very evident from the records that valves with sclerotic changes are most often affected. The visceral lesions are always suppurative, but do not appear to be more numerous than in cases of puerperal sepsis without endocarditis. The heart symptoms may be completely masked by the general condition, and the attention may be directed to them only by the occurrence of embolism. In this connexion it may be remarked that malignant endocarditis may attack pregnant women, and run a rapid course leading to abortion. In two cases of this kind, Litten[5] found no differences in the clinical features or anatomical condition as regards valves and metastases. In other instances, there may be the rigors, sweats, and irregular fever, leading to abortion, without the occurrence of any suppurative foci, as in a case reported by Guyot.[6] Dr. Trueman of Maccan, New Brunswick, has also sent me notes of a case which developed during pregnancy.

The cases of ulcerative endocarditis in traumatic and operative septicæmia are of a similar nature, but do not appear to occur so frequently as in the puerperal condition. Many of the cases occur after very slight injuries, as paring a hangnail or a corn, a sloughing pile, or the passage of a sound through a stricture. There are usually suppurative infarcts in the lungs; and even with extensive ulcerative changes in the left heart, the pyæmic foci may be all in connexion with the venous system and right heart. This was well illustrated in the case of a man aged twenty-five, who was admitted to the Montreal General Hospital, May 31st, with a wound of the radial artery. Phlebitis followed, and cellulitis of the arm, rigors, septic pneumonia, thrombosis of the femoral vein, and symptoms of pyæmia. At the necropsy, there were numerous foci in the lungs, and a suppurating thrombus in the femoral vein. The mitral valve presented on the ventricular face of the anterior segment a patch the size of a sixpence, swollen and greyish-white in colour, and opposite to it on the auricular face was an ulcer large enough to contain a small pea. There was another also on the wall of the left auricle. There were no infarcts in the arterial system. In these cases of puerperal and traumatic septicæmia, the right heart is more frequently affected than in any other group of cases. Thus, of the thirty-seven cases of this kind, there were thirteen in which the tricuspid or pulmonary valves were involved.

In acute necrosis of bone or acute osteo-myelitis, a secondary endocarditis may develop, and in some instances the clinical features may strongly resemble malignant endocarditis, as was well illustrated in the case of a lad aged ten, who died after an illness of less than a week's duration, characterised by high fever, rigors, sweats, &c. No local trouble was complained of, and at the post-mortem examination there was ulcerative endocarditis of the right side, and a purulent focus in the septum, and it was only after most careful search that the primary trouble was found in a small spot of acute necrosis of the tibia. These forms do not strictly come within the province of the physician, but they must be taken into account in any description of malignant endocarditis. The source of the poison is very

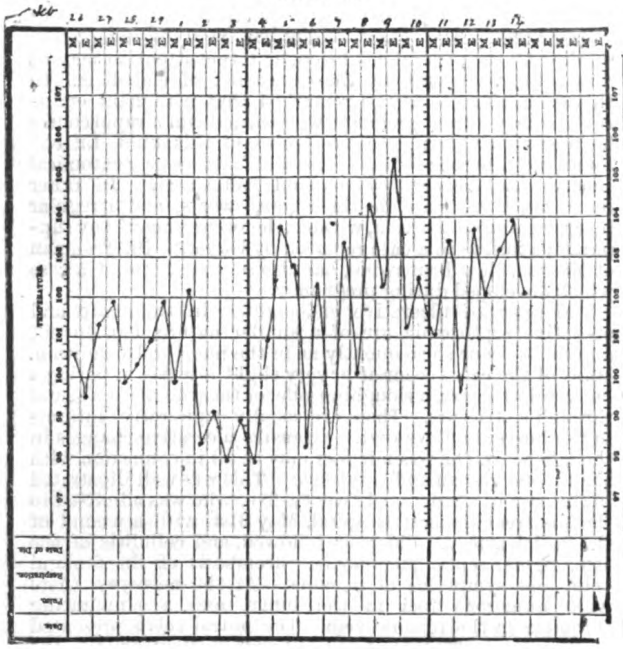
[1] Gazette Médicale de Paris, 1862. [2] Gesammt. Abhandlungen.
[3] Nouveau Dictionnaire de Médecine &c., art. Endocarditis.
[4] Pathological Society's Transactions, xxi.
[5] Charité Annalen, iii., Berlin.
[6] Bulletin de Soc. d'Anatomie, 1879.

evident in the external wound; the metritis, &c., and the lesions are chiefly in the territory of the venous system and right heart.

In the pyæmic group of cases the clinical features are of a decided pyæmic type, and here the source of infection is at the heart, and the metastatic lesions are chiefly in the territory of the arterial system, rendering very applicable the name of arterial pyæmia given by Dr. Wilks to this class of cases. We may recognise two types of the pyæmic form: first, the cases in which the symptoms resemble closely those of ordinary pyæmia, with rigors at intervals, sweats, and other signs of septic infection; and, secondly, an important group, in which intermittent pyrexia is a striking feature, occurring in regular paroxysms like ague, with cold, hot, and sweating stages. These forms may develop as primary independent affections, or come on in the course of rheumatic fever, pneumonia, &c. In our Montreal cases they have not been so marked as the typhoid type. The following case, with illustrative chart, is a fair example of pyæmic symptoms due to endocarditis developing in the course of pneumonia.

M. W——, aged forty-three, a well built man, was admitted under Dr. Ross on February 26th, 1880. He served his time in the army; has had syphilis, and has quite recently had syphilitic ulcers; he has also been a hard drinker. In October, 1879, he was in hospital with pneumonia, and had

CHART 1.



severe cerebral symptoms. On February 23rd he had a severe rigor, followed by fever, cough, and pain in the side. On admission on the 26th there were signs of consolidation at the left base. On the 28th he was delirious. On March 1st the crisis seemed to take place; the temperature fell to 98°, remained low for three days, and he seemed to be doing very well. At 1 P.M. on the 4th he had a severe chill, with vomiting, followed by sweating. On the 5th he was delirious; had another severe chill at 2 P.M., in which the temperature rose to nearly 104°. Had five stools; no indications pointing to the heart. On the 6th the morning temperature was normal, the patient very prostrate, perspiration profuse, and there was low wandering delirium. From the 6th to the 9th the temperature rose a degree each evening, reaching 105·3°, its highest point. Pulse over 120 and feeble. From this time until the 14th he gradually sank, remaining unconscious. The lung symptoms did not extend, but rather improved. The post-mortem examination revealed extensive ulcerative vegetations on the aortic valves, purulent meningitis, and resolving pneumonia of the left base.

The attack may be ushered in with a single rigor, or more often a series of chills; and from the outset they may constitute a marked feature; and, with the sweating, prostration, and diarrhœa, give a septic character to the case. A light jaundice may develop, and still further intensify the resemblance. Sometimes the case may run on for a couple of weeks with marked typhoid symptoms, and then pyæmic features develop—rigors, sweats, &c.

But by far the most remarkable cases of the pyæmic group are those which present a marked intermittent type of pyrexia, simulating a quotidian or tertian ague. They may occur without any signs or indications of heart disease, or the symptoms may develop in individuals the subjects of chronic valvulitis. The cases are not nearly so frequent as those of the typhoid type; but they have been specially studied by Drs. Wilks, Bristowe, and Coupland in this country, Lancereaux in France, Leyden and others in Germany. The paroxysms may have the absolutely typical features of intermittent; the chills, hot stage, and sweating succeeding each other with regularity; and in the intervals there may be an entire absence of the fever. The quotidian type is the most common; the tertian has occasionally been described; and in rare instances two paroxysms have recurred within the twenty-four hours. The cases may be much prolonged, even for three or four months. One of the first references I find to cases of this kind is in a foot-note to one of Dr. Ormerod's Gulstonian Lectures,[7] in which a case of Dr. Bond of Cambridge is narrated—an instance of chronic valvular disease, with intermittent fever and diarrhœa, two paroxysms occurring in the day. The case lasted four months. In a remarkable case (Dr. Ray) described by Dr. Wilks,[8] during a six or seven weeks' illness, rigors recurred with such regularity that a tertian ague was suspected for a time, although the patient was known to be the subject of heart disease. In some instances the existence of ague previously has rendered the condition much more puzzling. In several of Lancereaux's cases[9] the patients had had intermittent fever a short time before; so also with one of Leyden's cases.[10] But the most extraordinary case of the kind is recorded by Dr. Bristowe.[11] A patient had ague in October, chills once or twice a day; ill for six weeks; and, after an interval of two or three weeks, they recurred in the second week of December, and continued until December 23rd. She was well for a few days, and then the attacks recurred after sleeping in a cold bed, and persisted until her admission to hospital on February 12th. For the four weeks previous to entrance, the attacks came every twelve hours regularly. A murmur was noticed; but the history of ague was so clear, and the attacks so characteristic, that a suspicion of malignant endocarditis was not at first entertained. It was only after the failure of quinine and a variation in the character of the paroxysms that a diagnosis was reached. In Dr. Coupland's cases[12] the intermittent pyrexia was also well marked. In none of our Montreal cases was the aguish type very pronounced, though in one or two cases there were regularly recurring paroxysms of chills, fever, and sweating; but the conditions under which the attacks developed rendered the clinical features more like ordinary pyæmia. The majority of these cases appear to arise independently of other affections, and occur among what I have referred to as the primary class of cases, though, as already mentioned, some develop in chronic valvular disease, and others appear associated in some way with ague.

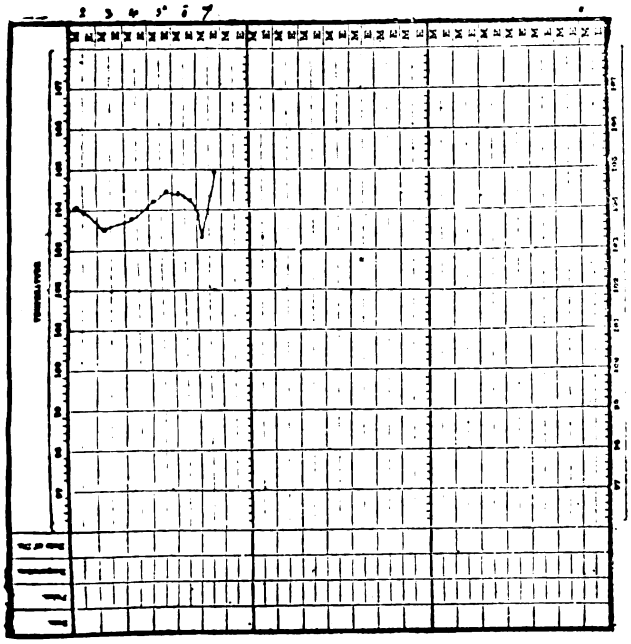
The typhoid type is by far the most common, and the majority of the cases present features which come under this heading. The disease may set in with a single rigor or a series of chills, most frequently the former, often a period of malaise or ill health has preceded the attack, and in very many instances the symptoms develop in the course of some fever. The characters of this form are irregular temperature, early prostration, and involvement of the nervous system, delirium, somnolence, and coma, dry tongue, relaxed bowels, sweats, petechial and other rashes, and occasionally parotitis. Perhaps the majority of cases are mistaken for typhoid, as the heart symptoms may never be prominent, or even when sought for not found. The following cases illustrate the chief features of this form.

Ann O——, aged forty-six, a large well-nourished woman, was admitted under Dr. Wilkins on June 5th, 1881. She had been a healthy woman. Dr. Blackader saw her on the 2nd, when she complained of severe pains in the back, loins, and hips, which were relieved by poultices. Pulse rapid, tongue furred, no diarrhœa. When admitted she was supposed to be

[7] Medical Gazette, 1851. [8] British Medical Journal, 1868.
[9] Gazette de Médecine, 1862; Archives Générale, 1873.
[10] Zeitschrift f. Klin. Med., Bd. iv., Berlin.
[11] British Medical Journal, 1881.
[12] Medical Times and Gazette, vol. i., 1882.

suffering from typhoid fever. No trustworthy history, family or personal, could be obtained, but she had been out of sorts for four or five days previous to the onset of the attack. On admission, temperature 104°; pulse 110; respiration 32; no eruption; lungs normal; no heart murmur; no albumen in urine. On the 6th she passed a restless night; temperature 104°; pulse 120, dicrotic; abdomen distended; two stools. Passed eighteen ounces of urine, slightly bloody, which may have been from the menses, which began to-day. On the 7th the morning temperature was 103·2°; pulse weak, 120; respiration 54, shallow; loud sonorous râles over chest; bowels and bladder emptied involuntarily; stools frequent, high coloured; patient cannot be roused. The legs and general surface seem tender, which causes her to cry out when moved. Urine drawn off by catheter contains much blood, 50 per cent. by volume of albumen, and many granular casts. Pupils unequal; head drawn

CHART 2.



to the right. Some rigidity of the muscles of the arms, most marked on the left; increasing coma, and death at 3.30 P.M. on the 7th, the sixth day of her serious illness. At necropsy, no hypertrophy of heart; mitral valves a trifle thick, with small superficial losses of substance of both curtains. Aortic valves normal; infarcts in spleen. Numerous small hæmorrhagic emboli in kidneys and throughout the intestines. Six or eight suppurating infarcts in brain, chiefly near longitudinal fissure and on median surfaces. The case is a good example of the primary malignant endocarditis occurring in a healthy individual, and running a rapid course, with symptoms of a typhoid character. The diarrhœa was not profuse, though the intestinal lesions were well marked.

In the following instance, occurring in connexion with pneumonia, the profuse diarrhœa and severe nervous prostration were very suggestive of typhoid fever:—

J. H——, aged forty, drayman, a large well-built man, was admitted on May 13th with pneumonia. He had been a pretty healthy man, though he had had two previous attacks of inflammation of the lungs. He had been in the habit of taking stimulants. Present illness began on the 11th with the usual signs of pneumonia, for which he consulted Dr. Blackader. On admission he was delirious; temperature 105°; respiration 60; pulse 110; consolidation of lower two-thirds of right lung, with the usual physical signs of hepatisation. On the sixth day the delirium was less marked and the temperature had fallen to 101·5°. On the ninth day the fever was 103°, and the condition of lung remained about the same. On the twelve day I saw him with Dr. Molson. The dulness appeared to be diminishing at the right base; I could detect no murmur at either apex or base of the heart. The condition of the patient resembled closely other cases of pneumonia in which ulcerative endocarditis had developed, and I suggested the possibility in this instance. Tongue was furred, no abdominal distension; no spots; diarrhœa had come on in the past few days; stools thin, yellowish in colour. Patient was dull and heavy, not actively delirious. On the eighteenth day the temperature rose to 104·5°, and for the next four days kept about that height. On the twentieth day the diarrhœa, which had been checked, began again. On the twenty-third day (June 1st) the temperature was 104·5°; pulse 96; respiration 30. Dulness diminished at the right base, still evident in scapular region at lower part; moist râles over the back of lung; rhonchi, sibilant and sonorous, heard in front. A single large dose (thirty grains) of quinine, at 4 P.M., did not affect the temperature, which at 10 A.M. was 105·5°. On the twenty-sixth day he was much the same, temperature has kept about 104°; two or three loose stools each day, low delirium, restless at night. For the next three days the fever was not quite so high, the diarrhœa ceased, and he became somewhat rational. Still deficient resonance in the right lung behind. Respiration kept about 30, and pulse under 100. On the night of June 8th the patient was very restless, and required constant watching; temperature 105°; pulse more rapid, 130. On the 10th he was more drowsy, pulse feeble, 140; large moist râles heard over both lungs. In the evening he had a rigor; temperature rose to 105°, and death took place on the morning of the 11th, just a month from the onset of the disease. Petechiæ had appeared on the skin during the last few days of his life.

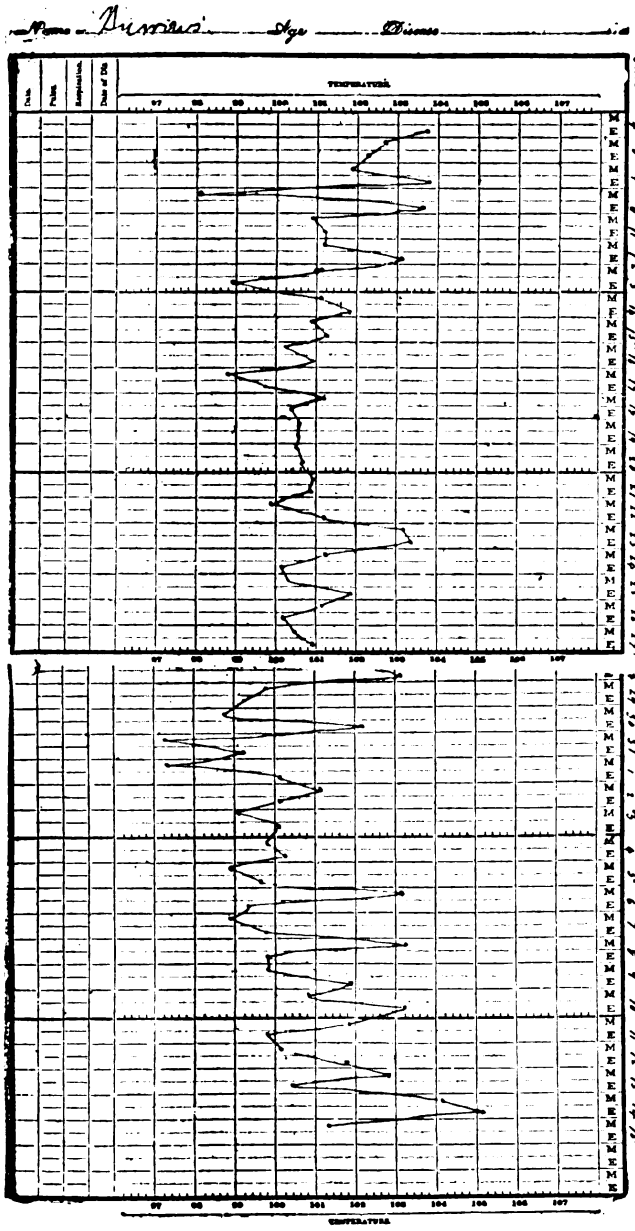
Necropsy, five hours after death.—Body not emaciated, petechiæ on skin in various regions. In abdomen, patches of dark extravasation noticed upon coils of intestines, both large and small. In thorax, right lung intimately adherent. Heart: Subpericardial ecchymoses. Numerous petechial spots beneath the lining membrane of the cavities; some of them are as large as split peas, and on section present a greyish centre, as if they were small infarcts. The mitral segments were natural-looking on the ventricular surface, but on separating the edges large masses of vegetations were seen blocking the orifice. They were attached to the auricular faces, about two to three millimetres from the edge; that in the anterior segment was about two centimetres in extent, and projected twelve millimetres. It was roughened on the surface. The growth on the posterior segment was smaller, irregularly divided into two bulbous portions, the surfaces of which were smooth. The aortic orifice was blocked with a clot, and the right anterior valve presented an enormous mass of vegetation, which occupied the entire curtain, except the edge, and infiltrated the whole thickness, appearing in the sinus as small nodular masses. Two perforations existed between the outgrowths, each about the size of a crowquill. The posterior segment presented a flattened vegetation, which encrusted the centre of the valve, and extended up to the corpus Arantii. All of these masses had the same appearance; colour greyish-yellow, except where coated with adherent blood-clot; those on the anterior mitral segment and on the posterior aortic were roughened, and the granular substance exposed; three others presented smooth surfaces, as if covered by a thin membrane. They were soft, on section granular, uniform throughout, and the consistence of pith. Coronary arteries free. Lungs: Right closely bound to chest wall by old fibrous adhesions. Posterior part of organ heavy, but crepitant, except at upper part of lower lobe, which, with a band about five centimetres in breadth of the lower part of the upper, and part of the middle lobes, were firm, airless, and granular on section. Colour liver-red, interspersed with small opaque areas, the plugs in the air-cells undergoing fatty change. Left lung healthy. Spleen weighed 185 grammes, pulp soft. No infarctions. Kidneys of average size; numerous small infarcts, chiefly in cortex; small hæmorrhagic areas with grey centres. Intestines: The deeply ecchymotic patches seen externally corresponded with small infarcts situated in the submucosa, and were surrounded by a zone of deeply hæmorrhagic tissue, above which the grey pale glandular layer could be distinctly seen. The infarct itself was about the size of a split pea, a little elevated, on section deep red or greyish red, not in any instance purulent, and surrounded by a zone of extravasation from one to three centimetres in diameter. They were most abundant in the ileum, about twenty in number. Peyer's glands not swollen. Liver pale, swollen, and soft. Brain: Vessels of pia mater full, parts at base normal. Thick purulent lymph beneath arachnoid, covering central part of fissures of Sylvius on both sides,

over both frontal lobes at anterior part, over the left intra-parietal fissure and on upper part of cerebellum, close to great transverse fissure. A good deal of serosity beneath the membranes. No infarcts in substance of brain.

In some instances, the clinical features are mixed; typhoid and pyæmic characters may alternate, as in the following case.

J. B——, aged thirty-eight, admitted Jan. 7th, 1880, has been a healthy man. Ten years ago he had a severe attack of pneumonia. On the night of Jan. 4th he felt uneasy, and did not rest well; got feverish, and in the morning had pain in the side and cough. No rigor. Symptoms continued and

CHART 3.



he came to hospital on the 7th. On admission the temperature was 103°; pulse 128; respiration 40. Signs of pneumonia in right lung, lower three-fourths. Characteristic expectoration. During the first week in hospital nervous symptoms appeared, he became delirious and passed urine and fæces in bed, tongue dry, and on the 9th and 10th there was troublesome vomiting. The temperature was irregular, ranging from 100° to 104°; the evening record was usually high, but twice it was lower than the morning. Pulse 120 to 148; respiration 32 to 50. During the second week the intensity of the symptoms abated; the temperature kept lower, not once reaching 101°. The nervous prostration continued with tremor of the whole body, and the discharges were passed involuntarily. Tongue very dry. A very disgusting fetor emanated from the body. He lay like a patient in the third week of severe typhoid fever; took food and stimulants well. On the 19th a painful swelling appeared in left the parotid region, and he began to have chills, and sweated a great deal each day. No objective indications of heart trouble. The lung cleared very much in the third week, but the prostration continued. During the fourth week the swelling of the parotid increased, and on Feb. 1st an abscess was opened in this region. On the 30th there were severe chills, with blueness of face and finger-tips. Much sweating, of a profuse drenching character. Became brighter after the abscess was opened, and the nervous symptoms were less marked. Temperature ranged from 98° to 100°, rising with the chills. In the fifth week he remained in this state, with but little change, occasional chills and profuse sweats, the picture being more like severe pyæmia. In the sixth week the prostration increased, and he lay in a heavy unconscious state. No chills, but most profuse sweats. On Feb. 13th and 14th the temperature rose very high, reaching 105°, and death took place on the 15th, after an illness of forty-two days. The necropsy revealed extensive mitral endocarditis, as the only special lesion. The base of the right lung was a little firmer than the left, but not granular on section. Only one infarct found, which was in the upper part of the spleen. Intestines healthy; no meningitis. The parotid abscess had almost healed.

Cardiac Group.—Under this heading may be arranged, as suggested by Dr. Bramwell,[13] those cases in which patients, the subjects of chronic valve disease, are attacked with febrile symptoms and evidences of a recent endocarditis engrafted upon the old process. I have already remarked on the great frequency with which ulcerative changes are found in connexion with sclerotic endocarditis. Many of such cases present features of the pyæmic, typhoid, or cerebral types, and may be of the most acute character; but in others the process appears much less intense, and the cause more chronic. In a considerable series of cases the history is somewhat as follows: the patient has, say, aortic valve disease, and is under treatment for failing compensation, when he begins to have slight irregular fever, an evening exacerbation of two or three degrees, some increase in cardiac pain, and a sense of restlessness and distress. Embolic phenomena may develop; a sudden hemiplegia; pain in region of spleen, and signs of enlargement of the organ; or there is pain in the back, with bloody urine. In other instances peripheral embolism may take place, with gangrene of foot or hand. There may be hebetude or low delirium. Instances such as these are extremely common; and while in some the process may be very intense, in others it is essentially chronic, and may last for weeks and months, so that the term malignant seems not at all applicable to them; still in a large series of cases, all gradations can be seen between the most severe and the milder forms. Dr. Green[14] referred to a case which lasted six months, and to another in which, during eighteen months, there were attacks of irregular fever. I have known the febrile symptoms subside for weeks, to recur again with increased severity, and there are cases which render it probable that the process may subside entirely. The ulcerative destruction in these cases may be most extensive, and I have seen the aortic ring with scarcely a trace of valve substance left. The process in the chronic cases is also mycotic, and it is to be carefully distinguished from the atheromatous changes. In very many instances there is no history of rheumatic fever or other constitutional disorder, but the endocarditis appears to attack the sclerotic valves as a primary process, and a very considerable number of the most typical cases are of this kind. A good example was the following case, in which the disease attacked deformed and hardened valves, and the clinical symptoms were prolonged for nearly three months.

H. M——, aged thirty-eight, was admitted on Sept. 8th, under Dr. Ross. Good family and personal history; has always enjoyed excellent health. A month ago had chilly feelings, fever, and sweating, with vomiting. Kept about until ten days before admission, when he took to bed, with pains at heart and fever. On admission, marked aortic incompetency; temperature 100°; seemed dull and heavy.

[13] Diseases of the Heart. [14] THE LANCET, vol. i., 1884.

On the 15th there was iliac tenderness and some diarrhœa. For the next two weeks the patient remained in the same state, the temperature rising at times to 103°. During the first week of October the prostration increased, and there was slight delirium at night; temperature not higher than 102°. On the 14th there was an eruption of petechiæ. From this time the temperature kept lower—100° to 101°,—the delirium and prostration increased, and death took place on the 23rd. Two of the aortic cusps had fused, and there were old sclerotic changes; there were recent soft greyish vegetations; spleen presented six or eight infarcts, one suppurative.

These are the cases of ulcerative endocarditis which present fewest difficulties in diagnosis. The existence of the chronic heart disease excites attention; and even if compensation has previously been perfect, the ulcerative process may be the very cause of disturbing the balance and producing marked symptoms. In my experience the existence of fever is invariable when the ulcerative processes are due to micrococci, whereas most extensive destructive changes may occur in atheromatous disease without any elevation of temperature. It may be possible that the granular detritus discharged from atheromatous foci on the valves, or on the aorta, may have irritating properties, yet in two instances I have met with most extensive atheromatous ulcers on valves and aorta, from which large quantities of material must have been discharged, and the patients were not febrile. Dr. Sansom,[15] however, has referred to a case of ulcerative endocarditis in which there was no elevation of temperature throughout.

The Cerebral Group.—A considerable number of cases of malignant endocarditis come under observation, perhaps, in hospital practice, for the first time, with symptoms of cerebral, or even cerebro-spinal, trouble. In three of the Montreal cases the patients were brought to hospital unconscious, and presented the appearance of profound cerebral affection. One of the first cases I saw was of this kind. The patient, a woman aged twenty-nine, was admitted on October 22nd in an unconscious state, and no history could be obtained. On the 24th she became partially conscious, and complained of great pain in the head and back of the neck. Symptoms of slight apex pneumonia were detected. Temperature up to 104°. On the 25th she passed urine and fæces involuntarily. There was strabismus of right eye, and commencing ulceration of left cornea. Death took place on the 26th. The symptoms were those of an acute meningitis. The post-mortem examination revealed apex pneumonia, a patch of endocarditis on mitral, and suppurative meningitis, involving chiefly the cortex. Another case, almost the counterpart, was admitted last year, under Dr. Molson, in an unconscious state, and died eighteen hours after admission, when the necropsy revealed apex pneumonia, extensive endocarditis, and suppurative meningitis. There may be early unconsciousness or delirium without any meningeal implication, as in a case of primary endocarditis admitted June 5th, 1881. The patient may be wildly delirious or unconscious at the first visit of the medical man, as in a case narrated by Eberth.[16] Very many of these cases die within two or three days of admission, and the question of diagnosis has usually to be suspended; indeed, in looking over the records of eleven instances in which these cerebral symptoms were early, they appear to run a more rapid course than other cases. In two remarkable cases there was cerebro-spinal meningitis. Hunolle[17] records a case of a lad who was admitted with symptoms at first like those of typhoid, and then of a marked cerebro-spinal character. There was also a pulmonary affection and endocarditis. He lived five days. At the necropsy, there was suppurative meningitis of brain and cord, pneumonia of one lung, and extensive ulcerative endocarditis, with old sclerotic changes. A still more remarkable case is reported by Heinemann.[18] A boy aged fourteen was admitted on Nov. 19th. For the previous two days he had suffered from pains in the back and legs, chills, fever, loss of appetite, vomiting, and constipation; was rational on admission; tongue coated; temperature 105·2°; condition of heart and lungs negative.—20th: Morning temperature 103·4°; evening, 105·6°. Fæces and urine passed involuntarily.—21st: A purpuric eruption noticed on the chest, then on face, and afterwards on legs and arms. Temperature 104·8°; pulse very feeble; delirium; hyperæsthesia along the spine; no opisthotonos; pericarditis suspected. At 11 P.M. of this day, a second crop of purpuric spots came out; temperature 106°; convulsive movements.—22nd, 3 A.M., second convulsive seizure, and death. At the necropsy there was purulent exudation on brain, and the meninges of cord were congested, opaque, and inflamed. Congestion of lower lobe of lungs. Recent vegetations on mitral, and near apex on anterior wall of the left ventricle, a small cavity, indicative of probable abscess and destruction of tissue. Purulent serum in pericardium; kidneys presented embolic abscesses.

Certain clinical features may be specially referred to in a few words. The fever, as will have been gathered from the previous statements, is of a very variable character. Irregularity is the prominent feature; periods of low may alternate with periods of high temperature, or a remittent may become an intermittent. A remittent type is most frequently met with, but the remissions do not occur with any regularity. Occasionally there may be a continuous high fever, the thermometer not registering below 103° for a week at a time. The pyæmic and aguish types have been sufficiently noted. The occurrence of a rash has been described by many observers, and in some instances has led to errors of diagnosis. The most common form is the hæmorrhagic, in the form of small petechiæ, distributed over the trunk, particularly the abdomen, less often on the face and extremities. They may be most abundant over the whole body, and at times are large and present small white centres. When severe, nervous symptoms are also present, the resemblance of the cases to cerebro-spinal meningitis, or typhus, may be very close. In one instance the case was thought to be hæmorrhagic variola.[19] An erythematous rash has also been observed. In a case of Dr. Cayley's[20] there was a mottled red rash on the skin. Colson[21] describes a case in which the rash was erythematous, and in spots distinctly papular. The mental symptoms may be of a very varied character. By far the most frequent conditions are low delirium and dull, semi-conscious, apathetic state. There may be at the outset active delirium, or even maniacal outbursts. In a case of Dr. Habershon's[22] there was a condition described as mental eccentricity. When there is extensive meningitis there is usually a condition of deep coma. Sweating is a very frequent symptom, and is worthy of special notice, from the peculiarly drenching character, which is, as Dr. Henry Thompson remarks,[23] second only to ague, and usually far beyond the average mark of phthisis or pyæmia. The diarrhœa is not necessarily dependent on any recognisable lesion, and may not be very marked, even when the infarcts on the mucosa are most abundant. As noted in several of the cases, it may be profuse, and still further add to the resemblance which some of the cases bear to typhoid fever. Jaundice may be present, but appears to be a rare symptom. Cases, some of which were mistaken for acute yellow atrophy, are reported by Schnitzler,[24] Gubler,[25] Luys,[26] and Mattice and Chalvet.[27] The heart symptoms may early attract attention, from the complaints of pain and palpitation; but, as a rule, they are latent, and unless looked for are likely to be overlooked. In those cases with chronic valve disease there is usually no difficulty, but where the affection sets in with marked constitutional symptoms, the local trouble is very apt not to attract attention. Even on examination there may be no murmur present, with extensive vegetations, or it may be variable. There are many instances on record, by careful observers, in which the examination of the heart was negative.

The course of the disease presents many variations, well illustrated by the records I have given; very acute cases may run their course within the week, as in the patient Ann O——, already referred to, while in others the duration may be even two or three months. Except in certain cases in which the patients are the subjects of chronic valvulitis, the course is rarely prolonged beyond four or five weeks. Some of the pyæmic group, particularly those with intermittent pyrexia, appear very prolonged, even two or three months. The most rapidly fatal case is described by Eberth,[28] in which a man, who had enjoyed previous good health, was attacked on the evening of the 25th, with rigors, followed by high fever and rapid unconsciousness. The temperature that night, when seen by a physician, was

[15] Ibid., vol. i., 1884.
[16] Virchow's Archiv, lvii. [17] Bulletin de Soc. d'Anatomie, 1873.
[18] New York Medical Record, ii., 1881.
[19] Duget and Hayem, Comptes Rendus, Soc de Biologie, 1865.
[20] THE LANCET, i., 1884. [21] Bull. de Soc. d'Anatomie, 1876.
[22] Guy's Hospital Reports, vol. xvii. [23] THE LANCET, 1880.
[24] Weiner Med. Presse, 1865. [25] Gazette Médicale, 1862.
[26] Ibid., 1864. [27] Ibid., 1862. [28] Virchow's Archiv, lvii.

41° C., and the case seemed like one of typhus with meningitis. On the 27th he was removed to the hospital, where he died at 5 P.M. Temperature was 42·4 C. There were extensive ulcers in aortic valves, and suppurative infarcts in the brain. The duration in this case was scarcely two days. In a considerable number of instances the disease terminates within a week or ten days.

Croonian Lectures

ON THE

HYGIENIC AND CLIMATIC TREATMENT OF CHRONIC PULMONARY PHTHISIS.

Delivered at the Royal College of Physicians,

BY HERMANN WEBER, M.D.,
PHYSICIAN TO THE GERMAN HOSPITAL.

LECTURE I.

Definition of Phthisis.—Infectiousness.—The Bacillus.—Differences in the liability of different Persons to Phthisis.—Acquired and Hereditary Predisposition.—Curability of Phthisis.—Circumstances influencing the Prognosis.—Deplorable Condition of the Consumptive Poor.—Preventive Treatment.

MR. PRESIDENT, FELLOWS, AND GENTLEMEN,—Drs. Wm. Ewart, J. E. Pollock, and Andrew have delivered before you in the course of the last few years lectures on important points in the etiology, pathology, and treatment of phthisis. I intend to confine myself as much as possible to the hygienic treatment in the widest sense, which includes the dietetic and climatic management. Graves said: "It is of great importance to know how to make a man phthisical, as by pursuing an opposite line of conduct we will be able to prevent it." In these words lies my excuse if I do not altogether avoid questions of etiology and pathology.

While the lectures of my predecessors to whom I have just alluded were full of scientific research, mine claim only a humbler place; but if I were only able to put the matter as I see it before you and the profession in general with sufficient clearness and force, I should hope to be fortunate enough to contribute a small share towards the development of a more energetic and somewhat more successful prophylaxis and treatment of phthisis, especially in the poorer, but also in the richer, classes. As the word "phthisis" had such different meanings at different times, and at the same time in the minds of different men, I must state what I mean by pulmonary phthisis—viz., a chronic disease of the lungs, with consolidation, beginning almost always at the apex, having a tendency to caseation, softening, and the formation of cavities, or of fibrous changes—all these changes may occur in the same individual at the same time in different parts of the lungs, or may follow one another at different periods of the disease. These changes are endowed with infective qualities, and have a disposition to spread to the adjacent parts, and to become also disseminated over distant parts. They are mostly found associated with the tubercle bacillus discovered by Koch, a point to which we shall presently return; and they are intimately connected with, we might say engrafted on, a state of malnutrition of the whole organism, and especially the cells and the tissue of the lungs. I claim no originality for this definition, which is not exhaustive, and which I have given only for the purposes of these lectures. It is derived principally from the remarks made by Drs. Green, Wilson Fox, and others during the discussion at the Royal Medical and Chirurgical Society on Dr. Percy Kidd's paper on the "Distribution of Tubercle Bacilli in the Lesions of Phthisis." I exclude the lung diseases often called phthisis, which are caused by mechanical irritation through inhalation of inorganic or simple organic dust, the different forms of bronchiectasis, chronic bronchitis, or emphysema and heart disease, chronic changes resulting from pressure on the bronchus, the diseases of hydatid origin, cirrhosis, empyema, and syphilitic changes of the lungs.

With regard to the infective power of the changes in the lung of phthisical subjects, they have been surmised long ago, even before the history of inoculation, which dates back at least as far as 1843, when Klencke made some experiments which were almost forgotten when Villemin published his famous researches. The late William Budd, you remember, was perfectly convinced of the infectiousness of phthisis. On more than one occasion, when discussing the subject with him, he expressed his astonishment that the view of the infectiousness was not universally credited. Mr. Wm. Thompson of Melbourne, amongst others, has constantly asserted his belief in the communicability of phthisis.

Possibly this view would not have been so generally accepted even now if the ideas of the profession with regard to zymotic diseases had not been gradually transformed by the researches of Pasteur, to whom the greatest praise is due, although he was preceded in some points by Schwann, that type of the modesty of genius, and had not the marvellous results obtained by Lister's disinfecting process acted as a stimulus to the germ theory in general. Pasteur's intelligent and never-resting industry paved the way for a number of other scientific observers and experimenters, as Davaine, Obermeier, Cohn, H. V. Carter, Cohnheim, Klebs, Wilson Fox, Burdon Sanderson, Baumgarten, Lister, Tyndall, Tommasi-Crudeli, Klein, and others; so that Koch's discovery of the tubercle bacillus came to us like a long-expected message.

Dr. Andrew especially dwelt on the importance of this discovery in his lectures on the Etiology of Phthisis, where he justly said that "not many discoveries of equal importance" have received such speedy and strong "confirmation as that of the tubercle bacillus." Mr. Watson Cheyne has given a full, clear, and confirming account, based on a visit to the Continent and many experiments performed by himself. The literature on the subject in this country, as also in France, Germany, Italy, and America, is already very large, and has received an important addition by the paper already mentioned by Dr. Percy Kidd, and the discussion which followed it. In spite of the large array of authors and papers, however, we cannot say that we know all about the bacillus, by which term I understand not only the developed little rod, but also its spores and the chemical poison which probably is originated by its development in the tissues in an analogous manner, as, according to the researches of Gaspard, Panum, Billroth, Burdon Sanderson, and others, a powerful chemical poison—sepsin—is developed in the process of septicæmia. We have no doubt that the bacillus is intimately associated with phthisis, but the exact relations appear to require still further elucidation. It is, for instance, not quite clear why the tubercle bacillus thrives in some persons and not in others, or why in some persons it thrives at one time and not at another.

It seems to be an acknowledged fact that some microorganisms do not grow in living tissues of a living animal. Klein states this with regard to the "septic and zymogenic organisms properly so called," and explains their occurrence in diseased tissues during the life of the subject by assuming that these tissues had become changed by inflammation or otherwise, so as to become practically dead before the organisms could grow in them. By analogy, the question arises whether the tubercle bacillus settles and grows in healthy living tissues of the body or only in pathologically altered tissues. We know that it thrives in the bodies of most warm-blooded animals when inoculated, but this does not prove that it will find a nidus in the healthy tissue when merely brought into contact with it by the surrounding air. The first point which we have to consider is that the air which we inhale perhaps does not so often contain the fully developed bacillus as it is supposed by many people, for this microbe does not thrive in the air at the usual temperature, but requires, according to Koch, a temperature approaching that of the human body. Its growth entirely ceases below about 82° F. and above 107°, and it thrives best at about 98° to 100°, while other pathogenic microbes have a much wider field; for instance, the anthrax bacillus, which grows luxuriantly between 67° and 74° and up to 110°. A further point against the spread of the tubercle bacillus out of the animal body is that it does not form spores in the air, while the anthrax bacillus does. Another peculiarity in the life of the former is that it grows slowly, that it requires as many days for its development as the anthrax bacillus requires hours. This circumstance seems to diminish our danger considerably, for we may presume that the bronchial mucous membrane, when healthy, materially assists the expelling act of expiration by its ciliary functions. We are,

however, less secure when by catarrhal or inflammatory conditions the mucous membrane of the bronchi, and especially of the smallest divisions, is deprived of its protecting surface, and when the respiratory acts are imperfectly performed, especially the expiration, thus allowing the stagnation of impure air in the alveolar spaces, and permitting the bacilli and their spores to develop under circumstances most favourable to them.

This leads me to another subject in the relation of the *bacillus* to phthisis, which appears not finally settled—viz., the chronic affections of the apex, which are usually regarded as incipient phthisis. Every one of us has seen numerous cases of this kind characterised by some degree of dulness, mucous rhonchus, and more or less pyrexia at one time or other. Many of these cases are followed, after a shorter or longer time, by an extension of the disease to other portions of the lung and fatal termination. Not a few cases, however, become arrested and retrogressive, and ultimately to all appearances cured. These apparent cures are not always permanent, but after intervals of from four to six months, or some years, a similar affection is started up again, either in the same or in the other apex, or in both, and may rise into fully developed phthisis, or be again arrested. In looking over my notes, I have found eleven cases in which the arrest or cure has now lasted from five to twenty years without a relapse, so that the cure may be regarded with some degree of assurance as permanent. What was the nature of these cases? Were they bacillary or non-bacillary? I cannot answer the question with any degree of certainty, as the bacillus was not known at that time, and only its constant absence in the sputa could have pointed with probability to the non-bacillary character of the affections. I am inclined to believe (1) that some of the apical affections which I have seen were non-bacillary, or, in other words, the result of chronic catarrh and inflammation without the presence and influence of bacilli; while the greater number were complicated by the presence of the parasite, and partly caused by the latter; (2) that non-bacillary cases are apt to become bacillary by the settling of the bacillus in the diseased cells and tissues; (3) that bacillary cases may, under favourable circumstances, become non-bacillary. The recent discussion already referred to at the Medical and Chirurgical Society has not cleared up the question. Dr. Wilson Fox in his philosophical remarks told us we ought not to be too quick in accepting all which the new views of the bacillary origin of phthisis required, considering that the pathology of tuberculosis had biennially, triennially, or quinquennially been swayed by histological dogmata. Dr. Green, on the other hand, seemed more thoroughly to accept Koch's discovery, as being in perfect harmony with our older views, and his (Dr. Green's) definition of phthisis. He questions the existence of pre-tubercular consolidation of the apex, which term may perhaps be understood as equivalent to non-bacillary consolidation, which I have used above. He appeared, however, not quite certain on this point. In some cases of disease of one apex, he said, where there was no evidence of softening and disintegration, it was difficult to say whether they were tubercular or not. I have been told that it is imprudent to discuss in our present state of transition the question of the treatment of phthisis. But I do not quite share this opinion. If we could hope that by further acquaintance with the nature and life of the bacillus we could at an early date discover a method of attenuation of the tubercle virus for inoculation, or means of destroying the bacillus and its spores, either in the air we breathe or in our tissues, or substances by which without injury to ourselves some slight alteration in the chemical constitution of our cells and tissues could be effected which would render the thriving of the bacillus impossible, I should certainly wait; but I do not think that we are justified in entertaining such hopes for the near future, although the discovery of some such means does not appear to me at all impossible. We are not so fortunate as surgeons with regard to keeping off the entrance of spores into wounds and sores. The ingenious respirators invented by Tyndall and Frankland are certainly not without practical value, but their use will, I fear, never be general; and when once the system is infected, we do not yet know of parasite-killing remedies which, in sufficient doses, would not injure the host together with the parasite. Even the surgeon, when once pyæmia or septicæmia is established, has hitherto found himself powerless to arrest the progress of the disease by means of antiseptic remedies administered internally. He even has great difficulty in disinfecting an external sore when complicated with sinuses. I well remember a conversation with Sir Joseph Lister on this subject, when he held out no hope that we might at an early date succeed in disinfecting an infected lung. The conversation I refer to occurred some years ago, but I have no reason to believe that Sir Joseph has altered his views since then. Although, however, we possess no direct means of destroying the parasite, we need not despair of doing good by placing persons under circumstances in which they are less liable to become infected, and when infected more able to limit the progress, and to effect a more or less perfect and more or less permanent cure. We know that the reputed cause of danger, the tubercle bacilli or their spores, exists in many localities, and yet, fortunately, the majority of people remain free from tubercles, and that some only become infected after some accident, some lowering influence, mental or physical, or some catarrhal inflammatory affection of the respiratory organs, or some febrile disease, as measles, or whooping-cough, or typhoid fever. There is reason for the inference that under such depressing influences the resisting power of the body, and especially of the lungs, becomes impaired, and that thus the pathogenic germs are more likely to find a nidus for their development. This diminished resistance thus produced constitutes the complex class of *acquired predisposition*, which may be transitory or permanent. Our duty is to prevent the occurrence of this predisposition, and when formed to remove it by improving the state of nutrition. And a further duty is to prevent, during the existence of this acquired predisposition, the risk of infection.

There is, besides, an equally large, if not larger, class of persons who have *hereditary predisposition* to phthisis. We must avoid entering on the exact nature of this heredity, whether it consists—as Professor Sée, in his very interesting work, "Phthisie Bacillaire des Poumons," argues—in direct transmission of the virus from parents to offspring, or whether only in the transmission of certain predisposing defects. But we shall, under the head of "prophylactic treatment," return to the consideration of the duties which the existence of heredity imposes on us.

Before I enter on these duties, I must say a few words about prognosis, and endeavour to meet the gloomy views which so many medical men still entertain. That anyone can hold the opinion that phthisis is incurable is almost incredible; as not only older medical authors, but many of the most experienced living men, have pronounced distinctly hopeful views. The words of Carswell should be sufficient. 'Pathological anatomy," he says, "has perhaps never afforded more conclusive evidence in proof of the curability of a disease than it has in that of tubercular phthisis." Every one of us has, I doubt not, often met with this proof in making post-mortem examinations of persons who had died of other diseases. The instructiveness of most of such cases, however, is greatly diminished by the fact that the conditions of the person at the time when the attack had occurred are unknown; as also the circumstances under which the cure had taken place. As a great interest is attached to cases whose history is known, I venture to give a short sketch of a case in which I had the opportunity of witnessing two separate attacks of phthisis, terminating in recovery, and finding the remains of the lesions by post-mortem examination seven years after the second recovery, when death had occurred from typhoid fever with perforation.

C. M——, aged twenty-one, with history of phthisis on the part of his father, came under observation in July, 1867, on account of hæmoptysis. He had previously had attacks of "bronchial catarrh," as he called it. There was dulness with crepitant rhonchus over the left apex down to the fourth rib, and also on the supra-spinal region. The right side was free. Moderate pyrexia; loss of flesh. With rest in bed, and on sofa, with open windows, light cold food and ergot of rye, the bleeding soon ceased. There was subsequent general improvement after removal to Weybridge, where he was ordered to be during the greater part of the day, in the pine forest of St. George's Hill, to take frequent meals, and cod-liver oil, with small doses of arsenic. He was then advised to spend ten or twelve months at Davos or St. Moritz, but as this advice was described by an authority who was separately consulted as due to my "cold-loving idiosyncrasy," C. M——, having found an engagement at Cape Town, went there. At that place he was disagreeably affected by the wind and dust, and was therefore sent to the high ground amongst the Boers, where he spent six months of the cool

season in several farms at elevations of between 4000 and 6000 feet, being constantly in the open air, with abundant exercise on horseback and walking. He entirely recovered, and was afterwards for some years at Cape Town and in the neighbourhood, in perfect health. In January, 1873, after a year's residence in Paris and London, he was again seized with hæmoptysis, the left apex had remained free, showing only slight dulness and flattening, and occasionally a dry crackle, but no moist rhonchi, while the right apex was in an analogous condition, as the left had been in 1867; under a similar treatment he again improved, and being a good sailor he went on board a sailing vessel to Valparaiso. On the voyage the cough almost subsided; but at Valparaiso, where he began office work, it became worse, and he was advised to carry out my previous suggestion to spend a year at Jauja in the Peruvian Andes, whence he returned to Valparaiso in perfect health. In 1878 I had the opportunity of examining C. M ——, when on a visit to Europe. The former flattening and dulness over the left apex had disappeared; the breathing was only somewhat harsh with prolonged expiration, but over the right apex there was slight dulness on percussion, some flattening, and harsh long expiration. He was able to bear any amount of fatigue, but no confinement to close rooms and office work. I did not see him again till he came in August, 1881, from Italy and France, with well-developed typhoid fever, of a moderate type, without any lung complication. He had almost recovered, when at the end of the fourth week of the disease he committed, against strict advice, the imprudence of eating a rather large quantity of grapes. Perforation of the lower part of the ileum took place within twenty-four hours, from a sore which had been in fair progress of healing, almost all the other patches being already healed. There were cretaceous patches in the apices of both lungs, and also in the lower lobe of the right lung, with the often described changes in the surrounding tissues. Whether these two attacks of phthisis were bacillary, and, if so, whether the encapsuled cretaceous and semi-cretaceous masses still contained bacilli and spores, are questions which naturally offer themselves. If the bacilli and their spores can retain their life for years in such encapsuled masses, then it is very possible, as has been suggested by others, that the fresh attacks of phthisis which occasionally occur after years of apparently perfect cure are in some cases due to self-infection from the escape of imperfectly shut up parasites. A case lately published by Dr. Neuwerk of Tübingen tends to show that bacilli may really exist in such old encapsuled masses. The main points of the case are these:—A ranger in a healthy district of Prussian Silesia, who served in the Franco-German war of 1870-71, in perfect health, and passed in 1875 a medical examination as a good life, suffered in 1877 during six months from cough, anæmia, emaciation, and a general feeling of illness; he recovered, however, while continuing his open air duties, and then remained well for several years, till cancer of the stomach developed itself, from which he died. The post-mortem examination disclosed in both apices, which were contracted and puckered, cretaceous masses of different consistence, and also caseous nodules, in one of the latter of which Dr. Neuwerk found well-developed bacilli after having searched in vain for a long time. He ascribed the phthisical changes in the lungs to the illness in 1877. Dr. Neuwerk's case and the one related by myself have this in common: that indubitable attacks of phthisis were cured by what may be called "open air treatment," and that death occurred not from phthisis, but from other diseases. These cases, if we had no other proof, would in themselves be sufficient to show that phthisis is sometimes cured, and I do not hesitate to assert that it is often cured.

There is nothing more baneful than the idea that phthisis is incurable. It shuts out all honest attempt to do everything possible, and bring every sacrifice to promote arrest and cure. I well remember from my student's time, when phthisis was considered almost incurable; how the name of the disease was withheld from patients; how depressed they became when they found it out; how they regarded themselves as doomed, and sometimes killed themselves by poison or debauchery. I remember also the joy amongst the younger medical generation and the public when a more hopeful view developed itself, and the readiness to submit to every sacrifice and to long expatriation with a fair chance of recovery. I will not mention the names of the living men who have worked in this direction, but I cannot help paying a tribute to the memory of Graves, Carswell, Archibald Smith, Addison, and Felix Niemeyer.

The portions of lung which are already destroyed before the treatment has commenced cannot be restored, but experience has shown to us that life, with a fair capacity for work and for enjoyment, can be maintained after a loss of a good part of the lungs, and that the remaining part, if sound, can be rendered capable of doing the ordinary life-work of both entire lungs, though it must always remain unfit to perform the extraordinary duties which can be occasionally demanded from the combined power of both lungs in perfect health. That even the pressure of a cavity does not preclude a cure more or less complete, all the best observers of England, and many of the Continent, have proved. The phenomena of cavities have been carefully studied by Dr. C. T. Williams, Dr. Douglas Powell, and especially by Dr. William Ewart, whose Gulstonian Lectures of 1882 contained the fullest account of the pathology of cavities I am acquainted with. In some cases the formation of a cavity, as Professor Jaccoud and others have pointed out, is even favourable, provided the infectious contents can be thoroughly evacuated, and a fibrous zone of demarcation be established between the cavity and the surrounding healthy tissue. The tendency to fibrous change in this, as in all other processes of phthisis, is one of the most powerful agencies towards prolongation of life, and in many cases towards arrest and cure of the disease.

(To be concluded.)

Clinical Lecture

ON

TWO CASES OF

INJURY FROM THE DYNAMITE EXPLOSION IN WESTMINSTER HALL.

Delivered at the Westminster Hospital, February 26th,

BY GEORGE COWELL, F.R.C.S.,

SENIOR SURGEON TO THE HOSPITAL.

GENTLEMEN,—There is no necessity for me to call to your recollection the series of dastardly outrages by means of various forms of dynamite which have occurred at intervals during the past two years. They appear only to have succeeded in arousing in the public mind a deep feeling of execration against the cowardly ruffians who have perpetrated them; for it is marvellous, and a matter for deep congratulation, that so few individuals have been injured. The injuries, too, have been slight as compared with the enormous power of the explosive, but they present certain peculiar features which I think are worthy of your careful consideration. The two cases that have recently been under treatment in Northumberland ward afford a good opportunity of studying the effects upon the human body of that "resource of civilisation," a clumsily used charge of dynamite.

We are well acquainted with the results of explosions from gunpowder and from mixtures of gases. With these materials a mass of flame is produced, and the most marked effect upon any individual that is not blown to pieces is a more or less severe burn of the surface. With dynamite explosions, on the contrary, as they have come before surgeons in the recent outrages on the Underground Railway, at the Junior Carlton Club, and still more recently in Westminster Hall, it would appear that an individual may be within a few feet of the exploding material and yet escape with certain characteristic injuries, which I propose to discuss with you to-day.

Now, your first question would probably be, How was it that these two policemen, who were brought into the hospital soon after the explosion in Westminster Hall and who were close to the exploding material, were not blown to pieces? I think that there are two reasons for their escape: first, the chief energy of the explosion, which with dynamite is mainly exercised downwards, was expended in excavating a deep hole in the pavement of the Hall, and then diffused upwards and laterally; and, secondly, the explosive was not sufficiently confined for the production of its full effect.

[After alluding to the process of blasting rocks, and showing how much more destructive the Westminster Hall explosion would probably have been if the case had exploded in the passage in which it was first placed, whence it was pluckily removed by Cole, the lecturer described the condition of the clothes of the two men on their admission, their coats having been burst through by the explosive force, one having had the brass letter **A** on his coat collar bent and twisted, and the other having had the leg of his trousers slit up nearly to the hip.]

The faces and hands of the men were blackened, and the hair and beard and clothes filled with a black material. The disturbed dust from the rafters of the old Hall was the main factor of this blackening process. Both men had several slight superficial wounds of exposed parts, probably produced by the earth and pulverised stone that were thrown in all directions by the excavating effect of the explosion. The blood from these superficial wounds and the black dust fully accounted for the hair being in places matted together with a black compound. The men were, of course, knocked down by the explosion, and when brought to the hospital were stunned and deaf, but not insensible. They were cold, too, from the shock that they had received, and it was not until they were recovering from this shock that it was found that neither of them recollected anything of the explosion or subsequent circumstances from the time that they saw the flash till they found themselves in bed in the accident ward of the hospital. Cox heard the explosion, but Cole tells us that he did not. Cole, who has been rewarded for his pluck on the occasion, was found to be suffering also from considerable difficulty of breathing and pain in the left side, and a careful examination at once revealed the fact that four of his ribs—viz., the sixth, seventh, eighth, and ninth—were fractured. There were no signs of contusion at the seat of fracture, or other than the slight superficial wounds above mentioned and a few slight bruises of the arms and legs, and it appears that the fractured ribs were not directly caused by the explosion. What happened would seem to be this. Cole was violently swung round by the explosive force exerted upon his body and clothes, and fell into the hole produced by the explosion. He is a slight man, but Cox, who is of much heavier build, was swung round in much the same way, and fell upon his colleague in the hole, by his weight and fall so compressing Cole's sternum and left costal cartilages that the four ribs mentioned were fractured near their angles. It is clear that the fractures were produced by pressure upon the sternum, from their position and from the fact that there has been no sign of injured pleura or lung, a complication which must have occurred if the fractures had been produced by direct violence. The marked rotatory movement would seem to be a peculiarity of dynamite explosions.

The symptoms of shock from which these men were suffering were of a peculiar kind. Cox's were out of proportion to his apparent injuries, and rapidly passed into a stage of excitement. He struck out in all directions, and was with difficulty restrained. He certainly demonstrated that he had no broken bones. This excitement lasted about an hour. Cole had no stage of excitement. He was weighted by his quadruple fracture. In both men the signs of shock passed off very slowly in the course of four days. Both had headache, Cox's being worse than Cole's and lasting over a week, and being more marked in the frontal and occipital region. The deafness was not equal in amount in the four ears. In both men there was much more deafness on the side turned towards the explosion—viz., Cole's left ear and Cox's right. The other two ears recovered their hearing in eight or nine days, but in Cox's right ear the deafness recovered very slowly, and had hardly disappeared at the end of the fourth week. Cole's left ear is still deaf. It recovered to a certain point, but I fear that all improvement has now ceased. Cox had a little bleeding from his right meatus, and was found to have a ruptured tympanum, but the other tympani were covered, and perhaps defended, by cerumen, and were not ruptured.

Now, Why was it that the effects of the shock were so prolonged in these cases? and why was it that the deafness and the malaise and slight stiffness of the skin and muscles of the side of the face were so much more marked on one side, and so persistent? I think it was because the explosive force which knocked the men down produced a more powerful effect upon one side than the other. The partial rotation of the body by means of the clothes and the fall were almost instantaneous, but the rush of expanding gas, carrying perhaps particles of dust, produced a blow which left a soreness and a cutaneous hyperæsthesia, although not a bruise. The degree and persistence of the nervous shock produced by this lateral blow were due not only to some amount of concussion of the brain, but I think that we must also recognise that a little of the shock and almost the whole of the deafness were due to a concussion of the auditory nerve and of the expansion of the auditory nerve which lines the cochlea and semicircular canals. The effect of concussion upon this delicate nerve expansion is somewhat similar to that produced in concussion of the retina, a complete suspension of its physiological functions. The severity of this concussion on the side turned towards the explosion fully accounts for the prolonged deafness on that side, and might be sufficient to account in some cases for a permanent condition of partial or complete deafness. The recovery in Cole's left ear has been so slow that I fear, as I have already said, some deafness will remain as a permanent result of the explosion. It has been stated that this nervous concussion is likely to be greater when the tympanum escapes, as the giving way of that membrane breaks to some extent the force of the concussion. It is possible also that the prolonged headache was due to the concussion and irritation of the auditory nerve. Dr. Brown-Séquard has shown that such irritation has the power of producing by reflex agencies convulsions, vertigo, and other symptoms of disturbed cephalic function.

These cases are instructive because they teach us, in estimating the causes of traumatic shock in cases of explosion, not to ignore the presence of nervous concussion, even though the signs of it are more or less obscured. They teach us, too, that the essential treatment of concussion, perfect physiological rest, should be maintained in these dynamite cases, as giving those who are injured the best chance of avoiding permanent deafness or those other changes which may result from even the slightest concussion of nerve structures when rest is neglected.

ONE HUNDRED AND ELEVEN CASES OF LITHOLAPAXY.

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(*Concluded from page 423.*)

CASE 54.—On Aug. 1st, 1883, a Hindoo male, aged fifty came to hospital with symptoms of stone, the most marked of which were sudden stoppage of the flow of urine and increased frequency of micturition. After a most careful exploration of the bladder by sounds of various kinds, including Sir Henry Thompson's, no calculus could be detected. I felt certain, however, from the symptoms that there was a small stone present, and determined to employ the aspirator for the purpose of diagnosis. I introduced a No. 14 catheter, and applied the aspirator. After going through the performance of pumping water into the bladder, and exhausting it once or twice, a distinct click was heard. The cannula was withdrawn, the lithotrite introduced, and the stone crushed. The fragments weighed eleven grains only. Next day the man was walking about quite well. In the above case a most careful search was made by sounds of various kinds, but no calculus could be detected till the aspirator was employed; when a distinct click was heard during the exhaustion of the water, due to the calculus being carried with force against the eye of the cannula by the outward stream. The sound of the fragments clicking against the cannula during aspiration in the operation of litholapaxy first suggested to me this mode of diagnosis, and I now always employ it when the symptoms of stone are present, and the sound fails to detect one. In this way I have detected several small calculi.

Not alone may the aspirator be usefully employed for diagnostic purposes, but by means of it a small calculus or number of small calculi may be removed entire without the necessity of having recourse to the lithotrite at all. Case 76 is a practical illustration of this. The patient, a warder in the Moradabad gaol, aged fifty, had been passing gravel for two or three years, when suddenly one day his urine

ceased to flow. He went to the hospital assistant, who passed a catheter and relieved the retention. Next day he had retention again, when he consulted me at my morning visit to the gaol. I sent him to the civil hospital, placed him under the influence of chloroform, and passed a No. 18 catheter at once with the greatest ease. The aspirator was then applied and the click of a stone heard. The calculus, which weighed only fifteen grains, passed into the apparatus, and was removed in this way without the use of the lithotrite. Next day the warder returned to his work quite well, having suffered no unpleasant symptoms. I had for some time previously contemplated the removal of a small calculus in this way by the aspirator alone; but this was the first opportunity I had of putting my idea to a practical test. Since then I have removed calculi in four or five instances in this manner without the aid of the lithotrite. For instance, in Case 81 I removed twenty-seven small hard uric-acid calculi, the whole weighing half a drachm, all passing through a No. 16 cannula into the receiver; and in Cases 98 and 109 small calculi were both diagnosed and removed by the aspirator alone.

During the process of aspiration, with each expansion of the indiarubber bulb, the fragments of calculi are carried against the eye of the cannula by the outward rush of water, and a clicking sound is thus produced, which, whilst it continues, indicates that some fragments remain in the bladder. There is, however, a peculiar sound sometimes produced, which I have not seen mentioned in any text-book or journal, and the occurrence of which the young litholapaxist should be acquainted with, as it is very likely to be confounded with the sound produced by a fragment. This "false sound," as it may be called, is produced by the mucous membrane of the bladder being sucked into the eye of the cannula during exhaustion of the water. It is most likely to occur towards the end of the operation, when all, or nearly all, the fragments have been exhausted, and especially when the bladder contains no surplus water, only that quantity which is pumped in and withdrawn during compression and expansion, respectively, of the bulb. It may, however, be produced at any time if, after compressing the bulb, the eye of the cannula be turned towards the sides or directed up against the fundus of the bladder, and then the bulb of the aspirator be allowed to expand. The sound itself, though difficult to describe, can never be mistaken when once recognised. The sensation communicated to the hand is of a fluttering jerky character, accompanied by a dull muffled sound as contrasted with the clear ringing click which the impact of fragments imparts to the instrument. On its occurrence the outward stream receives a sudden and complete check, whereas when a fragment obstructs the stream a portion of the water continues to flow. The sound does not recur if the cannula be partially withdrawn and raised towards the perpendicular position, so as to bring the eye close to the neck of the bladder, with the end of the cannula resting on the trigone; whereas a fragment will produce obstruction there as well as in any other position. On first practising litholapaxy I was deceived by this sound, and quite recently I have seen a brother officer of the British medical service, who performed his first litholapaxy operation in my presence, similarly deceived, I having forgotten to mention to him the possibility of its occurrence.

Towards the completion of the operation it will be found, as a rule, that the last particles of débris lie close to the neck of the bladder, just behind the prostate. This is due to the fact that the eye of the cannula being turned towards the fundus and sides of the bladder, the water is less disturbed by currents in the position referred to than in any other. Consequently, the last particles of débris gravitate towards this spot. Towards the end of the operation, therefore, the eye of the cannula should always be turned right round towards the prostate and water forcibly injected, so as to dislodge the débris from this position. This manœuvre is especially necessary where enlargement of the prostate coexists, otherwise a fragment might be left behind.

Litholapaxy was performed in three instances on female children, with the happiest results. The patient in each instance was running about the day after the operation, and suffering no inconvenience whatever. The operation is comparatively easy of performance in females, owing to the urethra being so short and wide. No forcible dilatation or disturbance of the parts was necessary, and consequently no incontinence of urine ensued; that troublesome sequel which so often results from the operation by dilatation.

Excluding the three cases in which the operation was performed in female children, there were 108 cases of litholapaxy in adult males performed by me, with four deaths, or a mortality of 3·7 per cent. Compare these results with the recognised mortality of one in four or five, or from 20 to 25 per cent., resulting from lithotomy in the adult. The accompanying table shows the results of 2592 lithotomy operations performed in the Indian hospitals during the year 1882. The figures are taken from the Medical Administration Reports of the various Provinces for that year, which, with the exception of that for the North-West Provinces and Oudh, are the latest available.

TABLE SHOWING THE RESULTS OF LITHOTOMY OPERATIONS PERFORMED IN INDIAN HOSPITALS IN 1882.

Presidency or Province.	Remaining on Dec. 31st, 1881.	Performed during 1882.	Total.	Result.				Remaining.	Percentage fatal.	Proportion fatal.
				Cured.	Relieved.	Otherwise.	Died.			
Bengal	6	181	187	148	5	5	19	10	10·5	1 in 9·5
North-West Provinces and Oudh ...	49	933	982	824	11	11	85	51	9·1	1 in 11·0
Punjab	50	949	999	768	25	28	127	51	13·4	1 in 7·4
Central Provinces	5	73	78	68	—	1	9	—	12·3	1 in 8·0
Bombay and Sinde	27	450	477	377	6	6	45	43	10·0	1 in 10·0
Madras	1	6	7	5	1	—	1	—	14·4	1 in 7·0
Totals	138	2592	2730	2190	48	51	286	155	11·0	1 in 9·0

I regret that I am unable to give the statistics of mortality according to age. The only administration report which is complete in this respect is that for the North-West Provinces and Oudh. Taking the latest statistics available for these provinces, those for 1883, I find that amongst 987 cases of lithotomy performed in 1883, the mortality up to the age of twenty years was 5·1 per cent., or nearly 1 in 20; between the ages of twenty and forty, 10·7 per cent., or about 1 in 9·5; and above forty, 31·9 per cent., or nearly 1 in 3. The mortality here recorded for the North-West Provinces is higher than that recorded for former years.

An impression seems to prevail in England as well as in India that lithotomy is a much more successful operation amongst natives of India than amongst Europeans. This impression is erroneous. According to the above table the mortality that occurred actually in hospital was 1 in 9, or 11 per cent. There were, however, 51 cases discharged otherwise than "cured," "relieved," or "died;" and it may be presumed that these, or the great majority of them, were taken away from hospital by their friends in a moribund condition to die at home. If these cases be added to those dying actually in hospital, the total mortality will be about 13 per cent., or nearly 1 in 8, which is practically the same as that recorded in Erichsen's Surgery as occurring amongst Europeans. In my own practice I have performed lithotomy in 182 cases; of these 50 were adult males, and amongst them there were 9 deaths, giving a mortality of 18 per cent., or about 1 in 5½. In the remaining 132 cases the patients were male children or boys under the age of puberty, and amongst them there was no death.

Lithotomy in the male child, when skilfully performed, has always been recognised as a successful operation. It

appears to me that litholapaxy is quite unsuited to such cases owing to the undeveloped condition of the genito-urinary organs, the bladder being small, the urethra narrow, and the mucous membrane of both extremely sensitive and liable to laceration. It must be remembered that, in order that the aspirator may be of any practical utility for removing fragments, a much larger cannula must be used than could with safety be introduced through the urethra of a male child. I am, however, unable to speak from practical experience in the matter, never having attempted litholapaxy in a male below the age of puberty; nor have I any inclination to do so whilst my success from lithotomy in such cases continues to be what it has hitherto been.

With litholapaxy in the adult male and females of all ages, and lithotomy in males below the age of puberty, the mortality from operations for stone should be extremely small. Second only to the reduction in mortality that litholapaxy can claim is the comparatively short period in hospital which the operation involves. It is no exaggeration to state that a disease which formerly involved weeks of confinement and suffering for its cure can now be disposed of in as many days.

I have referred to the impression which prevails that the mortality from lithotomy in natives is less than in the case of Europeans. There is also an impression prevalent to the effect that natives of India have no fear of the surgical knife. In fact, from the way some people talk and write it might be almost inferred that a native submits to a surgical operation as a kind of harmless diversion. This impression is altogether erroneous. A native of India will not, as a rule, submit to a surgical operation till all other modes of treatment fail, and he is driven to it through extreme pain, inconvenience, or danger to life. And it is for this reason that such large calculi are met with in this country, and that patients suffering from cancer and other diseases present themselves in hospital at a stage when surgical interference is useless. I can testify to the immense popularity of litholapaxy amongst the natives of India; and it may be reasonably hoped that when it becomes generally known that a small calculus may be removed from the bladder by an operation which involves no cutting, little or no pain, and confinement to hospital for a few days only, patients will present themselves at an early stage of the disease, when it is most amenable to treatment, and when the operation is almost unattended with danger.

In concluding this paper, I would venture to suggest that the time has now come when Bigelow's operation should be universally recognised as, what it undoubtedly is, a distinctly new operation. Shortly after the introduction of litholapaxy, Sir Henry Thompson assumed a position of opposition to this view. Sir Henry seems to have altered his opinions very materially since that time, for we find from his most recent writings that lithotrites and evacuating catheters which were then pronounced dangerous and unnecessary are now held to be admissible, and even necessary, when dealing with large calculi.

Now, everyone who knows anything about the history of lithotrity must be aware that previous to the appearance of Bigelow on the scene, in 1878, the tendency of all lithotritists was (1) to restrict to the lowest possible limit the time occupied at each sitting, four or five minutes being the utmost time allowed as safe; (2) to employ instruments of the smallest size possible; and (3) to leave the evacuation of the fragments as much as possible to natural efforts. The principles on which this practice was founded were: (1) That the bladder was extremely intolerant of the presence of instruments; and (2) that in direct proportion with the length of time instruments were manipulated there was the prospect of evil consequences resulting. There can be no doubt as to the teaching that prevailed on the subject. A reference to the latest editions of all the ordinary text-books published prior to 1879 will show that the authors were unanimous on these points; and there was no one who inculcated the principles and practice referred to more strongly than Sir Henry Thompson himself, as might be illustrated by numerous extracts from his writings. It was reserved for Professor Bigelow to show that these principles were altogether wrong, and to introduce a practice entirely at variance with the old proceeding. The hypotheses on which the new operation was based were: (1) That the bladder was much more tolerant of prolonged manipulation than was previously supposed, and (2) that the temporary manipulation of blunt and polished instruments in the bladder was less irritating than the continued presence in the organ of sharp fragments of calculus. For the purpose of working out his idea Bigelow introduced larger lithotrites than had previously been used, and invented an entirely new evacuating apparatus by which débris might be rapidly extracted from the bladder. In the introduction of the large evacuating cannulæ, Bigelow availed himself of the discovery of Otis that the urethra is much more capacious than was previously recognised. It is rather strange that Sir Henry Thompson should claim for Clover's syringe an efficiency as an aspirator which in its original and unmodified form it never possessed. The apparatus is referred to by most authors as a pretty and ingenious one for washing out the bladder. Its use in lithotrity is, however, deprecated, save in exceptional cases, such as where enlargement of the prostate or atony of the bladder coexists; and then the only efficiency claimed for it is that of washing out sand. Thus Mr. Cadge of Norwich writes:[1] "In doing this [removing calculi under the circumstances above referred to] I have sometimes used Clover's syringe, but more frequently have trusted to the quicker and less disturbing action of the scoop lithotrite." In 1869 Sir Henry Thompson, writing of the removal of fragments by Clover's syringe,[2] says: "The process is rather trying, however, for the bladder; and it costs rather more pain and time than an ordinary sitting for lithotrity." Again, in 1871, he writes:[3] "Having used it [Clover's apparatus] very frequently, I would add that it is necessary to use all such apparatus with extreme gentleness, and I prefer to do without it, if possible." And that, even so late as 1878, Sir Henry relied much more on the flat-bladed lithotrite for the evacuation of the débris (Fergusson's method) than on Clover's syringe is apparent from a passage in a lecture delivered by him in December, 1878, and published in THE LANCET, vol. i., p. 145, 1879.

Bigelow applied the name "litholapaxy" to his operation; but to this Sir Henry Thompson objects, suggesting "lithotrity at one sitting" as more appropriate. Now, I think there are many advantages in having a distinctly new name for a distinctly new departure in surgery. The word litholapaxy seems to me the one most expressive of the procedure involved in the new operation. Bigelow's operation involves much more than the crushing of the stone, the essential feature being its complete and rapid evacuation. Besides, as I have already pointed out, there are many cases in which a small calculus can be removed by the aspirator alone, in which no crushing is required, and to which, consequently, the name lithotrity at one sitting cannot be applied, whereas the word litholapaxy will also embrace these. There can be no doubt whatever that Bigelow's operation was a distinct innovation both as regards the principles involved and the means by which it was accomplished. The operation struck at the root of all previously held tenets regarding lithotrity; and its introduction caused at the time considerable astonishment to the profession all over the world. I must confess my surprise that Sir Henry Thompson, after employing Bigelow's operation in all its essential details during the past five years, and obtaining from it such brilliant results as those recorded by him, should still persist in saying[4] that "no new form of instrument is required by this operation."

Received at first with caution, the operation is steadily growing in favour with the profession in America, England, and Europe generally. In India it has as yet been adopted by a few surgeons only; but so thoroughly satisfied with its results in their hands is the Surgeon-General of the North-West Provinces and Oudh, Dr. W. Walker (always alive to the interests of surgery, and than whom no one has ever done more for its encouragement in India), that he has ordered several cases of the instruments required for employment in the most important hospitals under his administration. I believe I have pushed the operation, as regards the size and hardness of the calculi attacked, the ages and debilitated conditions of the patients operated on, as far as any other surgeon, and I cannot speak too highly of it. By it the surgery of the bladder has been truly revolutionised, and I confidently believe that, with increased perfection in the instruments and apparatus employed, larger calculi than any hitherto attacked will successfully yield to the operation.

Bareilly, India.

[1] THE LANCET, vol. i., p. 471, 1879.
[2] Diseases of the Urinary Organs, p. 125.
[3] Practical Lithotrity and Lithotomy, p. 215.
[4] Vide Diseases of the Urinary Organs, seventh edition, p. 98, 1883.

ELECTRIC ILLUMINATION OF THE VARIOUS CAVITIES OF THE HUMAN BODY, FARADISATION, GALVANO-CAUTERISATION, AND ELECTROLYSIS, BY MEANS OF POCKET ACCUMULATORS.[1]

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THERE are probably few members of the medical profession, whether engaged in general practice, pure medicine, surgery, or in pursuit of any of those specialties which necessitate a frequent examination of the cavities of the human body, who have not at some time or other been disagreeably struck with the insufficiency of the illumination offered to them in the residences of private patients or in the wards of hospitals. Even if the patient be able to walk about, the difficulties thus created are great enough; but they are increased tenfold if the patient be in bed and unable to move. Many kinds of apparatus have been devised to overcome these difficulties, but most of them are clumsy, expensive, and little calculated to meet the exigencies for which they were constructed, and none have come into general use. It is hoped that the apparatus herewith submitted to the profession will supply what is a real want.

Its history is briefly the following:—At a conversazione held at St. Thomas's Hospital a year ago, a little incandescent lamp attached to a rubber stem, and worked by a small bichromate battery, was shown by one of the students, Mr. Manners. The instrument was intended to illuminate the throat, its construction however was rather clumsy, and its illuminating power minimal. Some little time afterwards Mr. Arthur H. Vesey, a young civil engineer, and a friend of Mr. Manners, who was present, called on me and submitted a modified form of instrument constructed in accordance with some suggestions I had offered. Though considerably better, yet this instrument did not meet the requirements of the case, and ever since then we have been engaged in bringing it nearer to perfection. Our endeavours were mainly directed at first in constructing a useful laryngoscope; we thought we were near the desired goal when I left for the International Medical Congress held at Copenhagen in August of last year. On my way thither I spoke in Hamburg to a medical friend about the subject and described our instrument, when he told me the purpose for which we had so long been laboriously striving had already been accomplished by a Hamburg manufacturer of incandescent lamps, Mr. C. H. F. Müller. On visiting this gentleman I found the statement fully corroborated, and I now saw clearly before me the probability of being able to carry with me the light I required for a satisfactory examination, in a convenient form into the patients' homes, and at the same time of enabling me to perform those applications and operations which hitherto from the bulk of the apparatus and nature of the materials used in generating the electric current had practically restricted its employment to the practitioner's own residence.

All this is now overcome by the use of little accumulators and of the instrument to be hereafter described. Mr. Müller's laryngoscope was more perfect than ours, but still it was of little practical use, the mode of fixing the incandescent lamps at right angles to the stem of the mirror interfering with the patient's tongue, and rendering convenient use almost impossible. I explained these objections to Mr. Müller, who very readily fell in with my suggestions, and ever since has tried to comply with my wishes for further improvement in the accumulators and incandescent lamps. Since my return I have made further trials with Mr. Vesey, and Mr. F. Weiss has given us his invaluable aid. The instrument is the outcome of our joint labours after many patient trials. It may, perhaps, be thought that the following description enters too much into minute details; and I am myself quite conscious that a manipulation may appear very complicated if described too minutely; but, after mature consideration, I think it best to give as full a description as possible of its construction and mode of using, in order to furnish the practitioner with the information to which he may hereafter refer as a guide in any case of emergency. At the same time I desire to spare him those troubles and disappointments which I know from personal experience in the matter an autodidact would otherwise have to encounter.

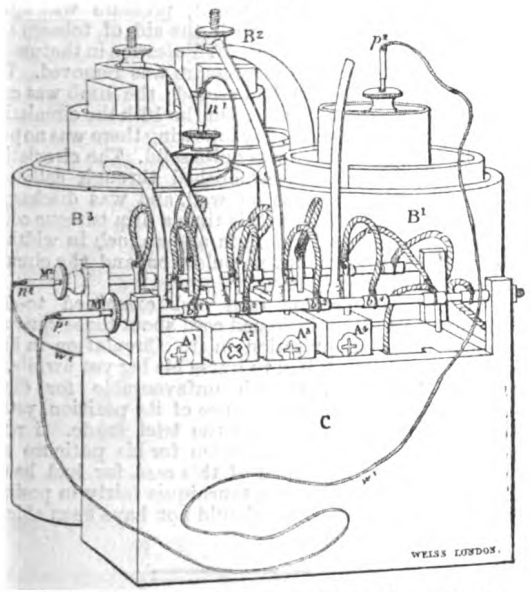
The fundament of the whole apparatus is formed by a little accumulator, which is four inches high, three inches broad, and three-quarters of an inch thick; its total weight, when filled with the exciting fluid, is only eleven ounces. The two openings through which it is filled must be closed, when it is carried about, by means of a small piece of indiarubber tube slipped over the projecting nozzles. If the accumulator be filled and charged with electricity, but not in actual use, it is desirable that one of the nozzles be left open, in order that any gas which may be generated may be allowed to escape, otherwise it would make an exit for itself through the casing of the cell, and injure it. Should the case be by any chance damaged in the foregoing or other manner, it may at once be repaired by the practitioner himself by means of an ordinary mouth blowpipe, which forms part of the apparatus, and a spirit-lamp. The method of doing so is as follows. A small piece of pitch is placed on the spot wherever the fault is found; it is then melted by allowing a jet of flame from the spirit lamp to impinge on it, and when melted is pressed firmly into place by the moistened finger or other suitable means. Care must be taken that the wick is divided in the flame in order that the jet of air may impinge on the flame, and not on the wick as well. The filling of the accumulators is accomplished in the following manner. A quantity of 10 per cent. solution of sulphuric acid is, by means of a little suction-ball, drawn into a pear-shaped glass bulb, tapering off into a pipette. The latter is inserted into one of the nozzles before mentioned, and emptied by slow steady pressure upon the suction-ball. The pressure must be slow, to allow all the air within the accumulator to escape. The pipette, when emptied, is withdrawn, filled with solution, and the injection is repeated. This process must be proceeded with till both nozzles overflow. It will be found that only very little fluid can be got into the second nozzle, and I have little doubt that there must be some communication between the two cells of the accumulator. Mr. Vesey, in fact, states that such is the case in many of them. In one or two of my accumulators I have even found that the whole cavity can be filled by one nozzle, and when quite full the liquid overflows from the other. The average amount of liquid required varies from one ounce to one ounce and a half. In order to charge the accumulator with electricity, all that has to be done is simply to connect its positive pole with the positive pole of the battery, and its negative pole with the negative pole of the battery. The battery used for the purpose is a Bunsen, consisting of two cells. *It is most essential that no mistake be made regarding the poles in connecting the accumulator with the battery*, for I am assured by Mr. Müller that the accumulator would at once be spoiled if such a mistake were to occur. Again, it is very important that the connexions should be kept clean. They ought now and again to be rubbed with a small piece of emery paper in order to ensure a good contact. The Bunsen cells may be charged in the usual manner—that is to say, with a 10 per cent. solution of sulphuric acid in the outer jar and nitric acid in the inner. As, however, this arrangement gives off obnoxious fumes, the nitric acid may be advantageously replaced by the so-called Ecker's fluid. This is prepared by dissolving one part of bichromate of potash in four parts of hot water, and adding two parts of nitric acid when the solution has cooled down. It gives off no fumes either when in use or at rest, and the power of the battery is hardly impaired. The Bunsen cells should be quart ones. It has been calculated that to charge one accumulator and two Bunsen cells with the requisite quantity of fluid costs about 2*s.*, but as the solution of sulphuric acid may be used from three to four times and the Ecker's fluid from six to eight times, the real cost of once charging will amount to only about 6*d.* When it is further borne in mind that from one to four accumulators may be charged at the same time from three cells, the cost is still further reduced.

According to Mr. Müller's directions the accumulators ought to be left only from one hour to one hour and a half in contact with the battery. Mr. Weiss and myself have, however, found that though this time suffices to charge them quite satisfactorily, yet after they have been properly

[1] A paper read at the Medical Society of London on Feb. 23rd.

"matured" they may be safely left in connexion from two to three hours, or even more. No doubt the difference between introducing fresh Ecker's fluid and sulphuric acid solution, and the length of time the battery has been at work without being refreshed, has a great deal to do with the length of time that the accumulators take to charge, so that the longer the battery has been in use without having fresh fluid the longer may the accumulator be left in contact with it. I am, however, not in a position to give reliable information with regard to the maximum of time during which the accumulator may be with impunity left in connexion, having had only a few to experiment with, for very different purposes. A simple way of ascertaining whether electricity flows from the battery into the accumulators, or whether, the accumulators having been fully charged and the battery being exhausted, it goes in the opposite direction, consists in disconnecting the battery and the accumulators after they have been in connexion for more than one hour and a half, and in testing the electro-motor force of each by means of the galvanometer. As soon as the

FIG. 1.



Showing method of charging several accumulators simultaneously. (The case is made for six accumulators, but only four are represented in the engraving.) A^1, A^2, A^3, A^4, Accumulators, the positive (+) poles of which are turned towards the spectator. B^1, B^2, B^3, Three Bunsen cells, connected together for intensifying. C, Charging case. w^1, wire connecting the positive pole of the battery (p^1) with the positive poles (p^2) of the accumulators. w^2, Wire connecting the negative pole of the battery (n^1) with the negative poles (n^2) of the accumulators. b^1, b^2, b^3, b^4, Branch wires connecting wires leading from the main connecting (M^1 and M^2) to the terminals of the accumulators.

indicator is as much, or even more, deflected by the accumulators than by the battery itself, it is conclusively shown that the charge of the accumulators is as complete as it can be. The whole time of filling four accumulators with sulphuric acid solution, charging three Bunsen cells with fluids, and connecting occupies less than ten minutes. It will prevent disappointment to know that a new accumulator neither takes nor retains the charge so well as a matured one, and that, in fact, it works better the more it is used. After completion of charging the accumulators should be disconnected from the battery, and the battery itself taken to pieces, the zinc plates rinsed in water and the porous pots be allowed to soak in a pail of fresh water in order that all sulphate of zinc which may have got into the pores may be dissolved out. A fully charged accumulator will retain sufficient power to illuminate an incandescent lamp for a period varying from ten to fourteen days. If the accumulators are in frequent use, it is desirable that a little of a 10 per cent. solution of sulphuric acid be introduced occasionally in order to make up any loss by evaporation or otherwise. After they have been in use some time, it is desirable to empty all the fluid out, and rinse them with clean water. The removal of the fluid is effected by simply shaking the accumulator over a basin. Several accumulators may be charged simultaneously. The number of elements required depends upon the number of accumulators to be charged. It has been found that three Bunsen cells are sufficient to charge four accumulators; four cells, six accumulators, and so on. I need hardly say that the primary battery by no means offers the only way of charging the accumulators. Those who have water power at command may easily set up a small dynamo-machine driven by a turbine. I may mention that should there be a sufficient demand for the apparatus, Mr. Weiss will set up a dynamo-machine in his workshop, where the accumulators may be sent when empty, and returned fully charged after a few hours. The accumulators are available for electric illumination of different cavities of the body, for faradisation, galvano-cauterisation, and electrolysis.

(To be concluded.)

RESULTS OF AMPUTATIONS AT THE NEWCASTLE-UPON-TYNE INFIRMARY DURING 1883-84.

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TABLE I. details the nature and the results of the major amputations performed antiseptically in the Newcastle-upon-Tyne Infirmary during the year 1884. Fifty-seven major amputations with three deaths (5·2 per cent.) is a good result. Two deaths followed amputations for injury. In one case a man was admitted with a severe compound fracture of the metacarpus; tetanus supervened, from which the patient died, after the forearm had been removed. The other case

TABLE I.

—	For Injury.			For Disease.			Total.
	No.	Cured.	Died.	No.	Cured.	Died.	
Hip-joint	0	0	0	2	2	0	2
Thigh	2	1	1	13	12	1	15
Knee-joint	2	2	0	1	1	0	3
Leg	4	4	0	9	9	0	13
Ankle (Syme's) ...	3	3	0	7	7	0	10
Shoulder-joint ...	2	2	0	1	1	0	3
Arm	5	5	0	1	1	0	6
Forearm	2	1	1	2	2	0	4
Wrist	1	1	0	0	0	0	1
	21	19	2	36	35	1	57

proved fatal a few hours after primary amputation of the thigh from shock and loss of blood. Twenty-one amputations for injury, with two deaths (9·4 per cent.), is not, perhaps, a sufficiently satisfactory result. The remaining thirty-six amputations were for disease, and only one patient died—a man aged fifty-three years, whose tissues were in an advanced stage of fatty degeneration—forty-eight days after amputation through the middle of the thigh for spontaneous gangrene of the foot and leg. The cause of death was gangrene recurring in the stump. Thirty-six amputations for disease with one death—2·7 per cent—is very satisfactory.

TABLE II.

—	For Injury.			For Disease.			Total.
	No.	Cured.	Died.	No.	Cured.	Died.	
Hip-joint	0	0	0	3	2	1	3
Thigh	8	7	1	26	25	1	34
Knee-joint	3	3	0	1	1	0	4
Leg	10	10	0	16	16	0	26
Ankle (Syme's) ...	5	5	0	8	7	1	13
Shoulder-joint ...	2	2	0	2	2	0	4
Arm	8	8	0	2	1	1	10
Forearm	5	4	1	3	3	0	8
Wrist	3	3	0	0	0	0	3
	44	42	2	61	57	4	105

Table II. gives the results of amputations in the infirmary during the years 1883-84. One hundred and five major

amputations in a large provincial hospital, spread over a period of two years, with six deaths—5·7 per cent.—none of which were due to hospital causes, is a result which a few years ago, certainly at the time Sir James Y. Simpson wrote his article on "Hospitalism," few, if any, hospitals could show, and speaks eloquently for the improved method of treating wounds, which Sir J. Lister has done so much to perfect.

Newcastle-on-Tyne.

ON A CASE OF

ILIO-FEMORAL ANEURYSM, TREATED BY INSTRUMENTAL COMPRESSION; CURE.

BY W. BERRY, M.R.C.S., L.R.C.P. & S. ED.,
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THE notes of the following case of ilio-femoral aneurysm are interesting, especially as they prove the dictum of Mr. Bryant in his work on Surgery, page 463, second edition, where, in writing of ligature of the external iliac artery, he says: "This operation may be required for aneurysm of the common femoral for wound or for any other cause in which it is necessary to arrest the flow of blood through the lower extremity. It should not, however, be performed for any disease unless pressure of the artery, digital or instrumental, has proved ineffectual or is inapplicable; for Mapother,[1] Eck,[2] and Hilton[3] have all recorded instances of cure of inguinal aneurysm by these means." This case was sent to me by my friend, Dr. Hannah of Ashton-in-Makerfield, and my first intention was to ligature the external iliac, this operation to my mind affording the only chance of cure. At a consultation with my colleagues of the infirmary staff it was thought advisable to try pressure in the first instance, and if failure followed, then to ligature the vessel above the aneurysm. The application of compression was not easy to accomplish, and much credit is due to the indefatigable perseverance and ingenuity of our senior house-surgeon, Dr. Jackson, and also to the courage exhibited by the patient himself, which led to a successful result as a reward for their efforts. I am indebted to Dr. Jackson for the following notes:—

George S——, aged forty years, a collier, was admitted into the Royal Albert Edward Infirmary on Aug. 21st, 1884. He then stated that whilst following his employment seven weeks previously he had been injured in the right thigh by a runaway coal-tub. Immediately after the injury he felt a shooting pain in the region of the right groin, which lasted about fifteen minutes. There was no external wound or abrasion of the skin, but poultices were applied on account of the pain. Patient continued to work, and about two days afterwards noticed a small lump in the right groin, which had continued to enlarge. He continued to work until a week after the accident, when he was idle for three weeks, in consequence of a lock-out at the colliery; after this he worked one week, and then "strained" himself again, and was laid up. The patient has been married sixteen years, and has three healthy children; he lost one, aged fourteen months, from consumption of the bowels. There is no history of syphilis, but there is a circular scar about the middle of the dorsum of the penis, which he states was caused by a wound he received in the mine. He had gonorrhœa twenty years ago. On examination, a pulsating tumour, the size of a large walnut, was found immediately below the right Poupart's ligament, at a point corresponding with the position of the femoral artery. The patient was placed on milk diet, and ten grains of iodide of potassium, three times a day, were ordered. On Sept. 2nd he went home, against the wish of the house-surgeon, without any improvement having taken place. On Oct. 1st he was readmitted. The tumour could now be felt pulsating above Poupart's ligament and as far down as a point two inches below it, and was one inch in width. The patient was again put on milk diet and fifteen-grain doses of iodide of potassium three times a day, and after a consultation with the staff it was decided to apply pressure to the external iliac artery. On the 9th the patient was placed in a small ward alone, and at 2 P.M. had three-quarters of a grain of morphia hypodermically and the right leg enveloped in a fold of cotton wadding. Pressure was then applied to the external iliac by means of a Lister's tourniquet until the pulsation in the tumour ceased. In about half an hour the patient became very restless and complained of pain, and all circulation in the limb appeared to have ceased. He was then allowed to smoke, and, having been deprived of this (a favourite enjoyment of his) for over a week, submitted cheerfully to the pain for another hour. At 3.30 P.M. the pain was so severe that chloroform had to be administered, and this was continued until 6.15 P.M., making in all four hours and a quarter of continuous pressure, when the tourniquet was removed. On the 10th the pulsation in the tumour was slightly (?) diminished, the patient feeling comfortable. On the following day the patient was in much the same condition. The bowels were relieved by a dose of castor oil. On the 12th the pulsation in the tumour was apparently as strong as ever; the leg was flexed on the thigh and the thigh on the abdomen with a roller bandage in the groin, for one hour and a half both morning and evening. Next day the leg was again flexed, as before, for two hours and a half. No result followed this procedure. On the 14th the pulsation was as strong as at the commencement of treatment, pressure was again applied by Lister's tourniquet, with the aid of tobacco and chloroform, for three hours and a half. Pulsation in the tumour had entirely ceased when the pressure was removed. The following day the pulsation had ceased; the limb was cold but the patient was comfortable. On the 16th the circulation in the limb returned. On the day following there was no pulsation in the tumour, which was quite solid. The circulation in the limb was quite re-established through collateral channels. The patient went on well, and was discharged cured on Nov. 3rd, 1884. At this time a firm tumour could be felt an inch and a half in length and an inch in width at the seat of the aneurysm, but no pulsation, and the circulation in the limb perfectly good.

Jan. 27th, 1885.—Patient seen and examined to-day. Tumour now feels like a thickened cord about three-quarters of an inch thick; no pulsation in it. Circulation in limb keeps good, but he is advised to nurse his leg yet awhile.

Remarks.—This case, though unfavourable for direct pressure owing to the circumstance of its position, yet by the result amply repays one for the trial made. I must here tender my thanks to Dr. Jackson for his patience and perseverance in the treatment of this case, for had he not sat by the patient and kept the tourniquet fairly in position over the artery, I am sure we should not have been able to record this successful issue.

Wigan.

[1] Dublin Medical Press, 1865.
[2] St. Bartholomew's Hospital Reports, 1866.
[3] Medical and Chirurgical Transactions, 1869.

ON

SYNCOPE, AND A METHOD OF AVERTING IT.

BY WILLIAM J. NOTLEY, M.D., B.A. LOND.

IN whatever way syncope may be produced, whether by an impression made primarily on the higher cerebral centres, or by influences carried along the peripheral nerves to these centres, and thence in both cases reflected to the heart and other organs of the body, there can be no doubt that the unconsciousness, either partial or complete, which forms the principal symptom of the condition is due to a deficient supply of blood to the brain. Cases of syncope may be divided into two classes: first, those which are due to some mechanical obstruction to the circulation arising in the heart itself, or in the great vessels springing from it, and secondly, those which are the result of various impressions made either on the peripheral nerves or on the emotional centres in the cerebrum. To the former class belong those cases of valvular and aortic disease which terminate in fatal syncope, as well as those in which, from the weakness of the circulation at the end of exhausting maladies, ante-mortem clots are formed, which, by interfering with the exit of the blood, terminate the life of the patient.

In the other class of cases the cause is often external to the organism. A blow on the abdomen, by its effect on the mesenteric nerves, gives rise to an impression which, travelling along the spinal cord, reaches the medulla, and is thence transmitted along the vagi to the heart, resulting in a retardation or a complete stoppage of that organ. The same effect, it is well known, may arise from an impression made on the terminations of any of the afferent nerves

provided it be sufficiently strong to produce, not merely a sensation, but also a reflection. In other cases belonging to the same class the impression is made primarily on the higher centres of the brain, and is in the nature of an emotion of joy or fear, or some other strong passion. From these centres, if the impression is strong enough, or if the nervous system is in that state of mobility allied to weakness, in which the liberating forces are in excess of the inhibiting ones, the impression is conducted to the medulla, and from it to the heart, along the same channels as those before named.

Now, in all cases where the syncope is not complete, and where the heart continues to act, though feebly, measures are usually taken to restore the patient by adopting such means as are calculated to strengthen the action of the heart and facilitate the flow of blood to the brain. In many cases a person accustomed to faint from slight causes will be able to avert the syncope by adopting such means, and it is for this purpose that I wish to draw attention to the efficacy of heat applied to the head. In a person with a weak heart syncope may be produced by simply sitting with the feet in hot water, and, in like manner, it may be averted by the application of heat to the head. Anyone may convince himself of this by first producing faintness in himself artificially. This may easily be done by getting into a bath of about 110° F. In a few minutes he will begin to feel faint. Let him then plunge the whole of his head except the nose and mouth beneath the surface of the water, and in less time than it has taken to bring on the faintness all the disagreeable sensations will cease, and he will now be able to continue in the bath, perhaps for half an hour longer, without any inconvenience. From this it would appear that the application of heat to the head is a measure of some value in averting a threatened attack of syncope.

Birmingham.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. MARY'S HOSPITAL.

FORMER DESTRUCTIVE ARTHRITIS OF THE KNEE-JOINT; DISLOCATION WITH BONY AND FIBROUS ANKYLOSIS; RESECTION; UNION BY FIRST INTENTION AND WITHOUT SUPPURATION.

(Under the care of Mr. A. T. NORTON.)

OSSEOUS ankylosis of the knee-joint with backward displacement and rotation of the leg, rendering the patient quite unable to walk, as in the case described below, is usually the result of inflammatory changes following injury. It is now comparatively rare to meet with extreme degrees of such deformity, careful attention on the part of the medical attendant and improved methods of treatment preventing such result. The operation which Mr. Norton performed in this case, removal of a wedge-shaped piece, including parts of the femur and tibia with the patella, is the best when the deformity is the result of disease, as in his case; it permits of removal of any lurking mischief, as well as correction of the deformity. The other operations which have been practised for the cure of this condition are, briefly, fracture of the femur after subcutaneous drilling of the bone, excising a wedge-shaped portion of the femur above the joint, osteotomy of the femur and of the tibia, and subcutaneous division of the line of union by means of a chisel or other instrument introduced from the outer side, followed by gradual extension of the limb.

For the following notes we are indebted to Mr. French.

The patient, E. W——, a fairly healthy looking girl, aged ten, was admitted into St. Mary's Hospital on Sept. 30th, 1884. The family history was good. The patient herself had always been healthy but had suffered from corneal ulcers, the scars of which could be seen in the left eye. The history was that four years ago, without any known cause, the left knee began to swell and became painful, especially when the patient attempted to walk. To ease the pain she kept the joint flexed and used a crutch to get about. There had been no suppuration.

On admission the left knee-joint was found to be uniformly enlarged with a good deal of pulpy synovial membrane and firmly or immovably ankylosed with the leg almost at a right angle with the thigh, and the lower bones dislocated backwards, outwards, and rotated outwards. The patella was also ankylosed to the femur. The knee was not tender and only painful when weight was put upon it. There was wasting of the muscles of the limb. The ankylosis was so firm, not only within the joint but without it, and the dislocation of the tibia from the femur so great, that it was clearly evident that the deformity could not be overcome. The limb in that condition was quite useless to the child. She was unable to bring the foot to the ground and could only walk by means of crutches. It was, therefore, decided to resect the joint.

On October 15th, after consultation, the patient was taken into the theatre and put under ether, and Mr. Norton proceeded to excise the joint. The circulation was arrested by the Esmarch cord. The usual horseshoe incision was made, and the flap dissected up from the patella. The capsule and ligamentum patellæ were then cut through, and the tibia forcibly flexed on the femur, but it was impossible to break down the ankylosis, which was bony, even with the raspatory and lever. Almost the whole of the lower epiphysis of the femur with the patella attached, and a slice of the upper end of the tibia, were then sawn off. The ends of the bone were adjusted, and the edges of the wound were brought together with wire sutures. A small drainage-tube was inserted at each side of the joint, not through the wound, which was entirely closed, but through small openings made for the purpose. The operation was performed under the spray and the wound dressed with Listerian dressings and salicylic wool. After the operation the limb was put up on a back splint made to fit the child with outside splint attached, and interrupted in the region of the wound in order to apply the antiseptic dressings. Ice-bags were suspended on the leg both above and below the dressings. After recovering from the anæsthetic, the patient was very restless, so one-eighth of a grain of morphia was administered subcutaneously, and minim doses of sedative solution of opium ordered to be given every hour if necessary; but during the night three doses of one minim each were given.

On the following day the knee was dressed; there was a small amount of serous discharge. Tubes syringed out with iodine lotion (half a drachm to the ounce). The patient complained of slight pain in the knee. Morning temperature 99·5°, evening 101·3°.

The knee was dressed again on the following day, after which it was left for three days as no discharge came through the dressings, the highest temperature being on the third evening, 101·3°.

On the 26th the stitches were taken out, the whole wound having united by first intention, except where the tubes were. The tubes were shortened at each time of dressing, and finally left out on Nov. 6th, when the bones were found to be firmly united, three weeks after the operation.

The interrupted splint was left off on the 13th, and an iron back splint was applied; the Listerian dressings were also discontinued and the knee dressed with salicylic wool.

On the 18th a small superficial abscess formed in the upper flap, which was opened, and half a drachm of pus escaped; the cavity was circumscribed and did not extend to the bone.

On the 27th the note is as follows:—"The patient can stand without pain and walk without assistance and without crutches. On measurement there is found to be two inches and a half shortening of the affected limb, but this is not very visible when the patient stands up, even with ordinary boots on."

She was discharged with the wound perfectly healed on Nov. 27th, six weeks after the operation.

LIVERPOOL ROYAL INFIRMARY.

CASE OF COMPOUND DISLOCATION OF THE ELBOW-JOINT, WITH DIVISION OF THE MAIN ARTERY AND VEIN, HEALED WITH RESTORATION OF ALL MOVEMENTS; REMARKS.

(Under the care of Mr. RUSHTON PARKER.)

A WOMAN, aged twenty-eight, fell downstairs on April 13th, 1883, and was admitted into the Liverpool Royal Infirmary shortly afterwards. The house-surgeon on duty, Mr.

T. P. Lowe, found a dislocation of the bones of the forearm backwards, with protrusion of the humerus through a wound about four inches long, oblique to the axis of the limb, in front of the elbow, and the main vessels torn across. These last Mr. Lowe tied with carbolised catgut, then closed the wound with sutures after carbolising it thoroughly, enveloping the injured part in a Lister's gauze dressing. The limb being cold and pulseless, Mr. Parker was sent for to decide the question of amputation. On his arrival, an hour or so later, the limb was warm again, though naturally pulseless at the wrist. The injury was exposed under the spray of carbolic acid, and as some blood was oozing from the wound the stitches were removed. The tied stump of the brachial artery was seen pulsating; a small bleeding branch was tied, and the nature of the dislocation was re-examined. On extending the elbow the forearm bones immediately slipped backwards, leaving the humerus freely exposed. This bone was stripped of all muscular attachment for the lower three inches of its length, and the articular surface had a pink colour from blood-staining. In the acutely flexed position the humerus remained properly locked in the sigmoid notch of the ulna, while the latter carried the radius in normal attachment to it. It was decided to preserve the limb, and so the dressings were reapplied, but the wound was not sewn again, being left to fall together without tension in its deep parts, with the skin aperture gaping. The dressings were changed daily for five days, no drain being used on the day of injury. On the second day a piece of folded gutta-percha tissue was passed down to the bone, by forcing asunder the already adherent textures, and retained for a day or two, but it seemed afterwards that it might have been dispensed with altogether. However, it was put in to prevent retention of fluid in the deep parts of the elbow. After five days the wound appeared merely a superficial sore, somewhat over three inches long, and perhaps an inch wide in the middle. The deep parts were adherent by first intention, and nothing but blood, and subsequently serum, escaped into the dressings. Oil-silk protective was laid on the exposed surface on and after the second day, and suppuration was successfully avoided throughout. No splint at any time was used. The wrist was slung to the neck and no difficulty experienced in keeping the limb fixed to the side, in the acutely flexed position, well enveloped in Lister's dressing. By the end of five days she could, when asked, move her fingers freely, a fact suggesting that the muscles stripped from the condyles of the humerus had regained some sort of attachment. Perfect rest was, however, maintained throughout, and no other movements, either active or passive, were permitted. The wound was entirely healed in less than four weeks, during most of which time she was kept in bed. At the end of this period she persisted in going out for a day, in spite of all entreaty to refrain, the arm being still slung at rest to her side. The same night she returned in a state of helpless intoxication, notwithstanding a faithful promise not to incur that condition. The elbow was not a bit the worse, and she left the hospital a few days later, less than five weeks after receipt of the injury. By this time she could move the elbow freely when it was released for the purpose, within a moderate extent of its range, but she was advised to continue the sling for a time. She was not seen again until shortly before a meeting of the Medical Institution on Jan. 31st, 1884, at which she appeared showing perfect performance of all the movements of the joint, up to complete extension and flexion, with no trace of alteration, except a white linear scar, indicating the site where the skin had been severed. At the time of injury the patient was a full-blooded robust woman, of good physique in every way; but she was now thinner, and suffering from a cough that resulted, in the opinion of her friends, from persistent dissipation.

Remarks.—The principles concerned in the management of this case are:—(1) The appreciation of the emergency; (2) the antiseptic treatment of the wound, and the details arising out of its lacerated soft parts and the complete dislocation of the joint; and (3) the mechanical attainment of rest at the elbow-joint. (1) Either compound dislocation or division of the main artery and vein is alone a source of danger to the vitality of the limb beyond, especially if the collateral circulation be clogged by bruising or by subsequent collateral inflammation, as happens under septic irritation. The potential danger to the limb's vitality may be said to have been doubled by the combined injuries. These were truly severe; but although the lacerations were wide and deep, the soft parts not torn were neither bruised nor greatly disturbed, so the warmth and colour of the pulseless limb observed at the second dressing on the day of the accident indicated that the channels of collateral circulation would probably prove sufficient if not subsequently interrupted. The prompt disinfection and protection of the entire wound, effected by the foresight of Mr. Lowe, materially contributed to the grounds upon which the attempt to save the limb was hopefully made. (2) In addition to the double washing with carbolised fluid, the deliberate avoidance of sutures is an important item in similar cases. In a lacerated wound of muscles and fasciæ the freer the opening in the skin the better for access to arrest bleeding and apply antiseptics; the better also for the unrestricted escape of subsequent discharge. The absence of all mechanical tension from the injured soft parts removed a potent source of irritation and consequent ooze of fluid. On the second day there was adhesion throughout the wound by sticky lymph, and no sign of tenderness anywhere, such as indicates retained fluid or other source of avoidable inflammation. One hears of the ends of bones being cut off in compound fracture and dislocation to permit of replacement. This, surely, must be seldom, if ever, required by reason or mechanical judgment, for a bone may naturally be expected once again to lie where it has previously lain. But if the opening in the tissues do not permit of easy replacement, that surely can be enlarged until the depths of the wound are freely accessible. In compound fracture or dislocation the importance of having a wide opening, in the event of much laceration, comes next to that of securing disinfection of the wound, and contributes probably as much to its subsequent protection from irritation. Complete relaxation of the textures throughout is more important than rapid union of the skin, and in such wounds is often quite incompatible with the latter. In thus appearing to ignore the attempt to procure primary union that result is in reality attained, but not in the tissues where its attainment is more commonly sought. By avoiding primary union of the skin, where it is not always important, it is readily acquired in deeper parts, where it is really of value. This has long been inculcated by Professor Lister, and its importance as a truth cannot be over-estimated. The primary union of the deeper soft parts thus took place in freely lacerated tissues, that in former times were supposed to be generally incapable of such adhesion; and this is now familiar under circumstances of successful disinfection, relaxation, and mechanical rest. The wound in the skin was shaped as cleanly as if cut with a knife, although effected by laceration. This circumstance, familiar enough in surgical practice, has an important bearing upon medico-legal questions, as showing how utterly impossible it is to always predict, from the mere shape of a wound's edges, by what means the division has been effected. A lacerated wound has often clean-cut edges, while an incised wound may be jagged and irregular. (3) The dislocation was in some attitudes irreducible. No splint, not even the hands of an attendant, could have kept these bones together in any attitude of extension up to or beyond a right angle. By their own weight they thus fell apart. But flexed acutely the notch of the ulna was locked on the lower end of the humerus, suspended by the triceps behind and the wrist in front. The arm hung comfortably on the chest, and was further fixed to the side. The injured muscles being at ease, and subject to no call for the support of the bones, no pain was caused. It does not seem to be very generally known that acute flexion of the upper limb slung to the neck inside the clothing is a position of rest more effectual in the curative treatment of inflamed elbow than can be afforded by any splint. The writer can testify to the paramount importance of this mechanical item, which is as simple as it is effectual. No "passive movement" was here employed. The injured parts were kept almost absolutely at rest until they were healed, and devoid of all juiciness such as commonly attends the simplest reparative processes. It is no doubt true that many cases of injury, healing simply under aseptic conditions, and free from all added inflammation from any cause, may continue to run a simple unexaggerated course, even if slight passive movements be employed at each dressing. This proves nothing more than the tolerance by tissues, otherwise perfectly unirritated, of a slight degree of mechanical disturbance. There is fortunately a margin in the animal system within which the indulgence of extra exertions, and even of eccentric vagaries, may sometimes be harmlessly practised. But these are done at a risk which,

in certain cases, proves the ruin of a joint, a limb, or a life. Those who are habitually addicted to the practice of passive motion seem so fully persuaded of its necessary benefit in cases where it does no harm, that they appear to be incapable of noticing the instances where delayed healing, stiffness, and other complications, directly result from this practice, or from the too early resumption of voluntary motion on the part of the patient.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

The Treatment of Acute Peritonitis by Abdominal Section.

AN ordinary meeting of this Society was held on the 10th inst., Dr. George Johnson, F.R.S., President, in the chair. The discussion on Mr. Treves' able paper lasted the whole of the evening.

Mr. FREDERICK TREVES read a paper on the Treatment of Acute Peritonitis by Abdominal Section. The extreme fatality of acute diffused peritonitis, especially of that form due to perforation, and the acknowledged futility of the modes of treatment that are at present employed, give some support to the proposal that acute peritoneal inflammations should be treated by the same methods that are successfully applied to other acute inflammations—viz., by free incision and drainage. This common and general surgical procedure has been already applied for the relief of inflammations of certain of the serous membranes. It was at first adopted in connexion with the smaller serous cavities as those of the joints. It has been gradually and with increasing freedom applied in the treatment of inflammatory conditions involving the pleura. It has finally become a recognised means of treatment in certain forms of localised and chronic peritonitis, especially when purulent collections have formed. The author would urge the adoption of this principle in treatment in connexion with acute and diffused forms of peritonitis. The following case was narrated:—A female, aged twenty-one, was admitted into the London Hospital on January 21st, suffering from chronic pelvic peritonitis following severe gonorrhœa. On February 25th, three months after the commencement of the chronic peritonitis, she suddenly developed the symptoms of acute diffused peritoneal inflammation. The sequel showed that a large chronic purulent collection, containing very offensive matter, had formed near the left pelvic brim. The walls of the abscess were formed partly by the pelvic peritoneum and partly by many coils of small intestine that had become matted together. The acute symptoms were due to the bursting of this abscess and the extravasation of its contents into the general peritoneal cavity. On Feb. 26th the abdomen was opened under antiseptic precautions, the patient being at the time apparently in a very critical condition. The general surface of the peritoneum showed the ordinary appearance of acute peritonitis. The intestines, where in contact, were lightly glued together. A quantity of semi-opaque fluid, mixed with flakes of lymph and pus, escaped. The whole peritoneal cavity was washed out with many quarts of water and a drain introduced. The patient made a good recovery, and was allowed in the garden on the fortieth day. The author alludes to several cases in which operations involving laparotomy have been performed with success during the progress of acute peritonitis, the cases having been in most instances the subjects of error in diagnosis. Allusion is also made to the recent experiments on dogs by Dr. Parkes, of Chicago, as to the treatment of penetrating gunshot wounds of the abdomen, with perforation. The author ventures to suggest the use of abdominal section in the treatment of certain cases of acute general peritonitis, such as that following injury, gunshot wound, the bursting of an abscess, and specified forms of perforation.

Mr. HOWARD MARSH read a paper on Acute Circumscribed Suppuration of the Peritoneum, treated by Abdominal Section, with recovery. The patient was a medical student, aged nineteen, who was under the care of Dr. Andrew first on Dec. 17th, 1883. He had suffered from constipation. When first seen the abdomen was distended and tender; there was no external hernia. To the left of the umbilical region, a swelling, eight inches square, was to be felt, which was dull to percussion and painful, and there was a sensation of fluctuation in this swelling, and the skin over it was œdematous. An exploratory operation was decided upon. Vomiting had reduced the patient to the last degree. The patient was placed under chloroform, and an incision was made outside the linea semilunaris, when two or three pints of fetid pus escaped. The distended coils of small intestine could be felt through the wound, which was washed out with a 1 in 60 solution of carbolic acid, by means of a soft indiarubber catheter. A drainage-tube, eight inches long, the size of the little finger, was introduced, and carbolic dressings were used and retained in place by lightly applied bandages. At the end of four hours the patient rallied somewhat, and the pulse was 96, the temperature being normal. Much vomiting of merely clear bilious liquid was a source of trouble. On Dec. 20th the pulse was 96, and the temperature normal. The patient slept fairly well. The vomiting occasionally recurred. Morphia was used to give sleep and relieve pain. A profuse discharge continued to escape, but the drainage-tube was shortened by an inch and a half. The patient was fed by nutritive enemata, and had taken nothing but a little iced water by the mouth. At this time the swelling still extended towards the right iliac fossa. On Dec. 21st the temperature was 99°, but the area of dulness was diminished. The patient passed many light-yellow liquid motions. He had now begun to take milk and beef-tea by the mouth. On Dec. 26th the patient was much better, and the fæces were partly formed. He ate a minced chop on Jan. 4th; he got up on Jan. 12th. On Feb. 20th the notes said that, with the exception of an attack of vomiting, the patient had progressed favourably. On March 7th the wound was healed, but the bowels never acted without enemata. Dr. Andrew and Mr. Marsh had come to no definite conclusion regarding the nature of the disease, but it was thought that an abscess in the mesentery around old tubercular glands might have burst. The disease was so very extensive that it could hardly be regarded as an ordinary circumscribed peritonitis. Further exploration was not made for fear of rupturing softened intestinal coils, and thorough exploration would have necessitated considerable enlargement of the wound. The patient was youthful, but probably an older patient would have died from exhaustion. He thought that in cases where there was any definite collection of pus in the peritoneum the abscess should be opened and freely drained. He did not think that the operation would be attended with any large amount of success in cases of suppuration of the whole peritoneum, because of the extensive surface involved and of the difficulty of drainage afterwards. Furthermore, obstruction of the bowels dependent on the formation of extensive adhesions might be set up. In one case of the kind there was some fear that the obstruction was dependent on impaired peristaltic action, the result of the adhesions formed.

The PRESIDENT said that it was plain that the surgical procedure had saved the life of each patient.

Mr. THOMAS BRYANT thanked Mr. Treves for his valuable paper. The value of the paper was enhanced in that it advocated the application of well-recognised surgical principles to the treatment of abdominal abscesses. He thought that cases from other quarters to prove the correctness of his views might have been brought forward by Mr. Treves. Such, for example, as cases of abscesses about the cæcum, which, as Mr. Treves showed in his admirable demonstration at the Royal College of Surgeons, were really abscesses of the peritoneum, for there was no portion of the cæcum that was not surrounded by peritoneum. So that in all cases of cæcitis and in cases of localised suppuration around the cæcum the surgeon has had to deal with the peritoneal cavity. He had long felt that the practice advocated by Mr. Treves was one which had not been sufficiently followed. He had, however, for ten years past performed surgical operations on cases of localised suppuration in the peritoneum about the cæcum and pelvis. The cause of the peritonitis must determine whether the surgeon should operate or not. We did not recognise acute suppurative peritonitis as a disease by itself; peritonitis was the effect of some antecedent condition. The ultimate result of the treatment would be dependent on the cause of the peritonitis. He referred to a paper by Mr. Thomas Smith, by whom this subject was brought before the profession, it was published in the ninth volume of the St. Bartholomew's Hospital Reports.

Mr. KNOWSLEY THORNTON said that there was a form of peritonitis which appeared to be due to the mere presence

of the tumour, and not to any perforation; whether strain or chill aided in the causation he could not say; but it was to this form of acute dry peritonitis that he would refer. On opening the peritoneum during life it was absolutely dry, velvety, and red. There were no neighbouring adhesions. The first case in which he had performed the operation the patient died, with a high temperature and complete suppression of the urine. It would perhaps have been better to have waited till the acuteness of the inflammation had passed away. A second case was referred to, in which, after some time, the patient was greatly collapsed. The peritoneum was opened, and the same kind of dry peritonitis was discovered. The patient recovered after a very severe illness. He asked whether the condition of the intestines in Mr. Treves's case was one of intense vascular injection. In cases of perforation, the proper course was to operate at once. Drainage was a most important point. He did not think that the results of operation for gunshot wounds would be so good as in cases of perforation. With regard to the method of dealing with these cases, it seemed to him, unless the surgeon could be certain of obtaining absolute asepsis, antiseptic irrigation had better not be used. Where asepsis was impossible, he should use large quantities of boiled water, with free drainage, in addition to the other means of dealing with the injured parts.

Dr. DOUGLAS POWELL said that physicians were familiar with cases of peritonitis which were idiopathic and which were not suppurative. So that he thought that the title of Mr. Treves's paper should have been "The Treatment of Suppurative Peritonitis." Cases of peritonitis might be looked upon as analogous to cases of pleurisy where we had to distinguish between suppurative and non-suppurative forms. He thought that the treatment of all cases of suppurative peritonitis should be conducted on strict antiseptic principles, and did not agree with the remarks of Mr. K. Thornton.

Mr. BARWELL narrated a case of Perityphlitis in a gentleman, in which an incision was made and eight ounces of pus let out; a counter-opening enabled twenty-four ounces of fetid pus to be discharged from the peritoneum. The wound was irrigated with large quantities of weak carbolic solution. Death took place eighteen months after the operation from phthisis pulmonalis. He was in complete accord with the views of Mr. Treves.

Dr. GOODHART said he had been led to the opinion that surgery was nothing if not aggressive. He did not, however, consider that Mr. Treves had gone far enough; some cases of acute peritonitis not of the suppurative variety might be treated by abdominal section, though he confessed that Mr. Thornton's facts did not fit with his (Dr. Goodhart's) theories. Death took place in some cases of acute peritonitis from collapse, due to septic causes; the mode of death in these cases resembled that in dogs dying from the injection of artificial sepsin, and was of an almost sudden kind, though due to blood-poisoning. A case of obstruction of the bowels, for which Littré's operation was performed after the method first adopted by Mr. Howse, was mentioned; in this some turbid fluid escaped during the first stage of the operation, and no more symptoms of obstruction remained, so that the second stage of the operation was never done. A growth in the bowel was found when death took place some months later, but the symptoms were due to the peritonitic condition, which the operation had relieved. There were a few cases of simple ascites, in which surgical interference might be sought by the physician; these cases were tapped time after time, and were sometimes due to cirrhosis or perihepatitis, and had recently been recorded as cases of "cirrhosis cured by tapping." Here, no doubt, there was agglutination of the visceral and parietal laminæ of the peritoneum, and the collateral circulation set up in the adherent membranes led to the cure of the ascites.

Mr. MEREDITH said that a 1 in 40 solution of carbolic acid was not sufficient to destroy any existing septic matter in cases of septic suppuration, and so he concurred in the remarks of Mr. Thornton.

Dr. DOUGLAS POWELL said that he believed that a weak solution of corrosive sublimate might be used, and would be sufficient to destroy septic matter. A hypodermic syringe for the purpose of ascertaining the state of any fluid collection in the peritoneum would prove most useful in practice.

Dr. GEORGE JOHNSON said that he for one should not hesitate to call in the aid of the surgeon in such cases. He asked whether in a case of simple ulcer of the stomach the surgeon would be prepared to interfere. Such cases were almost invariably fatal, though he knew of one case of recovery in which the patient was fed for twenty-seven days per rectum.

Mr. TREVES, in reply, said that with regard to Mr. Marsh's objections "on principle," he did not think they were borne out by Mr. Marsh's own successful case. From a common-sense surgical point of view, mere magnitude of the abscess ought not to deter the surgeon. The experience of ovariotomists showed that it was possible to clean the peritoneum very perfectly. Where the operation was done with a view of saving life, the occurrence of adhesions afterwards should hardly be weighed in the matter. It was probably a question of physics rather than of actual surgery whether opening of the abdomen would not relieve congestion of any vessel contained therein. As to the stage of the peritonitis, there would probably be some difficulty in defining the term "acute;" but cases in which he had urged operation would not admit of delay. In the last number of the *New York Medical Journal* Dr. Bull had recorded a case of pistol wound of the abdomen with four or five perforations of the bowels. The peritoneum was washed out, but the bowels were not resected, yet the patient made a perfect recovery. With regard to Dr. Powell's suggestion of corrosive sublimate, it should be borne in mind that an albuminate of mercury would be formed, and the antiseptic effect of the sublimate would be minimised thereby. Speaking generally, he thought the surgeon was called in as a last resort by the physician, and he much regretted that such should be the case.

Mr. HOWARD MARSH, in reply, said that he had not intended to convey the meaning put upon his remarks by Mr. Treves. In large abscesses of the peritoneum it would be difficult to keep the peritoneum thoroughly drained afterwards. That adhesions resulting from the operation could cause fatal obstruction of the bowels was proved by a case which had been under his observation.

MEDICAL SOCIETY OF LONDON.

Remarks from the President.—Ipecacuanha in Dysentery.—Infective Endocarditis (Mycosis Endocardii).

AN ordinary meeting of this Society was held on Monday last, Dr. W. Miller Ord, President, in the chair.

The PRESIDENT, on taking the chair for the first time, congratulated the Society on its very great success. He felt the honour to be the greater in that he had been made president at a time of great prosperity in the Society. He proposed to devote himself, in the fullest sense of the term, to the duties of the Society. He referred to Mr. Durham's most successful year of office, and spoke of his earnest love of science, of his devotion to his profession, to which all could bear ready testimony, as well as to his qualities as a man, to his gentleness, truth, and kindness. He considered that the presence of general practitioners of high standing added largely to the value of the proceedings of the Society. He dilated on the advantages of general practice; the practitioner was able to study the man in relation to the malady, and did not regard his patient as a case of this or that disease. There were many problems to which the general practitioner could contribute more largely and more usefully than the consultant or specialist. He was brought into closer relationship with his patients, knew their life history by personal observation, and was therefore better able to estimate the personal reaction of the patient.

Dr. MACPHERSON read a paper on the history of the Use of Ipecacuanha in Dysentery. The drug was introduced into European practice during the last decade of the seventeenth century, as a remedy for the bloody flux; in this malady it acted like a charm. Helvetius considered it as specific in dysentery, as mercury in syphilis, or cinchona in malaria. After being highly prized for about half a century it fell somewhat into disfavour in England and France; but it was habitually used in small doses until the end of the last century. Akenside used very small doses—one grain every six hours; but other physicians recommended either one large dose or several smaller ones (five grains), repeated every hour until vomiting was produced. Subsequently very large doses, even frequently repeated, were highly favoured in the tropics, but it was almost entirely superseded by mercury as a remedy for dysentery, though never quite abandoned. In 1846 Dr. Parkes said that ipecacuanha was of quite secondary importance, but recommended small

doses. Sir Ranald Martin used doses of ten grains at least. Since 1858 the use of ipecacuanha has been the main feature in the treatment of dysentery, and though something must be put down to improved hygiene and the abandonment of bleeding, still the diminution of the mortality among the troops pointed to the probability that the drug was really of use in saving life. The French also now use the drug in large doses in the tropics and in America. Bartholow and others had found it useful. From a consideration of the general experience, he was inclined to say that the dose should not exceed thirty grains nor fall below five. He referred to the temporary popularity of mercury during the first half of the present century, and mentioned that even scruple doses of calomel were at one time commonly given, and were supposed to have a specific action on the mucous membrane in dysentery. Ipecacuanha had now entirely replaced it.—The PRESIDENT thanked Dr. Macpherson for his learned and valuable retrospect.—Sir JOSEPH FAYRER thought Dr. Macpherson's account a most valuable one, but he insisted that to Mr. Docker we owe the practical introduction of this remedy into medical practice in the British army. No doubt dysentery, when taken in its early stage, was most amenable to treatment, and ipecacuanha in twenty-grain doses at intervals of six hours was the best method of administration.—Mr. STOKER referred to his experience in the Russo-Turkish war.—Dr. CULLIMORE said that dysentery varied greatly in different constitutions. Ipecacuanha was of more value in dysentery of women than of men, probably because diseases of the liver were less frequent in women.—Sir JOSEPH FAYRER gave the following statistics. The British army in India in 1882 numbered 57,269 men, and of these there were 1629 cases of acute dysentery, and 33 died, or a mortality of ·51 per 1000. The Native army was 114,894 strong; 5223 cases of dysentery occurred, and 70 were fatal, or ·61 per 1000. The gaol population was not composed of the selected men that composed the armies; of these there were 94,063, and the number of cases of dysentery was 8866, of which 798 died. Of this population there were also 9863 cases of diarrhœa, of which 683 died; so that, taking these diseases together, there was a mortality of 15·21 per 1000. All the cases were treated by ipecacuanha, and it was in simple uncomplicated cases of dysentery that this drug was useful. In cases of chronic diarrhœa and chronic dysentery rest in bed and diet were the most important elements; but even then, when exacerbations of an acute kind supervened, ipecacuanha was just as valuable as in acute dysentery.—Dr. MAIR referred to the variability of ipecacuanha as a drug; some specimens were untrustworthy, and these sometimes smelt musty.—Dr. THOROWGOOD spoke of the value of ipecacuanha in cases of chronic diarrhœa.—Dr. MACPHERSON briefly replied.

Dr. SIDNEY COUPLAND read a paper on a case of Malignant Endocarditis (Mycosis Endocardii). The organs were exhibited, and also drawings of vegetations from the mitral valve showing the site of the micro-organisms. There was a "button-hole" mitral valve, and masses of vegetations, which had caused a good deal of ulceration, were present on the auricular surface of the sclerosed valve. The spleen weighed eighteen ounces and a half, and was very large; it was in great part necrosed with large wedge-shaped areas of infarctions in various stages of degeneration. The kidneys were in a state of recent nephritis and contained infarctions. The lungs were the seat of lobular pneumonia, collapse, and œdema. The left centrum ovale was lacerated by a large recent blood-clot. The patient was an anæmic, strumous girl, aged fifteen, and was first seen on Oct. 19th, 1880. She had had acute rheumatism six weeks before. The mother had recently suffered from rheumatic fever. The physical signs indicated some hypertrophy, and the murmur was presystolic and accompanied by a thrill. The rheumatic signs in the joints, which were present on admission, subsided in a few days. A systolic bruit appeared at the base of the heart. Three years later, on Nov. 19th, 1883, the patient was admitted again with præcordial pain and palpitation; headache and attacks of syncope had frequently occurred; swelling of the feet had lately set in. There was much anæmia. The cardiac impulse was diffused and wavy; the impulse at the apex was thrilling and thrusting. There was a loud blowing murmur at the apex beat, which was conducted into the axilla and to the back. There was no albuminuria. The temperature was about 100°. On Nov. 25th there was a single spontaneous attack of vomiting. The anæmia increased. The temperature at times rose to 103°. The patient was kept under observation, and readmitted on Nov 25th 1884. There was continued but low and irregular fever. The spleen was enlarged, and pain was felt in that region. On Jan. 5th, 1885, there was a painful swelling, with discolouration of the lobe of the left ear, followed by a similar condition of the right ear. On the 8th there was a symmetrical purpuric rash on the cheeks; a trace of albumen in the urine was found on and after the 9th; on the 12th, fresh purpuric spots were seen in the cheeks and in the left pinna; on the 17th the rash had faded, when a recrudescence set in, and the skin had a sclerodermatous feel. Dr. Liveing thought it allied to peliosis rheumatica. On the 28th the patches on the cheek were fading. The heart's action was tumultuous. On Feb. 6th a few fresh patches appeared on the skin. The cardiac area of dulness was increased; the presystolic thrill was well marked. The final scene was attended with unconsciousness and right hemiplegia of sudden onset. Dr. Coupland commented on the case, and said that it was not one of those which Dr. Osler classed as of the septicæmic variety, but was what he would call of the "cardiac" kind. As to the reason why cases of chronic valvulitis should be so prone to take on this form of lesion, he thought that possibly debility and anæmia favoured its occurrence. The present case and one he had reported in THE LANCET last year told in favour of this view.—Dr. T. H. GREEN said that Dr. Coupland was the first to point out that this disease supervened on old cardiac disease. In his opinion a case of intermittent or remittent pyrexia occurring in the course of valvular disease of the heart, and in the absence of other obvious causes, would most probably prove one of infective endocarditis. He referred to the case of a young lady which lasted for ten months, and was probably one of this disease.—Dr. K. FOWLER discussed the question whether infective endocarditis was necessarily a fatal disease. The specimens shown by Dr. Coupland seemed to show that some of the infarctions were of old date. He said that Mr. Watson Cheyne had found micro-organisms in cases of purpura hæmorrhagica.—Dr. COUPLAND, in reply, thought it not at all improbable that cases of infective endocarditis might recover. The interest of cases of this disease was manifold, and the extreme diversity of the clinical picture was most remarkable; cases might prove fatal in a few days, or they might be prolonged for months.

ACADEMY OF MEDICINE IN IRELAND.

A MEETING of the Pathological Section was held on Jan. 16th.

The President of the College of Surgeons (Dr. BENNETT) exhibited some specimens of Congenital Dislocation of the Hip-joint. The first was taken from a child aged six years, who died last spring in Sir Patrick Dun's Hospital. At the time of her admission he had little hesitation in diagnosing double congenital dislocation of the hip. The child was then perfectly healthy in other respects. The midwife who attended at the child's birth stated that the presentation was normal and the labour perfectly healthy. In the first two years the deformity was not noticeable; but it was observed that she was slow in walking, and that she began to waddle. The first question was whether the increasing lameness could be arrested? She could stand with ease and steadiness, and could run with facility, but could walk only indifferently. Being attacked with scarlatina, of which there was an epidemic in the ward, signs of tubercular meningitis appeared, and after a couple of weeks she died. He was only able to exhibit the pelvis and the upper extremity of the femora. The gluteus maximus on both sides was reduced in part to a membrane, and the muscular fibre was almost entirely replaced by fat and tough fibrous tssue. The casts exhibited showed how complete was the separation of the knees, and also that inversion was wholly absent. No tumour was found beneath the gluteus maximus by the head of the femur, because the latter was directed forwards. The capsular ligaments were greatly thickened, and were more like fibro-cartilages than ordinary ligaments. There was no perforation of the ligaments on either side, but they were equally thick, dense, and hypertrophied. The attachments of the ligaments to the capsules were normal; but the acetabulum was dragged into an abnormal position. The true acetabulum was filled with fat. The seat of the new articulation was above and behind, but there was no bone exposed. No socket was formed in the bone, its formation being prevented by the

interposition of the capsule. On the right side the ligamentum teres was found to be represented by a curious leaf-like structure continuous with the cartilage, and having no connexion with the acetabular cavity. On the opposite side destruction of the ligamentum teres had proceeded to a lesser extent. These facts explained many recorded cases in which the ligamentum teres was said to be altogether absent. In each case of the kind the extent to which the ligamentum teres underwent absorption was simply a question of time. Had the girl lived a few years longer the ligament would have appeared to be entirely absent, and the dislocation attributed probably to its absence. In the majority of cases it was present, but undergoing absorption. The other specimen was one which he had himself dissected, and it repeated all the phenomena of that of the case from Sir Patrick Dun's Hospital.

Dr. KILGARIFF exhibited a large Cervical Tumour removed by him from a young woman aged twenty-five. A similar growth had been removed from the same place six years before. It implicated the lower part of the ear, the face, and the ramus of the jaw, the side of the neck overlapping the clavicle, and lying on the sheath of the carotid and deeply embedded in the parotid region. It became ulcerated six months before operation, and she became much reduced by the hæmorrhage from the ulcer. Photographs were shown of the patient before and after the operation, which proved very successful. Mr. Coppinger having examined the growth, reported that it was encapsuled, and that the fresh section showed large translucent areas. Microscopically the sections presented the characters of myxomatous tissue. The outer parts were chiefly made up of lymphoid tissue. He considered it a lympho-sarcoma.

Dr. J. W. MOORE exhibited some large Gall-stones. In 1882 he had presented to the Pathological Society a series of gall-stones which had been passed by an elderly woman after terrible suffering. A peculiar feature of the case was that there was very little icterus, explained probably by the remarkable faceting of the calculi. The calculi had been in his possession since last summer. The woman recovered perfectly.

Dr. BARTON exhibited a specimen of Bowel Obstruction. The patient, an engine fitter, aged thirty-four, had suffered occasionally during six months from derangement of the digestive organs. He had no history of dyspeptic symptoms, but complained last summer of colicky pains after food, a peculiar pain across the abdomen with a sort of gurgling. These symptoms occurred at irregular periods, and in the interval he had good health. On Christmas Eve he had a severe attack of abdominal pain and obstinate constipation. For ten days he suffered from these symptoms, with partial obstruction, swollen abdomen, and peristalsis of the intestines, perceptible through the abdominal walls. He had occasional action of the bowels, produced by enemata, in which the excreta were of a soft character. When admitted into the Adelaide Hospital on the 5th inst., his abdomen was swollen, the chief point of pain being on the right side over the cæcum. Pressure on the rest of the abdomen did not cause much pain. He appeared like a person suffering from strangulated hernia. He had a long drawn face, and vomited matter of a distinctly fæcal character. It was concluded he had intussusception of the ileum to the large intestine at the ileo-cæcal valve. The swelling had increased to such an extent as to account for the total obstruction which existed for three days. He was put under opiate treatment. Having gone prepared to operate, Dr. Barton found the patient had free action of the bowels, which was followed by a second after his arrival, the fæcal matter being soft and fluid, evidently from the small intestine. The abdominal swelling and pain had diminished and the vomiting ceased, although he could not retain food. For the next five days the treatment was on the supposition of inflammatory obstruction, not an intussusception. He gained ground till three days ago, when the pain and vomiting returned, and, treatment availing nothing, it was determined to operate. Opening the abdomen as a tentative measure, to ascertain the pathological conditions, Dr. Barton made an incision from the umbilicus downwards, and found that the parts about the cæcal valves were not obstructed. The ileum was thickened and the cæcum enormously distended, but there was no intussusception. At the transverse colon he discovered a hard mass with a hard band of lymph around it, about as thick as the little finger, and he divided it. Immediate relief followed. This was only part of the diseased mass, and he excised a portion of the transverse colon and sewed the cut end of the ascending colon to the upper end of the wound, the rest of which he fastened up, so that the man, who was still alive, had got a false anus. The operation occupied two hours. Whether the man would survive or not was doubtful, the shock having been very great. The wall of the intestine was occupied by a mass which nearly filled the cavity, leaving passage barely for a quill pen. The fizzing noise which attended his temporary relief from pain and obstruction months back was evidently caused by the passing of the liquid fæces through the opening. The obstruction was of the inflammatory kind, though the mass was exceedingly hard. It grated under the knife, and seemed of a fibrous character. The condition of the ileo-cæcal valve was that of inflammatory thickening.—A discussion followed, in which the President, Dr. Warren, and Dr. Doyle took part; and Dr. Barton having replied, the section adjourned.

CAMBRIDGE MEDICAL SOCIETY.

AT the meeting on Feb. 6th, Dr. Bradbury in the chair, Dr. BOSWELL (Saffron Walden) related a case of Supposed Cerebellar Embolism. Early in May, 1884, he was called to see a patient, aged fifty, suffering from rheumatism, which shortly after assumed an acute form. The salicylic treatment was adopted and the disease checked, though not before an impurity of the heart's first sound had become noticeable over the mitral and aortic areas. On June 7th she was able to sit up, and felt very well. Next day, while quietly resting in bed, she suddenly pressed her hands over her head and with a cry of terror fell over. She was conscious, but unable to articulate; the face was greatly flushed and somewhat swollen, the conjunctivæ were congested, the eyelids dropped, and the pupils much contracted and turned upwards. Nystagmus was observable when the eyes descended. There were, moreover, very remarkable writhing movements, the patient all the while lying close to the bed and not raising herself from it in the least. There was no indication of any form of paralysis, either motor or sensory. The reflexes were exaggerated. Next day she was able to communicate her sensations. She was suffering from an overwhelming sense of vertigo, objects appearing to be whirling round her, not laterally, but from behind forwards on a vertical plane. The left pupil remained contracted for three weeks. She complained much of extreme photophobia, and consequently an ophthalmoscopic examination was not possible. Tinnitus aurium was also a marked feature. There was no evidence of inflammatory mischief, and the temperature was normal. The bloodvessels were healthy. In this condition of extreme prostration, with total inability to raise her head from the pillow, she remained for several months. Latterly she has improved somewhat, and has been able to sit up a short while each day, to occupy her time a little with reading and needlework, and to walk round her bed once or twice daily. But she is still unable to occupy any but a horizontal position except for a very short time, and the vertigo and other sensations are very easily produced, particularly by any change of character in the visual impressions—such, for instance, as viewing her room from a different standpoint, or occupying a couch of lower level than the bed she habitually occupies. The probable pathology of the case was discussed, and the view adopted of an embolus being impacted in one of the cerebral arteries, or in a branch of the posterior cerebral artery on the left side. The experiments of Flourens were referred to as indicating the results of injury to various portions of the cerebellum, and also as affording grounds for a favourable prognosis.

Mr. W. R. POLLOCK showed a specimen of Fracture of Pelvis with Wound of Artery. The patient was fifty-six years old, and very stout; he was admitted into the hospital on April 9th, at 10.30 P.M. He had been knocked down by the buffer of a passing engine, but not run over; the blow was on the buttock. He was suffering great pain and was quite unable to walk, but his pulse was good and there was no sign of shock. He was put to bed without further examination, and he died about 5.30 A.M. on the following morning. The necropsy revealed a fracture of the pelvis and a spicule of bone penetrating the left internal iliac artery, causing internal hæmorrhage; there was also fracture of two or three of the upper ribs on the left side. Mr. Pollock remarked on the absence of shock or collapse, and the long time the patient lived after the wound of a large artery. The hæmorrhage was very gradual, although

the wound of the vessel was considerable. He referred to three cases recorded in THE LANCET by Mr. Clement Lucas of fractured pelvis with wound of either the iliac vein or artery; one patient living for six hours with a wound of the external iliac artery.

Mr. ROGERS (Fulbourn) showed a specimen of Sarcoma of Kidney removed from a lunatic in the asylum. Hæmaturia was first noticed in April, 1883, lasting for ten days and accompanied by pain. The patient recovered, but in December continuous hæmaturia persisted, until death occurred in November, 1884. A growth was found in the kidney, occupying a large portion of its pelvis and extending into the medulla and cortex; on section it showed several hæmorrhages and cystic degeneration. Microscopically it proved to be a sarcoma, with some indication of an alveolar arrangement. There were some calculi in the lower part of the pelvis of the kidney, the association of which with malignant disease was noticed. There were no deposits in the other organs.

MIDLAND MEDICAL SOCIETY.

AN ordinary meeting of this Society was held on Feb. 18th, the President, Mr. T. H. Bartleet, F.R.C.S., in the chair.

Mr. Ross JORDAN read a paper on the Social Aspect of Imbecility and Insanity. He pointed out the great importance of the subject and the desirability of the medical profession being prepared to advise their patients in such cases. After speaking of the early symptoms of insanity and their importance, it was urged that if home treatment did not speedily cure or improve the patient he should in all cases be sent to an asylum. He deprecated the practice of keeping insane patients at home. He pointed out that epileptics often have long intervals of sanity under control, but that the attacks are much more frequent and dangerous when at home. Moral insanity and some special manias in his opinion are not sufficiently recognised by law; it should be made legal to detain and treat many of these cases. The difficulty and danger of diagnosing and certifying private patients in the present state of the law were enforced, and the right of appeal to experts appointed by the Commissioners in Lunacy was suggested.

Mr. JORDAN LLOYD showed the parts removed from a Strangulated Congenital Hernia with Testis retained in the Inguinal Canal. The patient had been ruptured since childhood. Two days before admission the rupture came down with symptoms of strangulation. Operation was performed on the third day, the sac and atrophied testis being excised. He left the hospital on the twenty-third day without an impulse and is wearing no truss. Mr. Lloyd also exhibited eight other hernial sacs recently removed by himself. He also showed a specimen of Infiltrating Lympho-sarcoma removed from the Posterior Triangle of the Neck. The growth seemed to begin in the deep cervical fascia, and at the time of the operation had infiltrated the platysma and sterno-mastoid, the clavicular part of which was removed. The patient left the hospital on the twenty-sixth day with the wound soundly healed.

Mr. BENNETT MAY exhibited a specimen, taken from a man aged fifty-four, of Cancer of the Cæcum of the ordinary cylindroma form, which, by compression of the duodenum at its second bend, had caused death by protracted starvation. The intestinal symptoms being slight, and no tumour being perceptible for some time, the case was difficult of diagnosis in its earlier stages, and was further complicated by the formation of a large abdominal abscess due to ulceration.

Mr. EALES showed a man in whom the Iris was completely absent in each Eye. Both lenses were opaque, after the zonular type, but with many striæ in the clearer outer zone, and in each eye the lens was abnormally placed, being nearer the upper than the lower corneo-scleral junction. The removal of the lens in one eye showed the vitreous to be quite fluid. He also exhibited a girl, aged twelve years, suffering from Coloboma of the Iris and Choroid in the left Eye. The eye was hypermetropic, and the difference in refraction between the margin of the coloboma of the choroid and its deepest part was eight dioptrics.

SUPERANNUATION.—Mr. A. J. Verity, late medical officer for the Bridgend district, the workhouse, and the cottage homes, has received a superannuation allowance of £29 a year.

Reviews and Notices of Books.

Atlas of Female Pelvic Anatomy. By D. BERRY HART, M.D. W. and A. K. Johnstone, Edinburgh.

WE have on previous occasions noticed with pleasure the work done in the anatomy of the pelvis of the female by Dr. Berry Hart, and published from time to time. His researches into the anatomy of the pelvic floor and of the "genu-pectoral" position are of the greatest value. The imagination has been permitted to run riot by writers upon these two subjects, in evolving the functions of the one and the effects of the other, but the investigations of the author have brought them back within the realm of fact, a service of incalculable value to women. His researches into these subjects will contribute materially towards forming a basis for a true physiology and pathology of the parts in question. The Atlas of Female Pelvic Anatomy contains the illustrations of the subject already published by Dr. Hart, some new illustrations, and a large number selected from the works of others. The work consists of thirty-seven plates—almost every plate contains several figures,—and an appendix on the nervous mechanism of the bladder and the etiology of flexion. The plates are accompanied by descriptions, explanations, and practical remarks. They are grouped into six sections. The first seventeen plates are descriptive (as opposed to sectional) of the external genitals and the internal pelvic organs; the second section consists of three plates, chiefly of the fasciæ and muscles of the pelvis; the third illustrates in eight plates the sectional anatomy of the pelvis; the sections being made in various planes, transverse and perpendicular—in the pregnant and unimpregnated condition. Some of the figures in this section are diagrams, and for that reason alone their appearance is to be regretted, especially as they have been published by their designers to explain or illustrate theories the correctness of which is still questioned. The fourth section gives the anatomy of the pelvic floor and of the "genu-pectoral" position, which we have already stated Dr. Hart has rescued from cloudland. In the fifth section is given the state of the cervical canal during pregnancy and labour; the sixth and last is devoted to microscopic anatomy. We need add nothing to what we have said about the author's original work, which is reproduced in the Atlas. The task of selecting from the works of others has been on the whole well and judiciously done. Many of the subjects illustrated are still under discussion, and opinions the most opposite are held respecting them; consequently illustrations taken from specimens alone can be of any value; diagrams are useless, and do not add to our knowledge. With the exception of the diagrams above referred to, the selection for the first four sections has been done well. With regard to the fifth section, however, which illustrates the condition of the cervix during pregnancy and labour, the author has not been so fortunate. The subject is one which has by no means been settled since it was reopened by Bandl, by the publication of his memoir "Ueber das Verhalten des Uterus und Cervix in der Schwangenschaft und während der Geburt," in 1876, and it is not likely to be settled yet awhile. The illustrations in the Atlas fail to give a just and fair representation of the present state of the subject—do not give some of the most important figures of what has been seen, drawn, and published. The microscopical section is extremely deficient. With the exception of three illustrations on wood, the plates are of sections of the vagina and external parts, and show but little. Many of the illustrations were obtained by first photographing the specimens and then tracing them. This method has the advantage of accuracy, but it has disadvantages which render

photography in its present state unfit for anatomical illustrations. The plates thus obtained in many instances want definition and clearness, convey but a small part of what is seen in the specimens, and what the hand of an artist drawing from the original would clearly depict. This is the case to a greater degree in the plates of microscopic specimens; they show but little structure. This, however, does not detract from the excellence of Dr. Hart's own work, to whom and to the enterprising publishers great praise is due for such an excellent atlas of the anatomy of the pelvis of the female.

Intestinal Obstruction: its Varieties, with their Pathology, Diagnosis, and Treatment. By FREDERICK TREVES, F.R.C.S., Surgeon to and Lecturer on Anatomy at the London Hospital; Hunterian Professor of Anatomy at the Royal College of Surgeons of England. With 60 Illustrations. Cassell and Co. 1884.

THIS is one of Cassell's series of Clinical Manuals for Practitioners and Students of Medicine. Judging by the volumes published and the announcements of others shortly to appear, this series promises to be a very valuable one. The book before us is to a very large extent the essay which obtained the Jacksonian Prize in 1883, and it is easy to see that the adjudicators of that prize could have had no difficulty in finding the essay worthy of such a distinction. Throughout there is abundant evidence of patient labour, accurate observation, and sound reasoning; and we believe Mr. Treves's book will do much to advance our knowledge of a very difficult subject. Few cases come before the surgeon or physician which present greater difficulties in diagnosis and treatment than some forms of intestinal obstruction, and any work like the one before us, which renders real help in the solution of these problems, is sure to be largely read and cordially welcomed. The pathology and symptoms of the different varieties of intestinal obstruction are first of all very fully dealt with in separate chapters. No pains have been spared to render this part of the book, upon which all the rest depends, as complete as possible. The diagnosis of all forms of this disease is then separately considered in four chapters, and the treatment is discussed in the three concluding chapters. Each part is well done, and we can confidently recommend the book to our readers. We regret that the taste displayed in the selection of the colour of the binding and edging of the book is most unfortunate.

OUR LIBRARY TABLE.

Clinical Lectures on the Practice of Medicine. By the late ROBERT GRAVES, M.D., F.R.S., Professor of the Institutes of Medicine in the School of Physic in Ireland; to which is prefixed a criticism by Professor TROUSSEAU. Reprinted from the Second Edition by the late Dr. NELIGAN. London: The New Sydenham Society.—Dr. Graves's clinical lectures are among the modern classics of medicine without which any medical library is deficient. It is very good of the New Sydenham Society to save the library of younger medical men from excuse for such a defect. Of course much has been done in pathology and something in therapeutics since Graves's time. Such a reflection is not the least interesting one that arises in the mind on reading even the most famous of these lectures, as those on Fever and Paralysis, of which Trousseau thought so highly. But the fact in no way diminishes the value of the book, or lessens our estimate of the physician, who must ever remain a model, for the wide range of his knowledge, the fertility of his therapeutical resources, and the independence and soundness of his judgment. This work appears opportunely just now, were it only for the lectures on Cholera, a disease to which Graves gave so much study and attention, both as respects its mode of propagation and the best method of treatment.

The Year-book of Treatment for 1884. A Critical Review for Practitioners of Medicine and Surgery. Cassell and Co.—This is the first issue of a work which we hope will be continued yearly. It is the combined work of twenty-three contributors, who have not only abstracted the best contributions to the practice of medicine and surgery during the twelve months ending Sept. 30th, 1884, but have criticised them. The whole is compressed into 300 octavo pages, and the matter may be said to lie in a nutshell. The work appears to have been apportioned to the individual contributors with excellent judgment, and the result is a book of extreme value to all who in these busy times find it difficult to keep pace with the ever-advancing march of the science and art of medicine. Where the writing of a book is entrusted to several hands, its several parts must differ in their worth, and no doubt there is some inequality of merit in this Year-book. But we must confess that this is far less marked than might have been expected, and that anyone who will refer to the work will find it of real assistance and great value. The book is nicely got up, and issued at a price that puts it within the easy reach of all.

Practical Anatomy: A Manual of Dissections. By CHRISTOPHER HEATH, F.R.C.S., Holme Professor of Clinical Surgery in University College, London, and Surgeon to University College Hospital, &c. Sixth Edition. Revised by RICKMAN J. GODLEE, M.S. Lond., F.R.C.S., Demonstrator of Anatomy in University College, London, and Assistant Surgeon to University College Hospital. With 24 coloured plates and 274 engravings on wood. London: J. and A. Churchill. 1885.—This excellent manual of practical anatomy is so well known that little more is required at our hands than to call attention to the publication of this the sixth edition. Mr. Godlee has carefully revised the whole work, and has improved many of the directions for the dissections, but has in no way altered its general features. The large number of excellent illustrations make the work of great value to students, and should help them very much in the preparation and study of their dissections. The paragraphs under the heading of "Surgery" contain clear and practical descriptions of most of the operations of surgery, and remarks on the practical application of anatomy to medicine and surgery. The work altogether is a thoroughly trustworthy guide for the student, which fully merits the popularity former editions have attained.

St. Bartholomew's Hospital Reports. Edited by W. S. CHURCH, M.D., and JOHN LANGTON, F.R.C.S. Vol. XX. London: Smith, Elder, and Co. 1884.—The first article which attracts attention is a reprint of an original pamphlet which was first published in the reign of King Edward VI. It is entitled "The Orders and Ordinances for the better Government of the Hospitall of Bartholomew the Lesse," and has been supplied by Mr. Morrant Baker from amongst his "few treasures in the shape of old books." This reprint is well worth reading, both on account of its clear language and the interesting nature of its matter. As is customary with these reports, a large number of original articles have been contributed by the members of the staff of the hospital and school. Some of these call for special mention. Dr. Russell has an article on the Amount of Carbonic Acid in London Air. Dr. Samuel Gee has written a few papers on some miscellaneous cases which have been under his care; all these cases are of much interest and deal with subjects which are but little known. The chapter on Nervous Disorders affecting a whole family deals with a class of cases which have alliances with epilepsy, hysteria, insanity, and megrim, whilst being none of them. Dr. Ormerod has recorded some valuable notes on the later stages of hemiplegia. Dr. Dyce Duckworth has related a case of Acute Pemphigus in an Adult, fatal on the ninth day. Mr Berry writes on the treatment of Cancerous Stricture of the

Œsophagus by means of Railway Catheters and soft India-rubber Tubes. Mr. Willet gives a Summary of the Results of a Hundred Cases of Osteotomy. Dr. Norman Moore's article is on the history of the first treatise on Rickets. Dr. V. Harris contributes some observations on Anæmia. The following articles are also interesting:—Mr. T. W. Reid, Gastrostomy in Malignant Disease of the Œsophagus; Dr. West, Clinical Observations on Pilocapin; Mr. Buller, Intestinal Rupture; Mr. Hurry, Gangrene of Uterine Fibroids; Dr. Percy Kidd Fæcal Vomiting without Mechanical Obstruction of the Intestines; Mr. Walsham, the treatment of Lateral Curvature of the Spine; Dr. Brunton and Mr. Cash, Why do Medicines sometimes fail to act? Mr. Lewis Jones, Extensive Sarcoma of the Vertebræ, Sacrum, Ilium, and Sternum; Mr. T. Smith (a very important article), Traumatic Cephalhydrocele; Mr. Bowlby, Traumatic Fever not of Septic Origin; Dr. Church, Our Pharmacopœia and Apothecary's Shop. The reports of the Medical and Surgical Registrars are given at the end of the volume.

Transactions of the College of Physicians of Philadelphia. Vol. VII. Philadelphia: P. Blakiston, Son, and Co. 1884.—This volume contains many valuable articles, of which the following may be enumerated:—A Sketch of the Life of Dr. Thomas Stewardson; a Memory of Dr George Fox; a Memoir of Dr. J. Forsyth Meigs; a Memoir of Dr. Samuel Gross; Enteric Paraplegia, by Dr. R Bartholomew; Report of a Case of Abdominal Tumour somewhat resembling Pregnancy in a young married Woman, by Dr. J. H. Packard; Criticisms on the Specific Theory of Hydrophobia, by Dr. Dulles; a Case of Inflammation of the Cervical Portion of the Spinal Cord, probably the result of an injury, followed by Tetanic Symptoms, by Dr. Cheston Morris; Clinical Aspects of Cerebral Syphilis, by Dr. Horatio Wood; History of a Case of Perihepatic Abscess, by Dr. Bruen; on a New Method of Recording the Motions of the Soft Palate, by Dr. Harrison Allen—a most original paper; a Study of the Nutritive Branny Foods, by Dr. Randolph and Dr. Roussel; Cholecystotomy by Dr. Musser and Dr. Keen—an article containing an almost exhaustive account of all that has been done in connexion with this comparatively new operation.

Westminster Hospital Medical and Surgical Reports. This volume gives the statistics for 1883. The work has been well done by Dr. Hebbert and Mr. W. Arthur, the medical and surgical registrars respectively. Unlike many hospital reports, there are no original papers by members of the visiting staff. Dr. Hebbert has drawn up tables of fifty cases of enteric fever and of seventy-two cases of acute rheumatism, also one of fifty-nine cases of chorea, which have been treated in the hospital during the three years 1880-1883. Such tables are of much value.

Silverlock's Medical and Surgical Emergency Reference Book. London: H. Silverlock. 1885.—This little book of reference contains, in a handy and portable form, a large amount of information upon subjects so varied that the busy practitioner can hardly be expected to have their details ever present to his memory. As a means of saving time this *vade mecum* will be found most useful.

PROSECUTION UNDER THE DENTISTS ACT.—In the Cupar Sheriff Court on the 6th inst., a quondam confectioner in Dundee, and now residing in St. Andrews, was charged with a contravention of the Dentists Act, 1878. The libel set forth that the accused unlawfully used the title of "Dr.," and the titles of "D.D.S.," resident surgeon, "Dr.," and "D.S." The accused pleaded not guilty. His defence was that he had advertised that he was "not a registered dentist," and he contended that the titles used by him did not come under the jurisdiction of British law. After evidence, the charge was found proven, and the sheriff imposed a fine of £10, with the alternative of seven days' imprisonment.

CHOLERA IMPORTATIONS INTO LIVERPOOL PORT IN 1884.

THE annual report of the port of Liverpool gives an interesting account of the measures adopted there with a view of preventing the importation of cholera during the autumn of 1884. Ten vessels were reported by the Customs officers as having touched at Marseilles, and on their arrival they were severally dealt with under the provisions of the Order of the Local Government Board. In the case of seven of the vessels no sickness had occurred during the voyage, and the vessels and crews having been examined by the port medical officer of health, neither of them was detained, although in one instance some water which had been taken on board at Marseilles, but which had not been used, was taken out to sea by one of the Corporation steam hoppers. In one of these cases it was later on reported that one seaman who had gone to reside in Toxteth-park had suspicious symptoms of cholera, but the alarm proved to be unfounded. The three remaining vessels were the steamships *Niagara*, the *Tarapaca*, and the steamship *St. Dunstan*. The *Niagara* called at Marseilles on her way from Bombay; she discharged her cargo, took in water, and then left. Whilst at Marseilles one seaman suffered from diarrhœa, and after leaving, six more of the crew suffered. But they were alleged to have all recovered a week before arriving in the Mersey on August 1st, and since, on examination, no evidence of cholera was found present, there was no detention of either the crew or the ship. The *Tarapaca* was a sailing vessel, carrying a cargo from South America to Marseilles; she arrived at the latter place on June 6th, and lay within one hundred feet of the *St. Dunstan*. Not having any cargo for home, she took in a quantity of rubbish as ballast, engaged twelve men of various nationalities as a fresh crew, and left for Liverpool on July 12th at 7 A.M. In the afternoon one of the crew suffered from choleraic symptoms, and died on the 15th. On the 14th another man was attacked with similar symptoms, and on the 17th a third case took place. Three other men suffered from diarrhœa. On arrival in the Mersey on August 5th, the man who sickened on the 14th was still ill, and was removed to the port sanitary hospital. The ship was detained, the crew were left under supervision, the ballast and bilge water were mixed with carbolic acid before being got rid of, and after the latter was effected the vessel was declared free from infection. The *St. Dunstan* called at Marseilles on July 3rd on her way from Bombay to Liverpool. At Marseilles she discharged her cargo, pumped water from the dock into her tanks for ballast, took fresh water and provisions on board, and left on July 9th. The next day a seaman was attacked with typical symptoms of cholera, and died the following day. On the 14th another sickened and died on the 15th. The master and the crew nearly all suffered from diarrhœa. The dead men and their effects were all thrown overboard, and their cabins were thoroughly cleansed and disinfected. On arrival in the Mersey on the 18th the vessel was moved up to the Sloyne as an infected ship. Next day seven more of the crew were ill, two of them suffering from diarrhœa and great prostration. These two were removed to the hospital at New Ferry. On the 22nd these men were able to return to the ship; all the crew were then examined, and, being found recovered, a certificate to that effect was given. In the meantime the ship had been disinfected by the port authority, all the refuse from the ship, including ashes from the boiler fires and dirt, was taken thirty miles out to sea, carbolic acid was mixed with the tank and bilge water before these were pumped out, and after the crew had left the bedding and clothing were dealt with in the Corporation disinfecting stove. In this case, too, a report arose that one of the crew had sickened of cholera after landing, but the case turned out to be only one of colic, the consequence of careless dieting. The story, as stated by Dr. Stopford Taylor, gives an excellent description of the action which was taken by him, the assistant medical officer, and the inspectors, under the Cholera Order in force in this country.

THE LANCET.

LONDON: SATURDAY, MARCH 14, 1885.

THERE has, for some time past, been considerable tension in Germany between the advocates of the comma-bacillus theory of cholera-causation and those who hold aloof from the doctrine. This tension has, perhaps, been most obviously manifest in the discussions which the discovery of a bacterial organism in all the tissues of cholera-affected persons by Dr. EMMERICH of Munich have given rise to. The details of EMMERICH'S researches were placed before our readers in our issue of Dec. 27th, 1884; we now propose to supplement what was then recorded by a reference to some observations which have recently been made by Dr. HANS BUCHNER, one of NAEGELI'S most distinguished pupils, and which were called forth by some strongly adverse criticism of EMMERICH'S article (and in favour of KOCH) by Professor FLÜGGE of Göttingen, in one of the leading medical journals of Berlin.

It appears that BUCHNER, taking up the subject in favour of EMMERICH, was refused a hearing in the same journal—the bias in favour of the local microbe being, apparently, too strongly felt to admit of this. The *Klinische Wochenschrift*, however, recently published the reply, and, as the matter in question is one regarding which there is a general desire to obtain information from every available source, we give a brief epitome of BUCHNER'S remarks. He points out that KOCH himself had formerly insisted that in order to substantiate a bacterial origin to any disease it was necessary to show that the symptoms of the malady could be unequivocally accounted for by the number and distribution of the organisms alone—requirements which have hitherto not been fulfilled as regards the relation of the comma bacillus to cholera. It is a mistake to suppose that in this disease it is only the intestine that is affected, and that all the morbid phenomena may be accounted for simply by the transudation of fluid into the intestinal canal. The cases known as "cholera sicca" very decisively show that such is not the case, as, indeed, is acknowledged by KOCH, who assumes that a poisoning of the entire system takes place. This assumption, BUCHNER states, appears to be supported by the observations of histologists, which go to show that, even in the early stages of the disease, a finely granular infiltration of the cells of most tissues takes place; consequently, Dr. BUCHNER maintains, the organisms themselves should be distributed in the tissues generally, whereas comma bacilli are but seldom to be detected in the intestinal walls even, and not at all in any of the internal organs. To meet the opposition which such a condition invites, KOCH assumes that the bacilli generate a poison in the intestinal canal, which passes into the circulation, but it so happens that the intestinal mucous membrane is quite incapable of absorption during a choleraic attack, even allowing that these organisms are capable of evolving a virulent poison, which, however, is wholly undemonstrated.

It is further maintained that no corresponding relation exists between the numbers of the bacilli and the severity of the attack, seeing that it is often found that very severe cases of cholera have been observed in which but few could be detected, and, indeed, in which they seemed to be absent altogether. Equally inexplicable on this theory of a poison being generated in the intestinal canal is the extremely rapid reaction which is so frequently observed in the disease; it would be impossible for the bacilli to disappear so instantaneously from the intestinal canal as to account for this, whereas were the organisms distributed generally throughout the tissues of the body, it might reasonably be assumed that they could be rapidly destroyed by the reaction which takes place in the tissue cells.

Again, the result of experiments on animals, hitherto so strongly insisted upon as a necessary test of the virulence of any microbe, has in the case of the comma bacillus been thus far of a wholly negative character. Taking all these facts into consideration, BUCHNER very properly maintains that further observations *are* necessary, and that such researches as EMMERICH'S are not, as asserted by FLÜGGE, superfluous, and even injurious, to the progress of medical science. It is advanced that FLÜGGE was wrong in asserting that EMMERICH had found his bacteria in only a certain proportion of the choleraic organs examined; he had, on the contrary, succeeded in cultivating the same species of bacterium from all the tissues investigated, and, as there were some hundreds of gelatine-tubes experimented with, any mere accidental development of this organism is out of the question. Professor FLÜGGE further maintained that the mortality which followed the inoculation of guinea-pigs by EMMERICH was due to septicæmia, and not to cholera—a suggestion which BUCHNER meets by saying that whereas in death as a result of sepsis the spleen is invariably enlarged, this organ was found to be small in all EMMERICH'S cases. It is therefore concluded that the latter has succeeded in isolating an organism in choleraic tissues which is capable of giving rise to a hitherto unobserved malady in animals, and one which corresponds in a marked manner with cholera as observed in man.

It would appear that Dr. BUCHNER has recently had opportunities of practically studying the subject, both at Berlin and Munich; consequently his able contribution carries exceptional weight. Without attempting ourselves to offer any opinion as to the places which these two microbes will occupy in the future as regards their relation to the cholera process, we think that sufficient has been adduced to show that when their respective claims as cholera-causing agents are examined, those of EMMERICH'S bacterium cannot, as the matter at present stands, be set aside, or simply ignored, in favour of the comma-shaped organism.

THE decision arrived at by Sir JAMES HANNEN, sitting as judge and jury in the DURHAM nullity of marriage suit, will be received with general satisfaction by the public and the profession. To those not conversant with the whole of the evidence given *in camera* at the recent trial, it seemed probable that the petitioner would fail to obtain the declaration of his freedom from specific performance of the contract entered into with the respondent. The elaborate and lucid summing up of the judge clearly showed the bearing of that evidence on the main question at issue—did Lady DURHAM at the time of her marriage possess sufficient

intellectual capacity to enable her to comprehend the nature of her acts and the responsibilities entailed by the nuptial vow? There can be little doubt her ladyship's mental equilibrium was none too stable, and that the emotional element in her nature was disproportionate to her willing faculty, but "weakness of mind" is not to be interpreted as "imbecility," nor an expression of doubtful import as proof of insane delusion. Sir JAMES HANNEN struck the keynote of this domestic drama when he declined to be guided by the precedents recorded in other cases that had come within the cognisance of the law, and declared that the present action was eminently one to be decided upon the special facts before the court.

The closing speech of the counsel for the petitioner was a rare specimen of forensic talent, brilliant in its conception, faultless in its logic, and yet it failed to carry conviction to the minds of those to whom it was addressed, simply because the basis of the argument was hypothetical and frail. Sir FARRER HERSCHELL sought to establish his case on analogical reasoning, to prove in fact that Lady DURHAM'S demeanour before marriage might be read by the light of subsequent events. We do not for one moment assert that such a conclusion was inconsistent with the facts, but then it was incumbent on those who undertook the burden of proof to show that no other theory fitted the facts. This was the *crux experimenti*, and before it the astute Solicitor-General was hopelessly defeated.

Because Lady DURHAM comported herself with unwonted shyness and stood impassive to the blandishments of society, was it to be held as truth that she was "not guilty of a second idea?" She might not have had the iron nerve and strength of will accorded to "the man silent in seven languages," but she certainly—so far as the sworn testimony goes—was sufficiently self-possessed to convince a large number of her friends and acquaintances that she was not the subject of mental alienation. Sir WILLIAM GULL during a professional interview failed to recognise more than derangement in bodily health, and it is not likely that so shrewd an observer would have entirely overlooked even the forecast of insanity. There were some incidents in her history previous to wedded life that savoured of suspicion, but even they could not be taken as the indication and measure of imbecility. We refer to the alleged insensibility to pain and to the expression "something too dreadful to tell." With regard to the former, it may be said that the patient endurance of suffering is not the least of woman's many admirable endowments; and further, that the natural susceptibility to one form of nerve stimulation may be minimised or inhibited by a more powerful agency without calling into requisition the theory of disordered intellect. Sir JAMES HANNEN, reading obvious facts and facts between the lines, found sufficient to convince him that Lady DURHAM'S conduct towards her future husband was dictated rather by remorse than by the love she feared to obtrude; and disinterested observers must in the main coincide with his belief. Granted Lady DURHAM was not endowed with transcendental powers of mind—granted, if it be wished, that she was positively weak in this respect—it yet remains to be shown that she overstepped the frontiers of insanity ere she joined her fate with that of Lord DURHAM.

It might be argued, since Lady DURHAM is a confirmed lunatic, and his lordship has lost immediate prospect of an heir to his title and property, that the benefit of the doubt should be conceded to him. Against this is the abstract principle of "legal right," and the possibility that Lady DURHAM'S reason may return. The latter contingency, remote though it be, is yet too important to be lightly put aside. But beyond the interests of those more immediately concerned in the issue of the recent trial, there are lessons to be gathered from a contemplation of the narrative that every member of the community will do well to take to heart. It would be a fatal precedent to establish if something more than the average shyness of girls were to be regarded as an index of mental weakness. The charm and grace of the gentler sex would lose much of their fascination if tinctured with undue boldness of resolution and pretentiousness that mocks at modesty. Our code of social morals is not so rigid that it can afford to give up with impunity one of its most honoured precepts. We fear it would be wasting words were we to attempt to preach wisdom to future worshippers at the temple of hymen. Unfortunately each one prefers to learn from his own experience, and ignores the fate of others.

THE value of vaccination is one of the most important questions which can engage the attention not only of the existing Parliament, but of all those gentlemen who hope to be members of that coming Parliament which is expected by so many to bring about a sort of millennium. We have lately seen two honourable members, those representing South-East Lancashire, entering into reasonable conference with that small but somewhat noisy section of their constituents who have such a kindly feeling towards small-pox. The example cannot be too much commended. The objections to vaccination have a dash of plausibility in them. There is in all of us a certain amount of natural dislike to introduce into the organism that which disturbs and disorders it for a few days, and in rare cases weeks. We do well to give credit to objectors for being willing to reason on the subject, though to extreme vaccinophobists it is sometimes difficult to accord this credit. He is the best friend to vaccination who studies it, and all the objections to it, and all the reported cases of ill results from it. Mr. LEAKE, elsewhere in our columns, shows us that this is his view. He wants us to tell him for what particular proposition as to vaccination we are to feel grateful to JENNER? Not for any particular proposition, we reply, but for his shrewd insight into the relation of cow-pox and small-pox, and for placing the question of vaccination as a protective measure on a scientific basis. Neither JENNER'S fame nor our gratitude to him is materially affected by the fact that some of his opinions and estimates have had or may have to be modified—as, for example, the sufficiency of one vaccination or the relation of cow-pox to "grease." JENNER'S fame—his claim to the eulogy of RUDOLPHI, "Dear to the human race"—lies in the fact that by his experiments, by his resistance to opposition and to the faint encouragement of his friends, even of JOHN HUNTER, he succeeded in placing vaccination on such sure ground that after the lapse of eighty or ninety years it excites the admiration and

gratitude of mankind. It is no detraction from GEORGE STEPHENSON that the locomotive which now takes us to Newcastle in six hours is a more perfect engine than that which he first suggested for the Stockton and Darlington Railway. Equally it does not lessen the fame of JENNER that time shows two vaccinations to be better than one, as future time may possibly show that three may be better than two.

Our main purpose to-day is to direct attention to one or two pieces of recent evidence in regard to this great argument, and especially to "An Analysis of 10,403 cases of Small-pox,"[1] by Dr. W. GAYTON. The chief merits of this pamphlet are, first, in the eminent reasonableness of the author, in his obvious wish to make every allowance to opponents; and, secondly, in the enormous experience on the strength of which he speaks. There is one illustration of his candour which will delight even the irreconcilables in this controversy—the demonstration that the majority of the cases which come into the small-pox hospitals are those of persons who have either been vaccinated or are said to be vaccinated. Of the 10,403, 8234 answer to this description, while 2169 were unvaccinated. "Said to be vaccinated," Dr. GAYTON points out, is one thing, and the possession of visible marks of "due and efficient" vaccination is quite another. Dr. GAYTON found in the 8234 that only 907 were protected in such a way as to warrant their being classified as "well vaccinated," or vaccinated in that way which, *according to our present experience*, confers practical, but by no means absolute, exemption from the disease till the age of puberty is reached, though Dr. GAYTON would perform the operation of revaccination at a much earlier age, as we shall presently see.

Having illustrated the candour of our author, let us now hear what he has to say as to the lessons of his large experience, even of the imperfect success of our first vaccinations. Does he think less of vaccination? Does he aver that the old disease has lost its terrors? Does he despair of absolute triumph over it? Or would he be willing, in consideration of the imperfection of much of the past vaccination work, to abolish the vaccination laws or the compulsory clauses thereof? The answer to these questions will be given in a few sentences, for we expect that our readers will be content with nothing less than the possession and perusal of Dr. GAYTON'S pamphlet.

Vaccination, even when followed by small-pox, is of enormous value. Dr. GAYTON entirely confirms Mr. MARSON'S experience that it powerfully modifies and mitigates the disease. The mortality of those who take small-pox in an unvaccinated state—and it must be remembered that the great majority of such, probably nine-tenths, do take it—Dr. GAYTON'S tables show to be, for all ages, 45·2 per cent. in males, 40·8 per cent. in females; for ages under five years 56·5 per cent.! So much for the boasted influence of hygiene and sanitation on the poison of small-pox, which positively mocks those who rely on such protection. On the contrary, the mortality of the vaccinated cases is as follows:—Of those "with good marks, irrespective of number of marks," 2·6 per cent.; of those "with imperfect marks, irrespective of number," 9·37 per cent. Surely this is no mean result, and would itself justify the Vaccination Laws. But the case of vaccination is not complete without considering the *absolute security* of those who have been well revaccinated. And here we cannot too explicitly repeat our insistance on the necessity for a revaccination that "takes," even though the patient has to submit to several failures before success is reached, which will be rarely the case if good lymph in good quantity is used soon after being taken. One of the best things about Dr. GAYTON'S paper is his discussion, in the light of his large experience, of the time when a vaccinated person becomes again susceptible to small-pox, in other words, when he needs to be again vaccinated. We give his opinion in full:—"The propriety of revaccination, even at all ages after five, cannot admit of much doubt, more especially as the process cannot be considered as a disease, so trivial are the symptoms attendant on it, and so protective apparently is the result." He repeats a description of the experience of Mr. MARSON as to the absolute immunity of the nurses of small-pox hospitals from small-pox. In the Highgate Hospital this has been shown recently by Mr. GOUDE, in the *Islington Gazette*, to extend over fifty years, with only one exception, that of a temporary gardener, who, refusing to be revaccinated, took the small-pox, and died. Of Mr. GAYTON'S large number of nurses and other employés (367) in the Small-pox Hospital, only one has taken the disease (and in her case the operation was neglected). The exceptions terribly prove the rule here. With an excessive desire to be just, Dr. GAYTON adds that possibly the revaccination of small-pox nurses might be shown to be not good for all time if they were traced after leaving the hospital. But this is for the future to show. Enough that according to present evidence it is absolute in the very face of the intensified form of the small-pox poison. Even so it would not materially modify the verdict of time and science that in vaccination well done, and done repeatedly, there is an absolute protection at a very slight cost from one of the most deadly and terrible of diseases. If there is one defect in Dr. GAYTON'S admirable pamphlet it is the absence of details as to the evil or inconvenient results of revaccination. But he incidentally seems to show that these have been too slight to afford the poorest argument for its neglect, and he "simply shudders at the idea of a repeal of the Compulsory Vaccination Act."

[1] Published by McCorquodale and Co., Cardington-street, N.W.

IT would be difficult to predict the shape which the movement for a Teaching University in London and for granting degrees to London medical students will finally assume, but it is at any rate quite evident that it must cause a material change in the constitution and the traditions of the existing university. The tradition of "maintaining the highest attainable standard of professional acquirements" is well enough for an honours degree, but for a mere pass qualification, "to fit its possessor to become a highly qualified General Practitioner" (we quote the words of the Registrar) such a standard is absurd. This policy has done much to ruin our English medical schools, and to send students to Scotch and provincial universities for the degrees which are now fairly demanded by the average practitioner. Our forefathers were satisfied with the

College and Hall qualifications, but, naturally enough with the spread of education, their sons, for the same position in the profession, aspire to a degree. It must not be forgotten that the profession occupies at present a very different position from that of fifty years ago, and is manifestly increasing in influence and in its responsibilities every day. A higher educational status is thus made imperative on every practitioner, and he consequently demands the outward token and sign of this higher standard. Everywhere but in London he can obtain a degree on fair terms of knowledge, and with adequate industry; in London only is the task made as severe as possible. In London 39·6 degrees are on the average obtained yearly, in Edinburgh 137·4; in England 12·4 per cent. of students obtain degrees, in Scotland 86·9. In England the number of students in 1871-75 was 3143, whilst in Scotland there were only 1767 during the same period. Yet 1536 degrees were given by the Scotch universities, and only 402 by the English. It is often urged that Scotch degrees are too easily obtained, but no one who has been through a Scotch University course will seriously maintain that it does not, both in general education and in technical skill, secure a fair minimum for a university degree. Scotch qualifications and Scotch degrees are too frequently confused in the public mind, and hence remarks which may have been just, so far as the former are concerned, have been erroneously supposed to be applicable to the latter. The Metropolitan Counties Branch of the British Medical Association appointed a Subcommittee to consider the subject of University degrees for London medical students, and on the 6th inst. a valuable report was placed before the members. As will be seen in another page, the Council will petition the Senate of the University of London to receive a deputation in support of the objects aimed at in the report, which are the following:—

"1. The Medical Schools of London should be adequately represented in the Senate of the University, the members for the Schools being elected by the Schools. 2. All students save those who have already matriculated at other universities might be required to pass the Matriculation Examination of the University of London previous to entering at the London schools. 3. The matriculation examination might be modified, so as to cover such a range of knowledge as might reasonably be expected from boys on leaving public schools, without compelling them to resort to the most objectionable system of 'cramming.' 4. The severity of the Preliminary Scientific Examination might be considerably diminished. 5. The Preliminary Scientific Examination might be held at least twice a year. 6. Students should be permitted to present themselves for examination at any periodical examination after matriculation. This is of importance; for the result of the present system is that men, contrary, it is true, to the regulations of the University, often spend the first year of their hospital course in preparing for the preliminary scientific examination, and thus lose a great part of that period which should be given to purely professional purposes. The subcommittee would, moreover, recommend that the Senate of the University be requested to take into consideration what arrangements, if any, could best be made, without detriment to medical education, whereby facilities to obtain degrees should be afforded to medical practitioners of certain standing and repute."

If the Senate of the University cannot see its way towards granting these objects, and the pressure of the Teaching University and the Committee of its own graduates may make it think twice before refusing them, the Council is empowered to take action, in conjunction with the Royal Colleges, to facilitate the obtaining of degrees by London students. Will the wise action of the executive authorities of the existing University avert the necessity of creating a rival body in London, or must there be a second University—which everyone would deplore—because of the obstinate optimism of those who control the affairs of the present institution?

EXTIRPATION of the uterus is an operation undertaken mainly for cancer, and although it has been performed for other conditions, yet it is as an operation for the radical cure of cancer it must stand or fall. In discussing it, therefore, many things must be taken into consideration besides the immediate mortality resulting from it. The operation may be a perfectly legitimate one, although the mortality be very high, but only if its curative results be well nigh perfect; if the mortality be moderately low, and the results as far as cure moderately good, the operation may still be justified. On the other hand, if the immediate mortality be very high and the results as to radical cure bad—that is, if recurrence be frequent and the mortality during the first six or twelve months high, if permanent recovery and even prolongation of life be rare, and if the relief of suffering be slight or even doubtful,—then the operation of total extirpation of the uterus for cancer should be unequivocally condemned. This subject has been recently discussed at the Obstetrical Society, and the weight of evidence brought forward appears to be in nowise favourable to the operation of total extirpation of the uterus. A paper by Dr. WILLIAM DUNCAN formed the basis of the discussion. The author had collected 413 cases in which the operation had been performed; 137 of these were done by the abdominal or FREUND'S method and 276 by the vaginal method. Of the 137 operated upon by the abdominal method, 99, or 72 per cent., died, and only 38 recovered; and of the 276 operated upon by the vaginal method 79, or 28·6 per cent., died. The discussion threw no new light on the methods of operating, but the statistics contained in the paper clearly showed that the vaginal is far less fatal than the abdominal method. The mortality from the abdominal method is alone sufficient to condemn that mode of operating. If evidence against it still more damaging than a mortality of 72 per cent. is demanded, it is to be found in the fact that the ultimate results after it are just as bad as after the less fatal vaginal method, and even worse than the so-called palliative method—supravaginal amputation of the cervix. The mortality by the vaginal method is high, probably considerably higher than 28·6 per cent.—the rate obtained in the cases collected by Dr. DUNCAN,—because many fatal cases remain unpublished. This rate of mortality, however, may not be such as to condemn the operation, provided that the favourable results mentioned above as necessary to justify an operation with a high mortality are obtained. Now, what are the ultimate results of total extirpation of the uterus for cancer? The immediate results are 72 per cent. mortality after the abdominal and 28·6 per cent. after the vaginal method. Although there is an enormous difference in the immediate results in favour of the vaginal method of operating, there is no such difference in the ultimate results, for it is found that 32 per

cent. of those who recover from the operation were free from recurrence two years afterwards. This means that of the 137 cases operated upon by the vaginal method 121 die within about two years and a half; and of the 276 operated upon by the vaginal method 214 meet a similar fate within a like period. About a third of the cases show recurrence within six months, and a half within a year of the operation. To justify the operation for total extirpation of the uterus the formerly high mortality of ovariotomy is pointed out and its recent reduction. It is true that the immediate mortality after the vaginal method is not much greater than that after ovariotomy was until about ten years ago; but ovariotomy differs from total extirpation for cancer in that it is a radical cure, while a large number of those who undergo the operation for total extirpation of the uterus perish within a few months of recurrence of the disease. The two operations are not comparable. Moreover, the palliative operation—amputation or supra-vaginal amputation of the cervix—with a mortality of about 10 per cent., is followed by ultimate results even better than those obtained by total extirpation—namely, 32 per cent. of the cases which recover remain free from recurrence two years afterwards; a fact pointed out in our columns on a previous occasion. This means that out of 100 cases operated upon by supra-vaginal amputation of the cervix 90 recover, and 27·8 remain free from recurrence after two years; whereas of 100 cases in which total extirpation by the vaginal method has been practised, 71·4 recover and 22·8 remain free after two years. If, however, the actual cautery be used to the stump after amputation of the cervix, the results are still better: for out of every 100 operated upon, 37·8 remain free from recurrence after two years. These facts show clearly that the results following vaginal and supra-vaginal amputation for cancer of the cervix are twice as good as those after total extirpation of the uterus for the same disease. The opinions expressed in the recent discussion were almost unanimously against total extirpation for cancer of the cervix. With regard, however, to the same operation in cases of cancer affecting the body of the uterus there was considerable difference of opinion—some being in favour of, while others were opposed to it. The data for forming an opinion with regard to the value of the operation in this condition are somewhat scanty; and as a rule no distinction has been made in them between operations performed for cancer of the body and those done for cancer of the cervix. The great majority of the cases in which total extirpation has been practised have been cases of cancer of the cervix, while only in a small proportion of cases has it been performed for disease of the body of the uterus. Of seventy-six cases in which total extirpation has been performed by different operators, thirteen only were subjects of cancer of the body of the uterus. Of these thirteen cases five died; recurrence took place in one in three months, in one in four months, in one in eight months; fungosities had to be scraped from the cicatrix in another in eight months; one remained free from recurrence seven months, and another eighteen months, after the operation; and the ultimate result is uncertain in two. One of the thirteen was operated upon by the vaginal method, and the mortality may be considered to represent that of the two methods; deducting this one case, we have a mortality of 33 per cent. of cases operated upon by the vaginal method, while we have recurrence of the disease in three, or 37·5 per cent. of those who recovered, in less than twelve months; and only one is known to be free from the disease eighteen months after the operation for the radical cure. It is known that cancer attacks the body of the uterus, as a rule, in women long after the menopause; that it runs a comparatively slow course; that for a long time it is almost painless; that the pain, indeed, is usually not severe until the disease has made its way into the deeper tissues; that the discharges are frequently neither abundant nor very offensive until the later stages. In many respects the disease is far less intolerable when it affects the body than when it attacks the cervix. The duration of life in it, although not accurately known, is considerable, probably considerably longer than even in those who recover after total extirpation; for if the disease recur in the peritoneum it usually runs a rapid course. No evidence is as yet forthcoming that total extirpation of the uterus for cancer of the body either prolongs life or relieves suffering; while, on the other hand, the mortality after the operation is known to be large, and early recurrence extremely frequent. The facts known unequivocally condemn total extirpation for cancer of the cervix, and are decidedly unfavourable to its practice for cancer of the body of the uterus.

Annotations.

"Ne quid nimis."

PHYSIOLOGY AT OXFORD.

NEVER was defeat better deserved than was that endured by the anti-vivisectionists in Convocation at Oxford on Tuesday last. In an extraordinarily large house the decree for an annual grant of £500 for the maintenance of the newly-erected Physiological Laboratory was carried by an overwhelming majority, 412 voting in favour of it as against 224. All that misrepresentation could do did not succeed in overturning the previously twice-recorded votes of Convocation to found a physiological school in the University. It is painful to think of the manner in which this final attempt has been organised, and of the total disregard of the pledges made by the Professor that no painful experiments will ever be permitted for purposes of demonstration or instruction. Had these tactics been successful the University would have stultified itself in the eyes of the world, and would have practically declared that, although it could disburse £10,000 for providing buildings for the prosecution of physiological education and research, it must decline to permit these buildings to be put to the use for which they were constructed. And with such a decision a blow would have been struck against medical education at Oxford which would have amounted to its practical extinction. Fortunately for the credit of the University its graduates have unhesitatingly shattered the specious and plausible arguments which a small party of enthusiasts employed to cover their ill-advised opposition. In their detestation of the practice of vivisection they did not scruple by their action to imperil the very existence of human physiology as a subject to be taught at Oxford, for the grant proposed had nothing at all to do with animal experimentation; it was merely to afford the necessary funds for carrying on instruction where vivisection would not be required. It is absurd for them to state that there was no intention to

oppose the teaching of physiology apart from vivisection, because there was no other course open than to offer a direct negative to the proposal for the grant; for the logical outcome of such a course could only have been to annul all that had been before resolved. If Oxford University is to have a medical school worthy of itself, and is to be relieved from the reproach hitherto, and not without reason, cast upon it, then no effort should be spared to secure the highest possible efficiency in the departments of study. To Professor Burdon Sanderson we offer our hearty sympathy for the anxiety and annoyance which these proceedings cannot but have cost him, and we deeply regret to observe that some of those who have most urgently fomented the agitation against the decree should have assailed him personally in a manner which has aroused the deepest indignation. Strong conviction may account for much, but it cannot be held to excuse such language as that employed by the leading spirit of the anti-vivisection crusade with respect to Dr. Sanderson; but reckless and unjust statements have been the distinguishing feature of the promoters of a movement which, in spite of the motives at its root, has alienated the sympathy of many by the course that has been pursued to gain its ends. We yield to none in the desire to limit the infliction of pain upon the lower animals, and should wholly discountenance the employment of vivisection for the purpose of demonstration of well-established facts to a class of young students; but it is quite another matter that such men as Professor Sanderson should be prevented from pursuing researches which may lead to incalculable gains to the well-being of the animal world as well as to mankind.

PSEUDO-SCIENTISTS IN RELIGION.

PROFESSOR DRUMMOND, the author of "Natural Law in the Spiritual World," has set up for the apostle of "a new 'scientific' Gospel"—at least that is how Mr. Robert A. Watson characterises this effort of the "Professor" in the current number of the *Contemporary Review*. From the standpoint of those who revere religion while they serve science, the "Gospel" and its *exposure* will appear equally absurd. Professor Drummond evidently has not a very profound knowledge of science—even of the elementary principles of physiology,—while in regard to psychology he is hopelessly in the dark. This is doubtless why, in spite of his manifest general intelligence, he rushes into the breach with pigmy valour where giants have scarcely dared to venture. Mr. Watson would probably find a good deal of his fog cleared away by a careful study of Herbert Spencer's chapters on "Dissolution." One result would be to prevent his further fighting a windmill in relation to the hypothesis of degeneration. It is not worth while to discuss the vagaries of minds disporting themselves in an uncongenial element, and contending in all seriousness and with fervour on points they have not either of them mastered. Professor Drummond strives to prove that the laws of "nature," so-called, are also the laws of the extra- or super-natural; but as he does not understand the laws of nature, and of course knows nothing more than others know of the extra-natural, his enterprise is rather irritating than entertaining. Mr. Watson tries to meet him on his own ground, which, seeing that Professor Drummond has not a particle of solid ground to stand upon, is particularly unwise and useless. Why will not those who waste words on these subjects be candid, and admit that there is a point beyond which we cannot penetrate? The true scientist is—must be, as such—agnostic, not in any sectarian sense of that term, but in a common-sense way, on the subject of all that lies beyond the ken of science. We say nothing as to what may be discovered in the future. One thing, however, is certain: if any discoveries are made, they will not, cannot possibly, be made by speculative philosophers. It is in the pursuit of a calmly progressive inquiry in *physiology* new facts are to be expected. Meanwhile, as regards the origin of life, the nature of the unseen world, the government of this world and the universe, and the future, true science has nothing to say, because data are wanting. Men who venture to touch the outer sphere can only do so "by faith." "It is by faith we understand the world was made," &c. There is no sort of opposition between religion and science, simply because the one begins where the other stops short. They are like two explorers, both advancing, but without one overtaking or treading on the heels of the other. Science deals only with the *known*, religion with the *unknown*.

ARMY MEDICAL SERVICE.

A NEW schedule of qualifications necessary for candidates desirous of obtaining commissions in the Army Medical Staff has just been issued. It is essentially the same as that which it supersedes, except in the following particulars:—The number of marks attainable for chemistry and pharmacy and a practical knowledge of drugs will in future be 1000 instead of 100. The examination in chemistry will be limited to the elements of the science and to its application to medicine, pharmacy, and practical hygiene. A minimum of qualification is established, no candidate being considered eligible who does not get at least one-third of the marks obtainable in each of the compulsory subjects of examination. In each of the voluntary subjects candidates will not be allowed credit for any marks under one-third of those obtainable. The appointments competed for will be filled up from the list in the order of merit, "as finally determined by the total number of marks each candidate has obtained in both the compulsory and voluntary subjects." We regret to observe the omission of any reference to the results of the examination which takes place at the conclusion of the course at Netley. It is, we think, desirable that, as in the case of candidates for the Indian Medical Service, the marks gained in that examination should be allowed to influence the position of the officer on the list.

SANITATION AMONG EAST-END JEWS.

IT may be remembered that shortly after the publication of our special commission report on the sanitary condition of the homes and workshops of the Polish Jews in the East-end, the Jewish Board of Guardians appointed a sanitary committee and a paid inspector of their own to investigate the whole question. Our report appeared in the first week of May and the new inspector commenced his work in the following June. During the course of the year, no less than 1747 houses inhabited by Jews were visited, and out of this number it was found that no less than 1621 had no means provided for the flushing of the waterclosets. Some years ago Dr. Liddle, then the medical officer of the Whitechapel district, expressed the opinion that as the apparatus for flushing closets in low class tenements was so frequently broken, it would be better to appoint a caretaker to periodically flush the drains with pails of water. This, however, is no sufficient excuse for neglecting to provide either flushing apparatus or caretaker. Also, as the Jewish Sanitary Committee justly point out, improved mechanical means of flushing have been introduced since Dr. Liddle expressed the above opinion. In the immediate neighbourhood the City Commissioners of Sewers have supplied water to all the closets provided for identically the same class of population, and there is no good reason why this example should not be followed in Whitechapel. There are in this district 7500 houses, nearly all inhabited by very poor people, who should be subjected to constant sani-

tary supervision, and yet the present medical officer of health, Dr. Loane, has only two sanitary inspectors working for him. Under these circumstances the assistance of such voluntary bodies as the Jewish Sanitary Committee should be welcomed. Indeed, many defects have been remedied without reference to the constituted authorities. A word from the Jewish inspector has sufficed, and it has not been necessary to appeal to the district board. Nevertheless much still remains to be done, notably with regard to the paving and draining of back yards. Here the moisture, a mixture of rain and slop water, is allowed to penetrate into the foundation of the houses. The bell-traps are usually without a bell, and the fall in the level of the yard fails to convey the water to the drain. This, together with the unflushed closets and the uncovered dust-bins, constantly produces foul effluvia, and is denounced by the Jewish guardians. They acknowledge that those among their co-religionists who come from the far East have uncleanly habits, but this is not the case with the English born Jews, while many among the Christians of the lower orders are equally filthy. However this may be, we may, for our own part, state that we found the habits of the Italian organ-grinders quite as incompatible with English ideas of sanitation as those of the Polish Jews. Altogether the Jewish Board of Guardians have shown great public spirit. Mr. D. F. Schloss, the honorary secretary of their Sanitary Committee, has notably contributed by his activity and organising skill to materially improve the sanitary condition of the Jewish colony of East London.

THE PHARMACY OF COCAINE.

MANY pharmaceutical papers, both in this country and abroad, are devoting a large amount of space to the consideration of the best modes of dispensing different preparations containing cocaine. One periodical gives directions for making a "cocaine eye wash," a "coca-styptic," a "coca-styptic powder," a "coca-styptic collodion," and even a 'coca-cordial." What may be the result of the indiscriminate use of these various combinations remains to be seen. Dr. Squibb of New York, in the last number of his *Ephemeris of Materia Medica, Pharmacology, and Therapeutics*, devotes over twenty pages to the subject of cocaine, and, as usual, his observations are both suggestive and amusing. He considers that the hydrochlorate or muriate is by far the best salt. It contains the largest proportion of alkaloid, crystallises with the smallest quantity of water, is very soluble, and is not deliquescent. The salicylate is also a good salt. The solution would probably need no protective agent to keep it, but the high combining number of the acid would give a much weaker product, and one less soluble in water. The process of extracting cocaine is long and tedious, and often results in nothing but disappointment. When set free from its natural combinations in the leaf the alkaloid frequently splits up at a comparatively low temperature, yielding benzoic acid and an alkaloid or glucoside, or both, containing no cocaine, or perhaps only a trace. The yield, too, is subject to considerable variation; for example, the batch of 164 pounds gave ·34 per cent. of the finished salt, whilst from another lot only ·27 per cent. was obtained. The process is expensive not only in time, labour, and apparatus, but in solvents. The actual loss of alcohol is never less than twenty gallons to the hundred pounds of leaves; whilst in addition, from twelve to thirteen gallons of strong ether are consumed. Much of the coca sold in the market, even at high prices, is of variable quality, and often contains no alkaloid at all. The methods of assay have recently assumed much importance, and now give constant employment to a number of skilled chemists. The alkaloid when obtained is easily split up and destroyed by even a moderate degree of heat, and this destruction is materially aided by the presence of chemical substances, especially alkalies. When a particle of the alkaloid is placed upon the tongue, and the tongue is pressed against the roof of the mouth, a bitter taste is experienced. This, in a few seconds, gives rise to numbness and insensibility of the mucous membranes, just as if they had been scalded by boiling water, except that there is no pain. This increases for a few minutes, then diminishes slowly, and finally disappears in about half an hour. Solutions containing cocaine are liable to the attacks of a fungus, which lives on it and quickly destroys it. We may, however, call attention to the letter of a correspondent on another page in which it is recommended that the cocaine solution be filtered through animal charcoal, and a few grains of salicylic acid added to it, in order to preserve its efficiency. The growth commences usually in about a week, and when once started increases with great rapidity. Several antiseptics—carbolic acid, boracic acid, and salicylic acid, for example—prevent its formation, but they are all more or less irritating, and some exert a most injurious effect on the conjunctiva. An additional objection to salicylic acid is its extreme sensitiveness to even minute traces of iron, so that it is almost impossible to get a colourless solution. The demand for the alkaloid is still very great, and it continues to command high prices. The chief maker in Europe is Merck, of Darmstadt; but in America it is extracted in considerable quantities by several chemists.

ADDISON'S DISEASE.

AT the meeting of the Berlin Medical Society on the 25th ult., Dr. Jürgens showed specimens obtained from two cases of Addison's disease. One exhibited the typical characters of the adrenal affection, together with caseous bronchopneumonia; the other was a case which had been under observation for some time, presenting the clinical symptoms of morbus Addisonii; but it was a case in which a large aneurysm of the abdominal aorta had compressed the splanchnic nerves. The statement was made that in all cases of Addison's disease these nerves are in a state of grey degeneration, and that cases in which the adrenals are diseased, without any discolouration of the skin or other clinical symptoms of Addison's disease, these nerves are not involved. The account (*Deutsch. Med. Woch.*, March 5th) is too meagre to allow of any criticism upon this communication; but it is to be hoped that full details (clinical as well as pathological) will be published.

CORONERS AND MEDICAL EVIDENCE.

CORONERS, especially legal gentlemen holding that office are by no means always ready to show sufficient regard for medical men who may chance to be attacked by witnesses or jurors, or to give due weight to the testimony which they, and only they, can give regarding the cause of death. It is therefore gratifying to record the sensible manner in which the Rochester coroner, Mr. W. H. Bell, LL.B., conducted an important inquest on the body of a furnaceman employed at the Chatham Dockyard. It was stated that deceased had complained for five months of pain in the head, but had not been medically attended since the previous spring, when he was in hospital on account of an injury received while at work. After this he had been at work, but always complained of his head, though he had never done so previously. A doctor was sent for, being told the man was dying, and he said he would come next morning. A remark was here made that "it was a nice thing for a doctor to say he would come to-morrow when a man was dying," and that the circumstance ought to be explained. The coroner, however, said he would not allow any remarks to be made about medical gentlemen unless they were present, and that a doctor was not bound to leave one patient

for another. The medical evidence was that, though there was a scar on the scalp, and under it the bone was indented and the membranes inflamed, thickened, and adherent, yet that this was insufficient to account for death, which was due to a fibrous tumour deeply situated and remote from the external mark; this growth weighed four ounces and three quarters, and was as large as a good-sized orange. Several of the jury were of opinion that the death was brought on by the blow received. The coroner, however, informed them that they must go by the medical evidence; that if not they might as well dispense with medical evidence at inquests altogether; and ultimately a verdict was returned to the effect that death was due to a tumour, but accelerated by injury.

MEDICAL SOCIETY OF LONDON.

THE dinner celebrating the 112th anniversary of the Medical Society of London took place on the 7th inst. at the Holborn Restaurant. The retiring President, Mr. Arthur E. Durham, occupied the chair, and was supported on his left hand by the President elect, Dr. W. Miller Ord, and on his right by Mr. Cooper Forster, President of the Royal College of Surgeons of England. The dinner was most successful in every way, about a hundred Fellows of the Society being present. Mr. Durham, in proposing the toast of "The Army, Navy, and Reserve Forces," referred to the offers of aid which the British Government had received from the colonies, and made reference also to the excellence of the arrangements of the Army Medical Department now serving in the Soudan, so that now, he believed, every wounded man was attended to immediately on the receipt of his wound. Dr. Crawford, Director-General of the Army Medical Department, in replying to the toast, spoke in highly satisfactory terms of the arrangements for the medical and surgical care of the army in the Soudan, and referred to the great services which the Medical Department had already performed, special mention being made of Surgeon-Major Conolly. The toast of the evening, "The Prosperity and continued Success of the Medical Society of London," was responded to by Dr. Miller Ord. Mr. Cooper Forster and Sir Joseph Fayrer did the honours of the toast to "The Royal Colleges of Physicians and Surgeons." The toast of "The President" was received with loud and prolonged applause; and Mr. Durham, in acknowledging the toast, said that his year of office had been a source of much pleasure to him, and he had to thank the officers, and more especially the honorary secretaries, for the cordial and able support which they had afforded him on all occasions. The last toast, that of "The Officers and Honorary Secretaries," was responded to by Dr. Allchin, Mr. Pearce Gould, and Dr. Kingston Fowler.

CHOLERA VACCINIA.

SOME interesting and important experiments with attenuated cholera virus have been made by Dr. Ferrán of Barcelona. Two medical men, Drs. Serañana and Jacques, were inoculated with the virus. At 5 P.M. the former was inoculated with half a cubic centimetre of the fluid in each arm. At 7.30 he began to feel severe pain in the backs of the arms, preventing their free action. This pain was subject to temporary exacerbations, and at 11 P.M. pyrexia commenced—we are not told whether the thermometer was used,—manifested by malaise, a burning heat, an irregular pulse of 100 per minute, insomnia, and slight headache. He was, however, able to attend to his practice the following day, though the symptoms continued till 8 o'clock in the evening, when they suddenly disappeared. Dr. Jacques was inoculated with half a cubic centimetre of the same fluid in one arm at 4 P.M., and experienced the same symptoms as his colleague, with the addition of a slight rigor and some nausea. Dr. Bertran y Rubio also, a member of the commission appointed by the Royal Academy of Medicine to investigate Dr. Ferrán's researches, willingly submitted to inoculation, and with results similar to those obtained in the cases of Drs. Serañana and Jacques, and like them without any subsequent evil effects. These experiments form part of a series of micro-biological researches suggested by the Royal Academy of Medicine of Barcelona, and they were performed in the presence of the commission, to whom Dr. Ferrán exhibited a microscopical preparation of the liquid injected and of Dr. Serañana's blood eighteen hours after the inoculation, in which micrococci were detected. Dr. Ferrán also put a couple of drops of the liquid attenuation into half a glassful of water and drank it. In order to render these experiments complete, it remains to be proved that such inoculations confer immunity from subsequent similar inoculations, and, what is of more importance still, from inoculation of the cholera virus itself. These researches are to be shortly undertaken; and the *Independencia Médica*, to which we are indebted for the above account, predicts that Dr. Ferrán will be successful in his attempts to free mankind from cholera and other contagious diseases by means of inoculations of attenuated virus.

PHARMACEUTICAL SOCIETY OF IRELAND.

THE advisability of forming a school of Pharmacy in connexion with this Society is now under consideration, and although the Council are favourable to such a scheme yet they have no funds available for starting an institution of the kind. It has, therefore, been suggested to form a limited liability company with a capital of £1000, and a committee has been appointed to bring the matter under the notice of the pharmacists and apothecaries of Ireland, with a view to obtain their support. It is believed that such a school, in which evening instruction would be given at moderate charges in practical chemistry and materia medica, would supply a want long felt.

THE PRESTON SANITARY ASSOCIATION.

WE have so frequently during the last few years had occasion to call attention to the high death-rate in Preston, and to the waste of life and health which it signifies, that it is only natural we should cordially congratulate the town upon recent signs that it is awakening, though somewhat tardily, to the vital importance of its sanitary condition. The formation of the Preston Sanitary Association, with an influential support which promises a career of usefulness, is undoubtedly a step in the right direction. The discussion which took place at the preliminary meeting of the Association on the 9th ult. at least shows that the high death-rate in the town has attracted the attention of those who, if they keep their hand to the plough, will have no difficulty in removing the stigma which now attaches to Preston, as one of the three most unhealthy towns in England. It may be well again to point out that during the last three years the death-rate in the borough has averaged 26·8 per 1000, whereas the mean rate in the same period in the twenty-eight large English towns has not exceeded 21·8. This means an excess of more than 500 deaths each year in Preston, without regard to the inevitably accompanying excess of sickness implied by the unnecessarily high death-rate. The discussion undoubtedly pointed to the want of sound statistical information regarding the mortality in the town. The ever-green fallacy of a high birth-rate causing a high death-rate had its advocates; and some of the speakers made somewhat random assertions as to the mortality at different ages, and of the two sexes, from different causes in Preston, pointing to the want of scientifically constructed mortality statistics for the

town, without which the causes of the excessive mortality cannot be properly ascertained and differentiated. This should be the first aim of the Association. The second should be to secure the election of a town council and sanitary authority that will appreciate at its proper value the primary importance of the health question to the welfare of the town.

A LOCAL GOVERNMENT BOARD INSPECTOR AT TUNBRIDGE.

MR. SPEAR, one of the Inspectors of the Local Government Board, who recently called the attention of the Woolwich Local Board to the deficient arrangements for combating a possible epidemic in that place, has been paying a visit to Tunbridge, and after inspecting the district had an interview with the sanitary authority. He said "he had during the last few days visited certain parts of the district in company with the medical officer of health, and he considered that immediate steps should be adopted to meet the danger of a possible invasion of cholera. In the first place prompt notice should be given of any suspicious case, and steps taken at once for its isolation. For this purpose they should have one or two cottages which had round them plenty of room in which to erect tents." He then mentioned specific instances of defects in various villages, and suggested remedies. The members of the board explained some of the difficulties they were labouring under with regard to some of the villages, such as difficulty of disposing of sewage, insufficiency of water, &c. In one case it was stated that the Local Government Board itself had listened to the landowners, and decided against the grant of a small site for sewage works. The medical officer of health, Dr. Butterfield, in whom Mr. Spear said that he had every confidence, explained that he had advised every gross case of nuisance to be removed, a house-to-house inspection, provision of an infectious diseases hospital, and the continuance of a system of giving diarrhœa medicine, which had been already in operation, with a beneficial result. It would be well if such discussions as this, which can do nothing but good, were more frequent.

PROF. VIRCHOW ON CROUP AND DIPHTHERIA.

IN a speech recently made at the Berlin Medical Society, Professor Virchow restated the views he has long held upon the pathological dissimilarity of croup and diphtheria; and the statement from such an authority must command attention, although it is hardly consonant with conclusions which have been mainly accepted in this country since the report of the Royal Medical and Chirurgical Society's committee was published. Virchow briefly reminded his hearers that the term croup, originally a clinical phrase expressive of a prominent symptom of acute laryngeal affections, was first applied in a pathological sense by Rokitansky to all pseudo-membranous affections of mucous membranes, and extended by him to visceral inflammations characterised by fibrinous exudation. In 1847 Virchow, in the first volume of his *Archiv*, pointed out the anatomical distinctions between a croupous and a diphtheritic inflammation of mucous membranes, the former being an exudation upon the surface of the membrane, the latter a necrotic process, in which the false membrane is composed of the exfoliated tissue. At that time he knew nothing of micro-organisms in connexion with diphtheria, but he had observed masses of granules, as he then supposed of albuminous nature, in the substance of the diphtheritic membrane, which were never present in the croupous exudate. Nor has he ever been enabled to admit that all cases of fibrinous laryngitis and tracheitis are due to diphtherial poisoning, and he had preparations in which there was not the least evidence of diphtheria. His contention was that the diphtheritic process invariably led to destruction of the mucous membrane, and this recognition of an anatomical difference between croup and diphtheria was, he thought, of prime importance in regard to prognosis after tracheotomy, for in the one case detachment of the false membrane did not, as in the other, leave any ulcerative lesions behind. In support of this he showed preparations of diphtheritic laryngitis and tracheitis with ulceration.

CHRIST'S HOSPITAL SCHOOL.

WE think few will be found to cavil at the comprehensive and judicious scheme presented by the Charity Commissioners for the future administration of Christ's Hospital. Without entering into all the details concerning the administration of the funds of the charity, the appointment of governors, and other general provisions, we would especially commend the resolution arrived at to remove the school, as it at present exists, from London to a country site, not yet determined. This course THE LANCET has specially insisted on for years, and it ought to have been carried out long since, for its removal could have been effected without the intervention of the present elaborate scheme. Many of those who received their education at Christ's Hospital have recorded their experiences, and in after-life have expressed themselves strongly on the cruelty of having thus been confined in the heart of a large city, instead of being allowed to grow strong in the pure country air. The late Professor Parkes felt very deeply on this point, and partly attributed his delicate health in after-life to this cause. Charles Lamb has also recorded his experiences of a Bluecoat boy's life in no favourable terms, and that too at a time when it was possible on a holiday for adventurous spirits to reach the green fields in the neighbourhood of London for a few hours. Now that the school is to be removed, the next question to be considered is where it shall be placed. Some are in favour of utilising the buildings at Hertford, which have been used as a preparatory school for younger boys before they were sent up to Christ's Hospital. But against this it is urged that, as the school is to be moved from London, it is advisable to secure a real country site. In a small country town there would be great difficulty in securing freedom for the boys without bringing them into contact with the townspeople, and thus running the risk of having any epidemic prevalent in the town imported into the school. On the other hand, if the boys are to be cooped up in a playground, half of the advantage gained by their removal from London would be lost. The question of site is an all-important one, and will, we trust, not be decided upon hastily or without sufficient deliberation.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

AT a meeting of the Council of this body held on the 5th inst., a resolution, proposed by Dr. Charles Cameron, Vice-President, was carried, to the effect that a clause in the new Charter should be added to admit *ad eundem* Fellows, Licentiates, and Members of the London and Edinburgh Colleges. These Colleges have power in their Charters similar to that now sought to be obtained by the Irish College of Surgeons.

THE PROSPECT OF MEDICAL LEGISLATION.

WE do not gather that the Government has come to any decision on the subject of Medical Legislation. There can be little doubt that both the Lord President and the Vice-President of the Council would like to see the Bill on which they have spent so much time and trouble passed. But in the present state of public affairs the refined obstruction by which they have been hindered should be withdrawn before they introduce another Bill.

THE VALUE OF AN ISOLATION HOSPITAL.

THE story which is told from year to year in the successive reports of the Delancey Isolation Hospital at Cheltenham is one that should act as an incentive to populations of those towns which have as yet failed to provide similar means of sanitary defence. The Delancey Hospital had its origin in a munificent gift to the town, and it is still to an important extent maintained by public contributions, but in the work which it effects it essentially resembles an infectious hospital provided by a sanitary authority. The record of its work as to small-pox alone is in itself most important, and it is the more so because Cheltenham is a town which has at times by serious neglect of vaccination rather prepared itself for the reception and diffusion of the small-pox poison, and it is doubtless to the instant means of isolation which are always available that its escape from a serious epidemic is due. For eleven years the Delancey Hospital has been in existence, and during that period twenty-two distinct outbreaks or importations of small-pox have occurred. Removal to hospital has invariably been resorted to, and the result is that the disease has never spread beyond the house into which it was first introduced. During the past year two cases were imported into Cheltenham, and the effect of immediate isolation was as satisfactory as in former years. The hospital has also been of immense value in the isolation of scarlet fever, and it is much to be regretted that, for lack of funds wherewith to provide increased accommodation, it has on two occasions been compelled to close its doors against patients coming from the Cheltenham Town Council and the Local Board of Leckhampsted, both of which bodies make a limited use of the hospital for their districts. The original scheme was to make much larger provision for scarlet fever cases than has yet been possible; and having regard to the sanitary aspects of the hospital, we should be glad to see the two authorities who use the building combining for the purpose of making a substantial permanent addition to the accommodation at present available.

PROFESSIONAL SECRETS.

OUGHT the medical adviser of a patient to betray the secrets confided to him? Without hesitation or reserve we say "No," in so far as those secrets *are confided by the patient.* For example, the manner in which a patient contracted a particular malady, and the errors of life that led to it, being confided by the patient, are matters communicated in confidence, and that confidence ought not to be abused. No court of law can exercise any legal right to extort such secrets. Meanwhile, the fact that a patient suffers, or has suffered, from a disease of body or mind is not a subject of communication. The medical practitioner diagnoses the disease, and we do not think that such facts are "secrets," although no honourable man would mention them unless compelled to do so.

THE BRESSA PRIZE.

THE Royal Academy of Sciences of Turin has notified that the period of competition for the fifth Bressa Prize extends from Jan. 1st, 1885, to Dec. 31st, 1889. The value of the prize is £480 (12 thousand lire). All Fellows of the Turin Academy are excluded, but otherwise scientific men of all nations are eligible. The prize will be awarded by the Academy to the scientist who within the four years stated (1885-89) shall have made the most notable and useful discovery, or produced the most celebrated work, on physical and experimental science, natural history, pure or applied mathematics, chemistry, physiology, and pathology, geology, history, geography, or statistics. Whatever defects the programme may possess, narrowness is certainly not one of them.

PENNY DINNERS.

THROUGH the kindness of the hon. secretary of the Council for Promoting Penny Dinners we have received a pamphlet giving much useful information as to the working of this new effort of school management. Since its first establishment at the village schools of Rousdon and Farnell the application of the system has sufficiently extended to allow of some general idea being formed as to the results attained, and these have not been less satisfactory than they at first promised to be. Marked improvement in health, better school work, more regular attendance, and apparently less illness (though there is some doubt as to the latter gain) have distinguished the children who have thus been made sure of one good meal a day. At home the freedom from dinner cookery has proved a boon to many working parents. Valuable hints will also be found in the report before us as to the minor details of time, place, marketing and choice of material, advertisement, assistance, and administration generally, the clear and practical observance of which is all-important for success in a work of this kind. Recipes are quoted *in extenso.* The bulk of the components of these are of course vegetables, bread, potatoes, and peas holding a deservedly prominent place. Meat, however, is not forgotten, nor is milk. It is calculated that each child receives about twelve to fifteen ounces of soup, stew, or other forms of nutriment per meal; and one may say that this quantity contains as a rule an ounce to an ounce and a half of meat, along with a third to three-quarters of a pound of solid vegetable matter. The children enjoy such meals, as well as thrive on them; and when one considers how much more scanty, unpalatable, and expensive is the meal which some of them have at home, it is surprising that the system is not more widely known and practised than it is. The pamphlet we have mentioned is published by Messrs. Alexander and Shepheard, 21, Castle-street, Holborn, and is cheaply purchased at one penny.

"FALSE IMPRISONMENT IN THE LUNATIC WARDS OF A WORKHOUSE."

A MRS. HICKS has obtained £250 damages against the authorities of Marylebone parish for her forcible removal to the workhouse and detention there as a reputed lunatic. The law requires that persons suspected of being lunatics should be brought before a magistrate within three days. The lunacy laws are bad enough, but this case was not a case of bad law, but of bad practice, and the two should not be confounded. The error made was in not having the order for detention duly signed by Justices of the Peace. The course taken is inexplicable.

EVACUATION OF THE FEMUR.

IN the last bulletin of the Royal Academy of Medicine of Rome (Dec. 28th, 1884) is recorded by Dr. Tassi the case of a girl aged thirteen, the lower third of whose femur he had successfully evacuated for fungous osteo-myelitis. When eleven years of age she began to suffer such excruciating pain in the outer condyle of the left femur that she was obliged to keep her bed. The part swelled very considerably, and became the seat of an abscess, which was emptied by the surgeon. An osseous fistula remained, and through it the probe passed from the outer to the inner condyle, with a good deal of hæmorrhage from the fungosities. Opening of the sinus, and cauterisation of the fungous cavity during seven months, proved useless. Dr. Tassi was thereupon induced to lay the femur freely open, and to evacuate it with the gouge, from the outer condyle to nearly the middle of the thigh bone. The epiphysis was evacuated with the spoon, so as to leave only a thin shell of bone. The bony

cavity was filled with iodoform, and the limb immobilised in a plaster-of-Paris apparatus. For the sake of cleanliness the plaster case was renewed at the end of sixty-two days. The patient had no febrile symptoms; and complete recovery, with bony repair, was obtained in the space of six months.

IS "OVERLAYING" INFANTICIDE?

IT does not affect the question of killing, whether a child be overlaid intentionally or accidentally. The only question that can be raised in any case is, whether the act of killing was accidental, or malicious, or culpably careless. We think these issues should be tried in all cases of overlaying, and that mothers who overlay their infants through drunkenness should be treated as persons who commit murder through drunkenness. It is, or ought to be, criminal to kill a child, whether the murderer be conscious or unconscious of the act done, if the state of unconsciousness pleaded in excuse has been brought about by the wilful taking of an intoxicant.

VALUE OF AN INFECTIOUS DISEASES HOSPITAL.

IN a discussion by the Rochester Town Council concerning the infectious diseases hospital, it was stated that in every case of small-pox in the city the outbreak had been confined to the house in which it occurred, and with one exception to a single case, thus showing the importance of the hospital; for while at present there were only seven cases in the city, at Gillingham, where there was no hospital, it was believed there were nearly sixty cases. The Council thought the hospital should be free. It was added that it should be thoroughly understood that the better class of patients could always have their own private medical men to attend them in the hospital.

THE STOKE BRUERNE TRAGEDY.

MR. J. OSWALD LANE, M.B. Cantab., house-surgeon to the Northampton Infirmary, writes to say that the accused man, James Brooks, was admitted on March 4th with a compound depressed fracture of the vertex of the skull, caused by a self-inflicted gunshot wound; in addition, there was another lacerated wound of the right cheek, with contusion, &c., of the frontal region. The patient was trephined on the day of admission by Mr. R. A. Milligan, who removed the depressed bone and a number of shot which were found between the two tables of bone; he is progressing favourably up to to-day (March 12th), without any head symptoms. The case, which is of much interest, will on a future occasion be reported in full.

THE PATENT MEDICINES STAMP TAX.

DR. CAMERON has given notice that he will ask the Chancellor of the Exchequer whether he has yet received from the Board of Inland Revenue those reports on the Patent Medicines Stamp Tax which in the House of Commons on August 7th he undertook to "study with care," and if so, what action he proposes taking in the matter.

THE Alexander Prize and Gold Medal has been awarded to Surgeon John Martin, Medical Staff, for the best essay on Antiseptic Surgery and its application in Military Hospitals and on the Field. The subject for the next competition is on the Relations between the Food and Work of the British Soldier and their proper adjustment in Peace and War; on the occurrence of Scurvy among the Troops and its Prevention; and on the use of Preserved and Concentrated Foods, with Suggestions for Alterations or Improvements in the existing Rations and Times of Meals. Further particulars will be found in our advertising columns.

A SEVERE epidemic of measles is raging in Widnes, and at a meeting of the Local Board of Health on the 10th inst., it was resolved, by six votes to three, on the motion of Dr. O'Keefe, that the clerk be instructed to write to such manufacturers in Widnes as employed the 700 workmen who live in Runcorn and work in Widnes, requesting them to compel their men to live in Widnes or to cease employing them, so as to prevent a further spread of the disease.

DR. LOUIS ELSBERG, of New York city, Professor of Laryngology at Dartmouth Medical College, Professor of Laryngology and Rhinology at the New York Polyclinic, and Physician to the Throat Wards in Charity Hospital, New York, died at his residence in New York on the 19th ult., from pulmonary œdema, after ten days' illness. He was in the forty-eighth year of his age, having been born at Iserlohn in Prussia in 1837.

DR. CARL WEIGERT, formerly Professor Cohnheim's assistant at Leipsic, has been invited to succeed the late Professor Lucæ at the Senkenberg Anatomical Institute, Frankfort. He will also be prosector to the hospitals of that city. Professor Huber will succeed Professor Birch Hirschfeld, who leaves Dresden for Leipsic.

THE Medical Faculty of the Melbourne University has adopted and forwarded to the Council an elaborate report on the present state and requirements of the Medical School, a continuation and extension of a previous report sent in three years ago, in which considerable changes in the working of the institution are recommended.

MR. G. WATERS, L.R.C.S., has been appointed to act as Professor of Physiology in the Grant Medical College, vice Mr. N. Hojel, L.K.Q.C.P.I.; Mr. G. Manser, M.R.C.S., to act as Professor of Pathology in the same, vice Mr. Waters; and Mr. R. J. Baker, M.B., to act as Professor of Materia Medica, vice Mr. Manser.

NOTWITHSTANDING the comparative immunity from small-pox which Kensington has lately enjoyed, several isolated cases have occurred in different parts of the parish. The guardians, acting on Dr. Dudfield's advice, propose to adopt a house-to-house visitation, in order that vaccination may be properly carried out.

THE committee appointed last year to inquire into the origin of the noxious odours which, during the summer, made the House of Commons almost uninhabitable, will shortly resume their sittings. Important evidence has been prepared for submission to the committee.

SENOR MARIN BALDO has communicated to the Spanish Central Society of Architects a plan for constructing houses with roofs fastened to the uprights by means of movable joints in order to obviate danger to the inmates during earthquakes.

DR. R. P. SMITH, at present Resident Assistant Physician at St. Thomas's Hospital, was elected Junior Resident Medical Officer to Bethlem Hospital on the 9th inst.

MR. SHIRLEY MURPHY has tendered his resignation as medical officer of health to the parish of St. Pancras, an appointment which he has held for nearly seven years.

A FORMAL contradiction is given to the reports circulated of the reappearance of cholera at Marseilles.

IN addition to the *Calabria*, two other telegraph ships, the *Kangaroo* and the *International*, are to be sent to Suakim. The great advantage which this class of vessel possesses over others is the enormous tanks which can be made use of for the storage of fresh water.

WE learn that Dr. Simpson has been appointed Surgeon-General of Bombay, and that Dr. Payne has memorialised the Viceroy, but without success. Dr. Payne has, it appears, sent in his papers to retire from the service.

HEALTH OF THE NAVY.

THE annual report on the Health of the Navy for the year 1883, which has just been presented to Parliament, is of a very satisfactory character, the death-rate being the lowest recorded during the twenty-eight years in which these reports have been prepared. The average strength of the force afloat was 43,350; the cases of disease and injury which occurred in it were in the proportion of 1091, the deaths from all causes 5·88, the invaliding 38·75, and the mean daily sick 47·78 per 1000 of strength, the three first being considerably lower, and the last a mere fraction higher, than in the preceding year. Satisfactory, however, as this low ratio of mortality is, it is still more so if the deaths by accidents and injuries, which are always numerous in the navy, be deducted, the proportion from disease alone amounting only to 4·06 per 1000 of the whole force afloat at home and abroad. The cases ranged between 847 on the south-east coast of America, and 1624 on the China station; the deaths between 4·44 in the Irregular Force, and 9·83 on the China station; the invaliding between 15·51 on the south-east coast of America, and 61·09 from the Mediterranean; and the mean daily sick between 24·24 on the south-east coast of America, and 57·28 in China. The death-rate from disease, exclusive of injuries, was as low as ·94 on the Australian station, was 1·72 on the south-east coast of America, between 2 and 3 on the Pacific and African stations, and in the Irregular Force; 3·09 in the Mediterranean, 4·14 at home, and between 6 and 7 on the American and West Indian station, the China station, and the East Indies. The high rate of sickness on the China station was chiefly due to diseases of the respiratory and digestive systems, and to cases of phlegmon, abscess, and ulcer, and the excess of mortality was caused by cholera. Next to China, the East Indies furnished the highest ratio of admissions, the prevailing diseases being fevers, diseases of the digestive system, and those of the cellular and cutaneous systems; the African station also had a heavy sick list from the same causes. Diseases of the cellular tissue and cutaneous system are a source of considerable inefficiency throughout the service, the cases ranging from 210 per 1000 on the home to 434 per 1000 on the Australian station, and the average constantly non-effective from this cause amounting to 8·68 per 1000; they were the cause of only one death, which arose from "cellulitis of the neck, an abscess having burst into the trachea."

Of enteric fever 111 cases were admitted, and 19 died; of these, 60 cases and 11 deaths were on the home station. On the China station there was an outbreak of fever of the continued type, of which 307 cases were returned. They occurred chiefly among "the relief crews of the *Curaçoa* and *Victor Emanuel* while being conveyed from England to China in the *Thalia*, and appear to have been due to overcrowding, defective sanitation in the shape of foul bilges, and a want of due attention to cleanliness." The connexion between the disease and defective ventilation is supported by the fact that 217 men on the lower deck furnished 61 cases, while 215 on the main deck, which had a free supply of air, furnished only 21 cases. That the defective sanitation and overcrowding were the chief cause was further shown by the fact that on the return voyage, with a reduced number of men on board and after the ventilation had been improved at Hong Kong, there was no prevalence of disease in the ship. A considerable number of cases occurred among the men and boys after they were distributed among the ships on the station.

China was the only naval station on which any cases of cholera were recorded, and there 17 occurred, of which 9 proved fatal. Eight of them with 5 deaths took place on board the *Espoir* at the anchorage near Fowchoo, where cholera had been prevalent, and it appeared that the men who were attacked had partaken of lemonade made by the Chinamen, the water for which was drawn from a well in the most infected part of the village. Seven cases with 2 deaths occurred in the *Flying Fish*; the disease was contracted at Chefoo, where its presence was denied, and the crew were consequently granted general leave, but it was afterwards found that the statement was incorrect. A fatal case occurred in the *Kestrel* at Shanghai, and another, also fatal, in the *Foxhound* the day after leaving Tientsin. Syphilis was more prevalent on the home than on any of the foreign stations, as was also gonorrhœa, with the exception of China; the admissions for syphilis were upwards of 50 per cent. higher on the Home station than in 1882, a result which appears fairly attributable to the suspension of the working of the Contagious Diseases Acts. There was also a marked increase of cases in the Mediterranean, attributed, by the medical officers, to the bad sanitary condition in this respect of many of the places visited by the squadron in the summer cruise. Malta, Alexandria, and other Egyptian ports and Trieste were the places where the greatest amount of disease was contracted. It is worthy of note that during the year there were only 10 cases reported under the head of scurvy and purpura in the whole fleet.

In addition to the service afloat the report gives details of the health of the Royal Marines at head-quarters. Their average strength was 5450; the cases of disease and injury were in the ratio of 1148; the deaths of 5·68, the invaliding of 66·05, and the mean daily sick of 63·50 per 1000—all except the deaths considerably higher than among the force afloat on the Home station. But if the deaths by violence in each branch be deducted, the mortality of the marines will be found to be 5·32, against 4·14 in the service afloat. The admissions and deaths show a decrease, but the invaliding and mean sick an increase upon the results of the preceding year.

UNIVERSITY DEGREES FOR LONDON MEDICAL STUDENTS.

A MEETING of the Metropolitan Counties Branch of the British Medical Association was held on March 6th at the Royal School of Mines, Jermyn-street, Mr. Macnamara, President of the Branch, in the chair.

Mr. MACNAMARA opened the proceedings by narrating some of the circumstances which had led the Council of the Branch to draw up a report on the subject of University Degrees for London Medical Students. In the compilation of the statistics, and in the construction of the report, which had been widely circulated, he said the Council wished to acknowledge the most valuable services of Dr. Gilbart Smith. He briefly summarised the features of the report, and then called upon Dr. Bristowe to move the resolution, of which the following is a copy:—"That the report of the Council of the Branch on University Degrees for London Medical Students be adopted; and that the Council be directed to petition the Senate of the University of London to receive a deputation of members of the branch in support of the objects aimed at in the report."

Dr. BRISTOWE said that the statistics contained in the report proved beyond doubt that the University of London was not fulfilling the functions which its well-wishers hoped that it would do. The University of London is less the university for the metropolitan schools than are the Scotch and Irish universities. Of the 16,192 practitioners practising in England, only 5219, or 32·2 per cent., are graduates. Of the 2206 medical men practising in Scotland, 1557, or 70·6 per cent., possess university degrees; and of the 24·30 men engaged in medical practice in Ireland, 925, or 38·0 per cent., are graduates of a university. A difference still more striking is observed, however, when inquiry is made into the sources whence the different degrees are obtained in the three kingdoms; for it will be seen that of the 5219 men possessing degrees in England, but 1076, or 20·6 per cent., derive the title from an English university, while as many as 62·7 per cent. are indebted for their degrees to the Scotch universities. Of the 1557 who possess degrees in Scotland, 1537, or 98·7 per cent., have acquired their titles

from a native source; and in Ireland, of the 925 men who hold degrees, 672, or 72·6 per cent., possess Irish degrees, and 243, or 26·3 per cent., are graduates of Scotch universities. The same relative paucity of English degrees is observable among medical officers in the public services and the practitioners resident abroad. Looking at this state of affairs, Dr. Bristowe thought that matters could be best mended if the London University were made to meet the requirements of London medical students. He suggested that the matriculation examination might remain as it was, but that the Preliminary Scientific Examination should undergo a radical change, even if it be not abolished altogether. In his opinion none of the subjects in which the candidates were examined were of any benefit to practical medical men. He did not think there need be any modification in the final examinations for the London University medical degrees.

Mr. RIVINGTON seconded this resolution.

Mr. S. J. HUTCHINSON proposed an amendment, which was seconded by Mr. BRINDLEY JAMES.

Dr. BRIDGEWATER also spoke on the resolution.

Another amendment, proposing to leave out of the resolution all terms relating to the University of London, was proposed by Dr. SANSOM and seconded by Dr. RAYNER.

Both amendments were lost.

Mr. VICTOR HORSLEY inquired whether the view that the subjects of the preliminary scientific examination were of no value to medical men would form part of the petition to be presented to the Senate of the University of London. He could not agree that the subjects were not important for the medical man.

Mr. MACNAMARA replied that that was merely an individual opinion, and was not embodied in the report.

Mr. NELSON HARDY spoke on Dr. Sansom's amendment, and maintained that the resolution would lose all its force if this proposal were adopted.

Mr. SMITH TURNER proposed and Dr. LAUDER BRUNTON seconded that the names of the hospitals which appeared on p. 17 of the Report of the Council of the Branch be expunged therefrom. This amendment was carried unanimously.

The second resolution was proposed by Dr. ROBERT BARNES. It is as follows:—"That failing to obtain concessions from the Senate of the University of London, the Council be empowered to take, in conjunction with the Royal College of Physicians of London and the Royal College of Surgeons of England, such steps as they may deem necessary to facilitate the obtaining of degrees in medicine by London medical students." Dr. Barnes said that the University of London was a failure, and was far behind its own work, although it had given a fresh impetus to the study and progress of medicine when the university was first established. He did not believe that the suggestion of Dr. Sansom that a new degree of M.C.D., entitling the holder to consider himself a doctor in medicine and surgery, was a good one. For, in the first place, medicine was one, and undivided; and, secondly, the public would never be got to believe that such a degree implied the possession of as much knowledge as the possession of the ordinary M.D. degree. After all, the public must be consulted in a large measure.

Dr. HICKMAN seconded the resolution, which was put to the meeting and carried unanimously.

A vote of thanks to Dr. Gilbart Smith for his services in drawing up the report brought the meeting to a close.

MAHOMED MEMORIAL FUND.

THE following additional subscriptions have been received:—

	£	s.	d.
J. S. Bartrum, Esq., F.R.C.S.	2	2	0
Dr. Bower	1	1	0
Dr. Oswald Currie	1	1	0
Dr. Walter Dixon, R.N. ...	1	1	0
D. Elcum, Esq., I.M.D. ...	5	5	0
J. H. Ewart, Esq.	5	5	0
G. M. J. Giles, Esq., F.R.C.S., I.M.D.	2	0	0
W. Cooper Keates, Esq. ...	1	1	0
Robert Manser, Esq., I.M.D.	3	3	0
Mrs. Nutter, per Dr. Argles	2	2	0
Dr. Siordet	1	1	0

ARTHUR E. DURHAM, Treasurer.
JAMES F. GOODHART, W. H. A. JACOBSON, } Secretaries.

VACCINATION GRANTS.—Mr. R. Istance, of Risca (sixth time), and Dr. James Lily, of Brentford, have received the Government grant for successful vaccination.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Bristol Urban District.—Mr. Davies records a slight increase in the mortality for the city of Bristol, and he attributes it in the main to the amount of diarrhœal disease consequent upon the exceptional heat of the past summer. The rate was, however, not very high for such a city as Bristol, reaching as it did to only 18·7 per 1000. The only two cases of small-pox which occurred were at once isolated, and it is estimated that a considerable extension of disease was thus prevented. As to scarlet fever, Mr. Davies lays it down as his rule to refuse to remove patients unless he is allowed to remove all who are affected with the disease in the house; in short, unless the points of infection in the city are diminished by the removal. No one will probably desire to disagree with this view. The object of a medical officer of health in securing isolation is the prevention of disease rather than the welfare of the individual patient. But the isolation of scarlet fever has always been at a low ebb in Bristol, and the fear as to "the formation of a concentrated centre of infection" is evidently at the bottom of it. The matter is one of such importance that we could wish to see Mr. Davies offering some proof of his belief as to this, in addition to his constant reiteration of it. The London Fever Hospital has contained a larger aggregation of scarlet fever patients over a long series of years than any other hospital in England, and the proof is overwhelming that, though situated in a populous portion of the metropolis, no extension of the disease has taken place. In 1884 only two patients were admitted to the Bristol Fever Hospital, whereas of scarlet fever alone there were thirty-seven deaths. Speaking specially of diarrhœa, Mr. Davies points out that this disease was debited with 132 deaths, against 83 during the previous year, and he regards the excess as due to three factors—namely, the summer season, the warm dry weather, and artificial feeding. He is inclined to think that the first two favour the development of bacteria in cow's milk after being exposed in damp mouldy cellars or musty cupboards; and as regards the latter, he adverts in one portion of his report to the increasing employment of women as breadwinners instead of men. The zymotic death-rate as a whole was 1·8 per 1000, being 0·7 in excess of that for the previous year; but even this is by no means an exceptional rate for such a population as that under consideration.

Bristol Port District.—It appears that as the result of Dr. Blaxall's official visit to this port a methodical inspection of shipping has now been commenced, and it is reported that much work in cleansing has been effected. Mr. Davies is also of opinion that the inspection, as required by the Local Government Board, will doubtless add materially to the comfort of the crews. Four cases of enteric fever were discovered. A small hospital is evidently needed for the special purposes of the port, and the matter is receiving the attention of a committee.

St. Marylebone.—Some action is again being taken with regard to the dwellings of the poor under Torrens' Act. Mr. Wynter Blyth has reported adversely in the case of houses in Conway-court and Grafton-court, and in each case the subsequent report of the surveyor is to the effect that since no structural alteration or repair will render these houses fit for human habitation, he therefore recommends that they should be demolished. The regulations as to houses let in lodgings have now received the sanction of the Local Government Board, and they will at once be put into operation in certain localities where they are most needed.

Aston Rural District.—Dr. Bostock Hill presents a report as to this district. In the main it deals with the nine months during which he has held office. For the whole of 1884 the birth- and death-rates were 26·9 and 14·5 per 1000 respectively, and the zymotic rate was 1·2. This speaks satisfactorily for the district, and it is evident from the record of work that efforts are made by tent hospital isolation and otherwise to control the spread of infectious fevers. Numerous and systematic inspections of the district have been made; bakehouses are looked after; cleansing and disinfection, both of infected premises and infected clothing, have been carried out; and the authority have certain

arrangements with the Aston Local Board of Health whereby they will soon be provided with permanent means of isolation in the excellent hospital which the latter authority are now erecting. One sentence of grave importance is included in the report. It is to the effect that at the present time numerous houses are directly or indirectly draining into the Brook, from which the Birmingham Corporation draw part of their water-supply, and since one division of the rural district receives this water-supply, this district is in point of fact not only injuring its great neighbour, but polluting its own drinking water. Such a state of affairs should, in view of cholera prospects, be dealt with as an urgent matter.

Montrose Sanitary District.—Montrose, with a population of 16,476, had a death-rate of 24·4 per 1000 in 1884; and making the necessary deductions for the asylum, &c., it still stood as high as 22 per 1000. It is explained that during the year there was a higher mortality than usual amongst infants, and also from non-epidemic diseases. The report, however, contains no information as to the sanitary state of the town, and hence we are unable to express any opinion as to the cause of a mortality which is certainly excessive.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5826 births and 3515 deaths were registered during the week ending the 7th inst. The births exceeded by 12, while the deaths were 112 below, the average weekly numbers during 1884. The annual death-rate in these towns, which had been 20·5 and 21·4 per 1000 in the preceding two weeks, declined again to 20·6 last week. During the first nine weeks of the current quarter the death-rate in these towns averaged 22·5 per 1000, against 24·7 in the corresponding periods of the nine years 1876-84. The lowest death-rates in these towns last week were 11·8 in Brighton, 14·6 in Hull, 15·2 in Wolverhampton, and 15·8 in Plymouth. The rates in the other towns ranged upwards to 29·1 in Preston, 29·3 in Newcastle-upon-Tyne, 37·6 in Cardiff, and 42·1 in Sunderland. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 384 and 377 in the previous two weeks, rose to 395 last week; they included 133 from measles, 112 from whooping-cough, 42 from scarlet fever, 33 from "fever" (principally enteric), 28 from diarrhœa, 24 from diphtheria, and 23 from small-pox. No death from any of these zymotic diseases was recorded last week in Derby, whereas they caused the highest death-rates in Bristol, Cardiff, and Sunderland. The highest death-rates from measles occurred in Cardiff and Sunderland; from whooping-cough in Bristol and Cardiff; from scarlet fever in Wolverhampton and Preston; and from "fever" in Newcastle-upon-Tyne, Blackburn, and Norwich. The 24 deaths from diphtheria in the twenty-eight towns included 15 in London and 2 in Newcastle-upon-Tyne. Small-pox caused 37 deaths in London and its outer ring of suburban districts, 2 in Liverpool, 2 in Manchester, 1 in Birmingham, 1 in Birkenhead, and 1 in Sunderland. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had been 1223, 1141, and 1103 on the preceding three Saturdays, further declined to 988 at the end of last week; the admissions, which had been 255, 163, and 170 in the previous three weeks, declined to 94 last week. The Highgate Small-pox Hospital contained 95 patients on Saturday last, 19 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 343 and 384 in the preceding two weeks, were 374 last week, and 106 below the corrected weekly average. The causes of 93, or 2·6 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Brighton, Blackburn, Wolverhampton, and Plymouth. The largest proportions of uncertified deaths were registered in Oldham, Salford, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 23·1 and 24·6 per 1000 in the preceding two weeks, declined to 22·8 in the week ending the 7th inst., this rate, however, exceeded by 2·2 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 13·3 and 15·6 in Perth and Aberdeen, to 21·2 in Greenock and 29·0 in Glasgow. The 557 deaths in the eight towns included 20 which were referred to measles, 19 to whooping-cough, 12 to scarlet fever, 9 to diarrhœa, 6 to diphtheria, 5 to "fever" (typhus, enteric, or simple), and not one to small-pox; in all, only 71 deaths resulted from these principal zymotic diseases, against 95, 81, and 82 in the preceding three weeks. These 71 deaths were fewer than in any previous week of this year, and were equal to an annual rate of 2·9 per 1000, which exceeded the mean rate from the same diseases in the twenty-eight English towns by 0·6. The fatal cases of whooping-cough, which had been 30 and 31 in the previous two weeks, declined to 19 last week, a lower number than in any week since the end of November; they included 9 in Glasgow and 4 in Dundee. The 20 deaths from measles showed an increase of 5 upon the number in the previous week; 17 occurred in Glasgow and 3 in Dundee. Eleven of the 12 deaths from scarlet fever and 4 of the 5 from "fever" were returned in Glasgow; the mortality from these causes showed a decline. The 6 deaths from diphtheria included 3 in Edinburgh. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had declined in the preceding five weeks from 214 to 125, further fell last week to 119, and were one below the number returned in the corresponding week of last year. The causes of 65, or nearly 12 per cent., of the deaths registered last week in the eight Scotch towns were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which in the preceding four weeks had declined from 36·2 to 30·3 per 1000, rose again to 32·7 in the week ending the 7th inst. During the first nine weeks of the current quarter the death-rate in the city averaged no less than 32·7 per 1000, the mean rate during the same period not exceeding 21·5 in London and 20·4 in Edinburgh. The 221 deaths in Dublin last week showed an increase of 16 upon the number returned in the previous week, and included 27 which were referred to the principal zymotic diseases, exceeding the number in any previous week of this year. Of these 27 deaths, 10 resulted from measles, 6 from "fever" (typhus, enteric, or simple), 4 from scarlet fever, 4 from whooping-cough, 3 from diarrhœa, and not one either from small-pox or diphtheria. These 27 deaths were equal to an annual rate of 4·0 per 1000, the rate from the same diseases not exceeding 1·9 in London and 1·2 in Edinburgh. The 10 fatal cases of measles in Dublin, showed an increase of 2 upon the number in the previous week; and the 6 deaths from "fever" also showed a considerable increase, as but 1 death from this cause had been returned in each of the previous two weeks. The fatal cases of scarlet fever showed a decline, while those of whooping-cough were more numerous. Three inquest cases and 1 death from violence were registered; and 69, or nearly a third, of the deaths in the city were recorded in public institutions. The deaths of elderly persons showed a considerable decline from recent weekly numbers. The causes of 29, or more than 13 per cent., of the deaths registered in the city last week were not certified.

THE SERVICES.

THE EGYPTIAN EXPEDITION.

To the list of Indian medical officers proceeding on active service with the Indian Contingent for the Soudan, as published in our issue of last week, we have to add the names of the following:—Brigade Surgeon Thornton (as Principal Medical Officer); Surgeon-Major R. Boustead, Officiating Medical Officer 21st Bombay Infantry; and Surgeon A. C. Thompson, Medical Officer, Asirgarh.

We regret to announce the death, from enteric fever, of Surgeon Turner, of the British Medical Service, which took place at Korti, in the Soudan, on Friday, the 6th instant.

The following are among the officers belonging to the New South Wales Contingent who have gone to Suakim:—Surgeons Williams, Glanville, and Trowfoot.

The Council of the National Aid Society has sanctioned the extension in the Upper Nile of the system, already inaugurated, for evacuating the sick and wounded towards Cairo,

and has empowered Major Young to order the construction of another steam launch in every respect suitable for the object to be attained; this second launch to be employed at a higher level on the Nile than that where the *Queen Victoria* is operating. Consequent upon the extension of military operations and the departure of a military force to Suakim, the Council has appointed, as second Commissioner to the Forces under Lord Wolseley, Mr. V. B. Kennett-Barrington. The sphere of operations over which Major Young will preside will include the valley of the Nile, Cairo, and Suez. Mr. Kennett-Barrington will take charge of that portion of the Expedition which will have its headquarters at Suakim, and will include all operations extending from Suakim to Berber, and the establishing of depôts and temporary hospitals for the relief of sick and wounded as they are evacuated towards the port of embarkation; also the evacuation of the sick by means of the sea route to Suez. An offer has been made by Sir Allen Young to place his yacht *Stella* at the service of the Society for the above purpose. This offer has been accepted, and Sir Allen Young has been appointed their Commissioner afloat, attached to the Suakim ambulance.

The work of the Red Cross Society will, it is stated, occupy an important place in the Antwerp Exhibition. The international exhibition of the hospital institutions of all countries which have agreed to the Convention of Geneva will be completed in September by a competition in the construction of field hospitals, when the prize of 6000 francs, offered by the Empress of Germany, will be awarded. Everything will be ready for the opening on May 2nd.

Surgeon-General C. D. Madden, of the Army Medical Staff, has been selected for the important position of Principal Medical Officer to the troops in India, vice Surgeon-General Sir Anthony Home.

INDIA OFFICE.—The Queen has approved of the following promotions among the officers of the Staff Corps and Indian Military Services made by the Governments in India:—Surgeon-Major Charles Edwin Raddock, of the Bengal Medical Establishment, to be Brigade Surgeon; Surgeon Kenneth Mackenzie Downie, M.D., of the Bengal Medical Establishment, to be Surgeon-Major.

The following Indian medical officers have retired from the Service:—Deputy Surgeon-General A. J. Payne, M.D. (Bengal); Deputy Surgeon-General Colvin Smith, M.D., C.B. (Madras); Brigade Surgeon J. Jones, Brigade Surgeon S. M. Shircore, and Surgeon-Major T. S. Veale, M.D. (all Bengal).

ADMIRALTY.—The following appointments have been made:—Henry D. Stanistreet, Fleet Surgeon, to the *Jumna*; George W. Lowe, Surgeon, to the *Mariner*.

MILITIA MEDICAL STAFF.—Surgeon-Major Charles Harwood, 5th Battalion, the Sherwood Foresters (Derbyshire Regiment) resigns his commission, also is permitted to retain his rank, and to wear the prescribed uniform on his retirement.

RIFLE VOLUNTEERS.—2nd Hampshire: Surgeon Theophilus William Trend, M.D., is granted the honorary rank of Surgeon-Major.—16th Lancashire (3rd Manchester): William Henry Brownbill Crockwell, Gent., to be Acting Surgeon.—1st London (the City of London Rifle Volunteer Brigade): William Adams Duncan, Gent., M.D., to be Acting Surgeon.—12th Middlesex (Civil Service), Surgeon Arthur Trehern Norton is granted the honorary rank of Surgeon-Major.—6th (West) Suffolk: Acting Surgeon Charles Watts Wistler resigns his appointment.—2nd Sussex: Surgeon Charles Francis Lewis is granted the honorary rank of Surgeon-Major.—2nd Volunteer Battalion, the Worcestershire Regiment: Surgeon Archibald Weir, M.D., resigns his commission, also is granted the honorary rank of Surgeon-Major, and is permitted to continue to wear the uniform of the battalion on his retirement.

A CONFERENCE of the examining staff of the St. John Ambulance Association was held recently, Dr. Sieveking in the chair, for the further consideration of a report on the method of conducting examinations. A lengthy discussion took place, among the speakers being Drs, J. C. Steel, J. P. Wilton, and Crespi, Mr. F. B. Baker (Grenadier Guards), Mr. S. Benton, Fleet-Surgeon H. C. Woods, R.N., Drs. Roberts, Law, Collingridge, and H. Percy Potter, and Deputy Inspector-General M. Coates, R.N.

Correspondence.

"Audi alteram partem."

VACCINATION.

To the Editor of THE LANCET.

SIR,—I have just received a copy of THE LANCET of Feb. 28th, which probably you have been kind enough to send to me. By punctuating the sentence, "One child had erysipelas; one domestic, scarlatina," you will the better understand it, and be spared any apprehension of the advent of a "new disease." Since the interview with the deputation of my constituents, which has engaged your attention, I have from time to time read one or two interesting works on the vexed question of vaccination. Amongst others, I have met with a small thin quarto volume published by Jenner at the end of the last century. When you express the opinion that you and I are not likely by any spread of intelligence to be liberated from the duty of "praising God for men like Edward Jenner, as the very greatest benefactors of their race," you echo my own hitherto passively accepted opinion. What I now want to know is, for which of the three several propositions in Jenner's account of his discovery we are to hold ourselves indebted to him? 1. His decision that the true protective cow-pox was that which was produced in the cow by transmission from the diseased heel of a horse. 2. That the healthy subject, being once thoroughly infected by inoculation with this particular cow-pox, was permanently protected against small-pox. 3. That inoculation with cow-pox matter being thus protective, inoculation with small-pox matter itself, which had been the orthodox practice of the medical faculty for a generation, ought to be discarded. As the earliest result of my consideration of Jenner's claims on our gratitude, I am inclined to rank the third proposition very highly. To have provided a less offensive and dangerous inoculation, when inoculation was believed to be absolutely essential against the virulence of small-pox, was an appreciable boon. The second proposition of Jenner, that once well vaccinated was to be always protected, I am spared the duty of thanking him for, the medical profession having declared it to have been an erroneous supposition. Whether Jenner adhered to his discriminating theory of the difference in efficacy between true and "spurious" cow-pox—i.e., between cow-pox traced to communication with the diseased heel of a horse and cow-pox not so traced—I am at present uncertain. Perhaps you can inform me.

I am, Sir, yours very truly,

House of Commons Library, March 6th, 1885. ROBT. LEAKE.

*** We refer Mr. Leake to a leader on vaccination in another page of our impression of to-day.—ED. L.

SEASIDE SANITATION.

To the Editor of THE LANCET.

SIR,—Spring is rapidly approaching, when persons will be flocking to the seaside to recruit themselves with fresh sea air after the long, weary winter, and in the hope of laying in a fresh stock of health for the future.

It is proverbially ungracious to spoil a pretty picture, but in the interests of all seaside frequenters I would wish to give a word of warning. Thanks to the information frequently afforded in the pages of THE LANCET, and in Mr. Teale's admirable work "Dangers to Health," we are now well acquainted with all the details of what may be called "sanitary plumbing." Slowly but surely our homes are being made healthier, all sanitary defects being removed, and replaced with the latest improvements. Shall we find all these at the seaside? If so, well and good; if not, those who are not acclimatised to close rooms, impure water, and sewer gas will, I fear, pay the penalty in the shape of sore-throat, diarrhœa, or even an attack of typhoid fever.

One would expect that soil-pipe ventilating shafts and "wash-out" closet basins would now be regarded as necessities in every house where lodgers are taken in. Unless, however, my experience is very exceptional, they are only to be found in new or first-class hotels, and very rarely in lodgings. The average watercloset in a seaside

hotel or lodging-house is still frequently a very small, ill-ventilated place, not unfrequently with only a borrowed light, having, what is now justly regarded as an insanitary abomination, the old pan closet, plastered thick with fæcal matter, with most inefficient water-supply, and giving off an odour which is simply poisonous.

I should like to ask medical officers of health whether it is the duty of lodgers to report to them such defects as I have described, and if they have power to enforce the remedy? In these days of actions against medical practitioners it might be dangerous to suggest a "black list" of insanitary lodgings. But our brethren in seaside towns might ably assist the cause of sanitation by urging it upon such of their patients as let lodgings, and by only recommending to visitors such as are absolutely safe. Until some such guarantee can be had, I fear that we shall continue to hear of mysterious illnesses occurring during, or shortly after, a seaside visit, while many besides myself will contemplate a visit to the seaside with great anxiety.

I am, Sir, yours truly,

March 10th, 1885. A PROVINCIAL SURGEON.

SUICIDE.

To the Editor of THE LANCET.

SIR,—In your issue of Feb. 21st, you were kind enough to announce that I had delivered a lecture on "Suicide, Its Causes, and the Best Means of Prevention," at a meeting held in the Medical Society's Rooms. As I am still collecting statistics on suicides, attempted and accomplished, I should be glad if any of your readers will favour me with any information obtained by themselves of the "Relative Proportion of Attempted and Complete Suicides."

I am, Sir, yours truly,

WYNNE WESTCOTT, M.B.,
Deputy Coroner for Central Middlesex.

Torriano-avenue, Camden-road, N.W.

BIRMINGHAM.

(From our own Correspondent.)

WOMEN'S HOSPITAL.

THE annual meeting of this Charity was held on the 11th inst., when the report of the Managing Committee was presented; 294 cases had been treated as in-patients during the year, and 239 operations performed. The committee expressed their regret that the results obtained at the in-patient department did not compare favourably with those of the preceding year, 12 deaths having occurred among the 133 patients upon whom major operations had been performed. After declaring that the hospital arrangements were in every way satisfactory, and that these did not justify them in explaining the causes of the increased mortality, they say that they are forced to the conclusion that any variations in the results must be due to causes which are personal to the operating surgeons. There are but two of these, and it must be annoying to them to hear the chairman of the committee propound his opinion that, just as the greater success was due to greater skill, less favourable results were due to less skill. Some exception was subsequently taken to the wording of the report as it thus stood, and it was eventually resolved to alter the construction of the sentence, that it might read, "must be *mainly* due to causes which are personal to the operating surgeons," a reflection which is indicative of the authority under which the managing body hold their rule. An additional instance of the arbitrary nature of the tenure in which the professional staff hold office was shown in the adoption of the following law: "It shall not be competent for any member of the acting staff to accept or hold any acting medical appointment upon the staff of any other institution without the consent, in writing, of the Committee of Management." Truly, we live in an enlightened and liberal town, whose motto is "Forward."

HALFPENNY DINNERS.

A short time since attention was drawn to the working of the penny dinner movement for school-children, and it was shown that a palatable and nutritious meal could be provided for that sum with a margin of profit after all expenses had been included. A step further has been taken in this praiseworthy direction, and an experiment is being conducted by which the very poorest children may be provided with a good meal for the modest amount of a halfpenny. As many as 303 children were fed on the first day, the number going up afterwards to 566. A choice within a certain limit is given, and care is taken to make the food agreeable and wholesome. The first course consists of a rich stew or bacon sandwiches, the second of bread and jam or bread and cheese. That the children find the dinners ample to satisfy their hunger is shown by the fact of their continued attendance and the little waste made. From the calculations it is demonstrated that, with the cook's wages, cost of gas, and implements excepted, there is no loss, and that they can be made self-supporting.

A WISE VERDICT.

At an inquest recently held in an adjoining town, it was shown that a woman, aged thirty, found in a canal, died from the effects of an attempt to commit suicide. The jury returned a verdict of "Death from shock to the system," a conclusion which affords considerable range to human probabilities in the form of death, and is remarkable for its vagueness. We are reminded of the ingenuous reply of the man who, when asked what his father died from, said that his death was due to a sudden fall from a scaffold early one morning while engaged in conversation with the city chaplain!

Birmingham, March 11th, 1885.

GLASGOW.

(From our own Correspondent.)

THE UNIVERSITY.

THE Lord Rector of the University, Dr. Lushington, gives his inaugural address to the students on March 26th, when he will doubtless meet with an enthusiastic reception. The Chair of Botany in the University has become vacant through the appointment of Dr. Bayley Balfour as Sherardian Professor of Botany in the University of Oxford. There are already at least three candidates in the field.

EXTRA HOSPITAL ACCOMMODATION.

The Public Works Loan Commissioners have granted the application of the Glasgow Local Authority for a loan of £28,000 for the construction of additional pavilions to the Hospital for the Treatment of Infectious Diseases at Belvidere.

MORTALITY OF GLASGOW AND ITS SUBURBS.

There has been under discussion lately a proposal that there should be prepared monthly a statement of the total death-rate in the city and its suburbs, so that a fair comparison might be made with the other large towns in the kingdom. It is very desirable that this should be done, as at present our vital statistics are very defective and misleading, the Glasgow registration district including only the central portion of a community, from which the circumferential part, divided from it in most cases only by a boundary line, is excluded.

EXPERIMENTS ON THE EFFECTS OF LOW TEMPERATURES.

At a meeting of the Glasgow Philosophical Society, Prof. McKendrick and Mr. J. J. Coleman gave an account of some recent experiments on the effects of low temperatures on the putrefactive process and on vital phenomena. They found that the continued exposure of putrescible fluids to a temperature of 120° below zero did not prevent putrefaction, showing that the micro-organisms causing putrefaction are not killed even by this extreme cold, a temperature probably lower than any prevailing in the Polar regions, so that micro-organisms may exist even there. They hoped to continue their experiments with an atmosphere at a temperature of 150° below zero.

CASES OF LEPROSY IN GLASGOW.

During the last few months practitioners in Glasgow have had an opportunity of studying two very typical cases of leprosy, in which the signs of all the varieties of the disease were manifest—the tubercular, macular, anæsthetic, and ulcerating forms. At one of the Societies also the leprosy bacillus has been exhibited.

GLASGOW PUBLIC DISPENSARY.

The annual meeting of this institution was held a few days ago, when an interesting report was presented. In the notes regarding cases of ear and skin diseases, it was stated that two patients had been treated for acute ear affection caused by a "box on the ear" from school teachers—a form of punishment which is very reprehensible. In giving the statistics of some of the departments, a distinction is made between the number of individual patients seen and the number of consultations—a distinction which may be commended to the other medical charities of the city, where every patient, whether he be a new comer or have been seen before, has his name entered anew, with the object apparently of swelling their statistics, It is stated also in this report that an electric light apparatus has been set up in the dispensary, the dynamo being worked by a small water-wheel, a "Hercules" turbine; the leading wires pass directly from the dynamo to the electric lamps in the consulting-room, where the light is used in physical examination.

Glasgow, March 11th.

PARIS.

(From our Paris Correspondent.)

THE SURGICAL TREATMENT OF VARICOCELE.

AT a recent meeting of the Academy of Medicine, Dr. Horteloup, Surgeon of the Hôpital du Midi, read a note on the Surgical Treatment of Varicocele, wherein he proposed a radical cure for that troublesome affection. Dr. Horteloup stated that, although he was aware that after the age of thirty the malady gradually disappeared spontaneously, yet he thought something should be done to render life supportable, even if the malady could not be cured before that age. This is all the more desirable in the cases of young men who present themselves for enlistment in the army, several of whom are annually rejected on account of the infirmity. Various methods of cure have been employed by surgeons, but they have proved merely palliative, and very frequently patients were sent away with only a suspensory bandage, which they had to wear for an indefinite time. In other cases, when operative measures were adopted, several fatal accidents have occurred, which caused some repugnance to surgical interference. Dr. Horteloup, however, considers that, since the application of the antiseptic treatment of wounds, &c., the opinions of surgeons have been considerably modified as to the result of surgical operations, and he did not see why a patient suffering from the affection in question should be denied the benefits of an operation. That proposed by Dr. Horteloup consists simply in cutting out a rather large portion of the scrotum on each side, thus reducing it to a size that would enable it to form sufficient support to the testicle and the spermatic cord. Dr. Horteloup has performed this operation eighteen times within the last two years, and he found that, the size of the scrotum having been reduced, the suspensory bandage could be advantageously dispensed with.

THE DIAGNOSIS OF SUBMERSION DURING LIFE OR AFTER DEATH.

Struck with the divergences of opinion among authors as to the diagnosis of submersion having taken place during life or after death, Dr. Bougier made the subject an object of study, and during a whole year he had performed several experiments and autopsies at the Morgue, of which he gave an account in his thesis for the doctorate, which he obtained about a month ago. The author's conclusions are as follows: 1. The exterior aspect of the body is about the same in both cases—that is, when the body has been submerged before or after death; the appearance of moss on the body would be of some diagnostic value. 2. Water and foreign bodies penetrate into the air passages and in the bronchial tubes of those submerged before, as well as of those immerged, after death; but in the latter the foreign bodies do not go beyond the fifth or sixth divisions of the bronchial tubes, and the liquid is arrested at the bronchi of medium size by the column of compressed air; whereas, in the submerged during life, it penetrates down to the small bronchial tubes. 3. The epiglottis is vertical in the submerged; it is only half open in the corpses immerged. 4. Water penetrates in a pretty large quantity to the stomach of the former, but never to that of the latter; and in making a comparative analysis of the liquid found in the bronchial tubes, one might arrive at a certain diagnosis. 5. The same is the case with the middle ear. 6. The characteristic moss is found only in the submerged. 7. If the fluidity of the blood exists in certain cases of poisoning by opium, it is easy by the aid of the spectroscope, and by analysis, to form the diagnosis. 8. In putrefied corpses, all the signs have nearly disappeared, and the medical jurist can only draw conclusions by presumptions.

RETIREMENT OF HOSPITAL PHYSICIANS.

Dr. Hérard, physician to the Hôtel Dieu, and Dr. Bernutz, physician to the Charité Hospital, having attained the limit of age for hospital physicians, have been placed on the retired list, and the title of honorary hospital physicians has been conferred on them..

FEELING AGAINST FOREIGN MEDICAL STUDENTS.

The animosity that has long since been brooding between the French and Germans appears to have extended to all foreigners, especially the English and Americans, and the spirit of exclusiveness on the part of the French even manifests itself in the medical profession. The Paris Municipal Council, however, decided at its last meeting, by forty-one votes against two, that foreign medical students who have taken their inscriptions at the Faculty of Medicine will continue to be admitted as heretofore, as internes or externes of hospitals, but for the functions of hospital physician or surgeon, or for the prosectorate, the candidates will have to be naturalised.

The Société Française of Otology and Laryngology will hold its general meeting at Paris on the 2nd, 3rd, and 4th of April, 1885, at 8 o'clock in the evening, at the mairie of the 1st arrondissement.

Paris, March 11th.

THE ROYAL COLLEGE OF SURGEONS.

AT an ordinary meeting of the Council of the Royal College of Surgeons of England held on the 12th instant, the report of the Committee of Management of the Royal College of Physicians and the Royal College of Surgeons on the letter of December 1st last from the President of the General Medical Council was approved, adopted, and entered on the minutes.

It was decided to elect an additional Examiner in Elementary Physiology; this was referred to the Nomination Committee for report. A letter was read from Dr. Peter Redfern, of Belfast, asking for recognition of the certificates of vaccination granted in Belfast. To this the Council replied, that the College was pledged to the Local Government Board of England to receive those certificates only which are recognised by it; and if any alteration be made, it must be through the Local Government Board.

A vote of thanks was unanimously given to Professor John Marshall for the Hunterian Oration, which he was requested to publish.

MEDICAL NOTES IN PARLIAMENT.

Criminal Lunatics.

IN the House of Lords, on the 10th inst., the Earl of Milltown moved for a copy of the warrant under which Frederick Marshall, who was committed for trial at the Central Criminal Court charged with the wilful murder of his sweetheart at Woolwich, and against whom a true bill was found by the grand jury, was removed from the jurisdiction of the court before his trial, and committed to Broadmoor Asylum as a criminal lunatic by a warrant signed by the Secretary of State. The noble lord objected strongly to the law by which a presumably innocent person could be sent without trial to pass the rest of his life among criminal lunatics; and he argued that in the hands of a weak Home Secretary, and in the case of a wealthy or influential person charged with the murder, the power might become very dangerous. After some discussion, the Lord Chancellor stated that he considered this person was a prisoner because he was detained under the authority of the

law in prison. Nor did he see anything unreasonable in taking such a person to a criminal lunatic asylum; because, until a recent alteration was made in the law, it was the constant practice to detain in these criminal lunatic asylums, under the authority of the Crown, persons not convicted, but acquitted on the ground of insanity. The motion was negatived.

The Sale of Poisons.

In fulfilment of a pledge given by the Government last year, a Bill has been presented in the House of Peers for regulating the sale of poisons. One of its main objects is to prevent the unrestricted sale of such patent medicines as are poisonous.

Over-pressure in Board Schools.

In the House of Commons, on the 6th inst., Mr. Mundella, in reply to Mr. Leighton, stated that the London School Board is at present conducting a searching inquiry into the allegations made in Dr. Crichton Browne's report, all of which relate to London schools. The Education Department has taken no steps in consequence of that report, inasmuch as long before anything was heard of it, provisions were introduced into the Code which, by general testimony, have done all that the central government can do to prevent over-pressure.

The Metropolitan Asylums Board.

On Thursday, Mr. G. Russell, replying to Lord G. Hamilton and Mr. Stuart, said the Local Government Board had received a copy of the report of the Committee of Managers of the Metropolitan Asylums District as to their investigation into the expenditure on the Eastern Hospital, and of the notes of the evidence. The investigation extended over ten days, and the evidence, which is very voluminous, was only received by the Board three days ago. The subject is now under consideration by the Board, and no decision as to the course to be taken had as yet been arrived at. The accounts of the Managers of the Metropolitan Asylums District show that, comparing the year ended Lady Day, 1884, with the year ended on the same day in 1880, the expenditure, excluding expenditure out of loans, has increased by £187,000. Without going into the details of the expenditure, it may be observed that, since 1880, an asylum for 900 imbecile patients has been erected at Darenth, three hospital ships for small-pox patients have been provided, the North-Western Hospital has been opened, and wharves and ambulance stations have been established. There has also been a large outlay on alterations and additions at the Small-pox and Fever Hospitals since the date of the report of the Royal Commission, with the view of diminishing any risk of spread of disease from the hospitals, and also a considerable increase in the payments in respect of principal and interest of loans.

Dr. Hall and Mr. Parnell.

Mr. Campbell-Bannerman, replying to Mr. Healy—who asked if his attention had been called to the language used by Dr. Hall, the medical officer of Monaghan Workhouse, who was reported to have said at an Orange lodge over which he presided: "Some of them, perhaps, had read Parnell's utterances a few days ago at County Clare: 'You are the descendants of the men whom Cromwell sent to hell or Connaught. He only succeeded in sending you as far as Connaught.' He (Dr. Hall) considered it was a pity they did not get sent a little further"—said he had seen a letter from Dr. Hall, in which he explained that the language he used was not quite accurately reported in the *Monaghan Standard*. Dr. Hall said that his words did not point to the extreme alternative suggested in the question, and what he intended to convey was an expression of his opinion that it would have been for the good of the country if those who sympathise with the projects of the honourable member for Cork had gone across the Atlantic. Dr. Hall was not a public servant in the sense that his whole time was at the disposal of the public, and Mr. Campbell-Bannerman did not think the incident called for any further notice.

INSANITARY HOUSES.—The report of the Council of the London Sanitary Protection Society which has just been issued, states that of the 424 houses examined in the year 1884 two had drains entirely blocked up, seventy-five had leaky soil-pipes, fifty-six over-flow pipes from cisterns leading direct into drains or soil-pipes, and 211 waste-pipes from baths or sinks communicating untrapped with the sewer.

Obituary.

W. A. F. BROWNE, M.D., LL.D., &c.

ON the 2nd inst. the death occurred of Dr. W. A. F. Browne of Dumfries, in the eightieth year of his age. Born at Stirling in 1805, he was still an infant when his father, a lieutenant in the famous Cameronian regiment, was drowned while proceeding to the Peninsula on the outbreak of hostilities there, and the care of the child devolved upon his grandparents. By them he was placed first at the high school of his native town and subsequently at Edinburgh University. He distinguished himself at the University in many of the classes, and obtained his diploma in 1826. While in Edinburgh he was chosen to be President of various Societies, including the Royal Medical Society. It was about this time that Dr. Browne became fascinated by the new revelation of phrenology. George Combe was its chief prophet in this country, and Dr. Browne became the coadjutor and intimate friend of that extraordinary person. He studied with Combe, and lectured for him. In Combe's works there are frequent references to him; and the pupil and assistant whom he loved the master could also confide in, for he was named by Combe to be one of his trustees. After having taken his medical qualification Dr. Browne travelled on the Continent, and resided for a considerable period in France, where he acquired a thorough knowledge of its language, and studied psychology under the best known professors of that science. After an absence of several years he returned to Scotland, and about 1830 took up his residence at Stirling, where he commenced medical practice, and at the same time assisted at the Extra-Academical School of Medicine in Edinburgh. Though considerable improvements, forced by the exposure of the dreadful cruelties in Bethlem Hospital, had been effected in the treatment of the insane, medical reform in this direction was then still in its infancy. Dr. Browne's inquiries on the Continent and elsewhere led him to approach the consideration of the subject with the ardour of a specialist; his opinions were freely expressed, and he had not been long in practice in Stirling before he was offered an appointment as superintendent of the asylum at Montrose. Here he put in practice his theory with regard to the humane treatment of lunatics, anticipating the reforms at Lincoln, Hanwell, and other asylums in England, which took the shape of abolishing mechanical restraint; and the system which now obtains in every asylum throughout the land first assumed a complete form in Scotland when Dr. Browne went to Montrose. In 1839 he was invited to take charge of the Crichton Institution, Dumfries, a position which he accepted and held for eighteen years in spite of invitations from other quarters. But in 1858 Parliament passed a new Lunacy Act for Scotland. A Scotch Lunacy Board was established, and Dr. Browne was offered the post of Lunacy Commissioner. It was characteristic of the man that he disregarded the emoluments of the office (for he would have been richer by staying in Dumfries), and that he was ready to give up the comforts of an established home at the call of public duty. In his new office his ripened experience of the requirements of public asylums was of great value to the country, and he retained his position as Lunacy Commissioner until 1870, when, as the consequence of a carriage accident, he gradually lost his eyesight and gave up office to spend his last years in privacy in Dumfries. His mental vigour remained unimpaired, and he was enabled by the help of an amanuensis and reader to keep touch with the world and its progress. A thorough patriot, Dr. Browne was of course an enthusiastic admirer of Scotland's greatest sons. At the principal dinner on the occasion of the Burns Centenary in 1859 he presided and delivered a brilliant speech; at the Scott anniversary dinner he was one of the croupiers. In 1865 he was president of the Edinburgh Psychological Society. On his return to Dumfries he was appointed psychological consultant to the Crichton Institution.

ROYAL COLLEGE OF SURGEONS.—Professor H. A. Brailey, M.D., M.R.C.S., will commence his course of three lectures on "Some Points in the Anatomy and Physiology of the Eye," in the theatre of the College, on Monday next, the 16th inst., at 4 o'clock.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—At a meeting of the Council on the 12th inst., the following gentleman, having previously passed the required examinations, and since attained the required age (twenty-five), received the diploma of Fellow:—

James Berry, Upper Bedford-place; date of Membership, Jan. 21st, 1882.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 5th inst.:—

Emmett, Richard, St. George's Hospital.
Inman, George Arthur Ferdinand, King's College.
Parr, Arthur Charles Edward, King's College.

THE Goldsmiths' Company have contributed £25 to the funds of the Hospital for Consumption, Hampstead.

THE Committee of Management of the Aberdeen Royal Infirmary have deputed two of their number to confer with the superintendent of the institution as to the alleged abuse of visiting privileges.

THE annual general meeting of the Royal Counties Veterinary Medical Association was held at Reading on the 27th ult., when Mr. W. G. Flanagan, President for the year, delivered his inaugural address.

ON the 9th inst., in the Queen's Bench Division, a surgeon's assistant, named Allen, recovered from his former employer, a medical man named Cook, £50 as damages for false imprisonment, he having been given into custody by the defendant on a charge of felony.

IMPORTANT experiments are being carried out by the Metropolitan Board of Works to meet the requirements of the Royal Commission on the state of the Thames and the main drainage of London. The sewage is poured into tanks, allowed to settle, and the deposit pressed into cakes.

THE committee of the Lambeth vestry, which recently reported against a proposal to plant trees on the roadsides of the great parish of Lambeth, although voluntary help of a substantial kind was forthcoming, have reconsidered the matter, and will now co-operate with the vestry in planting trees on suitable sites.

UNDERGROUND urinals and waterclosets have, says the *Engineer*, been constructed round the base of the Duke of Wellington's statue on the western front of the Royal Exchange, wholly beneath the street pavement and excavated in the mass of solid concrete surrounding the foundations of the base of the statue.

THE Public Health Committee of the Aberdeen Town Council have refused to allow a cargo of rags which arrived from Dunkirk at the time cholera was raging in France to be landed unless they are thoroughly disinfected, although the Board of Supervision's order relative to ships coming from infected ports expired on the 1st inst.

AT a meeting of the Anthropological Institution, on the 10th inst., Francis Galton, Esq., F.R.S., President, in the chair, Mr. James Frazer read a paper on "Certain Burial Customs as illustrative of the Primitive Theory of the Soul"; and the Director read a paper, by Admiral F. S. Tremlett, on the "Sculptured Dolmens of the Morbihan."

THE Luton Board of Guardians recently decided by a majority of two to grant the application of Professor Macalister that unclaimed bodies of paupers should be sent to Cambridge University Medical School for anatomical examination before burial. The subject had already been twice discussed, with an adverse result to the application; but the majority on the last occasion pleaded that the concession was in the interests of medical science.

ROYAL SURREY COUNTY HOSPITAL.—From the report which was read at the annual court of governors of this institution on the 28th ult., it appears that during 1884 594 patients were in hospital 20,273 days; the average to each patient was 34 days; average number in hospital daily, 57; there were 30 deaths, or 5·05 per cent.; 105 operations were performed; 3558 out-patients attended at the hospital 9440 times. The cash receipts for the year were £3724, against £3959 in 1883, when there was a special donation of £400. Towards the cost of the new building, the sum of £2500, or half the amount required, has been obtained.

TESTIMONIAL TO A MATRON.—It is proposed to present Miss Williams, the late matron of St. Mary's Hospital, on her retirement, with a testimonial, to consist of an engrossed vellum address with the names of the subscribers, and some personal ornament to be selected by herself. Subscriptions not exceeding one guinea may be sent to Mr. T. W. C. Jones, 6, Westbourne-street, Hyde-park, W.

ST. MARY'S HOSPITAL.—The annual dinner in connexion with St. Mary's Hospital Athletic Sports was given in the Venetian Room of the Holborn Restaurant on the 3rd inst. The chair was occupied by Mr. Malcolm Morris, surgeon in charge of the Skin Department of the Hospital, who was supported by Lieut.-Colonel Bird and by many members of the staff, among whom were Dr. Broadbent, Mr. Field, Mr. Norton, Mr. Owen, Dr. Philipps, Dr. Maguire, Mr. Juler, and others.

ROYAL LONDON OPHTHALMIC HOSPITAL.—At the annual general meeting of the governors of this institution on the 10th inst., the committee of management stated that in 1883 the beds occupied were 27,690, in 1884 there were 31,564. The number of out-patients treated was 23,568, the attendances being 117,840. The total receipts for the year amounted to £8024, which included annual subscriptions £758, donations £2741 (inclusive of the legacies). The expenditure amounted to £6767, but the liabilities outstanding amounted to £1311, so that the expenditure was largely in excess of the ordinary receipts. Increased contributions and donations were earnestly appealed for.

THE HOSPITALS ASSOCIATION.—The first annual meeting of the members and associates of this institution was held on the 11th inst., Sir Andrew Clark, Bart., M.D., presiding. Amongst those present were Dr. Bristowe, F.R.S., Dr. Gilbart Smith, General Keating, Mr. Henry C. Burdett, Mr. W. J. Nixon, Mr. N. H. Nixon, Sir Vincent Mercier, and Mr. J. L. Clifford Smith, hon. secretary. The secretary read the report, which was a highly satisfactory one, from which it appeared that though it was called the first annual report, it, in fact, really covered a period of nearly two years, steps having been taken as far back as 1883 to found the Association. The financial position of the Association showed a balance in hand of £160. The retiring officers were unanimously re-elected, and the meeting terminated with a vote of thanks to the chairman.

A COURAGEOUS ENGLISH NURSE.—American papers just received give full details of the late disastrous fire in the lunatic wing of the Philadelphia Hospital, in which nearly fifty patients lost their lives. All accounts agree in expressing very high appreciation of the cool and courageous conduct of Miss Alice Fisher, who lately resigned the appointment of Lady Superintendent of the General Hospital at Birmingham and proceeded to Philadelphia to take charge of the nursing department of the hospital in that town at the urgent request of the Board of Governors. Miss Fisher is well known to many members of the profession from having held the appointment of Lady Superintendent of Addenbrooke's Hospital, Cambridge, and the Radcliffe Infirmary at Oxford, at both of which institutions important improvements in the nursing arrangements were effected during her tenure of office.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

ATKINSON, GEORGE THOMAS ANDREW, M.B., C.M.Ed., has been appointed Medical Officer for the Harrogate District of the Knaresborough Union, vice Ford.

CASSEL, CHARLES E., F.I.C., F.C.S., has been appointed Public Analyst for the Borough of Chipping Wycombe.

FIRMIN, CUTHBERT C., M.R.C.S., L.S.A.Lond., has been appointed Honorary Assistant-Surgeon to the Children's Hospital, Gloucester.

GABB, J. PERCY ALWYNE, M.D.Lond., M.R.C.S., has been appointed Honorary Assistant-Surgeon to the Royal Surrey County Hospital.

GARBUTT, J. GILLIOTT, M.A.Lond., M.R.C.S., L.S.A.Lond., has been appointed Surgeon to the South Metropolitan Gas Company, Bankside Works.

GARLIKE, E. WILLIAM BENNETT, L.R.C.P.Ed., M.R.C.S., has been reappointed Medical Officer of Health for the Cheshunt Urban Sanitary District.

HALL, ALFRED, M.R.C.S., has been appointed Medical Officer for the Butterton and Grindon District of the Leek Union.

HOGG, JAMES BALLANTYNE, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Assistant Superintendent of Hospitals for the Insane, Goodna and Sandy Gallop, Queensland.

LAKE, WELLINGTON, M.R.C.S., L.S.A.Lond., has been appointed a Surgeon to the Walthamstow Town Dispensary, vice F. A. Best, retired.

LOW, CHARLES, M.B., C.M.Ed., has been appointed Resident Medical Officer to the Southland Hospital, Invercargill, New Zealand, vice Wardale, resigned.

MILBURN, FRED. LE FEVRE, M.R.C.S., L.S.A.Lond., has been re-appointed Medical Officer for the Fourth District of the Holborn Union.

MOLYNEUX, MORRIS J., L.F.P.S., L.A.H., & L.M., has been appointed Medical Officer to the 8th Wimbledon District of the Kingston Union, vice Comber, resigned.

POLLARD, REGINALD, M.B.Durh., M.R.C.S., has been appointed Assistant House-Surgeon to the Western General Dispensary, Marylebone-road, N.W.

ROBERTS, ARTHUR HENRY, L.R.C.P.Lond., M.R.C.S., has been appointed Resident Medical Officer to Prince Alfred Hospital, Sydney.

ROSE, JAMES, M.R.C.S., L.R.C.P.Lond., has been appointed Honorary Assistant-Surgeon to the Liverpool Eye and Ear Infirmary, vice G. Stone, L.R.C.P., L.R.C.S., resigned.

SCHOLES, RICHARD BATTERSBY, M.B., C.M.Ed., has been appointed Inspector of Asylums for the Insane, Queensland. Also Superintendent of the Hospitals for the Insane at Goodna and Sandy Gallop, Queensland.

SMITH, EUSTACE, M.D., F.R.C.P.L., has been appointed Consulting Physician to the Merchant Seamen's Orphan Asylum.

TUCKER, JOSEPH, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Chawleigh District of the Crediton Union, vice Daly.

TURNER, PHILIP D., M.R.C.S., has been appointed Resident Clinical Assistant to the Hospital for Consumption, Brompton.

Births, Marriages, and Deaths.

BIRTHS.

BARRON.—On the 7th inst., at 8, Manchester-road, Southport, the wife of Herbert G. Barron, B.A.Oxon., L.R.C.P., &c., of a son.

BRANFOOT.—On the 7th ult., at Madras, the wife of Surgeon-Major A. M. Branfoot, Indian Medical Department, of a daughter.

EVANS.—On the 27th ult., at Sutton Coldfield, the wife of Alfred Evans, M.R.C.S., of a son.

GROOME.—On the 6th inst., at Stowmarket, the wife of W. Wollaston Groome, M.B., of a son.

MAISEY.—On the 9th inst., at Charlbury, Oxfordshire, the wife of F. T. Maisey, M.R.C.S., of a daughter.

RENSHAW.—On the 9th inst., at Clarendon-place, Citadel-road, Plymouth, the wife of Staff-Surgeon Burnard Renshaw, R.N., prematurely, of a son.

MARRIAGES.

BROWN—CARNEGIE.—On the 7th inst., at Penang, Straits Settlements, William Carnegie Brown, M.D., to Jane Ross, daughter of the late John Carnegie, M.D., of Chesterfield.

CADMAN—BELDER.—On the 26th ult., at Amsterdam, Arthur W. Cadman, M.R.C.S., of Mornington-crescent, N.W., to Johanna Jacoba Margaretha, second daughter of Hendrik Barend Belder, of Weteringschans, Amsterdam.

CURD—DOYLE.—On the 28th ult., at St. Paul's, Camden-square, by the Rev. E. Richards-Adams, Charles Curd, M.R.C.S., of Bath, to Charlotte Emily, second daughter of Watkin Doyle, of Camden-road, N.W. No cards.

HENRY—KIRKPATRICK.—On the 11th inst., at the Presbyterian Church, St. John's-wood, Richard Henry, M.D., Dublin, to Annie Louisa, daughter of the late Rev. W. B. Kirkpatrick, D.D., of Dublin.

MOODY—FRIEND.—On the 4th inst., at Worplesdon, James M. Moody Medical Superintendent Surrey County Asylum, Cane-hill, Purley, to Alice Harriet Friend, of Oaklands, Worplesdon, Surrey.

RICE—ROSS.—On the 4th inst., Richard Rice, M.R.C.S., L.S.A.Lond., of Harwell, Berks, eldest son of the Rev. Richard Rice, M.A., of Little Barrington, Gloucestershire, to Alexandria Agnes Helen, third daughter of Col. W. A. Ross, late R.A., of Acton House, Acton.

DEATHS.

COTTERELL.—On the 4th inst., after a short illness, at the residence of his relatives, Dr. and Mrs. Rayner, Great Malvern, Thomas Reginald Cotterell, M.R.C.S., L.S.A.Lond., late of Charlbury, Oxon, aged 69.

GARDINER.—On the 7th inst., Samuel Christopher Gardner, M.R.C.S., L.A.C., of Church-street, St. Marylebone, son of the late Mr. Christopher Gardner, of Burnham, Essex, in his 74th year.

HUGHES.—On the 3rd inst., at Beresford-road, Highbury, N., Henry William Hughes, M.R.C.S., late of Fenchurch-street, E.C., aged 62.

PYE-SMITH.—On the 9th inst., at Sevenoaks, Ebenezer Pye-Smith, F.R.C.S., aged 78.

THOMPSON.—On the 28th ult., at Bramble-hill, Honiton, Devon, P. H. Hansard Thompson, M.R.C.S., L.S.A.Lond., formerly of Monmouth, aged 80.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, March 12th, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Mar. 6	29·25	N.E.	39	37	...	46	37	...	Cloudy
,, 7	29·96	N.E.	34	33	...	42	32	·18	Overcast
,, 8	29·94	S.E.	38	35	...	43	32	...	Foggy
,, 9	29·98	E.	40	37	...	44	35	·03	Cloudy
,, 10	30·29	N.E.	36	34	...	43	33	...	Cloudy
,, 11	30·48	E.	40	36	...	45	35	...	Cloudy
,, 12	30·53	N.E.	37	35	...	47	33	...	Bright

Medical Diary for the ensuing Week.

Monday, March 16.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. each day, and at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Routh: The Alleged Constitutional Treatment of Diseases of the Uterus and its Appendages.—Mr. Walter Pye will show a case of Natural Repair after Gangrene of the Scrotum.

Tuesday, March 17.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

ROYAL INSTITUTION.—3 P.M. Prof. Gamgee: Digestion and Nutrition.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. Hermann Weber: Croonian Lecture on the Hygienic and Climatic Treatment of Consumption.

PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Dickinson: Violet Pigment Discharge from the Mouth.—Dr. Samuel West: Aneurysm of the Splenic Artery rupturing through the Stomach.—Mr. Treves: A Congenital Deformity.—Dr. Turner: Superficial Slough in the Stomach (card); Growth of the Kidney invading the Vena Cava (card).—Dr. Silcock: Osteitis Deformans.—Mr. D'Arcy Power: Synovial Cysts in connexion with Joint Disease.—Mr. Battle: Primary Sarcoma of the Penis.—Dr. Norman Moore: Cavity in the Lung of an Infant; Renal Disease in an Ox (card).—Mr. Stephen Paget: Dislocated Hip.—Dr. Percy Kidd: Fatal Hæmoptysis from an Hydatid of the Lung.—Dr. Chaffey: Pyo-salpinx in a Child aged four years (card).

Wednesday, March 18.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department: 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.

Thursday, March 19.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Dewar: The New Chemistry.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Sir Andrew Clark: Lumleian Lecture on some Points in the Natural History of Dry Pleurisies.

HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Mr. W. Adams Frost: The Early Treatment of Concomitant Squint.—Mr. F. Treves: Resection of the Intestine.

Friday, March 20.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—7.30 P.M. Ballot. Mr. A. Wynter Blyth: The Action of Disinfectants on Micro-zooides.

ROYAL INSTITUTION.—9 P.M. Prof. A. W. Rücker: Liquid Films.

Saturday, March 21.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. C. Armbruster: Richard Wagner.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

CONJUNCTIVÆ INSENSITIVE TO COCAINE.

DR. OSIO, in a series of articles on cocaine in ophthalmic practice in a Spanish medical journal, says: "There are conjunctivæ which are uninfluenced by cocaine. In the case of a lady with a completely normal conjunctiva who was suffering from posterior adherence of the whole iris I instilled a 4 per cent. solution five times at intervals of four minutes, without the slightest effect on the conjunctiva. The cornea was, however, thoroughly anæsthetised. I have employed a solution of the hydrochlorate of cocaine, 4 per cent., in English glycerine, and have obtained the same results as with an aqueous solution."

J. L.—We regret to differ from our correspondent; but if his views were adopted progress would be impossible, and any change, however beneficial to the interests of the public, would be resisted on the grounds that it interfered with the supposed rights of individuals. When vested interests are involved, fair compensation should be given.

CASCARA SAGRADA IN OBSTINATE CONSTIPATION.

To the Editor of THE LANCET.

SIR,—With reference to Dr. Lucas's letter in your issue of Feb. 21st, drawing attention to the compound cascara pills which I prescribed for him, I wish to supplement his list of ingredients by the addition of capsicum, which formed a most important part of the preparation from which he derived such "marked benefit." I should not trouble you with this communication were it not that after three years' experience of cascara sagrada I attach the greatest importance in most cases to its combination with capsicum. I do this, first, because capsicum, more than any other ingredient, does away with that griping which is a great drawback to the general use of cascara sagrada; and, secondly, owing to its action as a hepatic and gastro-intestinal stimulant, it supplements, and, in supplementing, renders necessary a smaller dose of, the more active and acrid ingredient.

I may add that I have prescribed these pills, to the exclusion of all other preparations of cascara sagrada, now for some time with the greatest benefit to my patients and satisfaction to myself. Most other preparations I had previously tried, and was somewhat disappointed in the trial; many griped, some were inert, while others (fluid preparations, which many patients object to for various reasons) had a most disagreeable after-taste. Whatever preparation be used, or whenever this drug is prescribed, it is absolutely necessary, if we want to avoid disappointment, when the chemist obtains a new supply, that the physician should test for himself, and, if possible, on himself, its purity and power; for it may be said without fear of contradiction that there is no drug in the market so variable in these respects. This I invariably do, with the result that I can now thoroughly rely on the efficacy of these pills as made up for me by Messrs. Twinberrow and Son; for I have found them the only preparation of the drug that complies with the threefold necessity of a good prescription—viz., *Curare cito tuto et jucunde.*

I have the honour to be, Sir, your most obedient servant,

Welbeck-street, W., Feb. 27th, 1885. D. H. CULLIMORE, M.D.

To the Editor of THE LANCET.

SIR,—Adverting to my note on cascara sagrada (THE LANCET, Feb. 21st, page 369), I would desire to remark on its pathological properties that, in sufficiently full doses, it is a powerful intestinal stimulant, acting, I imagine, more on the small intestines, and producing copious watery evacuations, preceded by intense griping, if not guarded by some such drug as belladonna. It is also, I am inclined to think, a feeble hepatic stimulant, for clay-coloured stools become more or less tinged with bile; but, of course, this latter action may, *cæteris paribus*, be due more to the intestinal than to the hepatic stimulation. Such being my further experience of this new drug on myself and others, I deem it not uninteresting to place the same on record.—Yours truly,

March 11th, 1885. JOHN LUCAS, M.D.

THE WHITTLE HUTCHINSON FUND.

ON the 5th inst., at an ordinary meeting of the Liverpool Medical Institution, the President (Dr. Gee) presented Drs. Whittle and Hutchinson with a cheque for a little over £169, the outcome of the fund started in November last to express the sympathy of the profession towards these gentlemen in their vexatious action at law in the case of Goode *v.* Whittle and others. Drs. Ewing Whittle, Glynn Whittle, and Hutchinson returned thanks, expressing themselves as deeply grateful for the sympathy evinced by their brethren, and for the token of that sympathy which they had just received. Below are the names of subscribers whose subscriptions have not yet been publicly acknowledged.

	£	s.	d.
A Friend	10	0	0
Dr. Grimsdale	3	3	0
Dr. Waters (Chester)	3	3	0
Dr. Bell-Taylor (Nottingham)	2	2	0
Dr. Rogers (Rainhill)	2	2	0
Dr. Waters (Liverpool)	2	3	0
Dr. Harvey	1	1	0
Dr. Fay	1	1	0
Dr. Grimes	1	1	0
Dr. Howie	1	1	0
Dr. Clarke	1	1	0
Dr. J. Bligh	1	1	0
Mr. Manifold	1	1	0
Dr. Armstrong	1	1	0
Dr. W. William	1	1	0
Mr. Glazebrook	1	1	0
Dr. Cullingworth	1	1	0
Dr. T. R. Pennington	1	1	0
Dr. W. H. Hughes (Ashton-under-Lyme)	1	1	0
Dr. Fawsit (Oldham)	1	1	0
Mr. McCheane	1	1	0
Dr. F. M. Pierce (Manchester)	1	1	0
Dr. Dale	1	1	0
Dr. D. U. MacLennan (Widnes)	1	1	0
Dr. Warburton	1	1	0
Mr. J. L. Molyneux (Upholland)	1	1	0
Dr. Leatham	1	1	0
Mr. Stone	1	1	0
Dr. J. Mathews (Waterloo)	1	1	0
Dr. Carruthers (Runcorn)	1	1	0
Dr. James Atkinson (Crewe)	1	1	0
Mr. T. D. Leigh	0	10	6
Mr. C. G. Lee	0	10	6
Dr. Lupton	0	10	6
Dr. T. Starkey (Warrington)	0	10	6
Mr. T. H. Bickerton	0	10	6
Dr. Hyla Greves	0	10	6
Dr. E. T. Davies	0	10	0
Dr. John E. Allen (Todmorden)	0	10	6
Dr. Berry (Wigan)	0	10	0
Dr. Crutchley (Alsager)	0	5	0
Mr. T. W. Dartnell	0	5	0

Corpuscle.—Our correspondent will find an excellent essay on the subject, with several references to other sources of information, in Essays on Physiological Subjects, by Gilbert W. Child; published by Longmans, 1869.

Medicus (Portsmouth) had better apply to the author of the card, Dr. Angus Mackintosh, Chesterfield.

Dr. J. J. Monteath.—The reply was given in our issue of Feb. 14th, p. 323.

FEES FOR SCHOOL BOARD CERTIFICATES.

To the Editor of THE LANCET.

SIR,—A few days ago a boy I am attending gratuitously brought to me a form, drawn out and partly filled up, as follows:—

"SCHOOL BOARD FOR A.....

"March 8th, 1885.

"I hereby certify that Albert H....., residing at ..... is unable from illness to attend school for ..... days from this date.

"Signed ....., Medical Attendant.

"This notice must be taken to the medical attendant for his signature, and then sent directly to the School Board visitor."

Knowing that this Board has refused on former occasions to pay for certificates, I delayed signing until I inquired if it would pay in this instance. I am told that it will not, and therefore I have not certified. The fee I claim is 2*s.* 6*d.*; and what I wish to know is, if on a future occasion such a form should be brought to me, and I sign it, can I recover in a county court? for I quite agree with you, that "when public authorities require professional opinions they must learn to pay for them." I am, Sir, yours faithfully,

March 9th, 1885. M.R.C.S.Eng., L.S.A.

L. H. N.—We do not think there is any hardship in the case. The conditions of employment were clearly laid down, and the acceptance of them was optional.

REMOVAL OF A PORTION OF A GUN-BARREL FROM THE NOSE

To the Editor of THE LANCET.

SIR,—I think I remember a case reported in your journal of the removal of a portion of a gun-barrel under nearly, if not precisely, similar circumstances to those reported in your issue of Feb. 28th. If my memory serves me, it was by Professor Syme in Edinburgh; it was illustrated by a wood-cut, too, and was larger than the piece extracted so successfully by Mr. Rushton Parker.—Yours faithfully,

Mansfield, Notts, March 6th, 1885. THOS. GODFREY.

M. O. H. had better submit his question to E. Hammond, Esq., 2, Barton-street, Westminster.

Dr. J. P. Lynch (Ann Arbor).—The gentleman's name does not appear in the Medical Directory.

REMOVAL OF SUPERFLUOUS HAIR BY ELECTROLYSIS.

To the Editor of THE LANCET.

SIR,—May I ask through your columns for a means of removing surplus hair by electrolysis? Where can I see such a plan in action? I have a lady patient with a growth of hair on her face, and she wishes it permanently eradicated. I am Sir, yours truly,

Claremont-sq., N., March 12th, 1885. T. R. ALLINSON, L.R.C.P.Ed.

THE INSANE POPULATION OF THE UNITED STATES.

DR. W. B. SYLVESTER, Willard, N.Y., in a paper which appeared recently in the *Alienist and Neurologist* states that twenty years ago the number of insane persons in the United States was only 24,042. In 1870 it had reached 37,432, and in 1880 humane treatment was required for 91,959 lunatics. From 1870 to 1880 the increase in insanity was over 100 per cent., while that of the total population was about 26. These figures do not represent an actual increase, but during this period a large number of insane persons, previously concealed, were brought to public notice by more thorough investigation. In America, apart from several large county asylums, there are eighty State and forty private institutions for the care of the insane, with a capacity for about 40,000, but accommodating 53,192, thus leaving probably 45,000 to be cared for elsewhere. The proportion of insane is greatest in New England, whilst the increase has been most rapid in the Western States. In the State of New York there are thirty-five institutions for the care of these unfortunate people, accommodating 11,343 patients, while it is claimed that there are 4000 provided for at home.

M.R.C.S.—We think, under the circumstances, it was wise to call in another medical man. No legal claim could be made to a larger fee than the one received.

"KING AND QUEEN'S COLLEGE OF PHYSICIANS, IRELAND."

To the Editor of THE LANCET.

SIR,—A letter on the above subject appeared in your issue of Feb. 21st. Your correspondent has my most earnest sympathy. I also am possessed of the "L.K.Q.C.P.I.," but have, since I have been in practice in England, ceased to take advantage of the distinction—not enjoyed by London graduates—of having half the alphabet after my name, reminding one, as a facetious friend of mine remarks, more of the qualifications of Colman's "Dr. Pangloss" than a hard-working practitioner who tries to make a living by virtue of his abilities. Outside the narrow circle of Irish physicians very few understand the meaning of the mysterious hieroglyphics that are an object of ridicule to so many. If the College authorities would devote their energies to elevating the status of the corporation, instead of wasting time by agitating for individual advancement, they would contribute far more to popularise the College, not only among Irish physicians practising out of the country, but also with English and Scotch seekers for a medical qualification. Until the Irish College becomes a Royal College, all attempts at reform can only serve to bring the institution into contempt.—Yours truly,

March 3rd, 1885. AN IRISH GRADUATE.

To the Editor of THE LANCET.

SIR,—The plea for simplification by abbreviation of the above title urged by "Surgeon R.N." is well worthy of consideration by the powers that be. The plea is based on the well-founded fact that these titular letters are to the public outside of Dublin incomprehensible, and to members of the profession other than those in Ireland even as a Chaldaic inscription. So it comes about that the holders of this otherwise honourable diploma are, in England, ashamed to acknowledge their college for fear of derisive laughter, and at the first opportunity are compelled to take the "L.R.C.P.," the meaning of which letters is "understanded of the people." I submit that to attach to a name symbols which are meaningless to the uninitiated is ridiculous, and tends directly to lower the monetary and social value of the diploma. Brevity should as often as possible rule all titles. Life is too short to have to append the letters L.K. & Q.C.P.I. to one's name.

I am, Sir, yours truly,

Feb. 28th, 1885. M.D.

Country Surgeon.—A Poor-law medical officer is not bound to attend any of the poor patients our correspondent speaks of without an order. Of course, if anything untoward should result from his refusal, he is likely to incur public odium; but this is only one of the drawbacks of practising in a poor neighbourhood. The best plan to adopt in such cases is to go *once* in any case of emergency, and direct the patient or his friends to get an order for the attendance of the district medical officer for after-treatment.

SMEARING THE LARYNGOSCOPIC MIRROR WITH GLYCERINE.

To the Editor of THE LANCET.

SIR,—Dr. Neale, the very distinguished and able author of the Medical Digest, has written to me stating that in Sect. 611:3 of that work Dr. Buzzard taught that the mirror should be smeared with glycerine. I am sure that I claimed no originality for the idea, as I thought everybody knew it. But it appears not. I now bring before you another method of preventing the breath condensing upon the mirror, which I have learnt from dentists, and which, I believe, is not in the Digest—namely, to smear the mirror with the patient's saliva by rubbing it upon the inner side of the cheek, this being the method pursued by dentists when using a mirror in stopping, &c.

I am, Sir, yours truly,

Bicester, March 11th, 1885. EDWARD COTTERELL.

Dr. Corazza of Verona is referred to the Transactions of the Neurological Society of Philadelphia; but Dr. Weir Mitchell would no doubt give him fuller information if he were written to on the matter.

PORTABLE ELECTRIC LIGHT FOR HOUSES.

THE *Electrician* states that Messrs. Blumberg construct an electric incandescent lamp, worked by a Skrivanow battery, which contains zinc, chloride of silver, and a solution of potash, the whole being as portable as an ordinary china oil-lamp. A lamp of twenty-five-candle power is said to burn for twelve hours without attention at a cost of eightpence.

W. A. G.—1. No.—2. Yes.—3. Attendance at a colonial hospital with more than 100 beds is recognised by the English Colleges.

Mr. William Fraser, M.B.—We know nothing of the society in question.

"SWEET SPIRITS OF NITRE."

To the Editor of THE LANCET.

SIR,—In your last issue appeared a paragraph under the above heading. It is not for me to express an opinion as to whether the therapeutic value of the *spiritus etheris nitrosi* and kindred preparations is really due to the nitrous ether contained in them, but it is evident that manufacturing chemists have no right to change the method of manufacture of a well-known preparation in such a way as essentially to alter its composition. This, however, is done by those manufacturers who make a preparation of ·900 specific gravity. This figure indicates the presence of something like 25 per cent. of extra water, whether it be directly added as such or be due to the distillation being pushed to an extreme. A preparation of this density will undergo decomposition comparatively rapidly, with destruction of the nitrous ether contained in it; and the same remark applies, in a somewhat less degree, to the preparation having a density of ·887, which is stated in your columns to be an article supplied by a large manufacturer, principally to medical men. Medical men should know that the presence of excess of water causes rapid deterioration of spirit of nitrous ether. If they desire a preparation containing nitrous ether, and one on which they can rely, let them in future insist on being supplied with a spirit having a density of ·845, and containing not less than, say, 2½ per cent. of real nitrous ether. Till recently the estimation of nitrous ether in preparations containing it was a troublesome, and to some extent an uncertain, operation; but this is no longer the case, for by a method described by me in a recent number of the *Pharmaceutical Journal* (Feb. 21st, 1885, page 673) it is possible for any medical man to assay his spirit of nitrous ether in a few minutes, and without the use of any out-of-the-way reagents or solutions of known strength.

I am, Sir, yours faithfully,

ALFRED H. ALLEN, F.I.C., F.C.S.,
Public Analyst for the Borough of Sheffield,
Sheffield, March 9th, 1885. West Riding of Yorkshire, &c.

Mr. James Cross (Wimborne) should make application to the Secretary of the Northampton Provident Dispensary.

Dr. Rogers' letter arrived too late for insertion this week.

"A NEW FORM OF BLOTTING SHEET AND OF MEDICAL ADVERTISEMENT COMBINED."

To the Editor of THE LANCET.

SIR,—In reference to your paragraph of last week, I hasten to give the explanation asked for.

Several gentlemen in the City, having noticed that there was no institution of a provident nature not eleemosynary by which City clerks could obtain medical advice by a fixed annual payment, so avoiding the serious trouble which the payment of ordinary medical fees entail on persons of small means, have determined to try if an entirely self-supporting association would not be treated with welcome by the class for which it was intended. When it is considered that many provident dispensaries have been established to provide not only medical assistance but medicine also, at a much lower rate, it cannot be thought that the annual fee now named is too low when medicine is not provided, but only the right to consult the medical officers at their consulting-rooms. The original promoters having applied to three medical men having consulting-rooms in the City, they agreed to act as medical officers if their names were not advertised, as they thought that a non-dispensing association of the kind, while not interfering with the legitimate business of the City chemists, would tend to reduce the present enormous amount of counter practice by entirely unqualified men. I have, in conclusion, to say that every effort will be made to issue cards only to clerks, warehousemen, and others, for whom the association has been founded.—I am, Sir, yours truly,

H. D. H. CHARLTONE, Secretary.

The City of London Medical and Surgical Association,
13, Size-lane, E.C., March 9th, 1885.

E. R. W.—It would be hardly fair to criticise the utterance of a speaker on a scientific question simply upon a newspaper report.

HOW TO CARRY, UNAIDED, AN INSENSIBLE MAN.

To the Editor of THE LANCET.

SIR,—Officers in the Soudan, and also in South Africa, have written to me by the last mail, asking, "Which is the best way to lift and carry by oneself, unaided, an insensible man?" As such a contingency is likely to occur at any moment to any officer or man in the service, perhaps one of your experienced correspondents would kindly reply in THE LANCET, giving some details of the best mode of lifting and carrying an insensible man unaided. I am, Sir, yours obediently,

March 9th, 1885. R. N. R.

J. S. O.—1. The coroner is not authorised to pay fees to medical officers of public hospitals, and magistrates are quite within their right in refusing to allow such fees. There is high legal opinion, however, that "workhouse infirmaries" do not come within the definition "public hospitals," although in practice it is customary to regard them as if they did.—2. In case of grievance the proper course is to apply to the Home Secretary.—3. Our correspondent is compelled by his subpœna to give evidence of facts within his knowledge. We advise an appeal to be made to the Home Secretary for his interpretation of the point raised in paragraph 1.

Dr. G. M. Sternberg (Baltimore).—In an early number.

An Army Doctor has not enclosed his card.

CONSTANT TINCTURES.

To the Editor of THE LANCET.

SIR,—Having made tinctures for thirty-five years, I can with certainty say that if good sound drugs are used and the proof or rectified spirit, as the case may be, is up to the mark, the strength of the tinctures will for all therapeutical purposes be sufficiently uniform and trustworthy. It has been my custom to take the specific gravity of each batch of all the more active tinctures, and I have rarely found any appreciable difference in the respective batches. If inferior drugs are used, "the careful addition of crude drug or spirit," as suggested in your article on Pharmacology, would be necessary.—I am, Sir, yours faithfully,

March 9th, 1885. E. W., L.S.A.

COCAINE FUNGUS.

To the Editor of THE LANCET.

SIR,—In your issue of Jan. 31st one of your correspondents mentions the formation of a fungus which he found on the surface of some 4 per cent. cocaine solution, and which he considered in a great measure destroyed its anæsthetic properties. The surgeons at this hospital use it almost daily, and when the solution becomes flocculent or thick, I filter it through animal charcoal, and add a few grains of salicylic acid, and I find the filter solution as good as when first made. I think it should be kept in a cool place, and away from sunlight.—Yours faithfully,

J. CHURCHYARD,

Sussex Eye Hospital, Brighton, March 5th, 1885. Dispenser.

A QUERY.

To the Editor of THE LANCET.

SIR,—Could you or any of your readers tell me of a home, within easy reach of London, where an elderly gentleman who has lost his eyesight could be received at a moderate rate? Any information on the subject will be most thankfully received.—Yours faithfully,

Seymour-street, W., March 10th, 1885. ALEX. BOWIE, M.B.

ERRATUM.—By a clerical error in our Dublin correspondent's letter of last week, Dr. McCabe was stated to have been appointed a medical "commissioner" to the Irish Prisons Board. It should have been medical *officer*.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Andrew Clark, London; Mr. Rushton Parker, Birmingham; Mr. Howard Marsh, London; Dr. Heywood Smith, London; Mr. G. E. Walker; Mr. J. M. Lucas, London; Dr. Wickham Legg, London; Dr. Angus Mackintosh, Chesterfield; Mr. Cowell, London; Brigade-Surgeon C. Macdowall; Mr. W. Fraser, Ashburton; Dr. J. C. Murray, Newcastle-on-Tyne; Mr. A. H. Allen, Sheffield; Mr. Johnston, Claughton; Dr. Hale White, London; Mr. Beale, Leicester; Messrs. Squire and Son, London; Dr. Eberle, Thirsk; Dr. Padley, Swansea; Mr. Cox, Aston-on-Clum; Mr. Allden, Liverpool; Messrs. Harris and Co., London; Mr. Atkinson, Ripponden; Dr. B. Squire, London; Rev. R. Hey, Belper; Mr. Russell, Liverpool; Mr. Leslie, Hulme; Mr. Heaton, Horncastle; Messrs. Mottershead and Co., Manchester; Mr. Grant, Birmingham; Mr. Campbell, London; Mr. Thornton; Mr. Utarid, Punjaub; Mr. Rundell, Southgate; Mr. Smallman, Salterton; Mr. Mather, Great Yarmouth; Mr. R. Leake; Dr. Burdon Sanderson, Oxford; Mr. Churchyard, Brighton; Mr. W. Thomson, Dublin; Mr. J. Hardie, Manchester; Lady John Manners, London; Dr. L. C. Grays, Brooklyn; Dr. Dobbin, Bambridge; Dr. Corazza, Verona; Mr. R. Sers, London; Mr. Matthew, London; Mr. Fletcher, Ormskirk; Mr. Godfrey, Mansfield; Mr. Morse, Norwich; Dr. Clement Dukes, Rugby; Mr. Kilner, Forest Gate; Mr. Charlton; Dr. Douglas, Perth; Mr. Bloom, London; Dr. Rogers, London; Messrs. Deane and Co., London; Mr. Markman; Mr. Pascal, Jamklandi; Messrs. Beal and Son, Brighton; Messrs. Wood and Co.; Mr. Howe, Bath; Dr. Baker, York; Mr. Linney, Itchin; Mrs. Pratt, Cardiff; Mr. Fitch, Birmingham; Dr. Rollins, Boston; Mr. Oakley, London; Mr. G. Murray, London; Mr. Jas. Cross, Wimborne; Mr. Sutcliffe, Stalybridge; Mr. Gurner, London; Mr. Curtice; Mr. Westby, Liverpool; Mr. W. White, London; Messrs. Boning and Small, London; Mr. Pugin Thornton, London; Mr. M. C. Buszard, London; Mr. Carmalt Jones, London; Mr. Whitefoord, London; Mr. Cotterell, Bicester; Mr. J. Lambert, London; Mrs. Bevan; Mr. Oswald Lane, Northampton; Mr. A. J. Harvey, London; Mr. Langdale, London; Mr. M. Phillips, Whitley; Mr. Jos. Williams, Brentford; Mr. Hornbrook; Mr. Hodge, Barnsley; Mr. Watt, Hovingham; Mrs. Theobald; Messrs. Fannin and Co., Dublin; Messrs. Newberry and Sons, London; Mr. Scott, Manchester; Mr. E. Wooton; Dr. J. B. Berry, Keighley; Medicus, Southgate; E. W.; R. N. R.; M.R.C.S.Eng., L.S.A.; E. R.W.; The Director-General of the Army Medical Department; G. A.; G. S. M., Kensington; Chemicus.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Burnell; Dr. Moir, Fort William; Mr. Burgess, Invergordon; Mr. Weaver, Longton; Mr. Juler, London; Mr. Salmon, London; Messrs. Clays and Son, Manchester; Mr. Barron, Southport; Mr. Barrelley, India; Mr. Brasier, Clerkenwell; Mr. Bennett, Otley; Messrs. Woods and Co., Northfields; Mr. Phillips, London; Messrs. Dowie and Co., London; Messrs. Southall and Co., Birmingham; Messrs. Knight and Co., Rotherham; Mr. Dalrymple, Leicester; Mr. Holloran, Nantwich; Mr. Rodger, Brentford; Mr. Kinder, Leicester; Mr. Mayhew, Ipswich; Mr. Russell, London; Mr. Cleunie, Borough; Mr. Morris, Swansea; Mr. Bruce, Aberdeen; Dr. Wilks, London; Messrs. Segg and Co., London; Mrs. Spencer, Sheffield; Mr. Woodworth, Winterton; Mr. Curd, Bath; Mr. Turner; Dr. Heelas, London; Mr. Ness, London; Messrs. Mason and Co., London; Mr. Silverlock, Sheffield; Mr. D'Orsey, London; Dr. Rowley, Barnsley; Messrs. Mackay and Co., Edinburgh; Mr. Austin; Dr. Pope, South Hayling; Mr. Wythe, Hadleigh; Dr. Lewers, London; Mr. Cotton; Dr. Harley, Wye; Messrs. Porteus and Co., Glasgow; Dr. Bertram, London; Mr. Life, Manchester; Mr. Winckworth, Shefford; Messrs. Harkin and Co., Worcester; Mr. Newman, Bowness; Mr. Barrow, Notts; Mr. Jones, Chatham; Mr. Williams, Brixton; Dr. Gambier, St. Leonards-on-Sea; Dr. Gramshaw, Kew; Mrs. James, St. John's Wood; Surgeon-Major Johnston; Omega, Edinburgh; H., Guy's Hospital; M.D.; Amicus; G. T., Ipswich; Superintendent, Frome; Cymro, Gravesend; M.D., Camberwell; A. C.; A. B. Z.; G. P.; Lady Superintendent, Cambridge; F. L., Bretton; J., Preston; Matron, Newark-on-Trent; R. L. S., Hollingworth; Medicus, Liverpool; F.S.A., Wye; M.R.C.S., Sheffield; H. B., Mile End; Alexander.

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Gulstonian Lectures
ON
MALIGNANT ENDOCARDITIS.

Delivered at the Royal College of Physicians.

BY WILLIAM OSLER, M.D.,
PROFESSOR OF CLINICAL MEDICINE AT THE UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA.

LECTURE III.

MR. PRESIDENT AND GENTLEMEN,—Few diseases present greater difficulties in the way of *diagnosis* than malignant endocarditis, difficulties which in many cases are practically insurmountable. It is no disparagement to the many skilled physicians who have put their cases upon record to say that in fully one-half of them the diagnosis was made post mortem. In spite, too, of able memoirs in the journals, the disease has not been much known, and it is only of late years that the text-books have contained chapters upon it. The protean character of the malady, the latency of the cardiac symptoms, and the close simulation of other disorders combine to render the detection peculiarly difficult.

In the group of cardiac cases in which the disease attacks a patient the subject of chronic valvulitis the matter is usually easy enough. The existence of fever of an irregular type, and the occurrence of embolism, generally suffice to make the case clear. It must be remembered that simple warty endocarditis not unfrequently attacks sclerotic valves, and may be accompanied by slight fever. Of course, in chronic heart disease, irregular pyrexia may arise from other causes—local suppuration, cellulitis, &c.,—which must be excluded.

In rheumatic fever, a disease in which the heart is more systematically examined than any other, if with the occurrence of a murmur the symptoms become aggravated and assume a typhoid or pyæmic type, the recognition of the complication should be easy. The onset of severe head symptoms in rheumatism—delirium, with high fever and coma - requires to be carefully distinguished. Fortunately, the simple endocarditis so common in this disease rarely, as I shall have occasion to show, passes into the grave form.

In pneumonia, a prolongation of the course, with the supervention of typhoid or septic symptoms, should lead to a very careful examination of the heart.

The greatest difficulty is met with in those acute cases resembling the malignant forms of the fevers; here the affection may simulate typhoid, typhus, cerebro-spinal meningitis, or even hæmorrhagic small-pox. Even with the detection of a heart murmur, the judgment may have to be suspended, and many cases die with the general symptoms of profound blood-poisoning, before the development of any special features upon which a diagnosis could be based.

From typhoid fever, with which the cases are most often confounded, the mode of onset, the pyrexia, and the abdominal symptoms offer the chief points for discrimination. The onset of severe endocarditis is more abrupt, not so often preceded by a period of failing health and progressive weakness. In a large number of cases, cardiac pain or oppression and shortness of breath are mentioned as early symptoms. The fever rarely presents, in the early days of the disease, the regularity of typhoid, and from the outset may be very high. A sudden fall to the normal, or even below, may occur; indeed, irregular pyrexia is one of the most important diagnostic signs. The combination of diarrhœa, abdominal distension, and a rose-coloured eruption, points strongly to typhoid. The rash, when present, is usually petechial, a rare circumstance in typhoid fever. The development under observation of pronounced murmurs, particularly of aortic and regurgitant, is most suggestive of malignant endocarditis, and the occurrence of emboli would be a positive confirmation. Rigors rarely occur in typhoid, while they are common in endocarditis. It is well, however, to bear in mind that, in many of the most severe cases, death may occur, as in any of the infective disorders, without the development of the special symptoms necessary for a diagnosis.

Many of the cases present the clinical features of pyæmia, a condition which may actually exist, dependent upon the ulcerative lesions on the valves; and here the diagnosis lies between an ordinary septic infection from a wound, or auto-infection from a primary endocardial inflammation.

It is interesting to note the similarity of those cases of acute endocarditis in which death occurs in a few days, without the development of any other than the valvular lesion, with those instances of rapidly fatal acute periostitis and necrosis, and also with those cases of malignant septic infection from a slight external lesion.

It seems strange that difficulties should arise in the diagnosis between malaria and malignant endocarditis, but the records of cases plainly show that for weeks or months a condition of intermittent pyrexia may occur, simulating every type of ague. The paroxysms in regularity, in order of sequence, and in the accompanying general conditions, may fulfil every condition of a quotidian or tertian intermittent; and the development of cardiac symptoms, with breathing of the pyrexial type, may alone determine the nature of the case.

Etiology and Pathology.—With a view of obtaining data upon which to base statements regarding the etiological relations of malignant endocarditis, I have gone over the records of 209 cases. As before stated, thirty-seven of these occurred in connexion with pyæmia, traumatic or puerperal. Doubtless this number could have been very greatly increased had I examined files of special gynæcological and surgical journals, but my investigation did not lie so much in these directions. In forty-five cases there was no record of any previous disease which could be taken into account as possibly connected with the endocarditis. In 127 cases there was a history of past or existing disease with which the cardiac trouble could, with a greater or less degree of probability, be associated.

One or two general considerations may first be mentioned. The period of middle life gives the greatest number of cases. Young children are rarely the victims; there were only three or four instances under ten years of age, and not many more over fifty. The cases occurring in connexion with rheumatism presented an average younger age than the others; there were thirty-six instances under thirty years of age, out of fifty-one cases in which this point was mentioned. Of 160 cases (exclusive of traumatic and puerperal), ninety-nine were in males, and sixty-one in females. Persons debilitated by exposure or other causes, or addicted to drink, seem particularly liable to be attacked, and in such subjects, during the course of an acute disorder, this complication is much more likely to arise. As has been already referred to, the existence of sclerotic valvulitis is a very important factor in the etiology of severe endocarditis, a very considerable proportion of the cases occurring in individuals whose valves are thickened and crumpled from chronic inflammation.

The existence of a primary protopathic endocarditis must, I think, be allowed. In forty-five cases no history could be obtained of rheumatism or other affections with which endocarditis is known to be associated. Many of these cases were of the most malignant type; in ten, death took place within a week. A specific statement of the absence of rheumatism was generally given. The onset was usually like that of a specific fever—headache, vomiting, rigors, pyrexia, and often early delirium and unconsciousness. The very acute cases resemble severe typhoid or typhus, but, when more prolonged, a pyæmic condition may develop. In a number of these cases the disease has attacked persons with chronic valve disease, some while under treatment, others in whom the compensation was complete and the old lesions only detected at the necropsy. In five instances, the ulcerative process attacked aortic valves, two of which were fused, and had undergone the fibroid changes always associated with this malformation. In 127 of the cases, the endocarditis was associated with other diseases, some of the most important of which we shall now proceed to consider.

Rheumatism.—Since Bouillaud called special attention to the frequency of cardiac complications in this disease, its importance in the etiology of endocarditis has been universally recognised. And as regards the simple form of endocarditis, the general statements are quite true, but, fortunately, the graver and fatal form is much less common, much less, I think, than is usually supposed. In fifty-three cases there was a history of rheumatism, past or present. I included every case in which there had been the record of an attack, recent or remote. In only twenty-four did the symptoms of severe endocarditis arise during the progress of the acute or subacute disease. In twenty-nine cases there was simply a history of rheumatism, often years before, and

no mention of the occurrence of joint troubles at the time of the development of the endocarditis. Dr. Ogle called attention to the fact that ulcerative endocarditis occurred very often in persons in whom no rheumatic history could be traced. Of twenty-one cases which he reported, some of which were probably atheromatous, in only three was rheumatism mentioned. In only three also of the Montreal cases was there any positive history of rheumatism, either before or during the attacks. The following case, under the care of Dr. Ross, is a good example of the mode of onset.

B. M ——, aged twenty-two, a healthy girl until three weeks before her admission to hospital, on Jan. 4th. At that time she was attacked with rheumatism of the wrists and ankles, not very severe, and she did not receive any treatment. A week from the beginning of the attack she began to have chills, two or three a day, and she became feverish. During the next week she got worse, had occasional chills, not delirious; was brought to hospital on the 4th, in a very low state. On the 5th there were delirium and incoherence. Pulse 130; temperature 100°. Double murmur up and down sternum, joint troubles not evident. On the 6th, 7th, and 8th, remained in the same state, no chills; temperature ranged from 100° to 102°. On the 9th more restless. On the 11th a grey membrane was noticed on the fauces. On the 12th the membrane in throat had extended, and covered the soft palate. Temperature 103°. On the 13th she died suddenly. The necropsy revealed a large deep ulcer at the aortic ring, nearly destroying one segment, and penetrating deeply between the auricle and the left ventricle. There were small infarcts in the brain, extensive recent diphtheria of fauces.

In a larger number than in any other group, sclerotic valves were found, with the existence of which the past rheumatism could, in many instances, be connected. A primary rheumatic endocarditis was recognised by Latham, also by Graves and Stokes, and it is quite possible that some of the cases which I have grouped as protopathic represented instances of the kind in which, if life had been prolonged, joint troubles might have supervened.

Cases of acute rheumatism sometimes occur in which there may be multiple miliary abscesses,[1] and a pyæmic condition similar to the case just narrated, but without the presence of endocarditis. Micrococci have been found in these abscesses, and the cases resembles those rare instances of idiopathic pyæmia. It is worthy of observation that a skin eruption was most frequently noted in connexion with the rheumatic cases, generally an erythema. In a case of Dr. Kirkes,[2] it was observed on both face and hands. The occasional presence of a scarlet rash in rheumatism,[3] and in puerperal fever [4] has long been recognised.

In chorea, with which simple endocarditis is so often associated, the malignant form very rarely supervenes.

Pneumonia, as Bouillaud pointed out, is not unfrequently complicated with endocarditis, but the important part which it plays in the etiology of the malignant disease has not been generally recognised. In the cases I have reviewed, it stands at the head of the list of diseases in which secondary endocarditis of a severe nature develops, fifty-four instances having been noted, rather more than 25 per cent. of the total number of cases. For this I was quite prepared by our Montreal experience, for, in eleven of the twenty-three cases, the attack was associated with pneumonia. Of the occurrence of acute endocarditis in this disease, the statements are somewhat diverse. Bouillaud thought that, in a third or fourth of the cases in which there was left-sided pneumonia, there was inflammation of the serous membranes of the heart. Grisolle, in his classical work on pneumonia, states, on the contrary, that it is a rare complication, and this would certainly appear to be the conclusion of the Committee for Collective Investigation, for, in the report upon 1000 cases, endocarditis is only once mentioned. My experience at the Montreal General Hospital is very different. I have notes of 103 necropsies on cases of lobar pneumonia, and the occurrence of acute endocarditis is noted in sixteen cases, over 15 per cent. Of these cases eleven were of the malignant form. An analysis of these shows that in six the left lung was involved; in five, the right; in four, the upper lobe was affected; in seven, the lower. In nine of the cases there was pericarditis; in five of the eleven cases there was suppurative cortical meningitis. In the fifty-four cases which I have reviewed, in thirty-six the lung affected was mentioned, and in twenty-six the affection was on the right side, and only ten on the left, figures which are opposed to the statement of Bouillaud, that it is in left-sided pneumonia that endocardial complication most frequently supervenes. In fifteen cases acute meningitis is mentioned, and in one instance the meninges of the cord were also affected. The aortic valves seem more often involved than the mitral. In seventeen instances there were old sclerotic changes in the valves.

The clinical features of several cases in which the endocarditis came on during pneumonia have already been given. In many of them, as in the woman M. D ——, aged twenty-nine, referred to in the second lecture, the patients are brought to the hospital unconscious, and die within a few days, with symptoms of a grave cerebral disorder. In others there is a history of ordinary pneumonia, and the case may pursue the usual course, and defervescence take place, when in a day or so fever of an irregular type recurs, and typhoid or pyæmic symptoms appear. The majority of the cases are of this kind. Again, some instances occur in connexion with injuries, and the patients succumbs to a lobar pneumonia and endocarditis unconnected with any sepsis. Two of the Montreal cases were of this kind. In three or four cases there were rheumatic symptoms preceding or accompanying the pneumonia, as in a case of Dr. Mussers.

Elderly persons were more often attacked than in the other groups. There were ten individuals over fifty years of age. In the Montreal cases three of the patients had had pneumonia before; in one it was the third attack, and in every one of them there was a history of either drinking habits or previous bad health. In some cases, the pneumonia had partially or entirely resolved at the time of death, in others there was red, or, more frequently, grey hepatisation.

The relation of the meningitis to the pneumonia and the endocarditis is particularly interesting. The occasional occurrence of this complication in pneumonia has been referred to by many writers, particularly Grisolle, Huguenin,[5] and Greenfield.[6] In the 103 cases I met with it in eight instances, in five of which there was also endocarditis. The frequency of the association of these two conditions in pneumonia is illustrated by the figures already given; of twenty-five instances of meningitis in malignant endocarditis, fifteen cases occurred in pneumonia. In all the specimens I have examined, there were micrococci in the exudation, and in three cases many of the capillaries and small arteries were filled with them; and it seems natural, where the endocardium is involved, to attribute the process to embolism from the valves. But the occurrence of an identical cortical meningitis without any valvulitis shows that it may be due to other causes than the endocarditis. As Huguenin suggests, it may be dependent upon the presence in the blood of infective material derived from the infiltrated lung tissue.

In connexion with these secondary or consecutive inflammations in pneumonia, it is interesting to call to mind the not unfrequent occurrence of pericarditis, and of croupous inflammation of the gastro-intestinal canal. Dr. Bristowe some years ago noted the frequent complication of croupous colitis; and, in 103 necropsies, I have met with this complication in five instances; and in one there was extensive croupous or membranous gastritis.

Diphtheria is rarely complicated with endocarditis, and I have been able to find only two or three instances in which severe symptoms were present; yet in some works endocarditis is stated to be not an uncommon sequence. Labadie-Lagrave[7] regards it as such; but it is probable that what he described as vegetations are only Albini's little nodules, the remnants of fœtal structures. In 108 necropsies in diphtheria Telamon[8] did not meet with a single case of endocarditis; and my experience has been the same in thirty post-mortem examinations, many of which were in adults.

In dysentery a few cases have occurred. Litten[9] has recorded an instance in which there was extensive ulceration of the aortic valves; and one of the Montreal cases occurred in connexion with acute colitis.

In the eruptive fevers grave endocarditis occasionally develops—in typhoid, in scarlet fever, and in variola; but in the cases I have analysed these diseases appear of very trivial etiological significance.

[1] Fleischhauer, Virchow's Archiv, Band lxxii.
[2] British Medical Journal, vol. ii., 1863.
[3] Peter, Union Médicale, 1870.
[4] Hicks, Obstetrical Society's Transactions, vol. xii.
[5] Ziemssen's Encyclopædia, Band xii.
[6] St. Thomas's Hospital Reports, 1878.
[7] Bull. Soc. d'Anatomie, 1877. [8] Progrès Médicale, 1879.
[9] Charité Annalen, iii.

In ague, as Lancereaux[10] first pointed out, simple or severe endocarditis may develop. In some of these cases, as in the remarkable one reported by Dr. Bristowe, to which I referred in the second lecture, the paroxysms of true intermittent, and those of the ulcerative endocarditis, seem to run the one into the other.[11] In most of the cases there has been only a history of severe ague, and the endocarditis has followed repeated attacks. Dr. Greenhow[12] has reported a very instructive case of the kind.

Dr. Goodhart[13] makes the interesting suggestion that ulcerative endocarditis is more frequently met with at periods in which scarlet fever, erysipelas, pyæmia, and diphtheria prevail. The Guy's Hospital records certainly seem to show that the cases appear in groups pretty close together, and at a time when the diseases mentioned are epidemic. In Montreal we have had occasionally a "run" of cases together, but I have not noticed the connexion referred to by Dr. Goodhart.

I approach a discussion of the pathology of malignant endocarditis with some trepidation, partly due to a sense of incompetency, and partly from a feeling that the time is scarcely ripe for a satisfactory presentation of the subject; and yet there are signs which make one hopeful; and it would not be rash to predict that the knowledge twenty-five years hence will be as much in advance of to-day as our information on the subject is of the time when Dr. Kirkes made his memorable investigations. A serious difficulty exists in the circumstance that we have not to deal with a single form of disease—an entity; but rather with a special manifestation in many affections—affections, too, the pathology of which is, in most instances, by no means clear. No one can doubt that the more severe cases of endocarditis present in a typical mode all the features of those diseases which we call infective, and believe to be caused by the absorption of some poison, the development of which in the blood and tissues profoundly disturbs, and finally annihilates, function.

Briefly stated, the theory of acute endocarditis which at present prevails, and the only one to which I shall refer, is that it is in all its forms an essentially mycotic process; the local and constitutional effects being produced by the growth on the valves, and the transference to distant parts of microbes, which vary in character with the disease in which it develops. This very attractive theory can be adjusted to meet every requirement of the case, though as yet lacking certain of those substantial data so necessary for full acceptance, but which having been furnished of late years in other diseases, we may reasonably hope will in time also be forthcoming for this.

Let us see, first, what has been done, and how far the facts at our disposal seem favourable to this view. The constant presence of micro-organisms seems undoubted; only, in the simple acute form, we need more careful observations with our improved methods. Some good observers have not been able to find them;[14] others declare them to be invariable constituents of the verrucose outgrowths.[15] The careful application of such a satisfactory mode of staining as recommended by Gramm should readily determine this question. A study of the endocarditis of puerperal and traumatic pyæmia will be most likely to yield important information, as here the conditions are simpler, and the relation of the micro-organisms can more readily be determined. The cardiac complication in these cases is only part of a general process, excited by a local lesion, and is entirely secondary and subsidiary. Micrococci arranged in chaplets are constant constituents of the vegetations, and, in the case of puerperal fever, they have a close resemblance to those found in the peritoneal exudation. The well-known observations of Koch, Ogston, and others have shown the relation of microbes to pyæmia; and the recent culture experiments of Rosenbach[16] go far towards demonstration for man what Koch had previously done in the case of the pyæmia of the mouse. In these cases, a study of the modes of growth of the micrococci of the endocarditis, and of the effects of inoculations, and a comparison of these with similar observations in the organisms of the original lesion, or of the metastatic foci, should yield results of great value in the interpretation of the phenomena of secondary endocarditis.

In rheumatic fever we are still too far from any accurate knowledge of its intimate pathology to dwell on the possible connexion of any organism peculiar to it, and the endocarditis so common in its course. Klebs[17] distinguishes the microbes occurring in rheumatic cases from those of the septic forms.

In pneumonia, micrococci undoubtedly abound in the exudation of the air cells, and their mode of growth in gelatine is peculiar, but the numerous experiments on artificial production are not yet conclusive. The evidence is accumulating which places pneumonia among the infective disorders, and it certainly is a seductive view to take of its pathology to regard the local pulmonary lesion as excited by the growth of micrococci in the air cells, and the various consecutive inflammations—the endocarditis and pericarditis, the pleurisy, the meningitis, the membranous gastritis or colitis—as due to the penetration of the organisms to deeper parts, and their local development under conditions dependent on the state of the tissues. The processes are all of the character described as croupous, and have as a common feature the presence of micrococci in a coagulable exudation. We have still, however, to settle the identity of the organisms of the air cells with those of the consecutive inflammations, but we may reasonably hope ere long to have some positive data from investigations in this disease which, more than any other, offers favourable opportunities for the solution of these problems.

In diphtheria, as we have seen, mycotic endocarditis rarely occurs, and, in the few instances observed in association with scarlatina, variola, erysipelas, and other affections, we lack positive information with regard to the characters of the micro-organisms.

In the way of experimental investigation of the properties of the micrococci, not much has been done of a satisfactory nature. Heiberg[18] placed bits of vegetations from a puerperal case beneath the skin and in the peritoneal cavity of a rabbit without effect. Eberth,[19] Birch-Hirschfeld[20] have produced panophthalmos in the rabbit by inoculating the cornea; and I was able to produce well-marked mycotic keratitis in the same animals with fresh material from the valves of two cases. H. Young of Manchester inoculated rabbits with pus from an abscess in ulcerative endocarditis, and was able to detect micrococci in the blood.

No conclusive culture experiments have yet been made. Graucher[21] has cultivated a microbe from the blood, taken during life with all necessary precautions, but apparently not in series, and no inoculations of animals were made. Cornil[22] has made cultures on gelatine, but apparently no special results have been reached.

How do the micrococci reach the valves? In cases of puerperal and traumatic septicæmia the external lesion is undoubtedly the source of infection, which is conveyed through the venous system, and in these cases it will be remembered that the right heart is most often affected. In other instances, where the skin is unbroken, we must suppose them to gain access by the lungs or intestines, most probably the former; and in these instances the left heart is the chief seat of the mycosis. Whether they reach the valves with the general blood current, as Klebs supposes, or through the coronary arteries, as Köster holds, cannot be considered settled; but, from the position of the early vegetations in a non-vascular region of the valves, and from the fact already referred to that colonies of micrococci can be seen directly upon the endocardium, it seems probable that Klebs's view is the correct one. He suggests, in explanation of the fact that the lines of closure of the valves are the usual seat of the process, that the micrococci, circulating with the blood, are here closely pressed into the endothelium by the firm apposition of the flaps. Whether or not in any given case endocarditis will arise, depends greatly on the condition of the valve tissue. In a case of pneumonia or other disease, such as pyæmia, in which we may suppose microbes circulating in the blood, the endothelium of normal valves may be able to resist their invasion, or even if they do lodge and penetrate, the conditions may not be favourable for their growth; but where an individual is

[10] Gazette Médicale, 1862; and Archives Générales, 1873.
[11] Dr. Bristowe informs me that, in the case referred to, he is inclined to regard the intermittent pyrexia as dependent from the outset upon the endocarditis, and not associated with malaria.
[12] Path. Soc. Transactions, vol. xxx. [13] Ibid., vol. xxxiii.
[14] Orth, Lehrbuch der Speciellen Pathologischen Anatomie, Lief. 1., 1884.
[15] Klebs, Archiv f. Exper. Pathologie, iv.; Köster, Virchow's Archiv, lxxii.
[16] Micro-organisms bei den Wund-Infections, Krankheiten des Menschen, Wiesbaden, 1884.
[17] Archiv f. Experiment. Pathologie, ix.
[18] Virchow's Archiv, lvi. [19] Ibid., lvii. [20] Archiv der Heilkunde, xvii.
[21] Journal de Médecine de Paris, Dec. 20th, 1884.
[22] L'Abeille Médicale, Dec. 22nd, 1884.

debilitated and the tissue tone lowered, or if, as so often seems the case, the valves are diseased, then the micrococci find a suitable nidus, and excite, by their growth, an endocarditis which may be of a malignant type. As Dr. Goodhart suggests,[23] patients with chronic sclerotic valves are walking mushroom beds, in common times without spawn, but in periods of epidemics germs enter by various channels, which fertilise in these cases into ulcerative endocarditis; in others, to suppurative processes. Certainly, on paper, so to speak, the view which I have thus imperfectly and hurriedly discussed seems plausible enough, and meets the requirements of the case fairly well; but let us, in conclusion, follow an important rule too much neglected, and get a definite outline for our ignorance. In the first place, we do not yet know, with sufficient accuracy, the frequency of the occurrence of microbes in simple endocarditis. Are they constantly present or only in forms associated with special diseases? Secondly, we want full information of the various forms of micro-organisms occurring in secondary endocarditis, and of their relation to the microbes assumed to be the cause of the primary disease. And, thirdly, we are only at the threshold of inquiries relating to the culture of these organisms, to the macroscopic characters of their growth, and to the possible experimental production of endocarditis.

I cannot conclude without thanking my late colleagues at the Montreal General Hospital, by whose kindness I have had command, not only of the pathological, but also of much of the clinical material upon which these lectures were based. And, lastly, Sir, you will allow me to express my sincere regret that my efforts have not been more worthy of such an intensely interesting subject, and of the distinguished audience which I have had the honour of addressing.

[23] Loc. cit.

Croonian Lectures

ON THE

HYGIENIC AND CLIMATIC TREATMENT OF CHRONIC PULMONARY PHTHISIS.

Delivered at the Royal College of Physicians,

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LECTURE I.

(*Concluded from page 466.*)

THERE is a species of constitution which does not fight well when attacked by any serious disease, and especially by phthisis. I cannot satisfactorily define this complication of anatomical and physiological peculiarities of cells and tissues and nerve functions, which our old physicians, especially in Germany, used to call *erethic constitution*. A slight injury or a slight cause of irritation produces constitutional effects, especially pyrexia, quite out of proportion, and the effects do not readily disappear. The equilibrium of health is not easily regained. The pulse is generally rapid, the appetite varying, the mucous membrane irritable, and sleep imperfect. This constitution is always associated with a certain degree of asthenia, sometimes patent, sometimes masked. For the sake of shortness, we might, I think, use this term when referring to the constitutional peculiarities just mentioned. The general treatment, and especially the climates most useful to other consumptive patients, are not easily adapted to this constitution. The prognosis of the developed disease is bad. Prophylactic treatment is imperative.

A most important point in the prognosis is the degree of intelligence and judiciousness of the patient, and in many instances of the patient's friends. The delicate or sick persons who have an insight into their own condition, in the wider sense of the word, and into those influences which act beneficially on them and those which are injurious, have a better chance of recovery than those who are less intelligent, who do not see the bearing on health of all the numerous items of daily life, most trivial in appearance, but all-powerful in their accumulated action. A circumstance of almost equal importance is the *possession of means* to carry out the most suitable treatment. No other disease demands so many and such long-continued sacrifices as phthisis, and those who are able to make them have, as a rule, a greater chance of recovery than those who are not. The poor deserve our greatest sympathy. While in the majority of other diseases the ordinary hospitals place the poor almost under the same favourable conditions as the rich at their homes, this is by no means the case with phthisis; on the contrary, the majority of general hospitals are very ill adapted, and the well-arranged special hospitals for the treatment of consumption have accommodation only for one sufferer in a thousand. I wish, gentlemen, I could not only induce you to see this in the same light that I do, but also to use your influence with the public gradually to fill up this great gap in our philanthropic institutions.

Preventive treatment.—In discussing the treatment of phthisis it is impossible to restrict ourselves to that of the developed disease, and to pass over the prophylactic or preventive treatment. The latter is, indeed, in many cases, all that gives us any chance, for in some constitutions the disease once established runs a rapid course to the end, or at best cripples the patient for life; and many of those endowed with better constitutions do not possess the means to submit to treatment which often must be extended over many years. The question of preventive treatment has been ably discussed by many authors—Drs. Mac Cormac, Pollock, Jaccoud, Ruhle, amongst others; and quite lately in a comprehensive way by Ewald in his address to the International Medical Congress at Copenhagen. Some of the questions relating to the prevention of phthisis ought to belong to public hygiene and State medicine for instance, whether to destroy cows affected with tuberculosis, whether to permit the flesh and milk of such animals to be consumed; the hygienic arrangements in school-board schools, the playgrounds connected with them and the superintendence of the games, the number of school hours; the condition of factories and the work at factories, the buildings for the accommodation of working people and their families, the barracks, &c.

The questions of infectiousness and communicability of phthisis are not yet sufficiently settled to lay down prophylactic rules with regard to them, but they ought to be carefully and calmly investigated in all their bearings. I have only to deal with them in the preventive sense, not as etiological questions, but both cannot be quite separated. Dr. Andrew has fully discussed them in his Lumleian Lectures, and though we may not in all points agree with him, his reasoning, based on historical data and personal experience, deserves thoughtful examination. There is in Dr. Andrew's discussion no sign of a feeling which is so apt to intrude itself unconsciously on the inquirer, and sometimes to influence his judgment. I have, for instance, heard from intelligent men the view that it would be cruel to shun the consumptive, who is already much afflicted, to check the intimate intercourse between him and his nearest and dearest friends, or to render his condition intolerable and promote the fatal termination of his disease by not allowing him to marry. If we could think that by allowing intimate intercourse and marriage the disease could not be spread, it would certainly be cruel to give pain, but if experience and investigation should teach the opposite, then judgment ought to have precedence before feeling.

We are, I suppose, all convinced that infection can take place by inoculation, and this may possibly occur more frequently than is thought. Several instances are recorded; I remember just now two occurrences. The first is related in a communication by Dr. Lindmann in the *Deutsch. Med. Woch.*, 1883; two children who were circumcised by a man, who was in the last stage of consumption, and who, after circumcision, sucked the prepuce according to the Jewish rites, became both infected with ulcers on the prepuce and swelling of the inguinal glands, and the ulcers had the appearance of tuberculous ulcers. One of the children recovered after some months. In the other the glands became ulcerated, and caseated masses were removed from them. The child then apparently recovered, but in the third year it perished from Pott's disease and rapid phthisis. The second occurrence is recorded in the *Berlin. Med. Woch.* of 1878. The midwifery practice in the small village of Neuenburg was pretty closely divided between two midwives. One

of the two became consumptive in 1874, and died in July, 1876. Ten children without hereditary predisposition, attended by this midwife between April, 1875, and May, 1876, died within the first seventeen months of their lives; while none of those died who were attended by the other midwife, and while tubercular meningitis is a rare disease at Neuenburg. The consumptive midwife was in the habit of sucking the mucus from the mouth of the new-born children and blowing air into the mouth when there was the slightest sign of asphyxia. In this occurrence it is perhaps doubtful whether it ought to be explained by inoculation, or by contagion in the more ordinary sense of the word. It is not impossible that more cases of inoculation will be observed when once general attention is directed to this point. I remember two cases which I am now inclined to explain in this way, though at the time of their occurrence I had not done so. The first was in a wet-nurse who nursed a consumptive child; she first had an ulcer at the side of the tongue, which was regarded as due to a rough tooth, which however did not heal after the tooth had been filed, and was not cured by borax and other local applications. Several months later she lost her voice, and ultimately died from phthisis. I am inclined to think that a slight sore on the tongue had been inoculated and formed the starting-point of phthisis in this woman, who was free from hereditary disposition. The second recollection relates to a mother who nursed a consumptive daughter, fifteen years old, with whom she shared the same bed and whom she constantly kissed. She, likewise, had first a sore on the tongue and afterwards on one of the tonsils before she manifested any signs of pulmonary consumption. But in this case the mother belonged to a somewhat tainted family, and her husband had died from phthisis; although she had been apparently quite well before she nursed her daughter, yet she may have had latent phthisis before the sores on the tongue and tonsil made their appearance.

On the question of contagiousness of phthisis, the views of medical men will probably remain divided for a long time to come. The facts brought forward by Drs. Theodore Williams, Pollock, and Andrew are very encouraging, and we may be sure that phthisis is not in the same way communicable as scarlet fever and small-pox are. But we must bear in mind that there is more intimate intercourse between husband and wife, and near relatives sleeping in the same room, and even the same bed with consumptive persons, than between nurses or doctors and patients, and that, besides, the hygienic arrangements at the Brompton Hospital and at some of the best general hospitals are much better than those of many small private houses. Since I read a paper on the Communicability of Phthisis between Husband and Wife at the Clinical Society more than ten years ago, I have not met in my own practice with any such striking cases as those which I then related, so that I am happy to think that they are rarer than it seemed to me at that time; but I remain convinced, from clinical facts, of the communicability of phthisis under certain circumstances, and the experimental researches of Tappeiner, Veraguth, and Schäffer ought not to be forgotten. In preventive medicine, therefore, the infectious character of phthisis ought to lead to certain precautions, of which I can mention only the most salient. Persons affected with consumption, for instance, especially the subacute forms, ought not to be allowed to perform offices by which breath, saliva, or sputa are brought into close contact with healthy, and still less with very young or weak and diseased, people or persons with an acquired or inherited predisposition. Not without reason physicians have forbidden kissing between consumptive patients and other persons; but this prohibition recalls to my mind a beautiful German poem by Scheffel, in which a famous tom-cat, a prince of cats, watches from his throne on the roof the doings of mankind, and soliloquises on that trait of human beings, to kiss one another, especially in the time of youth. From this poetical cat's cogitation I infer that kissing is a part of man's nature, and nature, I fear, cannot be stopped.

The secretions and excretions of consumptive persons, and the wearing apparel, bedding, &c., soiled by them, especially the expectoration, should be disinfected and carefully removed. Woollen articles of furniture ought also to be avoided or frequently changed for disinfection. No dust ought to be made in sick rooms or wards, as the microbes are likely to be moved about in this way. The cleaning of rooms and furniture by a dry process of sweeping and dusting ought therefore to be forbidden. Ventilation of the sick room ought to be most abundant, not only for the sake of the sick persons themselves, but for those in contact with them, and the latter ought to be much in the open air and attend to their health by all other means, in order to keep up there power of resistance.

It is our duty to prevent as far as lies in our power the marriage of consumptive persons, and even of persons who though not actually consumptive themselves belong to families with a strong consumptive taint. We must at all events endeavour to convince those with whom we come into professional contact of the importance of this duty, but notwithstanding all this, our advice will often be disregarded, and those who know the meaning of the wonderful word "love" and its equivalent in other languages cannot be astonished at it.

Failing in the prevention of marriages, we must direct our attention to the management of those affected with *hereditary tendency*. The infants of consumptive mothers ought never to be suckled by the latter, but ought to have perfectly healthy wet-nurses, or if this be impossible, they ought to live on milk from sound cows, or donkeys, or goats during the first year—boiled if there is the slightest cause for suspicion as to purity; and milk ought to form during the first six years the principal article of food, and ought only gradually to be in part substituted by other animal food with an admixture of farinaceous and green vegetables. I quite agree with Dr. Duckworth's remarks in the *Practitioner* on the insufficient use of milk as an article of diet in England, with regard to children as well as adults; and these remarks would be still more applicable to other countries. Those who have been in the country districts of Italy know how difficult it is to obtain milk. The child ought never to sleep in the same room, and still less, in the same bed with the consumptive parent or any other consumptive person. The child's room ought to be large, with plenty of light, in a southern or south-western aspect, with abundant ventilation by day and by night. Whatever we may think of Dr. Henry Mac Cormac's explanation of the origin of consumption by the "breath rebreathed," it must be acknowledged that pure air is the best means to prevent consumption; that he has pleaded in favour of it in a more eloquent way than any other author, and that his teachings ought to be accepted much more universally than has hitherto been the case. The temperature of the room ought not to be too high, 65° F. being quite sufficient for the very young, and 62° for somewhat older children, and less in the sleeping-room. The skin ought always to be covered with flannel, the clothing warm and loose; there should be daily sponging with gentle friction. The temperature of the water used is to be gradually lowered, 60° F. being sufficient after the second year. The child ought to be taken out into the open air for several hours every day, and later on to spend the greater part of the day in the open air. If it can be arranged, the house ought to be in the country, on a dry slope with sunny aspect. Active exercises ought to be encouraged at an early period, and to be gradually increased as to duration and activity of movement—games, gymnastics, rowing, riding on horseback, climbing, and all kinds of exercises by which the muscles and the organs of circulation and respiration are brought into play, and as a consequence the nutrition of the body improved. Mental education need not be neglected, but ought to go on, and can go hand in hand, with sound physical education; but confined rooms and sedentary habits ought to be rigorously avoided. No trade or profession ought to be permitted which induces such habits, or which exposes the delicate person to dust or tainted air, but farming, seafaring, and other open air occupations ought to be selected. The period of cessation of growth, and the first year succeeding it, require special attention. But how can this be applied to the children of the poor? I am afraid that I must say that this is one of the problems not yet solved, and perhaps not to be solved in the very near future. Let us at all events lay down these principles for the guidance of those who have influence on the nursing and education of the children of the poor; and some improvement we may hope will gradually be achieved, and is often achieved already now in individual cases and in well-arranged orphan asylums. With regard to schools, too, we can demand the best hygienic arrangements, and playgrounds attached to them, and gymnasia, and drilling masters.

Every one of us has, I suppose, met with instances which prove how much can be done by judicious physical education, even under apparently hopeless circumstances; yet you will

pardon me, I hope, gentlemen, if I relate to you the outlines of a very instructive family history. About thirty years ago I saw a lady affected with rapid consumption, living in a small street near Bloomsbury-square; the husband, a teacher of languages, had just died under my care at the German Hospital of chronic consumption, at the age of thirty-eight. He was a member of a consumptive family. The wife's family too was by no means free from consumption; indeed, out of three brothers and two sisters, two brothers and one sister had already died of the disease. She herself had had seven children, ranging from twelve years to one year of age. The second of these had died from tubercular meningitis. The others—namely, four boys, of twelve, nine, seven, and two years, and two girls of five and one—were fairly healthy, excepting the youngest boy, who was pale and rachitic. After the death of the mother some relatives, intelligent and wealthy at the same time, took entire charge of the children. They took them to their home in a mountainous district of Silesia, one of the healthiest parts of Germany, and brought them up on the plan which I have just sketched. The oldest son remained well as long as he took much outdoor exercise, but at the age of twenty-three he became absorbed in the study of the origin and affinities of languages, worked day and night, gave up exercise, took most of his meals in his study surrounded by books, and perished from rapid consumption in less than eighteen months. The second son took to farming, and was in excellent health up to the age of twenty-nine, when he found his occupation not remunerative enough, and began to work in a commercial house, being confined to an ill-ventilated office during the greater part of the day, and working, besides this, at home with the hope of gaining a better position. After scarcely two years of this intensified city work he had several attacks of hæmoptysis, and died in less than two years from the outset. The third son has become a cavalry soldier, leading a judicious life, and is a strong and healthy-looking man. The fourth child, then a girl of five years old, is now a country parson's wife in a healthy part of Silesia, has no children, and is perfectly healthy. The youngest son, rachitic as a child, has become a powerful man, and is a farmer near Manitoba in Canada; and the youngest daughter staying with him is likewise strong and healthy.

The history of this family is very instructive. It shows that by favourable circumstances, even a strongly marked family tendency may be neutralised; and this becomes still more manifest when I add that by far the majority—viz., nine out of eleven—of the cousins of these children have died from consumption before the age of twenty-eight. It further teaches the serious lesson, that if the stringent rules of health are neglected even after the constitution has become satisfactorily developed, the disease may suddenly show itself and run a rapid course. My experience, indeed, forces me to say that a strong hereditary tendency, especially from the mother's family, requires the strictest attention, not only during the first thirty years, but from infancy to old age, for old age does not shelter from phthisis. I have notes of several cases where with a healthy mode of living the health had been perfect up to fifty, and phthisis was developed afterwards under unhygienic influences. Thus, for instance, C. M——, with a consumptive history on the mother's side, was perfectly well as a sailor up to the age of fifty-two, when on account of a chronic and fatal disease of his wife he retired from the service, and while nursing her was much confined to the house for many months. Dyspepsia and phthisis developed themselves, and he died at the age of fifty-six. A. D——, likewise with consumptive tendency from the mother, enjoyed good health as a traveller for a commercial house, till at the age of fifty-four he exchanged this occupation for office work as a partner in the house and lived altogether in town. His health began to fail after a year, and he died before he was fifty-nine. I could mention other similar instances, and have also had the opportunity of seeing repeatedly "consumption" as the certified cause of death in life insurance cases after sixty, where insurance had been effected late in life, in spite of hereditary disposition, because it had been thought that at so advanced an age the office might be secure with regard to the development of consumption. But I am convinced that where the hereditary predisposition is much marked there is only that "security" of which the great poet says:

> "And you all know security
> Is mortal's chiefest enemy."

Altogether there seems to be no good foundation for the general impression that consumption is rare in the later part of life. Dr. Somerbrodt found in twenty-five post-mortem examinations of military pensioners eleven times tubercular lesions as the cause of death, the average age at the time of death being eighty-two. Dr. Würtzburg found that in the Prussian monarchy, on comparing the number of deaths at certain ages from consumption with the number of persons of the same age living, phthisis is decidedly a more frequent cause of death among the old than among the young. Thus he gives amongst 10,000 persons living: ninety-three deaths from phthisis in the period of age from sixty to seventy; nearly sixty-eight from fifty to sixty; only forty-one from thirty to forty; only thirty from twenty to twenty-five. At Copenhagen likewise, according to Lehmann, the death-rate from phthisis to the number of persons living at the same age increases with advancing years up to the age of seventy-five. There is, however, in this respect a difference between different countries; and in England and France, for instance, the death-rate is greatest between fifteen and thirty-five. It is not easy to say what is the cause of this difference; it may be partly due to a difference in the names given to the diseases in the different countries; thus in England the number of deaths from "lung disease" in old age is proportionately greater than in Prussia, while that of "phthisis" in old age is smaller. It is possible that some cases which in England are certified as "chronic bronchitis" or other "lung disease" would receive in Prussia the name of phthisis. But part of the difference may be accounted for by the fact that during the much colder winters in Prussia old people are more confined to narrow, ill ventilated, stove-heated rooms than is the case in England, where the cold is never great, and where open fireplaces do not allow the air to be vitiated to the same degree.

The preventive treatment of the *acquired predisposition* to phthisis is similar in principle to that of the hereditary predisposition, though generally it is not required for the whole of life, but only for a shorter or longer period, excepting in those cases where, by deterioration of the health of the parents during the period preceding fecundation, or of the mother during pregnancy, or by unfavourable influences during the first periods of extra-uterine life, permanent weakness or insufficiency has been created. The preventive treatment must be varied according to the constitution and the circumstances of the individual, the causes which have produced the predisposition, and the system or part of the body principally weakened. You will not wish me to enter into details, but allow me briefly to discuss a few points only. A fruitful source of phthisis is the *tendency to catarrh of the respiratory mucous membrane*. It is not to be treated by confinement to hot rooms and by avoiding the open air; but, on the contrary, by hardening and by accustoming the delicate person, clothed in flannel, but not loaded with clothes, to constant exposure to the air in almost all weathers—walking, driving, riding in open carriages; by abundant though judicious ventilation of the rooms; by regular sponging of the skin—at first tepid, perhaps with vinegar, afterwards cold—and by friction; by strengthening the whole system by nutritious food and by frequent prolonged changes to the seaside or the mountains, according to the nature of the constitution. These frequently recurring catarrhal affections may form predisposing causes in different ways, especially by producing sore places in the mucous membrane and thus allowing the bacillus to settle; or by weakening the epithelial cells of the mucous membrane and their ciliary action, or by causing imperfect breathing from unconsciously avoiding deep inspirations in order to avoid coughing, or by weakening the nutrition and energy of the whole system. The latter element is powerful, and by no means rare. Many persons remain excessively weak for a long time after a so-called "severe cold," and lose entirely their appetite and their inclination to exercise and to work.

The tendency to imperfect breathing which often accompanies protracted colds is best remedied by judicious exercise, even if it causes at first fatigue. Persons presenting the imperfect development of the thorax, often described as the "paralytic form," and the general appearance known by the term "phthisical habitus," whether hereditary or acquired, demand similar management, as those subject to constant catarrhs. The imperfect development of the thorax especially requires pulmonary gymnastics, deep inspirations, alternating with complete expirations, breathing with raised arms in order to allow free entrance of air into the apex, judicious climbing of hills and mountains. It is not only our duty to remove the acquired disposition, but also to prevent the acquirement of it by physical education,

general hygiene, and by the management of acute diseases, especially those which affect the respiratory organs, as measles, whooping-cough, diphtheria, bronchitis, pneumonia. The broad rules laid down by Dr. Wilson Fox, in his article on Pneumonia in Dr. Russell Reynolds's "System of Medicine," relieve me of the duty of further entering on this subject. But with regard to measles, diphtheria, and whooping-cough, I cannot help pointing out the injurious influence of hot rooms and fear of ventilation, to which I have been repeatedly obliged to ascribe a share in the cause of phthisis. Change of air to mild seaside or fairly bracing inland places is often important during the convalescence from these diseases, but the fatigue of long journeys is to be avoided.

Preventive medicine has a very large field in the subject of phthisis. I need only remind you of the change in the phthisis mortality of soldiers and prisoners by improved ventilation in barracks and prisons, and we must always have before our minds the important discovery of Bowditch and Buchanan, that drying of the soil by drainage diminishes the mortality from phthisis. The practical application requires no words.

SOME BRIEF NOTES ON THE LATE OUTBREAK OF CHOLERA IN PARIS.[1]

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THE outbreak of cholera in Paris during last November afforded an opportunity for those interested in epidemic diseases of seeing and studying this scourge of Eastern countries; and at the end of the month I visited Paris for that purpose, though at that time the outbreak had begun to subside almost as rapidly as it commenced, so that in all I saw only some forty to fifty cases. The history of its appearance and progress in Europe last year may be summed up in a very few words. In the middle of June the first cases were reported in Southern France from Toulon, and the following week cases were occurring in Marseilles, and quickly assumed serious proportions. As it subsided in the south of France it spread to the northern parts of Italy, and early in September Naples had become attacked with what proved to be a most virulent outbreak, the densely crowded and filthy quarters of that fair city affording congenial soil for the spread of the disease, with the result of a loss of some 11,500 lives. At this time it had disappeared from the towns in the south of France, but towards the end of October cases occurred at Yport, a small fishing village, described as filthy and dirty in the extreme, situate upon the coast of Normandy; then, after a few cases had been heard of in one or two places in Northern France, the startling official notification of its presence in Paris appeared on Nov. 5th, though it would seem that several cases had previously occurred in the capital, but were kept quiet for fear of creating a panic in the public mind; the cases increased rapidly in number daily, and on the 11th of that month 152 new cases were reported with fifty-six deaths.

The first cases occurred amongst the inhabitants of the east-end of Paris, in a dirty, filthy neighbourhood off the Faubourg St. Antoine, situate in the eleventh arrondissement, a district lying beyond the Place de Bastille; and to those familiar with this quarter, it will be admitted that for filth and degradation, both morally and physically, it is perhaps worse than anything to be found in the east-end slums of London. From the 4th to the 17th 1250 known cases had occurred, with 617 deaths, and by this time only one of the twenty arrondissements into which Paris is divided was free from cholera. During the last week in November the disease rapidly declined, and in the second week of December it was practically at an end, the cessation having been as sudden as its onset. It is difficult, in the absence in Paris of compulsory notification of infectious diseases, to state with exactitude the total number of attacks, but it was probably not less than 2000, as 900 deaths occurred, and amongst the cases treated in hospital, which were about 1000, there were more than 500 deaths, or a mortality of over 50 per cent.; but the mortality amongst these would certainly be higher than amongst those not treated in hospital. As has happened so often in the past in the history of epidemics, when the cholera reached Paris it was ill-prepared as regards hospital accommodation and general organisation for the removal of patients, disinfecting of infected dwellings, and the like. It was at first intended to use only one or two hospitals situate on the north and south of the city, but it was soon found that in face of the sudden and severe collapse, so common in cholera patients, they ran great risk of dying, and actually died, in transit from their homes to hospitals at a distance therefrom, and wards were set apart in the general hospitals situate in various parts of the city; thus, the St. Louis, Tenon, St. Antoine, Lariboisière, Cochin, and other hospitals, all received cholera patients.

At the time of the outbreak the regular ambulance service of Paris consisted of only some half dozen conveyances, which were totally inadequate for the demands made upon them, and ordinary coaches had to be pressed into the service. Immediate steps were, however, taken by the health authorities, and by the time the epidemic was declining an efficient service of forty ambulance carriages was in operation, together with a corps of disinfectors, ready at once to proceed to any house where cholera was reported to be present. In the matter of ambulances we here might with advantage take a lesson from Paris. Instead of being built as ours are of a most pronounced and distinctive, not to say funereal-looking pattern, so that everyone at a glance recognises "the fever van," they are constructed externally to resemble the ordinary coach for hire in the streets, and thus avoid observation to a very large extent. At the Health Exhibition last year there was exhibited an ambulance, built for the London Fever Hospital, which, to all outward appearance, was a handsome brougham carriage of large size, whilst inside it was fitted in every way as comfortably for the patient as could possibly be desired.

All the hospitals in Paris, as is probably well known, are supported out of the rates, and managed and controlled by the governing authorities, there being no hospitals supported by voluntary contributions, and they are under the immediate direction of the Administration de l'Assistance Publique. The routine with regard to cholera cases was as follows. On a cholera case occurring information was at once taken to the nearest police station, which is in telegraphic communication with the central Bureau de l'Assistance Publique, situate near the Hôtel de Ville; here it was decided to which hospital the case should be sent, instructions telegraphed to the nearest ambulance station for its removal, and some of the staff of disinfectors at once sent to disinfect the patient's rooms.

The hospitals visited by me were the Cochin, the St. Antoine, the St. Louis, and the Mariniers. At La Salpétrière, though not a hospital in the ordinary sense of the word, several cases occurred amongst the inmates, and Dr. Charcot informed me that the first case they had there was in an old woman who had not been out of the building for four years, and not even a guess could be given as to its origin.

At the Hôpital Cochin, the cholera patients were treated in wooden structures of which this hospital has many to supplement the accommodation in the ordinary wards. The patients were under the care of Dr. Beaumetz, who courteously afforded me much information and help. In these wards trial was made of saturating the air with ozone. The apparatus employed had previously been in use at Toulon, and consisted of a large air-pump which forced the air through a solution, the composition of which I was not able to ascertain, but which saturated the atmosphere passed through it with ozone, as shown by pieces of paper moistened with iodide of potassium and starch placed in various parts of the wards being rapidly changed in colour and darkened. There was used also in these wards, a new remedy, Erigereon Canadensis, an American drug much lauded for its astringent properties in checking diarrhœa and dysentery. It appeared to check the purging when given, but in many of the cases here purging was very slight and not the most prominent symptom. The general results of these measures do not appear to have been of a very encouraging nature, as 50 per cent. of the cases proved fatal.

At the Hôpital St. Antoine, situate in the district above alluded to as being the locality where the first cholera cases appeared (and which received the largest number of any single hospital in Paris), transfusion was much practised by Professor Hayem, who had had made a very simple and easily managed apparatus for this purpose. The solution used was the ordinary one of common salt with a small pro-

[1] A paper read before the Manchester Medical Society, Feb. 4th, 1885.

portion of sulphate of soda, and it was had recourse to not only in the worst cases, but also in those of a less severe type, and a considerable number of those thus treated recovered. Usually the injection was made into one of the veins at the bend of the elbow, but in some cases the internal saphenous vein in front of the inner ankle was selected. The immediate effect of that treatment was often for a time most marked and beneficial, appearing to give the patient temporarily new life, but as a general result of the treatment here the mortality also reached 50 per cent. Should I ever have to treat cholera myself, I should certainly be inclined to give transfusion a trial in bad cases, as it without doubt in many instances helps to prolong life where it does not actually succeed in saving it.

It was at the Hôpital Mariniers, situate near the fortifications to the south-west of Paris, that the most perfect arrangements, from a sanitary point of view, had been put into operation. This was a new hospital, scarcely finished at the time of the outbreak, and was erected for the purpose of an infectious hospital, and presents some interesting features in hospital construction. It has accommodation for 300 patients, and was built in about six weeks. The wards are all one-storeyed only, and are raised upon wooden piers above the ground, so that the air circulates below as well as above and around them. It was built in a skeleton frame-work of wood, this being brought to the site ready to put together, and the spaces were then filled in with brick-work, consisting of only one brick in thickness placed end to end, so that the walls are only some four inches thick. Externally they present a neat and substantial appearance. On the inside the walls were finished off with plaster, and had a much more comfortable appearance than the usual temporary wooden erections, and gave none of the difficulties in maintaining an equable and proper temperature met with in these latter. The arrangements for disinfecting everything connected with the wards, &c., was most complete. A large gas stove, on the same principle as the Ransome (Nottingham) disinfecting stove, had been constructed. A special room for fumigating with sulphurous acid fumes was built, and still further machinery was erected of a very simple but apparently efficient character for disinfecting all the waste water, slops, and sewage before leaving the hospital sewers. At the extremity of the grounds a large tank was constructed in the earth, into which all the hospital sewers opened; adjacent to this was erected a strongly made iron cylinder and a large steam boiler. The sewage was drawn into the cylinder and then subjected to a temperature of over 300° by steam forced into it from the boiler before being discharged into the sewers of the town, a temperature probably sufficient to kill all forms of germ life. The working of this was most simple, and necessitated the attendance of only one man, and was in operation day and night. In the wards themselves all infective material—stools, vomit, urine, soiled linen, &c.—were at once treated with chloride of zinc, and this appears to have been the practice followed at most of the other hospitals, chloride of zinc being apparently the disinfectant most in vogue in Paris. For the disinfection of rooms, houses, and conveyances sulphurous acid was used. The treatment adopted at the Hôpital Mariniers was not of a very special character; opium in the form of paregoric and wine was much used, the limbs rubbed with a turpentine liniment, and hot air baths also given, these two latter remedies appeared to give much relief to the muscular cramps. The mortality here and elsewhere was 50 per cent. The bodies of those who died were covered with sawdust saturated with chloride of zinc, and buried in a few hours.

As one who saw cholera patients for the first time, what struck me with most force was the great fear which seemed to lay hold of many of these patients, so unlike anything met with in the ordinary zymotics—such as small-pox, typhus, diphtheria, and the like. The sudden and extreme collapse, the comparative absence of real delirium, and as the later stages come on the shrunken features, the shrunken eyeball, dark areola round orbit, and the shrivelled, inelastic condition of the skin, so that when pinched and raised up it showed scarcely any elasticity or tendency to retract itself in the normal manner. In one man at the Hôpital Cochin this inelastic state was marked even in the convalescent stage. After seeing patients in the collapse of cholera it is easy to understand how it has been possible to mistake patients really alive for dead, so like is the condition to that of a corpse. After death this shrunken, livid appearance is perhaps as characteristic of the disease as any of the anatomical lesions met with, these latter being quite as vague and indefinite as those of typhus, and in the absence of any ante-mortem history it would, I think, be difficult to diagnosis a case of cholera from a post-mortem examination alone. There were usually more or less inflammatory changes in the mucous membrane of the intestinal canal, but these varied much in degree; other lesions described were equivocal and doubtful in the cases which came under my notice.

Any remarks upon cholera at the present day without an allusion to the comma bacillus would indeed be the play of "Hamlet" with Hamlet left out; but as a matter of fact, when brought face to face with the treatment and management of the disease, the bacillus has no *locus standi* either as regards treatment or hygienic measures. Whatever may be the ultimate outcome of Koch's discovery, at present it is like the bulk of the work of the physiologist and biologist—interesting chiefly in the laboratory, though none the less great and important results may, and probably will, flow therefrom to practical medicine and treatment of disease. Few of the physicians in Paris (amongst the exceptions notably Dr. Strauss) appeared to trouble themselves much about the bacilli, and in some of the wards but little attempt was made even to find them. Koch describes them as easily found by staining in the ordinary manner; but although I have searched since my return, and have had also the assistance of Dr. Dreschfeld, I have up to the present time not been able to find one, to my mind, respectable comma bacillus in either stools or intestine, though ordinary putrefactive bacilli are to be found in abundance. The further knowledge we have gained respecting cholera from the outbreak in Paris and Europe generally last year has been but little; it did not need this to teach us that filth and overcrowding and insanitary conditions generally formed its special home, or that the poor, the badly-fed, and the intemperate were its especial victims. In its treatment we have advanced nothing; of its origin, mode of spreading, its incubation, and its cause we are as much in the dark as ever. Further evidence has been gained that, given good sanitary surroundings, there is but little risk of direct infection from the sick; amongst the large number of medical men, students, nurses, and other attendants on the sick in Paris, I was not able to ascertain that a single case had occurred.

To those familiar with the cesspool arrangements in Paris, together with the suspicion as to the purity of some of its water-supply, it will appear highly probable that in the present year we shall have again opportunity of studying all and everyone of these questions, even if the disease does not reach our own shores, for spread as it was more or less throughout Paris, there must be myriads of bacilli only waiting for the coming summer and favourable conditions of growth to again break out into activity and life.

ELECTRIC ILLUMINATION OF THE VARIOUS CAVITIES OF THE HUMAN BODY, FARADISATION, GALVANO-CAUTERISATION, AND ELECTROLYSIS, BY MEANS OF POCKET ACCUMULATORS.[1]

BY FELIX SEMON, M.D., M.R.C.P. LOND.,
ASSISTANT-PHYSICIAN IN CHARGE OF THE THROAT DEPARTMENT OF ST. THOMAS'S HOSPITAL.

(*Concluded from p. 471.*)

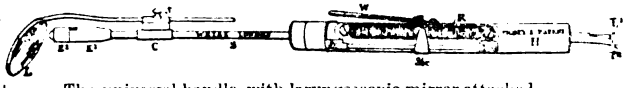
1. *Illumination.*—For illumination of the mouth, pharynx, naso-pharyngeal cavity, larynx, nose, ear, vagina, and rectum one universal instrument has been constructed. Its total length is 8¾ inches. It consists of an ebonite handle 4½ in. in length by ½ in. in diameter, attached to which at one end is a German silver stem or tube, 2¾ in. in length by ⅛ in. diameter. Fitted at the end of this tube is an ebonite socket, ½ in. long by $\frac{5}{16}$ in. diameter, inside of which are two platinum springs connected to two insulated copper wires running the whole length of the instrument to two terminals at the rear of the handle. These latter terminals are connected to a flexible silk cord, which connects the accumulator with the instrument. Fitting into the above socket

is the shank of another socket, containing a small incandescent lamp, which is secured therein by means of plaster-of-Paris. Connexion between the lamp and the platinum spring mentioned before is made by the shank being inserted and fixed by means of a bayonet joint, which, as soon as the proper position has been acquired, establishes good electrical communication. The circuit is completed when the practitioner, who holds the instrument like a penholder, depresses a small brass switch fitted on the handle for that purpose, and in such manner as not to inconvenience his grip. The lamps are only ¼ in. at the largest part, and $\frac{5}{16}$ in. in length. The electro-motor force of these accumulators and lamps has been tested by Mr. Vesey, who finds that the average of those he has tested gives about 4·25 volts, and the internal resistance about ·4 ohm. It may be mentioned that the practitioner may at a slight expense be able to estimate the electro-motor force, or working condition, of the Bunsen battery, as well as of the accumulators at any time by means of a small galvanometer. The force of the current is estimated by the amount of deflection of the needle; the greater the deflection, the better the condition of the battery and accumulators. The delicacy of the carbon filament of the lamp renders it almost impossible to manufacture them with the same amount of resistance in each, and it will be found that there exists considerable difference in this respect in individual lamps. If it be therefore stated that the average amount of resistance in the lamps is 3·8 ohms, this statement must be accepted in quite a general sense; it has in fact been found by us that sometimes lamps with too little amount of resistance will be brought beyond the point of incandescence if connected direct to a powerful and well-filled accumulator. This means practically the burning of the carbon filament and destruction of the lamp. In order to avoid such a contingency, a small resistance coil has been fitted to one side of the handle of the instrument. A small scale divided in 4 ohms or less is placed by the side of the resistance coil; the maximum amount of resistance being marked towards the rear of the handle, the minimum towards the other end, being marked 4 and 0 respectively. By simply pushing the sliding contact opposite any of the divisions the practitioner can accurately regulate the amount of light required for this purpose. It is desirable, when working with a *new* lamp, that the total amount of resistance be placed in circuit, and then altered till the point of incandescence is reached; thereby many a lamp will be saved from being spoiled.

The instrument just described, and attached to an accumulator, will be found very serviceable for the illumination of the pharynx, mouth, ear, nose, vagina, and rectum. It gives an equal, steady light, the brilliancy of which can be regulated up to about two candles power. At the same time the top of the instrument gets warm so slowly that for all practical purposes this question can be left entirely out of view. It is of course necessary not to touch moist mucous membranes with the projecting segment of the lamp, because, though the bulb is very strong glass, yet accidents may occur under such circumstances; however, by exercising ordinary care they will be entirely avoided. In case the illumination of more deeply situated cavities of the body be desired, as of the abdominal cavity after ovariotomy, or of the bladder after lithotomy, it will only be necessary to provide the instrument with a somewhat longer stem. The greatest triumph, however, will be reserved, I anticipate, for the instrument in its application to laryngoscopy and posterior rhinoscopy. It is quite true that a real, fortunately not very frequent, difficulty of the former mainly depends upon the configuration and degree of elevation of the epiglottis, but I have little hesitation in saying that a large number of beginners are already deterred from pursuing their laryngoscopic studies by the difficulty they experience in concentrating the light reflected from the frontal mirror attached to their forehead upon the laryngeal mirror held in the patient's fauces. The electric laryngoscope presently to be described does away with the whole difficulty of double reflection, and thus with the difficulties just mentioned. It is constructed at a moment's notice by the practitioner himself by simply slipping the stem of the laryngoscopic mirror into a sliding collar fixed by spring jaws to the stem of the instrument, which collar is capable of begin rotated round the stem, and thereby giving the mirror an almost universal movement, and enabling the operator to hold the instrument in the manner most convenient to himself. It has been mentioned before that the little lamp and its coverings get warm very slowly; so little indeed is the amount of heat given out, that with the electric laryngoscope it is as necessary as with the common one to warm the mirror previous to introducing it in the usual manner, in order to avoid the condensation of the expired air on the reflecting surface. It is a most important point, found by me only after very long-continued and laborious trials, that for the purpose of laryngoscopy the mirror should be pushed into close proximity to the lamp, and the latter should be just opposite its *uppermost* part, and in a line with the vertical diameter of the mirror; whilst, on the other hand, in posterior rhinoscopy the lamp should be in a line with the vertical diameter of the mirror, but this time opposite its *lowest* part. Attention to these two points is very necessary to secure good illumination of the parts in question. By following the foregoing directions, the operator will obtain a very good image of the parts with far less trouble than by the old method. (Fig. 2.)

I have now used the instrument for laryngoscopy and rhinoscopy in both hospital and private practice; and among the cases I have examined were some which may fairly be designated as test cases — cases in which the patients were in bed in the recumbent position, and unable to move; and in all these cases the electric instruments have fully answered my expectations. I have repeatedly extirpated laryngeal growths, holding the forceps in my right hand and the electric laryngoscope in my left, in the usual manner. Of course, mirrors of various sizes, and supplied with stems of the same diameter, may be inserted into the before-mentioned sliding collar, so that the practitioner will actually only require one universal handle for illuminating the different cavities. It is here the place to make an observation about the colour imparted to the structure by the electric light. Unless the full point of incandescence be reached, the light has a peculiar reddish-yellow tinge of its own, and the parts

FIG. 2.



The universal handle, with laryngoscopic mirror attached. H, Ebonite handle. S, Stem of German silver. E^1, Ebonite socket containing platinum springs. E^2, Ebonite socket containing incandescent lamp, and fixed into t^1 by means of a bayonet joint. L, Laryngoscopic mirror, attached to S by means of sliding collar (c), in which it is fixed by screw (s). W, Brass switch, by pressure upon which the circuit is completed. R, Resistance coil. *Sc*, Sliding contact for regulation of the amount of resistance. T^1, T^2, Terminals for connexion with wires leading to the accumulator.

appear more brilliantly coloured than they really are. It will be necessary to keep this in mind, and to examine a few patients, first with the ordinary daylight and then with the electric light, or *vice versâ*, in order to avoid erroneous diagnoses of "congestion of the mucous membrane."

Finally, it may be observed that when operations have to be performed within such narrow cavities as those of the nose and ear, it will be impossible to introduce the lamp—though this alone can be easily passed into the nose between the branches of a Duplay's speculum simultaneously into the nasal or aural speculum with any instrument by means of which the operation has to be performed. In order to obviate these difficulties I have borrowed from the interesting paper of Dr. Macintyre in the *Glasgow Medical Journal* of February, 1885, on the Use of the Electric Light in Medicine, the idea of having my little incandescent lamps provided with a clip easily attachable to any of the specula for examination of any cavity, and permitting the introduction of instruments through this, whilst at the same time the field of operation is sufficiently illuminated. This will be useful in cases of polypi, hypertrophy of the nasal mucous membrane, aural polypi, operations on the tympanum, &c.

2. *Faradisation.*—The electro-motor force of the accumulators can be made useful in a very simple manner for faradisation by simply attaching the leading wire from the accumulators to the terminals of a small coil as used for medical purposes. It has been found that for a small coil one accumulator is quite sufficient, and, in fact, it is not advisable to increase the number of accumulators unless the practitioner is certain that the insulation of his coil is perfect. The strength of the current can, of course, be regulated in the usual manner by the sliding tube which covers the core of the coil. The use of the accumulator for these purposes will enable the practitioner to dispense with

the ordinary box containing the bichromate battery and coil, the former of which is, according to my own experience, very apt to be out of order just when it is wanted.

3. *Galvano-cauterisation.*—A considerable advance towards the popularisation of this most valuable method will be made, I hope, by the introduction of accumulators as generators of the electric current. Hitherto it has been urged, with a certain degree of justice, that the apparatus necessary for it was very cumbersome, apt to get out of order, expensive, and capable of being used only in the practitioner's private house. A good galvano-caustic battery entails a considerable outlay, and such batteries, which are filled with bichromate of potash solution, can hardly be used at patients' homes, except in quite exceptional cases. Thus, certain minor operations, in which the galvano-caustic method is most useful—as, for example, destruction of pharyngeal granulations, removal of nasal polypi, &c.—are at this moment practically limited to the practitioners' own residences. The substitution of three or four accumulators coupled together in the same way as an ordinary battery of several cells (i.e., the *minus* pole of one and the *plus* pole of the other, and so on throughout the series, and finally connecting the two poles, which are left unoccupied, to the wires leading to the instrument) will enable the practitioner to perform in future such minor galvano-caustic operations at the patient's own residence. The combined electro-motor force of from two to four accumulators suffices to bring the platinum or steel wire used in connexion with my friend Dr. Schech's (of Munich) excellent galvano-caustic instruments up to any degree of heat, from dull-red to white. In order to regulate the degree of heat, I have requested Mr. Weiss to supply a small resistance coil of the same pattern as that used for the universal handle to the handle of Dr. Schech's écraseur and knives. I may remark that I find the accumulators get comparatively soon exhausted when heating the instruments, and that some little time elapses before the platinum points are heated. The explanation of this is that the steel wire or platinum points offer a very considerable resistance. It will therefore be necessary to be quite sure that one is in the possession of several well-charged accumulators before starting upon a galvano-caustic operation at the patient's house.

4. *Electrolysis.*—It is obvious that the electro-motor force of the accumulators can be used for electrolysis. For this purpose one accumulator will suffice, and indeed in most cases so much less current will be required than that supplied by one accumulator, that it has been deemed advisable to interpolate a small resistance into the wire between the terminals of the accumulator and the electrolytic needles used for the destruction of tumours.

I am far from believing that the apparatus just described is incapable of further improvement. Nor do I claim great originality for the idea or the adoption of the different elements of its construction for the purposes just mentioned. But I think I may claim for the apparatus that it is the first of its kind which enables the practitioner to get by a small outlay possession of a portable and trustworthy apparatus, by means of which he can more easily than formerly examine the cavities of the human body, especially the larynx and the naso-pharyngeal cavity; and perform faradisation, galvano-cauterisation, and electrolysis at the patient's own house without constantly being in the instrument maker's hands, and all at a smaller expense than was formerly involved by the purchase of a set of laryngoscopic instruments, a faradaic coil, a galvano-caustic battery, &c.

P.S.—Sooner than I anticipated one of the possibilities of further improvement bids fair to become an actuality. Mr. Vesey has informed me that a new primary battery has been invented, which possibly may supersede the accumulator altogether. This battery will be made by the Primary Battery Co., London. It is constructed in the form, and nearly in size, of one of the accumulators just described, and its peculiarities are enumerated in the following note, kindly made for me by one of the officers of the company.

NOTE ON THE PRIMARY BATTERY.

"In its ordinary form this battery offers the following advantages over the batteries in general use at the present time, such as the Bunsen, Fuller, Daniell, Leclanché, &c. It has a high and constant electro-motive force, a very low internal resistance, and is the very simplest possible form of a voltaic battery—viz., two elements (positive and negative) immersed in a simple and inexpensive fluid. The electro-motive force of each couple is two volts, and remains constant at this until the cell is nearly exhausted, or until all the work which it is calculated to do has been got out of it. In order to obtain the E.M.F. of two volts with other primary batteries it is necessary to use two different exciting fluids, one of which is contained in a porous pot. One of these fluids is usually nitric acid, which is very objectionable on account of its fumes, and is also expensive. In the new battery both the plates dip into a fluid which consists of one part by bulk of sulphuric acid to nine parts of water. The use of a porous pot in a battery also adds greatly to its resistance, and there is therefore a great gain in this direction, in being able to dispense with it. In the form in which it is now shown (small pocket form, for surgical purposes), it offers the following advantages over the secondary batteries, which up to the present time have been found the most convenient. In the first place, the fact of its being a primary battery is of great advantage, because the process of 'charging' is superseded, and the practitioner has simply to take the plates and insert them in the cover of the cell, fill the cell with the diluted acid and water, and fasten down the cover, to obtain at once a battery in full working order. When the battery is worked out the cover is removed, a fresh pair of plates and a little fresh fluid introduced, and the battery is again ready for use. In action the battery is practically the same as the accumulator already described."

I have considered it my duty to give full particulars, so far as I know them myself, of this new battery; because, if all the foregoing statements be sustained by facts, there can be little doubt that this battery will ultimately take the place of the accumulators. At the same time, it must be distinctly understood (1) that I am quite unable to bear out any of these statements by personal experience, not having had the opportunity of working with the battery at all; (2) that it is still an open question whether it will be possible to manufacture these batteries in such a form as to enable the practitioner to recharge and insert fresh plates himself, if the battery be of the sealed pattern; and (3) that the battery is not yet in the market, and I am unable to say when it will be. I shall, of course, pursue my experiments with it, and shall not fail to supplement this paper by further details as soon as satisfactory results have been obtained. Considering, however, the length of time which has elapsed since I first began to experiment in this line until to-day, when I bring the first results of those experiments before you, I have no hesitation in recommending those who are anxious to avail themselves of electricity in a portable form to make for the present the accumulators the base of their apparatus.

TRAUMATIC CATARACT; ABSOLUTE DISAPPEARANCE OF LENS AND CAPSULE WITHOUT OPERATION; PERFECT VISION WITH (?) POWER OF ACCOMMODATION.

BY T. H. BICKERTON,

LATE CLINICAL ASSISTANT, MOORFIELDS OPHTHALMIC HOSPITAL.

THE case recorded below is one of such unusual occurrence and of so unique a character that I think it is quite worthy of being put on record. It occurred in the practice of Mr. Shadford Walker, and I am indebted to that gentleman for the privilege of publishing it.

Mr. T. H——, aged fifty-six, consulted Mr. Shadford Walker in May, 1884, on account of a "cold" in the left eye. "It is," he said, "my only working eye, and I am very anxious about it." Noticing that the iris of the right eye was very tremulous, I asked what had happened to it. His answer was that it was almost useless; he had had an injury to it when a young man, and could now only distinguish large objects with it. Further inquiries elicited the following history. Twenty-nine years ago (when twenty-seven years old), whilst working in a foundry, he was struck in the right eye with a piece of steel, and within six months from the time of the accident he became quite blind, owing to the formation of cataract in that eye. He was recommended by an oculist to submit to an operation for the removal of the cataract, but declined, preferring to remain

with one good eye rather than run any risk of the operation affecting in any way the sight of the left, which was perfect. For three years and a half he remained in total blindness with the right eye. One day when passing through some very sandy ground a quantity of sand was blown into his eyes, causing him to shut them violently. On reopening them, to his surprise, he found that he could see with his right eye, being able to count his fingers, and his medical man, on whom he called immediately, told him that the cataract had disappeared. From that time until the present, twenty-five years and a half, he consulted no one about the eye, and has been content to go about able to see with it any large object. He has frequently tried to obtain from opticians a glass that would help him, but without success. Of late years he fancies there has been an improvement in his vision, though only very slight. Since, however, the attack of inflammation in the left eye, which has now lasted for some weeks, he has found the right eye very useful in helping him to get about; for although he could not distinguish features, he could see his way well enough to keep himself out of danger. For the last two years he has worn for the left eye a + 2 D. for doing his reading and writing.

Present condition.—Testing gave the following results:—Right eye, $\frac{2}{6}$: Sph. + 10 D., $\frac{2}{6}$, perfectly. Sph. + 10·25 D., $\frac{2}{6}$, perfectly. Sph. + 10·50 D., $\frac{2}{6}$, perfectly; $\frac{2}{9}$, perfectly. + 10·75 D., $\frac{2}{6}$, perfectly, but not so good. Thus, at a distance he had not only perfect vision; but an acuteness of vision beyond the normal. One point I noticed in the examination was that if the + 10 D. was put up immediately after the + 10·50 D., he could only read with it $\frac{2}{12}$, it being a moment or two before the $\frac{2}{6}$ came into view. Left eye (fixed pupil due to recent iritis), $\frac{2}{9}$: Sph. + ·75 D., $\frac{2}{6}$. Right eye: Sph. + 14 D., Jaeger 1, with ease. With the + 14 D., and bringing the type slowly towards him, he was able to distinguish words, when the print had been brought to 12½ in. from the eye, at a distance of 9 in. the print became most distinct, and it was not until it was brought to within 6½ *in. from* the eye that the print became too indistinct to read. Not only, therefore, was his near vision perfect, but it was also evident from his statements that he had a very extensive range for near vision. Left eye, sph. + 2·50 D. Jaeger 1, easily. The right pupil in ordinary light was 2½ mm. in size, dilating in the dark to 4½ mm., and contracting on exposure to bright light to 2 mm. On the eye being directed from a distant object to an object held close to the eye, either with a lens before the eye or not, the pupil contracted, the change being from 2½ or 3 mm. to 2 mm. (Great care was taken that the amount of light was the same both for the distant and near object.) The iris was very tremulous, hanging in its normal position, pupil circular, dilating and contracting regularly to variations in light. There was no sign either of lens or capsule. A careful examination and accurate focusing did not lead to the detection of any membrane whatever. The cornea showed a minute faint opacity just above and to the inner side of its centre, indicating where the piece of steel had struck the eye. On ophthalmic examination the disc was normal both as to tint (pale) and size of vessels. The fundus was normal, and though I looked carefully I could find no foreign body or irregularity existing on the surface of the retina.

Two points of interest occur in this case—the idiopathic and complete disappearance of the lens and capsule, and the apparent existence of accommodative power in an eye minus its lens. The first is a pure example of the operation of solution, and the result is that aimed at by every oculist who operates upon a soft cataract. The piece of steel acting the part of the surgeon's needle must have wounded the lens capsule, admitting the aqueous fluid to the lenticular substance. This in its turn would undergo disintegration and eventual absorption, but the process here went further and caused absorption of every particle of the capsule, thus making a perfect result. Though this latter does occasionally occur after operations both on soft and hard cataracts, it is not of common occurrence. Apparent existence of accommodative power in an eye minus its lens. It is well known that on either side of our strictly mathematical focus for near objects (p.p.), there is a small range of space in which we can see, provided the circles of diffusion are cut off by means of a stenopaic hole, but this space is never very great, and in no experiment that I have made does it extend to six inches. To what, then, can the range for near vision in the present case be ascribed? To accommodation? If so, in what manner does it act? As I have been unable to find any references to the question of accommodation in an eye minus its lens which throw any light on the point, I should be glad of any information.

In conclusion, I have to thank Mr. Shadford Walker for verifying my statements with regard to the distances at which Mr. T. H—— was able to read.

Liverpool.

TWO CASES OF

HERNIA OF THE LUNGS INTO THE NECK;

ONE VERIFIED BY POST-MORTEM EXAMINATION.

BY SURGEON-MAJOR MAURICE KNOX, A. M. D.

THE notes of the following two cases may be deemed worthy of record. They are the only instances of displacement of the lung into the neck that have come under my personal observation; although such a lesion is, I am aware, described by Dr. Roberts.

Private W——, 2nd East Surrey Regiment, aged twenty-two years, a delicate thin man, was admitted into the Station Hospital, Bareilly, under my care, on June 30th, 1884, with the following history. He had been fairly healthy up to December, 1882, when he was admitted into hospital at Gibraltar with bronchial catarrh, and remained a hundred and forty-six days under treatment. He was subsequently twice in hospital under the head of "bronchitis." He stated that in February, 1884, while on the march, he had a violent fit of coughing, and felt something give way in the left side of the neck. The pain was rather severe at the time, but he was able after a short rest to walk into camp On looking at himself in the glass, he observed a tumour above his left clavicle the size of a hen's egg. He continued to perform his duty up to June 30th, when he presented himself at hospital complaining of slight pain in his chest, dyspnœa on exertion, and dry cough. On examining the patient's chest there was marked resonance over the left side, the whole cardiac region appeared to be covered with lung tissue, the inspiratory murmur was short and the expiratory murmur prolonged. There was a peculiar crackling râle audible over the whole of the front of the left lung, especially along the thin edge. Above the left clavicle there was a tumour about the size of a turkey's egg; it was superficially situated, soft and compressible to the feel; and on auscultation respiratory sounds were audible over it, accompanied by the same crackling râle heard below the clavicle over the left lung. When the patient coughed the tumour became more prominent; the skin over the tumour was free and quite healthy; there was no impediment to the circulation or symptom of pressure of any kind; and the only inconveniences the patient experienced were slight pain in the chest and dyspnœa on exertion. The right lung was fairly healthy. The patient remained in hospital up to December, 1884, and the only change that has taken place in the case is that the lung hernia has increased to the size of a large orange. No treatment of any kind further than rest has been attempted.

Dr. Wilkie, of the Indian Medical Service, who was greatly interested in the case, has kindly supplied me with the following notes of a very similar case that, strangely enough, occurred in his own practice about the same time:—

Jewra, aged fifty, a native prisoner in Bareilly Central Prison, a man who frequently suffered from attacks of asthma, was admitted into hospital on July 2nd, 1884, suffering from fever and general debility. He died suddenly from syncope, about half an hour after returning from the latrine, on July 8th, 1884.

Post-mortem examination. — The body was thin and very slightly jaundiced. The heart was pale and flabby, the left ventricle being hypertrophied. The left lung was emphysematous, especially along the anterior border and at the apex. The right lung was emphysematous on the anterior border; the apex was protruded beneath the clavicle into the neck. It was dilated into a translucent tumour about the size of a man's fist, in which most of the alveolar structure of the lung had disappeared. On removing the lung the entire hand could be passed upwards beneath the clavicle from the cavity of the thorax, and the superficial structure of the neck bulged out into a tumour. In the left lung the emphysema was in a less advanced stage, and there was no protrusion upwards. The lungs showed otherwise nothing abnormal except a little muco-pus in some of the tubes, and perhaps a little thickening of the tubule walls. The kidneys

were mostly clear but somewhat mottled, with the Malpighian bodies standing out very red and distinct. The spleen was small and soft. The liver was hyperæmic and very slightly jaundiced; the acini were somewhat marbled and nutmeggy in character, with large red centres and pale circumferences. The stomach and intestines were healthy.

Barcilly.

SUCCESSFUL OPERATION ON A REMARKABLE CICATRICIAL BAND.

BY GEORGE WHERRY, M.C., F.R.C.S. ENG.

AN undergraduate aged twenty-four, looking very pale, worn, and ill, consulted me in November, 1882. I discovered a large cicatricial bridge, which joined together the buttocks, overlapping the anal orifice, and a long sinus-like tunnel extending beneath it with two openings—the one near the anus, and the other over the sacrum; these discharged a quantity of feculent pus, and the poor fellow had to wear napkins, and change them frequently. The band, which in the narrowest part measured seven inches in circumference, was the result of a scald in infancy, for a hard-handed nurse had dipped his buttocks in boiling water. The patient was put under ether, and the band cut in the middle line. The hæmorrhage was not great, and a complete recovery followed the operation. The tendency of the granulating surfaces to unite was prevented by introducing carbolised oiled lint to the bottom of the wound. The patient was driven to seek advice about some bladder irritation which was clearly reflex, and it was only in the course of a systematic investigation to find a cause for this that his real malady was discovered. There had been no troubles directly or indirectly connected with the cicatrix until the few months previously, and he had been advised by an eminent surgeon not to have it interfered with. The inflamed and suppurating condition described was brought on by boating, for, to my great surprise, I learned that he had been sculling nearly every day in spite of discomfort, failing strength, and loss of weight.

This appears to be a good example of the growth of a cicatrix; probably about the size at first of an infant's hand, it gradually enlarged with the body's growth until it attained the size of an adult's hand at manhood.

Cambridge.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

RADCLIFFE INFIRMARY, OXFORD.

A CASE OF ULCERATIVE ENDOCARDITIS IN A CHILD, AFFECTING THE PULMONARY VALVES, WITH CERTAIN CONGENITAL DEFECTS IN THE HEART; NECROPSY; REMARKS.

(Under the care of Dr. TUCKWELL.)

THE following case of ulcerative endocarditis will be read with considerable interest in connexion with the Gulstonian Lectures on Malignant Endocarditis recently delivered by Dr. Osler, and published in THE LANCET of March 7th, 14th, and 21st. It was apparently a primary disease of the pulmonary valves, and there appears to have been no disease on the left side of the heart; of the large number of cases collected by Dr. Osler, the disease appears to have been limited to these valves in only five. The age of the patient and the physical signs found on examination of the chest, in the absence of further symptoms of embolism, made the case one which it was almost impossible to diagnose correctly. For the following notes we are indebted to Dr. Harris, house-physician to the infirmary.

H. E——, a boy aged four years, was admitted to the Radcliffe Infirmary on Nov. 25th, 1884, and died on the 30th of that month. He was said to be suffering from "congestion of the lungs," and during the five days that he lived after admission he was so ill that no very detailed examination could be made. The father stated that the boy had always appeared to be the healthiest of his family of four; that he had had very little previous illness, but that in the previous month of May he had measles, from which he recovered, though not regaining quite his former robust state of health. He seemed fairly well till about three weeks before admission, since when he had kept his bed, suffering from loss of appetite, cough, and a hot flushed face. On the night of admission the child was very flushed; temperature 101°; pulse 180, and regular; respiration 54. What physical examination of the lungs could be made revealed nothing definite, but he was believed to be suffering from acute pneumonia.

On the following day (Nov. 26th) there was evidently a great change. The child, from being very flushed, was now very pale, with slight blueness of the lips and a small blue patch on each cheek. The temperature in the morning was 103°; in the evening 103·6°. Respiration in the morning 54; in the evening 66. Pulse in the morning was 130; in the evening over 180, but the exact rate could not be obtained. The child's general condition was very low, and very little examination was made, but there was thought to be a faint pleural friction sound at the base of one lung, and also at the cardiac apex a distinct though faint murmur, which was apparently systolic in rhythm, but from the rapidity of the heart's action it could not clearly be localised. On the next morning (the 27th) the temperature had fallen to 99°, but there was no corresponding improvement in the general condition of the child; the face still presented the peculiar pallor, with the slight blueness of lips and cheeks. In the evening of the same day the temperature was 103·2°, respiration 54, and pulse over 180. On the following morning (the 28th) the general condition was the same. Temperature 104°; pulse 162; respiration 54. In the evening the temperature was 102°; pulse 156; respiration 54.

The next morning (the 29th) showed a fall of temperature to 101·4°; respiration 58; pulse 158. The child since admission had been always conscious, never delirious, but had taken very little notice of anything going on in the ward. On this day the systolic murmur was still audible, and there was evidence of some lesion at various parts of the lungs, but the child was far too ill to be moved much for an examination to be made. Behind, at the right apex, was marked tubular breathing; at the right base, dulness of slight extent, with no definitely abnormal auscultatory signs; over the left apex in front was some impaired resonance, but again no definitely abnormal signs on auscultation. The child had some cough, though it was not troublesome. It was only on this day that a history of the case could be obtained. In the evening the temperature rose to 102·6°; pulse 156; respiration 48.

On the morning of the 30th, the day on which he died, the temperature was 102·4°; respiration 54; pulse 158, regular. His general appearance was unchanged; there were still the pallor and blueness of the lips and cheeks, but in addition there were noted a distinct internal squint of the left eye and ptosis of the upper eyelid of the same side. Abdomen somewhat distended; no tache cérébrale. There was now marked dulness over the left infra-clavicular, left mammary, and axillary regions, with bronchial breathing over the infra-clavicular and marked tubular respiration at the axillary and lower scapular regions, also a doubtful friction sound over the lower part of the left infra-clavicular region. There had been diarrhœa since admission, the number of motions varying from two to five in the twenty-four hours, and these were of a green slimy character. His breathing became more and more oppressed, and he died about 7.30 P.M. The temperature just before death was 101·6°.

The post-mortem examination, which was made seventeen hours after death, revealed extensive ulcerative endocarditis affecting the orifice of the pulmonary artery, a patent foramen ovale, a communication between the right and left ventricles, and numerous pulmonary infarcts. The body was fairly well nourished, and for the age well developed. Post-mortem decomposition was not marked. Cutaneous hypostases dorsal. Pericardium and heart: The pericardium contained about six drachms of turbid effusion, which was not blood-stained. The visceral surface of the sac showed numerous small patches of quite recent lymph, and also here and there a few hæmorrhages the size of pin heads.

The pericarditis was evidently of quite recent date, and there were no adhesions between the visceral and parietal layers. The heart was considerably enlarged, weighing four ounces; the apex was formed entirely by the right ventricle. Muscular substance firm. Walls of both ventricles much thickened; the thickness of the right exceeding that of the left. The section of the right ventricular wall near the tricuspid orifice was from a quarter to three-eighths of an inch, while that of the left ventricle at a corresponding point was a quarter of an inch. (These measurements were not taken at the time of the post-mortem, but after some days' immersion in alcohol.) All the cavities contained some dark blood, partly fluid, partly in dark coagula, the right side considerably more than the left. On removing the heart, the pulmonary artery was seen to be completely blocked by a very firm thrombus, which was markedly adherent to the walls of the vessel, and was of yellowish-grey colour throughout. On section no portion of this thrombus appeared dark, and no portion of it was softened; it could not be readily separated from the arterial wall; when torn away it left visible an extensive ragged irregular ulcer, which extended from the origin of the pulmonary artery upwards a distance of an inch and a quarter into the vessel, and was not limited to one side of the artery, but extended all round the vessel. No trace of the semilunar valves could be seen, but they appeared to have been completely destroyed in the ulcerating process. Although the ulcer was so large, it had not extended deeply into the walls of the vessel, nor had it at any point nearly perforated the arterial wall. The tricuspid orifice admitted the tips of two fingers, and the cusps of this valve were perfectly healthy, though the ulcer in the pulmonary artery extended as far as the base of attachment of one cusp. The endocardium of the right auricle and ventricle was healthy. The foramen ovale was patent, and would admit the passing of a No. 12 English catheter; but the communication between the two auricles was not direct, for a fold of endocardium from the margin of the fossa ovalis lay loosely over the aperture, and, acting probably as a valve, prevented the passage of blood from the right to the left cavity. At the upper part of the septum ventriculorum was a circular opening, fully one-eighth of an inch in diameter, forming a communication between the two ventricles. This opening was situated immediately below the ulcerated surface in the pulmonary artery, scarcely one-tenth of an inch of healthy endocardium intervening between them; yet the ulcerating process had had nothing to do with the formation of this opening, for the latter had perfectly smooth rounded margins, covered by an apparently healthy endocardium, and was evidently of congenital origin, forming a direct communication between the two ventricles. The mitral orifice admitted the points of two fingers, but less readily than the tricuspid; its valve was perfectly healthy. The aortic valves and the aorta itself were normal. Pleuræ and lungs: Both pleuræ contained a small amount of clear serous fluid, and showed, especially on their diaphragmatic surface, several minute punctiform hæmorrhages. The upper and lower lobes of the left lung were united together by recent lymph. Lungs: Both lungs contained numerous recent infarcts. The largest of these was in the upper lobe of the left lung, which was quite solid, except at the very apex, and dark-red in colour. One or two smaller infarcts existed in the lower lobe of the left lung; one of these being on section grey, though firm, and appearing to be the oldest present, for all the others were of dark-red colour, and none were softened. In the right lung the infarcts were more numerous but smaller, and chiefly, though not entirely, situated in the lowermost lobe; none were softened even in their centre. The spleen weighed three ounces, was firm, and presented no recent infarcts, but at one part on the surface was a large, white, starred cicatrix, such as is often seen as the result of an old infarct. The liver and kidneys were healthy; in the latter the fœtal lobes were very distinct. Peritoneum: No hæmorrhages could be found. Stomach and intestines: The mucous membrane of the stomach appeared pale, but otherwise healthy. The small intestines contained a large amount of partially digested milk; their mucous membrane was pale. Peyer's patches and the solitary glands were remarkably distinct throughout their whole length; but they were pale and not surrounded by any hyperæmic zone, and, though they were so distinct, were only just raised above the general mucous surface. There was no ulceration at any part of the intestines. The large intestines were normal. The mesenteric glands were somewhat enlarged, pink in colour, and firm in consistence. The brain and its membranes were carefully examined, but nothing abnormal was found. Special examination was made for any lesion which would account for the symptoms referable to the left eye observed during life.

Remarks by Dr. HARRIS.—Cases of ulcerative endocarditis are sufficiently rare, and present frequently so many difficulties in diagnosis that it has been considered worth while to record the above case. From the clinical features presented in the majority of cases it has been found convenient to group them under two heads and to speak of a pyæmic and of a typhoid variety of the disease. The above case could not be placed in either of these groups; it never for a moment suggested a resemblance either to pyæmia or to enteric fever; it presented special characters of its own, and these characters were due to the unusual position of the lesion. On admission, the child was believed to be probably suffering from acute pneumonia, and it was not until the following day, when its appearance became so much altered and the history of the case was obtained, that it became evident that, although pneumonia might be present, it was not sufficient to explain all the symptoms and that there must be some other lesion as well. The cardiac murmur, though distinct and believed to be systolic in rhythm, was never a loud one, and the frequency of the heart-beats was so great that we could not be certain as to the rhythm of the murmur or as to the importance to be attached to its presence. The squint and the ptosis observed during the last day of the child's life inclined us to the diagnosis of acute tuberculosis; but there were still wanting other confirmatory symptoms of tubercular meningitis. Pathologically, the case was interesting from many points of view. Ulcerative endocarditis affects far more commonly the left than the right side of the heart, and the age of our patient was far younger than that at which the disease is usually seen. Why should the lesion in this instance have affected the pulmonary artery, which is so rarely the seat of any acute disease? It has been observed that very many of the cases of ulcerative endocarditis occur in hearts which have previously been the seat of some chronic valvular mischief, the acute disease being as it were superimposed upon the already diseased endocardium. In our own case no trace of the pulmonary valves could be seen, and so they must either have never existed, or, as is quite possible, have been destroyed in the ulcerating process. Congenital defect of the pulmonary artery is among the more common forms of the congenital lesions affecting the circulatory system, and is very frequently associated with some other congenital cardiac defect, such as open foramen ovale, or a communication between the two ventricles, both of which lesions existed in the above case. Another point which seemed to speak strongly in favour of there being some lesion of the pulmonary artery of long standing was the large amount of hypertrophy of the right ventricle which was present, without any other cause to account for this, for it could hardly be assumed that so much hypertrophy had been called forth in consequence of the acute endocarditis, nor from the effect which the small aperture in the septum between the ventricles might have, and there was no lesion of the tricuspid valve. Hence we believe that primarily there was some congenital lesion of the pulmonary artery causing compensatory hypertrophy of the right ventricle, and that ulcerative endocarditis subsequently attacked this defective part of the circulatory system. The size of the ulceration was exceedingly large, especially when we consider the importance of the part it affected. As regards the infarcts in the lungs, one point seems specially worthy of notice that is, that none were softened, which so commonly ensues in the infarcts which are caused by emboli from this destructive form of endocarditis. This absence of softening can hardly be accounted for by the infarcts being of recent date; for certainly the disease must have existed for some length of time, and have been in a position, so far as extent of lesion was concerned, to give rise to emboli, which, if they had possessed their usual irritative properties, would certainly have been followed by the usual softening. That the lungs were the only organs where infarcts existed is of course explained by the position of the original lesion. Although no brain lesion was found, it seems highly probable that the ptosis and squint were the result of a small embolus. The lobed condition of the kidneys is interesting when we consider that there also existed certain congenital heart defects.

LEEDS GENERAL INFIRMARY.

TWO CASES OF FRACTURE OF THE ASTRAGALUS, AND A CASE OF SEPARATION OF THE UPPER EPIPHYSIS OF THE RADIUS; REMARKS.[1]

(Under the care of Mr. A. W. MAYO ROBSON.)

CASE 1. G. C——, fitter, aged forty-eight, fell from a ladder, a height of eight or nine feet, alighting on his feet. On admission he was found to have a fracture of the left fibula, about the junction of the lower and middle third, with some injury to the foot. On flexing the joint crepitus could be felt indistinctly. On further examination a prominence of bone could be felt in front of the ankle-joint, between the malleoli. The width of the malleoli, measured by calipers, was increased by a quarter of an inch as compared with the sound side. A line drawn from the posterior part of the internal malleolus to the tip of the heel was a third of an inch less on the injured foot. The distance from the tip of the external malleolus to the floor was decreased by half an inch, and the circumference over the malleoli was increased by an inch and a half. He was in the hospital with the leg on a back splint from Aug. 13th to Sept. 6th, when he was discharged with a plaster-of-Paris splint on. When he appeared as an out-patient on Oct. 24th the movement of the affected ankle-joint was good, limited extension being the chief fault. There were still increased circumference of the ankle, and diminution of the distance between the malleoli and the sole.

CASE 2.—G. H——, quarryman, aged thirty, fell from a plank distant some twelve feet from the ground, injuring the left foot. On admission, Oct. 9th, 1884, there were swelling of the foot and ankle, greatly impaired movement, and some deformity. On flexing the foot to a right angle and pressing upwards crepitus could be felt. The whole foot appeared to be a little displaced forwards, so that the heel of the injured side was slightly in advance of that of the sound side. The distance from the tip of the external malleolus to the floor was lessened half an inch, and a line drawn from the tip of the inner malleolus to the prominence of the heel was lessened by a quarter of an inch on the injured side. The circumference of the ankle was increased, and calipers showed the malleoli to be separated about one-third of an inch. He was treated on a back splint, the foot being brought into as good a position as possible. After three weeks plaster-of-Paris was applied, and he was made an out-patient. Two months afterwards there was fair movement in the ankle, but the increased circumference and diminished distance between the malleoli and the sole remained.

CASE 3.—A boy aged six was brought to the infirmary, the parents stating that they had noticed impaired movement in the arm during the last four months, but on closer inquiry it was elicited that he had been run over by a cart four years before, and had been at the time treated for a bruise of the arm. On admission he complained of no pain, could flex, extend, and pronate the forearm completely, but could not supinate more than to place the hand in a line vertical to the floor. The ulna could be traced along its whole length, and the olecranon bore a proper relation to the condyles, which were normal. The head of the radius was in position, but immediately below it was a hollow. The radius could be traced obliquely across the front of the forearm from below upwards and inwards, ending in a hard bossy mass, apparently callus, in front of and below the internal condyle of the humerus, where it rotated in its new position. It was diagnosed from dislocation of the head of the radius forwards by the detached head being felt in its normal position, and by the ability to completely flex the forearm. As the arm was very useful, and had apparently accommodated itself to the new condition, no treatment was recommended.

Remarks by Mr. ROBSON.—The points of interest are:—(1) The occurrence, in the practice of one surgeon, of two cases within a short time of what is usually stated to be a rare accident; but, as Mr. Bryant remarks: "Fracture of the astragalus is probably more common than is usually thought, the injury, which is difficult to diagnose, being often overlooked." (2) The termination: a useful limb resulting in both cases. (3) The signs aiding in the diagnosis being—(*a*) Presence of crepitus on forcible flexion of foot; (*b*) absence of fracture of other bones of tarsus; (*c*) lessening of distance between the tips of the malleoli and the sole of the foot; (*d*) increased circumference of ankle; and (*e*) very slight separation of malleoli. The radial case is interesting on account of its extreme rarity, and as an illustration of what can be accomplished by unaided nature.

[1] Read before a meeting of the Yorkshire Branch of the British Medical Association, Feb. 28th, 1885.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Aneurysm of Splenic Artery rupturing into Stomach.—Congenital Deformity. Osteitis Deformans.—Synovial Cysts in connexion with Joint Disease.—Primary Sarcoma of Penis. Dislocated Hip.—Fatal Hæmoptysis from Hydatid of Lung.

AN ordinary meeting of this Society was held on Tuesday last, Dr. J. S. Bristowe, F.R.S., President, in the chair. The number of specimens shown was very large.

The report of the special subcommittee appointed to inquire into the true nature of Mr. Lane's specimens of fracture of the hyoid bone and larynx was signed by Mr. Lane, Mr. Shattock, Dr. F. Semon, and Mr. Butlin. The report showed that the subcommittee agreed almost entirely with the conclusions drawn from the specimens by Mr. Lane. The reporters stated that it was clear that fractures of the hyoid bone and thyroid cartilage were much more frequent than had usually been supposed. The most interesting specimen shown by Mr. Lane they considered to be that of fracture of the cricoid cartilage, for this form of fracture had been regarded as almost invariably fatal; Mr. Lane's specimen showed that such a severe injury may be recovered from; there was considerable displacement of the fragments and no doubt considerable violence must have been used. The absence of the clinical history of these cases was to be regretted, but under the circumstances this defect could not be helped.

Dr. S. WEST exhibited a specimen of Aneurysm of the Splenic Artery Rupturing through the Stomach. It was taken from a male subject aged fifty-six, who had suffered from hæmatemesis and was given to drink. He had had a similar attack of hæmatemesis fourteen years previously. He suffered from great pain and flatulence with looseness of the bowels. When he was admitted on January 18th, 1885, he was weak and faint and passed much blood in the motions, which were long afterwards of a tarry aspect. The patient was anæmic; there was slight enlargement of the liver and some tenderness of abdomen. On January 28th a pint of bright blood was vomited and in half an hour the patient died. The stomach was found at the autopsy to be full of blood; there was an ulcer one inch in length, and situated midway between the œsophagus and pylorus. An aneurysm of one of the chief branches of the splenic artery was found to be adherent to the stomach on the one hand, and on the other to the pancreas; there was much chronic inflammatory tissue around the aneurysm. A prominence projected through the base of the ulcer in the stomach. There were two slight losses of substance at other parts of the stomach, which were of old date. The liver and kidneys were cirrhotic; the pleuræ were adherent. The disease was rare, and there had been but two cases recorded in the Society's Transactions. One was recorded by Dr. Pearson Irvine, in which the aneurysm was situate on the hepatic artery. The other case was reported by Dr. Powell, and in it the coronary artery was the seat of the aneurysm; both these authors likened the occurrence of their specimens to the aneurysms found in chronic cavities of the lungs. Last year Dr. Carrington had recorded a somewhat similar case. The great pain which preceded the hæmorrhage was a noteworthy clinical feature.—Dr. BARLOW said that he had recently seen a specimen at University College Hospital which corresponded almost exactly with the one Dr. West had described. He was not aware that these cases were very rare, or he should have shown his specimen. There was a large ulcer measuring three inches in diameter, and the pancreas formed part of the base of the ulcer, into which a pea-sized aneurysm projected.—Dr. NORMAN MOORE thought aneurysmal dilatations of the pancreatico-duodenal artery

were not uncommon, and that they were the rule in cases of hæmatemesis due to gastric ulcer.

Mr. TREVES read a paper on a case of Congenital Deformity, which he had exhibited at a previous meeting of the Society. The case was that of a man aged twenty-four, who was publicly exhibited as the "elephant" man. The skin and the bones were chiefly affected. The disease of the skin was of a twofold character, and consisted of an increase in the subcutaneous cellular tissue, which hung in heavy folds from different parts of the body, and in the more dependent places became quite pendulous; these folds were to be seen in the right pectoral region and on the buttocks, where they were so dependent that they reached the middle of the thigh and interfered with the act of defecation. The whole of the back and the entire extent of one upper limb was involved in the disease. The second character of the cutaneous affection was the presence of congenital papillomatous tumours situate on the hypertrophied cellular tissue. With the exception that the papillomata were larger than usual there was nothing special about them; some of the tumours were as large as the top of the forefinger, and the head was the only part of the diseased area which did not possess these papillomata. The head was greatly enlarged, and its circumference was almost equal to that of the waist. Large exostoses on the skull gave it an outline so irregular that its shape was almost indescribable. The right superior maxillary bone was affected in the same way, and from the front of this bone there projected a large fibrous mass, which the patient spoke of as his trunk; the nose was completely turned round to the left. The bones of the right upper limb were greatly hypertrophied, and the limb was three or four times as large as the left. The bones of the feet were enlarged in the same way. The patient averred that the affection was congenital, and that the size of the affected parts held the same relation to the rest of his body in his childhood as they did now.—Dr. RADCLIFFE CROCKER said that the case belonged to that class which had been described as dermatolysis and pachydermatocele. A specimen somewhat similar had been reported by the late Dr. Tilbury Fox; in this instance the buttocks were the seat of a large hypertrophy, and hung down in three or four flounces as low as the hams. The additional interest of the exostoses in Mr. Treves's case was referred to. He (Dr. Crocker) looked on the tumours as of the nature of molluscum fibrosum. It was probable that the nervous system governed the distribution of this disease. Dr. Tilbury Fox's case appeared to have originated from an injury which caused an abscess, after the opening of which the disease developed.

Dr. SILCOCK exhibited specimens from a case of Osteitis Deformans, which were taken from a woman aged eighty-two, who was admitted into St. Mary's Hospital for strangulated hernia, which was reduced by Mr. Pepper. There was no obvious enlargement of the facial bones, but the forehead was very prominent. The femora were curved slightly, with the convexity outwards and forwards. The tibiæ were curved forwards in their upper two-thirds, and both these bones appeared to be much thickened. The right tibia was much thickened in its upper half, due to an increase of the compact tissue. The medullary tissue was encroached upon by the compact tissues to a greater extent anteriorly than posteriorly. At the summit of the curve anteriorly, the compact tissue was more porous than elsewhere; no new growth was detected anywhere. The periosteum was perhaps a little more adherent than natural. The cranial sutures were obliterated from ossification; the pericranium was not abnormally adherent. The bone was smooth and mottled by areas of congestion, and grooved by vessels here and there. The right frontal and parietal eminences were greatly thickened. The frontal bone in the mid-line was one inch and a quarter in thickness just above the superciliary ridges. The squama of the temporal bones were one-third of an inch in thickness on the right side, and a quarter on the left. The mid-line was half an inch in thickness one inch above the parieto-occipital suture. The distinction between the internal and external tables and the diploë was lost, but the centre of the frontal bone was pale and porous, and could be indented by the thumb-nail. Some areas of reddish, soft, medullary tissue were found irregularly distributed in bone which was more porous than the rest. The grooves of the vessels were irregularly deepened. The bones of the base of the skull were not involved in any marked degree. The dura mater was much coarser in structure than natural. The spine was curved abnormally, but the bones were not obviously diseased. The other organs showed no abnormal changes worthy of note. The specimens closely corresponded with those described by Sir James Paget in the fifty-seventh volume of the Medical and Chirurgical Transactions; and Dr. Silcock agreed with Mr. Butlin's interpretation of the pathological appearances, but referred more specially to the great vascularity of the parts, and to the imperfect structure of the new bone which had been thrown out. The chronic inflammatory nature of the osseous disease had also been supported in a paper contributed to the St. Thomas's Hospital Reports by Mr. Lunn, who maintained that osteitis deformans was a constitutional disease, producing atrophy and absorption of a large part of the osseous system, with consequent weakening of the bones, so that they yield when exposed to strain. The compensatory formation of bone might be looked upon as an ill-developed callus. In this case no tumour was found. The right tibia was the most markedly affected. He also showed the bones removed from a child aged thirteen, in which both tibiæ were affected much in the same way as in a case of osteitis deformans. In the child the disease was the result of congenital syphilis. As proving the antiquity of the disease, he showed specimens taken from a sepulchre.—Dr. GOODHART showed recent specimens from a case of osteitis deformans. The patient had died of bronchitis. There was no evidence of tumour in this case, if we except a fibroid tumour of the uterus. The head was the first and chiefly affected; the lower jaw was also the seat of enlargement. The other bones were really affected, though this was not determinable during life. After removal the bones were very heavy, though their shape was unaltered. The spinal column was not affected with marked changes, but a gradual yielding of the spine had led to diminution of the stature of the patient.—Mr. STEPHEN PAGET gave some further details of the cases recorded by Sir James Paget in the sixty-fifth volume of the Medical and Chirurgical Transactions. He had examined the tibia of the case of an old gentleman; the clavicle was also affected; the changes were of a typical kind. Of two cases he had recently seen one had a soft molluscous tumour, and the other a pigmented tumour in the right groin. In one specimen which he had examined the amount of rarefaction that had taken place was remarkable, and the porous bone was filled with soft gelatinous granulation tissue, and this alteration made the bone so crumbling and coarse that it was impossible to trephine a portion. This kind of change proved that no theory of compensatory hypertrophy or outgrowth could possibly account for the state of the skull, which was unquestionably the result of a chronic inflammatory process.—Mr. H. T. BUTLIN said that he had examined some skulls in the South Kensington Natural History Museum, and the Neander-thal skull to be seen there appeared to him to be a specimen of a diseased condition, and he believed that it was an example of that *modern* disease which had developed within the last few decades! The great development of the superciliary ridges was a notable feature, and in Dr. Silcock's case these ridges were greatly hypertrophied. The deep depressions for the Pacchionian bodies and vessels also bore out his contention. The thigh bones were curved and thickened. Everything considered, he thought that osteitis deformans was the same disease as that which gave rise to the peculiar Neander-thal skull. Mr. B. SUTTON said that Schaffhausen had concluded that the Neander-thal skull was a rachitic one, though Professor Huxley opposed that view. He was of opinion that Mr. Butlin was correct in his views on the subject.—Mr. EVE said that he had examined the tibia of one of Sir James Paget's cases. The medulla was almost diffluent, and was of a bright-red colour; there was a great abundance of young cell elements and a great amount of brown pigment; these were evidence of a sub-inflammatory process. He had observed also fibrous degeneration of the cartilage, which he believed was the expression of a diathetic condition, and of frequent occurrence in osteitis deformans.—Mr. BOWLBY said that in some specimens he had examined there was a growth of new bone, as was to be well seen in the femur of a man who had suffered from osteitis deformans; the head of the bone showed changes like those of rheumatoid arthritis. He had observed the hypertrophy of the superciliary ridges of a woman aged sixty-two, in whom the body had become shorter.—Dr. CARRINGTON could hardly admit that there were any signs of rarefaction of the bone in the specimen shown by Dr.

Goodhart. The condition which Sir James Paget described could not be harmonised with that of the bones which he had recently moved from the body of a woman at Guy's Hospital.—Mr. EVE explained that there was rarefaction of the bone in the neighbourhood of the medulla in the specimen he had examined.

Mr. D'ARCY POWER read a paper on Synovial Cysts in connexion with Joint Disease. The first specimen described was that of the left knee of a man aged forty-four, who came under observation in March, 1884; a swelling existed in the calf and some glairy fluid tinged with blood was withdrawn by a syringe. There was a direct communication between the cavity of the joint and the synovial cyst. A hernia of the synovial membrane also projected from the back of the capsule of the joint. The left knee of a girl aged twenty-two was also shown; in this case there had existed a swelling in the calf of six weeks' duration; the joint was disorganised; on its posterior aspect two openings were visible and the cyst was in communication with the joint. The bursa under the semi-membranosus was the probable origin of this cyst. A cast from a case of rheumatoid arthritis was shown in which a rounded swelling was present in the calf, and was found to be an enlarged synovial cyst. Another cast was shown. The question as to whether the cysts were the result or the cause of the joint disease was discussed. M. Fouchet and Mr. Baker had written on this subject. Injection of iodine into the cyst sometimes led to a transient synovitis, and at other times more serious mischief resulted. The origin of these synovial cysts was discussed. The escape of synovial fluid into the tissues under the tendon of the popliteus was a possible mode of origin, and normally a bursa had been described there by Mr. Holden. In cases of joint disease it was reasonable to suppose that an increase in the quantity of the synovial fluid might lead to a pouching which would be directed by the popliteus muscle towards the calf; but this was not always the mode of origin of these cysts, for they sometimes originated by an enlargement of the bursa under the semi-membranosus, which bursa occasionally communicates with the joint. In only one case was the cyst found in connexion with osteo-arthritis.

Mr. STEPHEN PAGET showed a living specimen of large synovial cyst in association with disease of the hip-joint. The case was that of a man, who began in 1874 to suffer pain with a stiff knee. The left hip was stiff, as was also the knee. A fulness and sensation of fluctuation were found in the upper part of the thigh below Poupart's ligament. Extension by a weight of 10 lb. was the treatment first adopted. Later on the stiffness of the hip and knee increased, and the thigh became everted, and the limb shortened three-quarters of an inch. A large hemispherical swelling measuring seven and a half inches from above downwards by seven inches across existed below Poupart's ligament, from which forty-two ounces of oily yellow alkaline fluid, having a specific gravity of 1028, and full of fat and cholesterine, were withdrawn. Again, in 1884, forty ounces of fluid resulted from a fresh tapping. The pains and stiffness had increased. The pupils and knee-jerks were normal. He suggested that the bursa under the psoas might have been the seat of cystic dilatation, but the fluid was not of bursal origin. The man had been in the habit of drinking large quantities of synovial fluid obtained from the butcher's.—Mr. M. BAKER referred to his paper published in the St. Bartholomew's Hospital Reports. He had since seen three cases in connexion with the elbow, and one with the shoulder-joint, besides several about the hip-joint. The clinical and pathological importance of these cases was great. Such collections of synovial fluid might, when tapped, lead to inflammation and suppuration in the associated joints, and thus indirectly to amputation.—Mr. EVE spoke of a case in which a cyst under the gastrocnemius was unconnected with the knee-joint. He alluded to the specimen of a knee-joint of a horse in which a cul-de-sac projected into the sheath of the tendon. Verneuil had described similar conditions.—Mr. M. SHEILD said that the tapping of such synovial cysts was not devoid of risk. He briefly referred to a case in which many large cysts were in connexion with a diseased joint, and after the introduction of a grooved needle the joint became the seat of destructive inflammation and death ensued. About the wrist-joint such cysts also occurred. "Ganglionic disease of joints" was the phrase applied to such cases. He narrated briefly the case of an aged man in whom this affection existed; diffuse suppuration in the forearm resulted from tapping the cysts. In view of the serious consequences which followed puncture, he thought amputation ought to precede puncture of the cysts.

Mr. BATTLE showed a specimen of Primary Sarcoma of the Penis. The patient was first seen in 1883; he was sixty years of age. The penis had undergone a gradual enlargement without giving rise to pain; some slight attacks of hæmorrhage were the only noteworthy signs. The end of the organ was enlarged, and presented a dark-coloured and spongy appearance. There was no enlargement of the inguinal glands, no albuminuria, and no enlargement of the liver. On Nov. 26th Mr. Battle amputated the penis close to the pubes; some transient retention of urine followed, but no inflammatory swelling disturbed the course of the case. The patient left the hospital, but died forty-three days after the operation. The final symptoms were thirst, jaundice, and hiccough, with the signs of exhaustion. On section the tumour presented a smooth and elastic appearance, whilst its free surface was shaggy and fungating; there was no trace of the glans; the structure of the corpora cavernosa seemed natural. Microscopically, cells of various kinds, of which the majority were round cells, were seen. The round cells had well-marked nuclei, and in places there was a tendency to alveolar grouping; some of the cells appeared to be of inflammatory origin. The case was an example of a rare disease, and he knew of but two other cases; one recorded by Mr. T. Holmes, of a melanotic sarcoma of the penis, and the other mentioned in Gross's "System of Surgery," in which death followed removal of the penis. Mr. Golding Bird had mentioned to him a case of melanotic growth of the penis.—Mr. GOLDING BIRD said that his case occurred four years ago. There were two lumps on the penis, one was dark coloured, and resembled a chancre. The growth was of the spindle-celled variety; there were no secondary deposits; the penis was amputated, and the patient did well.—Dr. SEYMOUR SHARKEY had seen one specimen of mixed-celled sarcoma of the penis, which had been mistaken by the surgeons for epithelioma.

Mr. STEPHEN PAGET showed a specimen of Dislocated Hip. It was prepared from a cabman aged sixty-eight, who received a severe injury from a cart-wheel. The limb was flexed, adducted, and rotated in; the head of the bone was not clearly made out during life. The man was intemperate, and died from severe bronchitis. The bone was replaced by manipulative movements. Acute diarrhœa set in three days after the operation. Death ensued eight days after the injury, from exhaustion. The internal viscera were decidedly diseased; there was much pigmentation of the intestines, which could be traced in between the muscular fibres. At the autopsy much bruising of the fascia lata was seen, and the head of the bone was below the obturator internus and gemelli, which had been slightly torn; the quadratus femoris was torn across; the sciatic nerve looked as if it had been stretched; the obturator externus was uninjured; the rent in the back of the capsule was very large. Mr. Paget thought the dislocation was the result of direct violence.—Mr. CHARTERS SYMONDS said it was possible for the backward dislocation to have occurred when the man fell rather than as the effect of direct violence.—Mr. BOWLBY said that the cotyloid ligament was torn off immediately behind, and it was obvious that the dislocation had resulted from direct force; attempts to dislocate by abduction showed that the head of the bone could not be brought into correspondence with the rent in the capsule by this means.—Mr. EVE said that the rent was below the obturator internus, and he thought that the dislocation had first taken place directly backwards, and afterwards the bone had slipped upwards.—Mr. PAGET, in reply, urged that in attempts at abduction the head of the bone went right away from the rent in the capsule, and so the dislocation could hardly have been caused after the usual method.

Dr. PERCY KIDD ready a paper on a case of Fatal Hæmoptysis from Hydatid of the Lung. The patient was a female aged forty-two, admitted into Brompton Hospital on August 25th, 1884, under the care of Dr. Tatham. There was a history of jaundice fifteen years before. A year ago the patient had suffered from "inflammation of the left side of the chest." For the last two months she had complained of pains in the chest, cough, slight expectoration, occasional hæmoptysis and wasting. There was a blue line on the gums. There were signs of consolidation at the apex of the left lung, without râles. The temperature rose for a day or two. The chief symptom was persistent hæmoptysis. The total amount of blood brought up was large, though there was never

very free hæmorrhage. Three months after admission there was absolute dulness, with almost complete absence of breath sounds over the upper part of the left lung, and some crackling râles were heard over the same area. There was no bulging of the chest. On Dec. 20th she suddenly coughed up a large piece of membrane, and a few minutes later brought up two large saucer-shaped clots. Shortly afterwards there was considerable hæmoptysis, and the patient died. No clear fluid or daughter cysts were coughed up at any time. At the autopsy the upper lobe of the left lung and the upper margin of the lower lobe were in a state of pinkish-grey fibroid induration. There was a single cavity on the upper lobe as large as a duck's egg, with thin tough walls, which were somewhat shreddy and infiltrated with blood. The cavity contained no blood or fluid of any kind, and no hydatid membrane. Two large bronchi led directly into the cavity, and showed some superficial ulceration at their entrance into the cavity. The lower part of the lung was healthy. There was a small fibroid patch at the right apex, and some spots of inhaled blood at the base of the lung. The liver weighed 3 lb. 10 oz.; it was smooth on the surface and of soft consistence; irregular fibroid tracts pervaded it, corresponding to the distribution of the large bile-ducts, which were dilated. There was an old hydatid cyst on the under surface of the right lobe, pressing slightly upon the hepatic duct, which was greatly thickened but only slightly obstructed. The gall-bladder was healthy. The stomach was filled with blood, but healthy. The membrane that was expectorated was typically laminated, and its inner surface was lined with large highly granular cells. No daughter cysts or hooklets could be discovered. The fatal hæmoptysis evidently resulted from separation of the cyst from the surrounding lung tissue. It seems probable that bleeding from the cavity wall determined partial detachment of the cyst in the first instance, and it was owing to the accumulation of blood between the hydatid membrane and the cavity wall that complete separation and expectoration of the cyst were effected subsequently by coughing, with fatal hæmoptysis as the result. The present case in some respects resembles one which Dr. Curnow had recorded in the thirty-fourth volume of the Society's Transactions.

The following card specimens were shown:—Mr. Bruce Clark: Unilateral Development of Warty Growths. Dr. F. C. Turner: (1) Circumscribed Superficial Slough of Stomach; (2) Renal Growth invading the Vena Cava. Dr. Chaffey: Tubercular Pyo-salpinx in a child aged four. Mr. D'Arcy Power: Intermuscular Cyst in connexion with Shoulder Joint. Dr. Sharkey: Ulcerative Endocarditis with Embolism of the Left Middle Cerebral Artery, Left Vertebral Artery, Spleen, and Kidney (recent specimen). Dr. G. N. Pitts: Colitis Polyposa, due to Chronic Dysentery and Polypus connected with Meckel's Diverticulum. Mr. Battle: Rupture of Small Intestine (recent). Mr. M. Sheild: Cancer of Stomach.

CLINICAL SOCIETY OF LONDON.

Thrombosis of Basilar Artery.—Insanity after Ovariotomy.—Colotomy with Delayed Opening of the Bowel.

AN ordinary meeting of this Society was held on the 13th inst., Mr. Thomas Bryant, F.R.C.S., President, in the chair.

Dr. CHARLTON BASTIAN read a paper on a case of Thrombosis of the Basilar Artery, with profound coma, extreme lowering of rectal temperature, and death in five hours and a half. A fairly healthy man aged forty-three, having had no previous brain symptoms, was found insensible shortly after the onset of an apoplectic attack, and admitted under his care at University College Hospital at 6 P.M. on Nov. 16th, 1884, in less than one hour. The patient was then profoundly comatose; the breathing was irregular and slightly stertorous; the face was pale, cold, and clammy; all the limbs were flaccid; the pupils were equal and somewhat contracted; there was no conjugate deviation of the eyes; all the reflexes were abolished. There was no cardiac bruit; the heart's action was tumultuous. The rectal temperature at 6.10 P.M. was 98°; at 6.20 P.M. 97°. At 7 P.M. the pulse was 80, fairly full, but irregular in force. The respiration was very irregular—a few rapid breaths, then a pause, followed by a long deep expiration. The rectal temperature was 96·2°. At 7.50 P.M. the rectal temperature was below 95°; the pulse and respiration were nearly as before. The pupils were of the medium size, and quite insensitive to light. At 8.45 P.M. the pulse was 100; the respiration was 17 per minute. At 10.15 P.M. the rectal temperature was still below 95°; the pulse could only be felt with difficulty; it was irregular and at times imperceptible. At 10.45 P.M. death occurred, the rectal temperature having remained below 95° to the end. At the autopsy the basilar artery, in its posterior half, was found to be dilated into a small fusiform aneurysm with thickened walls, and this, together with the middle cerebellar arteries which came off from it, were found to be completely occluded by a soft colourless clot. Other large vessels were pervious and only slightly diseased. The lateral ventricles contained a slight excess of serum, and the veins on their walls were all distended. No lesions were found in any part of the brain. There was no appreciable diminution in the consistence of the pons. The heart was healthy, containing no clots, and no notable disease of the valves—merely some slight thickening. The thoracic aorta showed many raised whitish patches. The lungs were congested and œdematous, and showed hæmorrhagic extravasations into both lower lobes. The other organs were congested and notably tougher than natural. Dr. Bastian pointed out that it was extremely rare for death to take place in less than twelve hours in cases of occlusion of one or other of the cerebral vessels. He had been unable to find any case on record in which it occurred so rapidly as in this instance. In the cases of thrombosis of the basilar artery recorded by Hayem in 1868 death did not take place in less than from sixteen to twenty-one hours. The clinical history of the present case resembles in the closest manner what might be found in a case of large cerebral hæmorrhage. This is seen especially by the great depression of the rectal temperature, which in about two hours and a half from the onset of the attack had sunk below 95°. Last year he had brought before the Society the record of a case of cerebral hæmorrhage in which the temperature in the rectum sank to 94·5°, and where, as in the present case, it continued thus depressed till death occurred three hours afterwards. The fact that thrombosis had occurred in the lower half of the basilar artery, and thus cut off or greatly diminished the supply of blood to the respiratory centre, doubtless accounted for the suddenness with which the fatal issue was brought about. The centres for the third nerve, which are situated at the back of the anterior half of the pons Varolii, seem to have been partially paralysed rather than stimulated. Hence there was not the very contracted condition of pupils which often exists with hæmorrhage into the pons, and has caused such cases to be mistaken at times for instances of opium poisoning. The clinical features presented by thrombosis of the basilar artery vary greatly in different cases, according as the upper or the lower half of the vessel becomes blocked, and also according to the rapidity or slowness with which complete occlusion occurs. The present case afforded a further illustration of the extreme difficulty, or even impossibility, in some cases, of making a positive diagnosis between cerebral hæmorrhage and thrombotic occlusion of some large cerebral artery. Still, in no other artery except the basilar would such occlusion be at all likely to reduce the temperature to such a degree as in the present case. Bourneville never found the rectal temperature reduced below 98° in cases of incipient softening due to occlusion of other vessels. Lesions in the pons Varolii are altogether exceptional in the remarkable amount of variation which they may cause in the general temperature of the body. In the present case we have an incipient softening, or the conditions leading to such a lesion, depressing the temperature below 95° for some hours, whilst in the terminal stage of softening of the pons, as Dr. Bastian had observed, the temperature might rise as high as 110°.—Dr. HALE WHITE said that the case had some bearing on the question of the existence in the cerebrum of inhibitory centres controlling the formation of heat in the body. Physiologists had located this heat centre somewhere about the fissure of Rolando on each side. In cases of lesions of the pons the temperature varied; he had found that in four-fifths of the cases the temperature was lowered; though these examples tended to oppose the view advocated, yet they might be brought into harmony with other facts. The lesion in Dr. Bastian's case was undoubtedly severe, and shock may fairly be credited with the causation of the lowering of the temperature. Bourneville found that the premonitory fall was greatest in those cases where the hæmorrhage was most extensive.—Dr. MARKHAM SKERRITT narrated the

case of a female servant aged twenty-six who was supposed to be suffering from valvular disease of the heart and hysteria. The speech was rather thick when she was first seen; the pulse, respiration, and temperature were normal. The following day the patient was insensible. The temperature was 104°, sweating was profuse, and the surface of the body was dusky and pallid. There was no albuminuria and no sugar in the urine; a few hours later the temperature further rose to 106°, and the patient died in a state of profound coma with rapid fluttering pulse. At the autopsy the heart was found to be perfectly healthy; the basilar and arteries of the circle of Willis were found to be obstructed almost throughout their entire extent.—Dr. EWART suggested that the fall in temperature might be a secondary result of the fall in the number of respirations, and if so, the case could hardly be regarded as one tending to prove the existence of a heat centre.—Dr. BASTIAN, in reply, said that the fall in temperature was produced, he believed, after the manner of shock, and just as occurred in large cerebral hæmorrhages. The shock would be greater because such important parts were cut off from their blood-supply. In more chronic cases of disease of the pons the cutting off of some restraining influences might allow of the production of hyperpyrexia. The view referred to by Dr. Hale White seemed corroborated by a case of apoplexy which had been recently under his (Dr. Bastian's) care. The right hemisphere, was the seat of a hæmorrhage, which increased during the time the patient was under observation; there must have been some pressure within the skull, for there was considerable flattening of the convolutions, more especially on the right side and about the parietal convolution. At first, and as was usually the case in cerebral hæmorrhage, the temperature was found to be lower on the paralysed side of the body. Within eight hours of the onset of the apoplexy the temperature of the body, which had been very low, began to rise rapidly, and the temperature on the paralysed side then became higher than that on the side of the body which was not paralysed. It would be a question to be solved in future cases, but it must not be forgotten that the existence of heat centres about the fissure of Rolando had by no means been clearly established.

Mr. R. BARWELL read a paper on Insanity after Ovariotomy. At the latter end of last October Mr. Barwell removed the left ovary of an unmarried woman aged twenty-nine. The local results were perfect; but certain sequelæ ensued which have not hitherto been recorded. On questioning other surgeons, however, Mr. Barwell found the event not to be isolated, and notably that Dr. Keith, Mr. Thornton, Mr. Dent, and others had met with a like complication. The patient was of fair complexion and mobile temperament, and was admitted into Charing-cross Hospital under the care of Dr. Black. In his absence Dr. A. Routh had charge of the case, and, consulting with Mr. Barwell, it was agreed that ovariotomy should be performed. On Oct. 28th Mr. Barwell removed the left ovary, first withdrawing twenty-three pints of fluid; the pedicle was tied with silk, and allowed to fall back into the abdomen. The usual mode of suture was employed. During the three subsequent days menstruation recurred, and some hæmaturia was observed; it then ceased. On the third day the thermometer stood for two hours at 102·4°, but, with this exception, she never had any fever. The deep sutures were removed after forty-eight hours; the abdominal wound was healed on Nov. 2nd; there was hardly any tenderness in the left groin or elsewhere. The patient, who was naturally very docile and amenable, showed on Nov. 3rd a contradictory and irritable temper; on the 5th—that is, the eighth day after the operation—this had developed into insanity. She was so violent on the 7th that she had to be secured, and this could only be effected by giving chloroform. A subcutaneous injection of morphia (four minims) only calmed her for three hours. With various phases of comparative violence and calmness, but with incessant talking, the patient continued insane, sleeping only in short snatches about two hours out of the twenty-four until the 19th. She then began to show signs of amelioration, especially in saying that she knew she was mad. On the 21st Mr. Barwell ordered an ice-bag to the head, after this she slept more, and gradually improved; on the 28th she could be pronounced sane. During all December she was well enough to take walks, but was for various reasons kept under supervision till December 29th, when she was discharged in perfect mental and bodily health. In spite of several attacks of violence and of struggling, the abdominal cicatrix had held well, and there was no sign of hernia, nevertheless it was thought prudent to provide her with a belt. Several views can, of course, be taken of this case. 1. That there may have been hereditary tendency to insanity. 2. That insanity may follow any of the major operations, ovariotomy not more than any other. 3. That it was the result of disturbance of the urinary organs. 4. That it was the result of disturbance of the generative organs. 5. That it was mere coincidence. 1. Great pains were taken to find any trace of mental disturbance in the patient's family. None could be discovered. Her father died of cerebral apoplexy at an advanced age. 2. If insanity be an occasional sequela of surgical operations, the fact is not well known, nor is it mentioned in surgical writings. 3. The amount of blood lost by the kidney, if any, was insufficient to produce grave effects. Hæmaturia is not uncommon after intra-peritoneal operations performed under a carbolic spray. 4. Although disturbance of the generative organs appears at first sight to offer the easiest explanation, it must be noted that the sort of insanity was not of the kind usually associated with abnormal states of that system. Perhaps some may see an analogy between puerperal insanity and mental disturbance in this case. 5. Mere coincidence might be justly considered the best way of accounting for insanity thus following ovariotomy, if this were an isolated instance.—Mr. THOMAS BRYANT said that a few years ago Mr. Lawson Tait had referred to the development of symptoms of mania after the operation of ovariotomy and during the convalescence. He had had two cases of the kind, and recovery ensued in both. There was no family history of insanity and no urinary trouble. He could not help thinking that there was some connexion between the mania and the operation of ovariotomy.—Mr. ALBAN DORAN said that he had seen a young woman aged twenty from whom both ovaries had been removed. Acute mania came on three weeks after the operation, and lasted eight months without improvement. In cases of chronic ovaritis the patient might become demented; the chief symptoms were sluggishness and selfishness, and not those of an erotic kind.—Mr. MEREDITH said that it would probably be found that many cases of mania had occurred after ovariotomy; the insanity usually set in within a week of the operation. He spoke of the case of a single woman aged fifty-four from whom he had removed a large tumour weighing 7 lb.; it had many adhesions. All went well till the wound was healed. Acute melancholia suddenly set in about a month after the operation; the affection lasted for two months. There was no urinary trouble. He had an impression that mania had followed amputation of the breast.—Dr. EDIS thought that, looking at the serious nature of the operation, and regarding the extremely nervous and mobile temperament of the patient, who was thus in a high state of nerve tension, the occurrence of mania was not to be wondered at. He narrated the case of a yeoman farmer's wife who was naturally of a dull temperament, and who a few days after ovariotomy suffered from melancholia, which lasted about ten days.—Dr. F. L. BENHAM said that the nature of puerperal insanity was still unexplained. It was possible that the insanity after ovariotomy and puerperal insanity were dependent on similar causes.—Dr. BLANDFORD said that he could not say whether interference with the genital organs had anything to do with causing the mania, but the circumstances which attend the operation of ovariotomy are such as might induce insanity in psychical subjects. The young woman knew that a severe operation was to be performed; she was kept in bed with the bowels confined by the influence of a powerful drug like opium—such conditions might originate insanity. He did not think that the kidneys had anything to do with the occurrence of the mania, though Sir James Simpson had regarded albuminuria as the cause of puerperal insanity.—Mr. BARWELL, in reply, thought that even if the occurrence of mania after ovariotomy were relatively common, yet the fact does not seem to have been sufficiently recognised.

Mr. DAVIES COLLEY read the notes of three cases of Colotomy with delayed opening of the Intestine, in which after the bowel had been found by the usual operation for left lumbar colotomy, he had delayed opening it for one, four, and six days respectively. He considered that in the ordinary mode of operating there was considerable risk of peritonitis, or of suppuration in the planes of connective tissue in the vicinity of the colon, and that these dangers were much diminished by delaying the opening of the bowel until the deeper part of the wound had had time to be sealed by reparative processes. This plan had previously

been adopted at Guy's Hospital by Mr. Howse with successful results. The chief difficulty was to find out a mode of securing the protruding bowel in such a way as to avoid the extravasation of its contents or the strangulation of its walls. He had found that this could be satisfactorily effected by means of a clamp consisting of two steel bars, upon which were placed rounded ivory studs, about half an inch apart. Upon approximating the steel bars by means of screws near their extremities, the two pairs of ivory studs could be made to hold the coats of the bowel at two points. At the first dressing the screws should be relaxed, or the clamp might be altogether removed. By adopting this plan in two of the cases, rapid repair had followed, and there had been very little constitutional disturbance. In many cases in which the operation had to be performed on account of intestinal obstruction, it was obvious that this delayed opening of the bowel was not practicable. Mr. Davies Colley further submitted that a similar plan might be desirable in cases of tumour of the large intestine. The loop containing the growth might be left protruding from the wound for a few days, and then removed by the knife, cautery, or some caustic agent. Again, it might be expedient in cases of colotomy to draw out a complete loop containing the whole calibre of the colon, and to remove this loop after an interval of a few days. In this way the operation would ensure a perfect artificial anus, for the opening would then be the terminus, and not merely a lateral outlet of the intestinal tract.—Mr. BRYANT agreed almost entirely with the method advocated by Mr. Davies Colley. The method greatly diminished dangers arising from wounding the peritoneum. It was the escape of fæces into the peritoneum that excited peritonitis, and if the surgeon left the bowel alone until adhesions had formed, the risk would be considerably diminished. In performing colotomy by this method, he believed it to be a good plan to draw more of the bowel out of the wound than even Mr. Davies Colley had done. It was the passage of fæces through or past the lower opening that should be done away with, thereby removing the irritation to which the diseased bowel was exposed. If this were done the disease ceased to grow, and might even disappear altogether. This method of pulling out a knuckle of the bowel could be done in about half the number of cases of colotomy, and as much as three or even four inches of the bowel could be drawn out. Then at a later date, when the operator pleased, the bowel could be opened without risk.—Mr. HOWSE said that in his earlier cases he used a wire or suture, which transfixed the whole of the coat of the intestine in the same way as he had done in gastrostomy. But the nutrition of the colon was much less perfect than that of the stomach, and the risk of extravasation from the giving way of the suture in the bowel was greater. Later on he adopted other methods of fixing the intestine, and an old torsion forceps, which had lost its "biting" powers, was used, a thin india-rubber tube being passed over the blades and over the wedge of the forceps. By using these forceps to fix the bowel to the skin the risks of sloughing were much diminished. The forceps could be removed at the end of forty-eight hours, or on the third day. The bowel should be opened by as small an incision as possible; an opening sufficient to allow of the passage of a No. 8 catheter was large enough. He had employed this method recently in a case of intestinal obstruction, where the distension from accumulated gas was easily relieved. The possibility of colectomy referred to by Mr. Davies Colley could be accomplished by drawing out a complete loop of the intestine at the time of the operation. Later on it would be found difficult to excise the bowel, as he had considerable trouble in distinguishing the intestine from the surrounding structures, and, further, the structures become softened by inflammatory action; the removal must therefore be done earlier.—Mr. H. CRIPPS considered that the method advocated necessarily complicated the operation, which had better, he thought, be done at one sitting. There were two chief dangers in colotomy; the first was opening the peritoneum, and the second damaging the subperitoneal fat in the search for the bowel. He made reference to a simple procedure which was not available in cases of complete obstruction. It was an empty bowel which gave rise to so much disturbance, and he suggested, as others had done before him, that a No. 7 catheter should be passed per anum through the rectal stricture, and a Higginson's syringe attached by means of a soft indiarubber tube; inflation by this means makes the bowel rise in the wound precisely at that part which is uncovered by peritoneum.—Mr. DAVIES COLLEY, in reply, said that it was Mr. Howse's employment of the torsion forceps that gave him the idea of using the clamp. With regard to the performance of colectomy, he wished to say that it was at the first operation that the whole of the diseased intestine should be drawn out of the wound, the excision to take place later on. He could not agree that the operation of colotomy was really complicated.

The following living specimens were shown:—Mr. Charles Stonham: A successful case of Gastrostomy one month after the operation, which was performed on account of malignant disease of the pharynx. Mr. Macnamara: A case of Wiring the Fractured Olecranon, and another of Wiring the Fractured Patella. Mr. R. J. Godlee: A case of Empyema in a boy with much deformity of the chest. Dr. Hadden: A case of Obliterative Disease of Arteries and Veins. Dr. Coode Adams: A case of Psoriasis and Hemiplegia.

MEDICAL SOCIETY OF LONDON.

The Constitutional Treatment of Diseases of the Uterus and its Appendages.

AN ordinary meeting of this Society was held on the 16th inst., Dr. W. Miller Ord, President, in the chair.

Dr. C. H. ROUTH read a paper on the Constitutional Treatment of Diseases of the Uterus and its Appendages. He began by quoting several passages from Dr. Clifford Allbutt's Gulstonian Lectures, which referred to the not infrequent practice of gynæcologists of over-treating the uterus and neighbouring organs. He said that the cause of his reading the present paper was the result of the impression he had gained from a perusal of the Gulstonian Lectures of last year, to the effect that Dr. Allbutt had brought unfounded charges against gynæcologists. He admitted in the course of his paper that the neurotic element was a most important factor, but considered that many cases in which the neurosis was alleged to be the sole complaint there was danger in overlooking the uterine disorder. He spoke of the case of a virgin who suffered from gastrodynia and emaciation, which had been treated as one of primary nerve disorder, but which was found to be attended with prolonged leucorrhœa, and in which he had found uterine erosion. This case had been treated by a physician who had never examined the generative organs. Again, in certain cases of displacement of the uterus associated with headache and backache, and in which the patient was invalided and almost confined to bed for a period of many months, the symptoms were promptly relieved by rectification of the uterine displacement. Many cases bearing out his views were narrated, and the general conclusion was drawn that physical examination of the generative organs was decidedly neglected by many physicians and general practitioners. Reference was made to a case of cancer which had come under his care, and which had been previously overlooked for the simple reason that no vaginal examination had been made, the doctor in charge putting the patient's symptoms down to "change of life." In other cases of this kind he had detected a large number of mucous polypi, the removal of which led to the cure of the patient. The case of a lady, who suffered from severe metrorrhagia and many nervous symptoms, was shown to be due to the presence of fibroid growths in the uterus, treatment directed against which was also followed by a return of the patient to health. The failure to treat the local disease was therefore a source of much suffering to the patient, who was regarded as being the subject of a neurosis, to be cured by constitutional means. Cases of insanity were often dependent, in his opinion, on diseased conditions of the womb, and the case of a lady who was insane, and in whom an ulcer of the womb existed, was related; the insanity passed away and recovery ensued after local treatment of the uterine ulcer. He was not an advocate for frequent clitoridectomy, but he thought there were a few cases in which this operation would prove beneficial. Again, cases of hydro- and pyo-salpinx were not unfrequently overlooked by the physician, who treated the nervous symptoms without even recognising the existence of such local diseases. He concluded by stating that gynæcologists did not neglect constitutional treatment, but combined this treatment with proper local applications.

Dr. ORD said that Dr. Routh's paper chiefly dealt with the question of the necessity of a thorough examination of the

generative organs. It raised questions as to whether visceral and other neuroses might be due to uterine disease or not.

Dr. ALLBUTT said that he had been warned to expect an attack, but Dr. Routh's paper could scarcely be called an attack, seeing that he was entirely in agreement with the general tone of the paper. He said that his point was not that the uterus is not subject to local disease, but that it may sometimes be involved in disease as the result of a general affection. The uterus is like the heart, full of nervous and vascular connexions which bring it into relation with the rest of the body. Palpitation and pains about the heart may occur not as a result of disease of the heart itself, and so it was sometimes with the uterus. If a patient suffering from cardiac disorder due to disturbance elsewhere were told that his heart was diseased, it is probable that a grave hypochondriasis would develop, and so it was with women who were told that their uterus was diseased; the uterus was an organ hidden from a woman's observation, and there was more or less mystery attached to it, and if the patient were told that her womb was the seat of all kinds of horrible disease, she would be led to believe that she was in a very bad way and the mind would be correspondingly depressed; in fact, she would have the "arrow of hypochondriasis implanted in her heart." Whilst he admitted that there were primary diseases of the uterus, yet he believed that this was not always the case, and that women might suffer from nervous symptoms which were no more due to the uterus than were such symptoms when they occurred in man. Women, like men, were subject to neuroses of various kinds. Disease of the uterus, slight in itself, may set up severe nervous disorder which gradually overshadowed the original mischief, and may remain even after the local trouble had ceased. This kind of thing was admitted by all. It was most necessary, therefore, that the whole history of a case should be ascertained. In some cases it was difficult to make out which was or was not the "first stone thrown into the pond," but in his opinion in many cases the uterus is secondarily affected. He believed that many functional disorders, and some of the lighter kinds of structural changes, could be caused as the result of a primary neurasthenia. Such cases were sometimes treated as uterine from first to last. He had seen many cases which the gynæcologists had failed to cure with their local treatment, and no doubt these would balance with those cases which the physician had not, and the gynæcologist had, succeeded in relieving. It was for what he would call "the jury of the medical public" to decide between them. He admitted freely that there were a large number of cases in which the uterus was primarily diseased. With regard to the case of masturbation referred to by Dr. Routh, he thought that it cut both ways. It was open for him to say that it was the inherited neurotic taint that gave rise to the masturbation and other symptoms, that the masturbation was the flower and consequence of the nervous disease. He could not allow himself to be classed amongst the obscurantists, and he believed he had on every possible occasion admitted the great advances in medicine which the gynæcologists had made as the result of careful and necessary physical examination. He really counted Dr. Routh and Dr. Playfair as his allies, and referred in terms of approbation to the Weir-Mitchell treatment of neurasthenia which Dr. Playfair had so powerfully advocated.

Dr. PLAYFAIR said that he considered Dr. Allbutt's lectures had been chiefly directed against over-treatment of the uterus and to the mischievous effect which such over-treatment caused. There could be no doubt that sometimes neurotic affections became dominant and overshadowed the original uterine disorder. With regard to the necessity for physical examination, so strongly urged by Dr. Routh, he thought it was trying to prove what had already been demonstrated. He felt sure that great good would arise from the discussion of the paper, as it had enabled Dr. Allbutt to restate his views.

Dr. ROBERT BARNES maintained that the gynæcologist was not a specialist, for he followed the excellent advice of interrogating the whole of the functions of the body. In order to investigate the condition of all the organs there must be an application of the means of physical examination to every part, and the generative organs should be included in the investigation. He could not agree that a primary neurosis could set up disease of the uterus except in a very problematical way. The heart was a "responsive" organ and influenced by emotions and other disturbances everywhere occurring, but we could not say the same of the uterus. He was glad to find that he was so much in harmony with the views of Dr. Allbutt.

Dr. W. DUNCAN considered that Dr. Allbutt had "hit the right nail on the head" when he denounced frequent uterine examinations. In cases of slight erosion of the womb or of endocervical catarrh the neurotic symptoms were out of all proportion to the disease, and so it was with flexions of the uterus. He found that general treatment directed against the neurotic condition was followed by cure; the local treatment should be of the simplest, and he deprecated anything like frequent examinations.

Dr. GRAILY HEWITT congratulated Dr. Routh on his paper and on the effect of it; for he confessed that a perusal of Dr. Allbutt's lectures had led him to believe that Dr. Allbutt discouraged treatment directed to the uterus, and now it was obvious that such was not the case. He had the fullest confidence in the Weir-Mitchell treatment, and he had given an introductory lecture some years ago at University College on this subject. He considered that constitutional treatment was most important, and that it went behind the other treatment. The omission of this element of treatment was, in his opinion, so frequent because of defective physiological education in reference to the elementary laws of the nutrition of the body. Those gynæcologists who paid no attention to the occurrence of displacements and alterations in shape of the uterus were those who paid no heed to the maintenance of the nutrition of the system.

Dr. HEYWOOD SMITH, Dr. WYNN WILLIAMS, and Dr. ROGERS joined in the discussion.

The PRESIDENT said that in the Gulstonian Lectures Dr. Allbutt had not attacked the principle of physical examination, but he had questioned the validity of some methods of uterine treatment.

Dr. ROUTH briefly replied.

OBSTETRICAL SOCIETY OF LONDON.

Extirpation of the Uterus for Cancer.

A MEETING of this Society was held on Wednesday, March 4th, J. B. Potter, M.D., F.R.C.P., President, in the chair.

The following specimens were shown:—Dr. Galabin: Uterus of an old woman with Cavity distended, from partial Obstruction by a Septum in the lower part of the Cervix and upper part of the Vagina. Mr. Walter Griffith: Menstruating Uterus. Dr. Herman: Uterus inverted from relative Shortness of the Cord.

The PRESIDENT delivered the annual address.

The adjourned discussion on Dr. W. Duncan's paper on Extirpation of the Uterus for Cancer was resumed by Sir SPENCER WELLS, who said that he thought the previous speakers had been too decidedly adverse to the principle of the operation, especially Mr. Thornton, who condemned not only excision of the uterus, but also the use of the curette, and would limit surgical treatment to amputation of the cervix and the use of chloride of zinc. Mr. Doran's remarks on the arrangement of the lymphatics tended the same way, implying the fear that, even in the early stages, the disease may have passed beyond the possibility of removal. Dr. Playfair condemned the operation utterly, referring to the uncertainty of the diagnosis till it was too late, and preferring Sims's operation (amputation followed by chloride of zinc) to extirpation, on the ground that it affords as much relief at a much smaller risk. He traversed Dr. Playfair's statement about his (Sir Spencer Wells) case of extirpation of the cancerous uterus, "that if the patient had been let alone or Sims's operation done, her expectancy of life would have been as good, to say nothing of the risks of the operation." The fact was that this treatment had been tried and failed, and the operation was done after it had failed to relieve pain or discharge, and after careful consultation as to the risks of inducing premature labour. The immediate result of the operation had been satisfactory, and great relief had followed for some months before the disease returned, which ended fatally in a year. In some cases, no doubt, chloride of zinc, or bromine, or chromic acid, or the actual cautery (if the patient is not pregnant) may lead to arrest of the growth for a year or more; but in most cases no more good, perhaps less good, is done than by simpler applications. He showed a specimen of the

result of Sims's treatment carried out by Sims himself. He scraped away all the diseased tissue with the greatest care, applied chloride of zinc, and the slough which came away represented nearly the whole uterus; the patient lived only four months afterwards, and suffered as much as if no treatment had been pursued. He then compared amputation of the cancerous cervix to partial removal of a cancerous breast, and maintained that if Sir James Paget was not aware of a single case of recovery (i.e., survival for ten years without any active return) after amputation of the breast, and yet operated in cases of cancer of the breast, we are justified in performing extirpation of the entire uterus even if no better result followed. Again, the results of Olshausen and Schroeder lead us to think that improved methods of operating may give us better results in the future. There is still much to learn in the details of the operation, and improvement both in early diagnosis and early operation may give a much lower mortality, retarded return, or even complete recovery. He trusted that condemnation of the operation may not be the verdict of the Obstetrical Society.—Dr. PRIESTLEY believed that statistics underrated the frequency of cancer, and that it was commoner in some places than in others. The disease was so terrible that all new operations should be considered with an earnest desire for their success. The two questions to be answered about extirpation of the uterus for cancer were those of immediate recovery and return of the disease. The answer to the first question was at present hardly satisfactory, nor was that to the second. With regard to Dr. John Williams' statement—that operation sometimes assisted the spread of the disease, by removing tissues which would have impeded its progress for some time and enabling it to attack deep parts earlier than it would if left alone,—he thought this happened in some cases. He therefore did not, under present conditions, advocate the operation of extirpation of the uterus for cancer. He mentioned a case in which a tumour had been removed from the cervix last summer, so skilfully that the cervix seemed almost natural enough to justify a verdict of mistaken diagnosis; within three weeks the disease returned and soon attacked the vagina, but the patient was still alive and in comparative comfort, simply from the use of palliatives consisting of tannin, sulphate of zinc, and iodoform in powder. The suitable cases for operative interference were those of early cancer of the cervix, in which total removal of the disease seemed possible. Some such cases remained free from disease for many years. Possibly in some more advanced cases removal of all within reach, followed by palliatives, might be justifiable; other cases he was disposed to leave alone. He thought that the mental distress of a patient about to undergo an operation should be remembered. He did not despair of the discovery of some remedy for cancer, especially since the latest observations on tubercle, which had some sort of pathological relation to cancer.—Dr. GRAILY HEWITT agreed that statistics are at present insufficient to determine the value of extirpation of the uterus for cancer. Removal of the cervix for epithelioma was an unquestionably valuable operation, but the treatment of cases in which disease had spread higher up was still doubtful. He had shared the responsibility of advising extirpation in Sir Spencer Wells' case, and thought that the result justified the opinion given. It must be remembered that the patient was pregnant, and that extirpation of the gravid uterus had not then (three years and a half ago), so far as was known, been performed. All experience justified the removal of cancer whenever possible. He insisted on the necessity of early diagnosis; in most cases the disease has obtained a firm hold before its presence is suspected.—Dr. GALABIN said that the majority of the speakers agreed with the view that in ordinary cases of cancer of the cervix the uterus should not be extirpated. This view, which was arrived at by the author of the paper after the performance of two operations, was that which Dr. Galabin had always held so firmly that he had always been opposed to the operation, and had neither performed nor advised it. Cancer of the cervix might begin anywhere, but in the majority of cases it began near the os externum, thence it ascended the cervical canal so far that slicing off the cervix with an écraseur almost always left some of the growth behind on the surface of the canal; but it spread even more rapidly over the vaginal cervix, and when the uterus was extirpated, the line of section would be nearest the growth at the surface of the vagina. It was not shown that in total extirpation any wider margin could be given than in supra-vaginal amputation, which operation could be done even when the disease had reached the vagina, and even if it were necessary to open the pouch of Douglas, this operation would still be less dangerous than total extirpation. His experience of chloride of zinc had been more favourable than that of Sir Spencer Wells. He did not excise the disease piecemeal, but all at once, and applied the chloride of zinc ten to fourteen days later. He generally found the line of section pass clear of all manifest disease. But in several cases in which this was not so, and the operation was therefore obviously inadequate, the results of the whole procedure had been good. In two cases the patients had returned after more than two years without any recurrence of the growth, but with retention of menstrual fluid from occlusion of the canal. As regards the chance of eradication, he did not think cancer of the uterus could be compared with cancer of the breast, which was generally carcinoma. In the cervix it was (in his experience) epithelioma at first, rapidly lapsing into medullary carcinoma. Cancer of the body was generally cylinder epithelioma at first. He thought there was greater chance of eradicating an epithelioma than a carcinoma. In cancer of the body he thought extirpation of the uterus was justifiable. The diagnosis, though difficult, was quite possible in the early stage, from examination of a fragment, to one accustomed to the healthy and morbid appearances of the uterine mucous membrane. He had had no ill consequences (such as those feared by Mr. Thornton) from the use of the curette. He generally used the blunt curette, which only removed prominent or superficial portions. In one case after curetting and the application of nitric acid to the cavity the patient improved so much that a mistake in diagnosis was suspected by the medical attendant. After a time, however, the disease returned.—Dr. EDIS thought that vaginal extirpation of the uterus was justified by a mortality of 28·6 per cent., which was no greater than that of ovariotomy in the early days. The mortality of supra-vaginal amputation was only 7·25 per cent., and the tendency to recurrence apparently no greater than in complete extirpation. Early diagnosis was a great desideratum; either patients failed to present themselves for examination, or their medical advisers put off consultation with experts till too late. Patients preferred operation to a lingering and hopeless disease. With our present limited knowledge, we could not assert that extirpation of the uterus for cancer was unjustifiable, if undertaken early enough.—Dr. W. DUNCAN said that he hoped the result of the debate would be to put an end to extirpation of the uterus for cancer of the cervix. Had he known the papers of Ruge and Veit on the pathology of the subject, he would not have performed his first case. In cancer of the body he considered the operation justifiable, and the curette was a valuable means of diagnosis, while he had not found any ill consequences follow its use. He did not believe that the mortality of extirpation will ever be as low as that of supra-vaginal amputation.

Reviews and Notices of Books.

On Renal and Urinary Affections. Part III. Miscellaneous Affections of the Kidneys and Urine. By W. HOWSHIP DICKINSON, M.D. Cantab., F.R.C.P. Lond. London: Longmans and Co.

ELEVEN years have elapsed since the first part of Dr. Dickinson's work "On Renal and Urinary Affections" was given to the profession. That, it will be remembered, was solely devoted to the consideration of Diabetes, whilst the second part dealt with those affections of the kidneys commonly known under the collective clinical term of "Bright's disease." The present volume, which completes the work, treats of the more general renal affections, such as suppurative nephritis, malignant and scrofulous disease of the kidney, stone and gravel, chyluria, hæmoglobinuria, phosphaturia, and functional albuminuria. If Dr. Dickinson's work were to be regarded as a systematic treatise, the want of logical arrangement of the different parts would no doubt cause inconvenience and some confusion to the reader; but regarded as a series of separate essays, the disjointed parts, with the help of a comprehensive index, fall together without

the reader feeling, to any great extent, the want of association. The fact, however, that it has taken eleven years to complete the work serves to strengthen the assertion we have previously advanced, that with the present rapidly advancing state of medical knowledge the age for the production of large treatises is past; for before an author has time fairly to master the literature of his subject, in itself a gigantic task, and arrange the details of his work, new discoveries necessitate a revision of much that he has already completed. Dr. Dickinson has undoubtedly solved a part of this difficulty by dividing his work into a series of monographs, but even here the obvious objection arises that whilst the last volume represents our latest knowledge on the subjects of which it treats, the first and second undoubtedly require considerable revision to bring them up to the same level.

In the present volume the essay on Renal Calculus deserves the first place for consideration. It is undoubtedly the most complete description extant of this formidable and painful affection. The etiology, structure, classification, symptoms, and treatment, are all fully detailed. The author is evidently no great believer in the solvent treatment of renal calculi, as advocated by Dr. Roberts; and this negative attitude is justified by the experience of the past, for in the days when solvents were largely used physicians pointed out that while good results were often obtained with vesical, the administration of solvents in the case of renal, calculi was nearly always futile. The reason of this lies in the fact that in the bladder it is possible to keep the stone always surrounded with alkaline urine, whilst in the kidney the action of the solvent is only partial and temporary. Dr. Dickinson does not allude to the possibility of causing encystment of the calculus by keeping the patient at rest, in one position, as much as possible. In cases where the calculus is tolerably large and an operation not advisable, this plan may be adopted with advantage. In one case which came under our observation it proved a complete success; and the fact that calculi are found thus encysted post mortem, in persons who have suffered but little during life, ought to encourage us to give the plan a fair trial. Speaking of pyelitis, the author criticises the statement of Roberts, that the very irregular, spindle-shaped epithelium shed affords "certain evidence of its origin," and maintains that epithelium of like character is derived from other parts of the urinary tract besides the pelvis. In this we quite agree with Dr. Dickinson, for we are sure that no positive conclusion as to its place of origin in the urinary tract can be drawn from the appearance of this epithelium, and the part of the urinary tract it is derived from can only be determined by other clinical indications.

In the section devoted to the consideration of Malignant Tumours the writer incidentally brings forward a very important question—viz., Which kidney is the more frequently attacked? Thus Roberts found in sixty unilateral cases each kidney affected an equal number of times. Ebstein, on the other hand, states that the right is attacked oftener than the left, in the ratio of thirty-one to twenty-three, whilst Dr. Dickinson found eleven belonging to the left side and only one belonging to the right. Our own experience is in accord with that of Dr. Dickinson; indeed, so frequently have we found the left kidney affected—as regards not only malignant, but other unilateral affections of that organ,—that we have considered whether the selection is altogether accidental, or if there may not be some as yet undetermined cause for the preference.

It would be impossible for us, with the space at our command, to notice all the good features of the work before us; but after the chapters on Renal Calculus, those on Hæmoglobinuria and Chyluria deserve special study and attention. We should, however, fail in our duty if after such commendation we omitted to point out those parts of the work which in our opinion fall short of existing knowledge on the subject. In the first place, we regret to find in the section on "surgical kidney" no reference is made to Mr. Beck's invaluable clinical and pathological researches nor can there be any excuse for the omission, since it is now six years since they were published in "Reynolds s System of Medicine," and have been generally accepted, as is shown by their having formed the basis for further investigations, and also by their having been adopted by most writers on pathology. The author no doubt differs from Mr. Beck, but, in omitting to reply to or notice views contrary to his own, Dr. Dickinson tacitly admits, we think, that they are unanswerable. Nor has he done full justice to the subject of phosphaturia. Although he speaks of the condition as "phosphuria," implying thereby that unoxidised phosphorus, as lecithin, glycerine, phosphoric acid, &c., may pass into the urine, he makes no allusion to that now well-ascertained fact, nor the conditions of the nervous system in which it has been noticed. Nor, even when speaking of the elimination of phosphates, does he refer to the numerous facts recently determined, chiefly by German observers, with regard to the relative elimination of nitrogen and phosphoric acid under different conditions of metabolism. Again, the important clinical fact, that certain pathological states are characterised by a decided diminution of phosphorus in the urine, is not mentioned; as, for instance, Gee's observation as to the almost complete disappearance of the phosphates from the urine in ague, and the similar observation that has been made as regards scurvy, and after the administration of certain medicines, such as bromide of potassium, &c. All these points ought to have received attention, since it is alone by the study of them that we can hope to get an insight into the nature of the tissue changes occurring under pathological conditions. Apart from these objections, we must congratulate Dr. Dickinson on the high quality of his work throughout; it is that of a scholar, a scientific physician, and a clinical teacher, and will for long hold its place as a classic treatise on the subject of which it treats. Nor, whilst awarding this high degree of praise to the text, must we forget to mention the very admirable engravings that illustrate it.

THE SHOEBURYNESS EXPLOSION.

THE following is a description of the fatal injuries incurred by the officers who lost their lives by the recent sad accident at Shoeburyness:—

Colonel Fox Strangways: Laceration of right foot, part of great toe blown away, compound comminuted fracture of both legs. Amputation of both legs was performed by Sir W. Mac Cormac after midnight. Death from shock before 8 A.M. the next morning.

Colonel Lyon: Both legs completely smashed, great shock. Amputation of both legs immediately performed by Mr. Deeping and Mr. Jones. Death from shock about 8 A.M. next morning.

Sergeant-Major Daykin: Compound comminuted fracture of left leg, involving the knee-joint. Amputation at the middle of thigh by Mr. Jones. There was also severe chest injury. Death from shock next morning.

Gunner Underwood: Compound comminuted fracture of right thigh. Amputation by Mr. Morris. Death from shock next morning.

Gunner Allen: Right leg blown away from below knee, lacerated wounds under chin and on side of throat. Killed on the spot from profound shock.

Mr. Rance: Large lacerated wound in the middle of both thighs, wound under left knee crushing the tibia, the fragments of shell passing backwards and downwards and coming out through the lower part of the calf. Shock and depression so great that no operative interference was resorted to. Died from exhaustion on the ninth day.

Colonel Betty and the officers of the garrison, Shoeburyness, have sent a letter of thanks to the medical men who rendered aid to the sufferers by the explosion, Messrs. Deeping, Phillips, Morris, and Jones, and have requested them to consider themselves perpetual honorary members of the Royal Artillery Mess, Shoeburyness.

THE LANCET.

LONDON: SATURDAY, MARCH 21, 1885.

A VERY important paper has just been issued by the Director-General of the Army Medical Department, entitled "Sanitary, Medical, and other Notes and Memoranda for the information of the Principal Medical, Sanitary, and other Officers of the Army Medical Staff of the Suakim Expeditionary Force." It bears evidence of a careful study of the subject, a thorough practical knowledge of the requirements of the troops on active service, an ample and judicious provision for their wants, and some excellent hints for the guidance of the medical officers. The notes are already so condensed that it is impossible to give a summary of them on all the points treated; we shall therefore content ourselves with noticing a few of the more important.

A detail is given of the hospital accommodation which is to be provided under the three classes of base hospital, floating hospital, and field hospitals; and the hospital at Suez will also be available for the reception of cases. A staff of nurses will be provided for the base, floating, and Suez hospitals. Full instructions are given for sanitation at the ports, on the march, and in camp; for the assistance to be afforded to the wounded in action, for the first dressing on the field, their immediate transport to the field hospital, "where antiseptic surgery and dressing can be skilfully and properly applied once for all," and their removal by a staging system of transport to the stationary hospitals, where "provision can be made for equipment, dieting, clothing, nursing, and, ample supplies of medical and surgical equipment." The subject of water has received due attention, and instructions are given as to the best means of rapidly testing its quality, and, so far as is practicable, ridding it of impurities. Rules are laid down for the conservancy of camps and hospitals, and the disposal of refuse and of dead animals. When there is an early morning march, or the men are employed late at night, it is recommended that a ration of hot cocoa and milk, coffee or tea, should be issued, we presume in addition to the regular ration.

The diseases of which the prevalence may be anticipated are diarrhœa and dysentery, enteric fever, heat fevers, heat exhaustion and sunstroke, and ophthalmia. The two great factors in the production of disease are fatigue and insufficient nourishment. "Climatic conditions are so far secondary to these that they may, to a greater or less extent, be overcome by the avoidance of one, and ample provision for the other." Dust and flies and overcrowding are recognised as the chief causes of ophthalmia, and with a view to its prevention the men are to be encouraged to wear glasses and veils, and overcrowding in tents is to be avoided. As a protection against the effects of the great diurnal ranges of temperature in causing diarrhœa and dysentery, each soldier is to be provided with two flannel belts, and puggarees and back pads (spine protectors) are to be issued to guard the men from the direct solar influence. The remarks on diarrhœa and enteric fever are very judicious, and the necessity for treating all cases of diarrhœa attended with elevated temperature as enteric fever, at least in the first instance, is enforced. "It is to be borne in mind, too, that in actual practice in warm climates, and under the conditions of field service, this fever does not invariably conform to the temperature ranges which have been far too arbitrarily laid down by medical authors, for a fever may be non-conformable to such ranges, and yet be indubitably enteric fever."

The instructions with regard to the "Wounded in Action" appear to us to be perhaps the most valuable portion of the paper, especially as pointing out the danger of officious surgery. "It is a mistake to suppose that much is needed, or can be done, for a wounded man under fire or immediately after an action, except attending to his pressing requirements and moving him carefully to a place of safety, where the necessary time and attention and the results of consultative measures can be applied.....In small wars with semi-civilised nations, like the present expedition, it should be quite practicable to advance a field hospital, or section thereof, together with a portion of a Bearer Company, well to the front—that is, to carry the hospital to the wounded instead of the reverse. Under such circumstances the wounded should be at once transported there without being first subjected to the risk of defilement of the wound by the hurried application of a first dressing, or the displacement to the coagulated blood agglutinating its sides and edges." The first dressing should be of the simplest kind, and ought to consist chiefly in covering the wound, placing the injured part in a suitable position, and when necessary rendering it immovable. The first dressing recommended by Professor LONGMORE consists of carbolised tow, carbolised gauze, bandage, safety-pin, a triangular bandage, a wrapper of tinfoil, and a parchment paper cover impregnated with ½ per cent. of corrosive sublimate, and appears to be well adapted for field service. "The principles of modern surgery are to keep a wound, if possible, aseptic throughout; if this cannot be secured, to make it antiseptic, to keep it in a state of physiological—that is, absolute—rest, and to secure drainage." The method adopted successfully in the Egyptian campaign is described, and instructions given for its application under various circumstances. We concur most fully in the opinion that "all surgery or dressing that has not a definite object in view is meddlesome, and meddlesome surgery or dressing is fatal to the aseptic or antiseptic method."

Ample provision appears to have been made for the sanitation of the force, for the treatment of disease when it occurs, notwithstanding the sanitary precautions, and for the help of the wounded in the field, so far as these arrangements depend upon the Head of the Medical Department. We trust that the military arrangements for supply and transport may be equally judicious, for on them must depend much of the success of the others. As bearing upon this point, the Director-General gives a very judicious caution to the officers of the medical staff:—"In view of the difficulties of transport, medical officers should be impressed with the necessity of having a few well-selected drugs in as concentrated a form as practicable, and they should be cautioned to avoid 'a run' on one drug when others would suffice for the same purpose. The better the medical officer, the fewer will be the drugs he will require

for the efficient treatment of the sick and wounded in the field at the front." The notes and memoranda cannot fail to be most useful to the officers employed in this expedition, and afford gratifying proof of the watchful care of the Head of the Department and the sound judgment evinced in making the necessary professional arrangements. We have but one fault to find with them: they would, in our opinion, have been better adapted for service had they been printed as a pocket manual instead of in the folio form characteristic of War Office documents.

SINCE Sir LYON PLAYFAIR'S celebrated argument in favour of his views of medical reform the question of the numerical strength of the profession has become one of great importance. Though the whole situation of the country and of Parliamentary government scarcely permits us to hope that anything so sensible and reasonable as the Medical Bill of the Government will be passed, yet it is possible that it may be reintroduced, and the worn-out and very poor arguments of last year repeated. Our readers will remember that Sir LYON PLAYFAIR frightened the House of Commons by the appalling picture of a community without sufficient doctors. The argument was, "Be careful *how* you improve medical education; if you overdo your improvements, you will deter young men from entering the profession, and the natural waste of the profession, which is 1600, will not be met by an adequate supply." The argument at best was a bad one from Sir LYON PLAYFAIR. If arguments are to be used for keeping down medical education, they come with ill grace from the representative of an ancient and famous university, whose function ought to be to hold high the standard of medical knowledge. But the argument was not only unworthy of Sir LYON PLAYFAIR. The basis of it was one of sand, as we showed at the time. So far from the waste of the profession being 1600, we proved that, with great pains to ascertain the deaths of medical men when they occur, the indefatigable registrar, Mr. MILLER, cannot succeed in getting evidence of the decease of more than between 500 and 600 in the year, while the names added to the Register are annually over 1200. The new Register confirms the inaccuracy of Sir LYON PLAYFAIR'S representation, from which a very slight acquaintance with the facts of the medical profession would have saved him. It must be patent to anyone who takes any pains to observe that there are many indications of overcrowding in the profession and of unseemly pressure of competition, such as low medical charges and the excessive number of applications for the most ordinary appointments. But a few facts from the Medical Register for 1885, just issued, will give the statistical proof of what is so obvious. In the Register for 1885 there are the names of no less than 25,321 medical men. The average number of names in the Medical Registers for the last four years, and in those for the four years preceding the last, are respectively 24,228 and 22,723, or a difference of 1505 per year in the last four years. The number in the Register for the present year is 25,321, as against 24,517 the year before, or 804 more. We have said that the ascertained loss of the profession by death is between 500 and 600. Taking an average of nine years the annual number of ascertained deaths is 572·5. Of course, there are other ways in which practitioners are lost to the public, as by retirement. But these must be comparatively few. Let us now place clearly before our readers the new registrations. In the last year the new registrations were in England 769, in Scotland 381, and in Ireland 238, making a total of 1388. In the year 1883 there was a total of 1304. The average annual additions to the Register, or new registrations, for the last four years were 1229, as against the average of 1013 in the four years preceding these. We need not say more to prove that there is nothing in the supply of medical men to make the Legislature hesitate in raising a little higher the standard of medical education, while there is much in the facts we have adduced to make young men ponder before they enter a profession already overcrowded.

Table F, from which we have quoted these interesting facts, is only one of a number of tables which, with all the Medical Acts of Parliament and other information, on the whole very accurately collated, make the Medical Register a very important publication. In this very Table there is given for the first time a complete statement of the number of persons whose names were entered in, added to, or removed from the Medical Register for each year from 1876 to 1884 inclusive. In the case of removals, the section of the Act under which the removal was made is given, and is ordinarily, of course, the 14th section, or that which empowers the Council to remove a name if, after a certain time, communications from the Registrar are unanswered. What strikes one as least satisfactory in this process is the irregularity with which it is done. In some years hundreds are removed, and in others only scores or less. Time and the experience of individual members of the profession alone will show how far the actual work of individual registration is done with accuracy, but there is little reason to doubt that ever-increasing pains are taken to make this volume what it ought to be.

THE interesting paper on the Diet of the Febrile State read at the annual meeting of the Medical Society of London by Dr. ALLCHIN, and which appeared in THE LANCET on the 7th inst., will no doubt give a stimulus to researches of a similar kind with regard to the dietetic treatment of disease generally. To this subject the ancients paid more attention than modern physicians have hitherto seemed inclined to bestow; for though we have many valuable treatises relating to diet, they mostly refer to the chemical constitution of the food stuffs and their digestibility, whilst little is said in reference to the modifications required to meet the altered conditions that arise in various pathological states. Indeed, very little is known respecting the tissue changes that occur in disease. It was only quite recently that the views originally enunciated by LIEBIG ceased to dominate our speculations with regard to the chemico-pathological processes occurring in fever. According to this view, it was held that the tissue changes depended on the amount of oxygen taken in by the lungs, so that on increased respiration a more intense combustion took place, metabolism was increased, with the production of more carbonic acid and urea. The natural outcome of this view was to support the idea that fevers required feeding; that more fuel was requisite to supply the loss due to increased combustion. The fact, however, that the increased excretion of urea usually precedes the rise of temperature, has strengthened the

supposition, which for some time has been gaining ground, that instead of increased metabolism being the result of increased oxidation, it is the increase of the intra-molecular action in the cells themselves that occasions the demand for oxygen. According to this view, the cells are supposed to be to a certain extent independent of the amount of oxygen supplied to them by respiration — that is, that though they originally obtain their oxygen by that process, they are able to store up a portion of it either for reserve or independent use. In fever, therefore, probably under the stimulus of the zymotic poison, the intra-molecular activity of the cells increases, their store of oxygen becomes exhausted, and the demand for a fresh supply leads to an increased frequency of pulse and respiration.

Now, if this view is correct, the propriety of giving an excess of food, especially nitrogenous—which is known to stimulate the intra-molecular activity of the cells throughout the body,—may be questioned. Then, again, with regard to the economy of oxygen which this theory entails, it is important to select a food which is itself easily oxidisable—that is, readily converted into carbonic acid and water. Speaking roughly, we may say that in the starchy and saccharine constituents of our food the carbon and oxygen are in equal proportions, whilst in the proteids the carbon is as three to one, and in the oleaginous constituents as eight to one. We know, however, so little of the synthetical and analytical processes taking place in the conversion of food into tissue that we cannot yet apply this knowledge to any practical deduction. If, as is now generally supposed, a considerable proportion of the starchy and saccharine matter is converted into fat, then during this synthetical conversion a large amount of oxygen will be liberated, which for a time is available for the requirements of the body. This would point very strongly to the conclusion that starchy and saccharine matters should form the basis of the dietary of the febrile state, though of course a certain amount of nitrogenous food is also required. It is not, however, sufficient merely to consider the question in relation to tissue metamorphosis, but the state of the secretions necessary for efficient digestion. These, as we know, are both qualitatively and quantitatively affected, and their activity diminished; consequently, if we would avoid fermentative changes resulting from delayed intestinal digestion, we must supply their place or add to their power by means of already partially digested foods. Unfortunately, however, the preparations hitherto proposed for this purpose do not combine palatableness with efficiency; an improvement in the former condition is therefore much to be desired.

It is not merely with regard to the dietetics of the febrile state that physicians are concerned; there are other diseases in the treatment of which diet plays a prominent part. Thus, in albuminuria Dr. AUFRECHT insists on the abstention from milk in nephritis, and others advocate treatment based upon the administration of skim milk solely. Who is right? Or if the question lies between the treatment of acute nephritis and chronic nephritis, at what period should the milk treatment be commenced? Then, again, there are questions with regard to diabetes that still call for solution, as for instance the advisability of enforcing absolute restriction from starchy food in protracted cases of the disease; some authorities maintaining that a too exclusive diet is in the long run more injurious than limited indulgence, whilst others maintain the reverse. Then as to the dietetic treatment of gout; we are here confronted with opposed opinions and diverse theories, and are puzzled to decide between the ascetics and those who advocate a more liberal dietary, or else to halt halfway with the disciples of SYDENHAM, who, whilst advocating temperance both in food and in drink, point to the danger of too great abstinence, and who think that whilst wine is injurious as an ordinary beverage more danger arises from the exclusive use of water. In scurvy and its allied disorders there are many questions still remaining for settlement, such, for example, as whether vegetables when preserved retain their antiscorbutic virtues. What is the exact position of fresh meat and milk as antiscorbutics? And, above all, what gives to a minute dose of lemon-juice such an enormous protective or curative power? Then, again, with regard to disorders of digestion, Dr. LAUDER BRUNTON, in the Lettsomian Lectures of this year, upset many of our well-established notions as regards their dietetic treatment. Those lectures and the present communication of Dr. ALLCHIN will mark an epoch in the history of dietetics, since at last it seems that the advanced physiology of the day is to be applied to the exploration of this hitherto neglected branch of medical practice. We hope, however, now the ground has been broken, that conclusions will not in future be so entirely based on theoretical and physiological statements, but that practical observations giving the results obtained with different diets under similar conditions will be placed on record.

THE scheme of Admiral Sir EDWARD INGLEFIELD, proposed and submitted for public adoption by the Prince of WALES, will be cordially accepted and supported by the medical profession. It is most fitting that the memorial to General GORDON should take the form of a hospital so placed as to satisfy a most pressing need for the advantage of all nations. His Royal Highness simply and eloquently expressed the sentiment of all classes of this and other communities when he said, "I think there is no institution which would have been more acceptable to General GORDON than a hospital with which his name would have been associated. He was, perhaps, one of the most unselfish of men ever known, and his thoughts were always of others." The great lesson of GORDON'S life was sacrifice; and the moral of his most lamentable death in the Soudan, through the procrastination of Ministers at home, was sacrifice in its last development. He lived for others and he died for others. It is a poor thing for this nation to commemorate his memory at all, seeing that it was by our neglect he was left to perish; but it is at least fit and proper that the form our memorial takes should be one in harmony with the character of the departed hero, whose death we "too late" mourn.

The Egyptian hospital at Port Said has long been a reproach to the age, not less than to the unhappy country whose degenerate state it too well indicated. Everything in Egypt, or under the blighting influence of the benighted government of a succession of incompetent Khedives, is contemptible; not merely for its intrinsic worthlessness, but for the mould of

decay that neglect and corruption encourage to grow over it. Some day, when the truth is no longer suppressed, and those who know Egypt and its rulers personally can speak out, the public conscience will be scandalised by a sense of the folly and weakness displayed in supporting the craven tyranny of selfishness and immorality under which the land of the PHARAOHS has so long languished. As a matter of fact, the rude people of the Soudan who are dying bravely at the points of our bayonets for their liberties and their homes are as much the superiors of the Egyptians in every attribute of manhood as the noble races of India are above the lower orders of "whites." England, as the greatest Mahommedan Power, had no more reason to range herself on the side of the Egyptians against the Soudanese than she would have in taking the part of the Muscovites against either of the lesser nationalities they have sought to oppress. The Mahdi, as a false prophet, might have been exposed and defeated in the name of ISLAM without butchering the Soudanese, whom he has seduced and enslaved mainly, if not entirely, because we have played fast-and-loose with the bankrupt puppets of Alexandria and Cairo. It is a miserable business, this Egyptian *fiasco*, look at it how we may.

A gleam of sunshine in the midst of the gloom falls on the grave of GORDON, who went out almost single-handed to try to repair the breach and to remedy the blunder his knowledge of both Egyptians and the Soudanese enabled him only too clearly to perceive. It will hereafter be a ray of comfort as we look back to remember that out of the muddle we have made one act of humanity in sympathy with the life-long ideal of the man so sadly lost to us has been performed by us, though it be after his death. The moral effect of a good hospital, constituted on cosmopolitan principles and properly administered, at Port Said, can scarcely fail to be considerable. It will be well if we are permitted to leave this one trace of benevolence in the region where we have left so many memorials which posterity will view with less complacency. We heartily wish the scheme success, and cordially endorse the claim addressed to all classes of the people for its support.

A CASE is now under the consideration of the Local Government Board which, it may be hoped, both on personal and on public grounds, will be dealt with in that spirit of generosity which the circumstances call for as a right. One of the Orders of that Board recites that every principal officer appointed to the fever and small-pox hospitals of the Metropolitan Asylums Board shall continue to hold his office until, amongst other conditions, he shall die, or resign, or be dismissed by the Board of Management with the assent of the Local Government Board, or by the Local Government Board, or until the Board shall consider it desirable that his duties should cease or should be modified. It is well known that since the report of the Fever and Small-pox Hospitals Commission a change of practice has been inaugurated by the Asylums Board as regards the future use to which the small-pox hospitals are to be put; and this change apparently renders it unnecessary, in the eyes of the Asylums Board, that there should any longer be two separate principal medical officers at each hospital. Hitherto one has had charge of the fever hospital, another of the small-pox hospital; but the rapid removal of small-pox patients to the hospital ships does away with all but a few beds for small-pox cases at each hospital centre, and the several isolation centres are now to be regarded essentially as fever hospitals only. At the South-Western Hospital at Stockwell Dr. F. R. BERNARD has had charge of the small-pox establishment; and the fact that he has remained in the service of the Board for nearly nine years, coupled with the circumstance that his salary was raised so recently as last year, and that he was selected for the extremely onerous duty of supervising much of the work carried on at the Darenth Camp, make it quite unnecessary to refer to the efficiency of the services he has rendered as an official of the Board and as a public servant.

But some two months ago he received from the Asylums Board an intimation that, since the two hospitals at Stockwell are henceforth to be under one medical head, application was about to be made to the Local Government Board to issue the order necessary to the dispensing with his services in the future. At first sight the despatch of such a letter to such an officer, under such circumstances, appears well-nigh incredible, but it would perhaps be wrong to infer from its official baldness that the letter of the managers implies that no proper recognition of the services which Dr. BERNARD has rendered will be made. The right of the managers to remunerate their officers is, at least nominally, limited by the need for sanction from the central authority; and it may be that, should that authority decide in favour of the views of the managers as to the appointment of one principal medical officer only at Stockwell, then the question of compensation for abolition of office will be subsequently considered. It is quite true that such compensation cannot be claimed as a right, but when a medical man has given the best and most energetic years of his life to public services of a specially trying character, and when his post is abolished as a mere matter of administrative convenience, the circumstances are such as, even on public grounds alone, to call for the exercise of liberality. Dr. BERNARD has been informed by the Local Government Board of the request which has been addressed to them by the managers, and he has been asked if he has any observations to address to that Board before they form a decision on the application. The observations which this last letter has called forth are naturally addressed to the subject of pension or compensation; and seeing that Dr. BERNARD will, if the order dispensing with his services should be issued, have practically to recommence his professional career, it is sincerely to be hoped that the central authority will make any abolition of his office contingent upon ample compensation in some form or other. Hitherto the Metropolitan Asylums Board have been able to command high-class services from men who have been ready to devote the prime of their lives to duties the performance of which has deprived those holding office of nearly all that social intercourse which is so highly valued by men who have had a scientific and professional training. Should the managers wish to retain their power of attracting to their service medical men of a similar standing they will do well, in such a case as Dr. BERNARD'S, themselves to initiate the proposal to offer adequate compensation on abolition of office. The proper stage in the official programme may not yet have been reached for the

embodiment of this proposal, but many will look for its advent, and all who are interested in the efficient medical working of the important hospitals which are placed under the management of the Asylums Board will hope that Dr. BERNARD'S retirement may be accompanied by conditions which will do honour to those whom he has so long and so faithfully served.

Annotations.

"Ne quid nimis."

PHYSIOLOGY AT CAMBRIDGE.

A DISCUSSION took place on Thursday, the 12th inst., in the Arts Schools at Cambridge, respecting a proposal to enlarge the physiological laboratory, and provide additional lecture and teaching rooms for physiology and pathology, at an estimated cost of £9000. The proposal is made in consequence of an urgent representation by Professor Foster of the necessity of such addition, owing to the rapid increase in the number of the medical students. It was, on the whole, favourably received. The Senate of the University of Cambridge have always regarded in a liberal spirit the study of physiology and the various subjects more or less directly connected with medicine, and have never yielded to the vivisection scare. Indeed, remarkable as it may seem to those who have followed the recent controversy at the sister University, and noted the excitement attended on it, the matter of vivisection was not even alluded to by any one of the speakers. They recognise it as a necessity to the advance of a science which is closely related to the welfare of the human family, and I take the common-sense view that certain evils must be incurred for the purpose of attaining great and good ends, and they trust to those whom they have placed in positions of responsibility, and with whom they are in daily personal intercourse, that the evils will be minimised as much as possible. The desirability, indeed the importance, of assenting to the request of the physiologists was not questioned. Even the financial difficulty was not unduly pressed, when we bear in mind the great and increasing demands upon the University chest—demands which far exceed the income, and which can be met only by borrowing, and so forestalling future revenue. This, it seems, will have to be done; and a careful statement respecting the funds of the University, and the disposal of them, lately issued by an eminent member of the Senate, with an estimate of prospective income and expenditure, shows that the current resources do not, and will not, more than meet the current needs, that there is no reserve fund, and that the extraordinary demands for building, &c., which necessarily arise must be provided for in some special manner.

DEATH OF PROFESSOR VON FRERICHS.

A TELEGRAM from Berlin on Saturday last conveyed the news that Professor von Frerichs was dead. Just twelve months ago the University was celebrating the twenty-fifth year of his professoriate, and many of his former pupils assembled to do him honour; for he was rightly regarded as the foremost exponent of clinical medicine in Germany. By awarding him the patent of nobility, the German Government showed that it recognised his high merit. Professor von Frerichs was born at Aurich in 1819, and studied at Göttingen, whither he returned after a brief period of practice in his native town, to serve as a *privat docent*. In his earlier years he showed by his work an inclination rather towards chemistry and physiology than to medicine; but in 1849 he commenced at Kiel the path of clinical medicine, which he further pursued at Breslau, where he went in 1851. At Breslau he was not only clinical professor, but also pathologist, and his pathological demonstrations were thorough and exact. Whilst there he published the first volume of his work on the liver, known to English readers in Murchison's translation for the New Sydenham Society. Besides this treatise on diseases of the liver, he wrote one on Bright's disease, in which he enunciated the idea that uræmia was due to poisoning by carbonate of ammonia; and last year he published a monograph on diabetes. Called to Berlin University in 1859, the reputation already gained adhered to him, and his clinic was attended by students from all parts of the world. Amongst his pupils were Naunyn, Quincke, Ewald, Eichorst, Litten, and Ehrlich. Professor von Frerichs had been president at the annual meetings of the German Medical Congress, which assembled last year in Berlin to do him honour. Next month the Congress reverts to its previous meeting-place at Wiesbaden, but its proceedings will be saddened by the loss which not the Congress only but the whole of Germany has sustained in his sudden removal. It may be well to recall the incident that happened last year to which we then alluded (THE LANCET, March 15th, 1884, p. 486) when he addressed his class at the close of the fiftieth session of his labours at the university. He said "it was with mingled feelings of joy and sorrow that he concluded the course. Thousands had sat on those benches, and were now scattered not only throughout Germany, but in all parts of the civilised world. It had been his aim to instruct them in the methods of examination of patients, how to weigh the signs of disease and form a diagnosis, and they had frequently been able to see the confirmation of the latter in the post-mortem room. And he had tried to show how treatment on physiological grounds was related to diagnosis. The material was inexhaustible, and could he lecture for another twenty-five years it would still be unexhausted, so true were the words of their old master Hippocrates, that 'life is short, and art long.'"

THE BRISTOL COMMISSION ON THE POOR.

THE town of Bristol has organised its own committee on the housing of the poor, and it may be congratulated on having accomplished its mission with a thoroughness and promptitude that are not unworthy of serving as an example to the larger body investigating the same subject in London. The result of the inquiry, published in a compact volume, may be studied with advantage, as most of the questions put and answered apply equally well to almost every centre of population. Indeed, they apply with perhaps greater force to other towns than to Bristol, which in 1883 was able to show a lower death-rate than any of the twenty-eight large towns of England. The general death-rate of Bristol in that year was only 17·9 per 1000, and the zymotic death-rate 1 per 1000. Yet in 1850 the death-rate was 28 per 1000; but since then the town has been thoroughly drained, cellar dwellings abolished, and considerable improvement made in the condition of inhabited houses. The good work is not, however, yet complete. There are many houses still which have no back yards, no back windows, and no through ventilation. In several of these houses a man, wife, and adult children were found living in a single room; yet the rents, though too high, are much lower than in poor quarters of London. To this promiscuity of the sexes is attributed much of the prevailing immorality, other causes of which are also pointed out by the commission. "The harshness of parents and the hardness of all classes of society" towards young women after their "first fall" are, according to the report, the principal causes that drive young girls to prostitution, and the commissioners urge that more charity

be exhibited to the erring, believing that "if more mercy were shown by parents, friends, and the public after a first fault, many lives would be saved from ruin." The absence of such truly Christian charity has brought about the most deplorable results, and medical evidence goes to show that syphilis of a virulent type prevails extensively among the loose women of Bristol, whose ages vary from twenty to thirty, though younger girls seem comparatively exempt. The action of the School Board is much praised in having rescued young children from immoral and unwholesome surroundings. As remedies, the commissioners recommend a more strict application of the Sanitary Act, the purchase of likely property by committees or societies who will befriend their tenants, content themselves with reasonable profits, and watch over the sanitary condition of the houses they sublet. The poor require "personal service" more than almsgiving. "The relations of landlord and tenant should beget a worthy sense of kinship," and the call for rent be looked upon as the weekly visit of a sympathising friend. But this ideal state cannot be expected where poor tenements are farmed out to money-making speculators. The report testifies to much arduous work; and though it bears the impress of certain narrow class prejudices, such as the dislike of political clubs for working-men, the citizens of Bristol have, in this endeavour to better the condition of the poor, set a good example.

THE PATENT MEDICINES STAMP TAX.

LAST week the Chancellor of the Exchequer, in the House of Commons, in reply to Dr. Cameron's question on the Patent Medicines Stamp Tax, stated that he had been in communication with the Board of Inland Revenue, and had also consulted with the President of the Council. A Bill or Bills would be introduced, but it was impossible to say what steps, if any, would be taken during the present session. This vague answer has, we understand, given general dissatisfaction, and the *Western Morning News* and other influential provincial papers state emphatically that "the whole thing from a revenue point of view is despicable." It is pointed out that ample time has been afforded for a careful consideration of the subject in all its bearings, and that the public have a right to expect some more definite declaration of policy on a subject which affects so vitally the well-being of the nation. On Monday night the question again occupied the attention of the House, and Mr. Puleston asked the Chancellor of the Exchequer whether his attention had been called to the following statement which had appeared in a leading article in THE LANCET—viz., "Scarcely a day passes without the record in the papers of an inquest on some poor deluded victim who has been sent to his last account from an overweening confidence in one or other of the much-belauded patent medicines. The facility afforded for obtaining narcotics, whether it be in the form of opium, morphia, or the deadly chloral, is a consideration which cannot be overlooked. In no other country can poisons be purchased wholesale without a strict inquiry as to the purpose for which they are required, but in England they are sold openly and without restriction under the guise of patent medicines." And whether having reference to the proposed legislation on this subject, he would cause inquiry to be made, with a view to obviating the evils arising from such a condition of things, if they were shown to be as stated. To this the Chancellor of the Exchequer replied that, considering the very large number of articles on the subject which had appeared in all the papers, both medical and general, it was quite out of his power to give an opinion on any particular observation contained in them. He had already stated that the matter was under consideration, and that legislation would be proposed either in this or next session. This answer, we must confess, seems to us to be even more unsatisfactory than that given in reply to Dr. Cameron's question. Mr. Childers seems to be strangely oblivious to the fact that more than six months ago he undertook publicly to obtain certain documents and study them "with care."

THE LATE GENERAL STEWART.

THE Editor of the *Manchester Courier* has courteously favoured us with a report of General Stewart's wound, just received from their correspondent in the Soudan. From this we learn that the gallant General was struck by a bullet over the left anterior superior spinous process of the ilium, and that the ball passed along the iliacus muscle, produced a stellate fracture of the posterior part of the ilium, and lodged in the upper end of the left sacro-iliac synchondrosis. The peritoneum was not wounded. Death was caused by exhaustion on Feb. 16th, between Abu Klea and Gakdul. Assuming that this is a complete description of the injury, it is evident that the wound was not necessarily fatal, although a very grave one, in which extraction of the bullet was not practicable. As we had occasion to remark in connexion with the wound of the late General Garfield, the mere lodgment of a bullet in the tissues of the body is not necessarily a fatal or grave lesion. In such a case as General Stewart's everything depended upon whether it were possible to render and to keep the wound aseptic. If the bullet carried in germ-laden foreign bodies, portions of clothing, &c., and these could neither be removed nor properly cleansed, septic suppuration would be set up, with all the dangers of systemic poisoning, exhaustion from the constant drain, or spread of the inflammation to the neighbouring serous membrane. This appears to have been the case with General Stewart, and the fatal result was probably due in greater part to a form of septic absorption than to the mere drain upon the system entailed by the continuous secretion of pus. This view receives considerable support from the fact that there was marked fever during the last few days of the General's life.

THE PROTECTION OF ABANDONED CHILDREN IN FRANCE.

WE recently noticed the efforts made by the French Legislature to protect the health of infants, and gave some description of the results attained by the application of the "Roussel Law." A few words as to what voluntary effort is doing for children who have emerged from the period of infancy may not be out of place. The Parisian General Society for the Protection of Abandoned or Criminal Children was founded by M. Georges Bonjean some five years ago, and in 1880 the subscriptions given for this work did not exceed £152; but the next year the amount collected reached the respectable figure of £2240. In 1882 there was a further increase, for the subscriptions are set down at £5080. In the following year £5880 were given, and £6840 in 1884. The number of members of the Society increased from 2040 in June, 1881, to 12,648 in the present year. The work done by the Society is in due ratio to the support it has received. In February, 1883, it gave assistance and education to 700 helpless children; while at the present moment no less than 2828 children are under its protection. All these children are carefully drilled; and, while every effort is made to give them the education necessary to enable them to earn an honest livelihood, special care is taken that they should have the food and exercise necessary for the preservation of health and the development of physical strength. This work, however, though good, is not sufficiently extensive. It is not two or three thousand children, but something like a hundred thousand, who need such protection. Nevertheless, the Parisians are to be congratulated

on taking the initiative in this matter, instead of relying solely on the State. The French charities are not to be compared in importance and extent with those of England. Till recently the form of government did not tend to develop self-reliance, and the lack of this quality is accountable for many evils. Little sanitary improvement would have been accomplished in England if pressure had not been brought to bear upon abuses by private individuals; and, to progress, the French must take such questions into their own hands without waiting for the Government to set the example.

ARMY RECRUITING IN 1884.

THE annual report of the Inspector-General of Recruiting has been presented to Parliament earlier than usual, and in consequence does not contain many of the tables relating to the physical condition of the recruits. These will shortly be issued in the Annual General Return. In the meantime, we may note that in 1884 the large number of 64,853 recruits were medically examined, of whom 27,807 were rejected, being in the ratio of 429 per 1000; but this includes a number, not stated, rejected as under height, which is clearly a military, not a medical cause. The standard of minimum age was eighteen; height, 5 ft. 4 in.; chest measurement, 33 in.; weight, 115 lb. "The chest measurement and weight according to height is left to the discretion of the medical officer, who is governed by the appearance of the man, by his physical condition, and his power and prospect of development." Of the 35,653 who joined the service 12,896 volunteered from the militia. General Bulwer states, as the result of personal visits to several of the recruiting districts, that, in his opinion, the quality of the recruits compared with that of former years is "by no means unfavourable to the men of the present day;" and this opinion appears to be in accordance with that of the officers commanding regimental districts and auxiliary artillery districts, with a very few exceptions; it is also to some extent borne out by the fact that in 1884 the proportion of men invalided during their first year of service was 9·7 per 1000, while the average of the preceding four years was 12·0 per 1000. In addition to the recruits raised for the army, there were 36,067 enlisted into the militia, but we are not informed how many presented themselves for enlistment and were rejected. As we have already seen, the number transferred from the militia to the general service was equal to one-third of those passed into the militia. When the returns are published, we shall probably be able to extract from them additional interesting information respecting the physique of the men who are being added to the strength of the army.

SEWER MEN AND TYPHOID.

DURING the reading of the report of the medical officer, Mr. M. A. Adams, to the Maidstone Local Board, some questions were asked about a man who died of typhoid fever who had been employed in repairing a sewer. Mr. Adams said that the man had told him that he was more subjected to the effluvia than the bricklayer to whom he had to hand the bricks. He added that some one must do this sort of work, and he did not think any blame attached to any one. One of the members of the board stated that "at the last outbreak of cholera in London the Board of Works furnished their sewer men with some kind of drink, and it was remarkable that although these men were working constantly amongst obnoxious smells, none of them were attacked with cholera." He then moved a resolution requesting the medical officer to suggest to the surveyor some drink or other preventive which would render the sewer men less liable to infectious disease. Mr. Adams said it was a difficult thing to be asked. People fancied that he himself had something in his pocket which prevented him from contracting small-pox &c. He, however, had nothing of the kind any more than any member of the board. If he knew of anything which would be of service to the sewer men, he would make use of it at once. The days when doctors carried a gold-headed cane containing fragrant essences for antiseptic purposes are past, and it would be well for members of local boards and others to understand that disease germs such as are contained in typhoid stools ought to be disinfected before they reach the sewer, which should itself be subjected to the action of similar agents, and, above all, thoroughly well ventilated through properly constructed shafts. There would then be less faith in prophylactic draughts, camphor lockets, and other charms for the prevention of infection.

OVERTIME IN GOVERNMENT ESTABLISHMENTS.

THE Factory Acts being liable to suspension in Government establishments, the men and boys in Woolwich Arsenal have of late been working overtime, the men working from 6 A.M. to 9 or 10 P.M., many of them Saturday afternoons and Sundays; the boys from 6 A.M. to 8 P.M., but not Saturday afternoons or Sundays. It is doubtless more convenient to the authorities to make the same persons work long hours than to engage additional hands, who must necessarily be more or less new to the work and who would require more looking after. But such protracted labour tells heavily on the health, and it is known to neighbouring practitioners, and doubtless to the arsenal medical officers also, that some are breaking down under the strain. The hours of labour permitted by the Factory Acts ought to be respected, in spirit at least, even in Government establishments in times of extra pressure. It seems most anomalous that in such an establishment as Woolwich Arsenal a boy may be compelled to work for such a number of hours that his health may become permanently impaired while a private manufacturer who ventured to treat him i the same way, no matter under what emergency, would be heavily fined. We understand that no work was done last Sunday, and that the excessive overtime has been diminished during the present week by order of Colonel Barlow.

THE METAPHYSICS OF NATURAL HISTORY.

A DEMONSTRATION of the alliance between religion and science, though to some it may appear to be difficult or hopeless, is, as we have already had occasion to remark, by no means impossible, however the terms of its exposition may vary with our fluctuating knowledge. We have here two doctrines, each professing to explain the cause or causes, the working, the objects, and the whole meaning of things as they exist around us, and of our own being, and each having for its more or less direct intention the education and improvement of that being. The one offers to us, as it were, by a mystic conception a statement of the living sense, the spirit or essence of that which we call Nature—namely, that good and God are in it, and therefore it exists and prospers; that failure, decay, and physical and moral bankruptcy come about by the introduction of some flaw, some force or Power of evil. The other, limiting its view chiefly to material objects and the methods of their actions, founds its maxims upon ascertained laws and their effects, but still it teaches the same essential facts; and while it may leave out as unproved the character of their primal cause, it cannot ignore this, nor deny that all its subject matter shows the efforts of design. It is in the consideration of such design and all that it implies that natural history as a study reaches its highest philosophical point, and even acquires a moral function above that of intellectual training, in its revelation of the mind and character of a divine Being. It has always appeared

to us that science, by revealing many proofs of adaptation in animal and vegetable life, has fortified, instead of undermining, the structure of religious belief. Where there is adaptation there must have been these necessary antecedents, a reason for it, and a mind to perceive and conform to that reason. It is incredible that the many and varied forms of matter with which we are familiar should have been the outcome of a mere chance jostling among the elements of chaos. Matter may be moulded by circumstances in obedience to some method, but there is nothing to show us that method is itself an inherent property of matter. It would rather seem, as has been ably stated in a pamphlet recently published by Dr. Stephen Monckton, that there is within all natural action an intelligent will-force which can and does interest itself in every atom concerned in the great changes of evolution, presiding over its creative origin and further history, and exercising a single and beneficent, though not a uniform, influence among the changing needs of organic and inorganic bodies, of the animalcule and of man, of health and disease, of historic races, and of the moral principles engrafted in human minds. According to Dr. Monckton, this influence must be incorporate with its subject material. He argues on this point not without reason, that such an all-directing will-force may have personal attributes, and be as fully in accord with the words of Scripture as is the idea of a personal but omnipresent God; while this presentation of an ancient belief must aid the scientific mind by affording, at least, an approximately satisfying definition of the Divine nature.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

AT the meeting of this Society next Tuesday there will be a discussion on Cholera, to be introduced by a paper from the President. Microscopical specimens and cultivations by Drs. Klein, Gibbes, Watson Cheyne, Heron, and Professor Warden will be on view, and the greater part of the evening will probably be occupied with etiology. There will, in all probability, be an adjournment of the debate to an extraordinary meeting on Tuesday, March 31st, when the pathological and therapeutical aspects of the subject will be more especially discussed. Amongst those expected to take part in the discussion are Sir H. Acland, Mr. Watson Cheyne, Dr. Chevers, Sir J. Fayrer, Dr. Gibbes, Dr. Heron, Sir Guyer Hunter, Mr. V. Horsley, Dr. Klein, Dr. Lewis, Mr. Macnamara, Dr. Geoffrey Marsh, Inspector-General Murray, Dr. Pye-Smith, and Professor Warden.

THE CONSTITUTIONAL TREATMENT OF UTERINE DISEASE.

THE paper read at the last meeting of the Medical Society brought together the alleged conflicting elements of neurology and gynæcology. The impression seems to have got abroad that Dr. C. Allbutt in his Gulstonian Lectures had denounced the physical examination of women as well as the local treatment of uterine disorders. We were not aware, and we were confirmed in our impression by the speech of Dr. Allbutt last Monday, that he had done anything of the kind. It is true that Dr. Allbutt considered that some cases of disease in which the uterus was also involved were treated on an entirely wrong plan, and to this point he still adheres. We must acknowledge that the position taken up in the Gulstonian Lectures last year seemed to us to be most logical, and may be briefly put thus: The uterus may be diseased primarily, and may then cause disease of the nervous system; the nervous system may be affected in the first place, and the uterus involved secondarily; the uterus may be diseased alone without giving rise to any nervous symptoms; the nervous system may be involved without causing uterine disorder.

LYING-IN HOSPITAL MORTALITY.

THE mortality of lying-in hospitals used to be a matter of just reproach. It promises to become so low as to excite the emulation of private practitioners. The report of the General Lying-in Hospital of York-road, Lambeth, for the year 1884 is before us, and calls for our hearty congratulations to the committee, and especially to the medical staff. The charity not only provides for the in-door accommodation in confinement of married women, but has an out-door branch of work; and under both heads the results are very remarkable. There were of in-patients 334, of whom only one died; and of out-patients 741, of whom none died. The medical report is modestly short. We could have wished for more information as to the methods by which such good results have been obtained. We may surmise, from Sir Joseph Lister's name as that of the consulting surgeon of the hospital, that antisepticism is the secret of the success. This explanation is confirmed by the Book of Rules of Nursing, to which reference is made in the report of the medical officers of the hospital, Dr. John Williams and Dr. F. H. Champneys, in which antiseptic injections figure largely. According to this manual every lying-in patient is douched night and morning, until the lochia have ceased for two days in succession, with an antiseptic solution of perchloride of mercury (1 in 2000 parts) at a temperature of 110°. Besides this measure, every precaution is taken, by ventilation and otherwise, to preserve the sweetness of the atmosphere, and the purity of hands, instruments, bedding, &c. The hospital is further useful as a training school for nurses, and in this capacity is in demand by an increasing number of candidates year by year. The institution seems in every way well worthy of support.

THE CAMDEN TOWN TRAGEDY.

AN inquest was held by Dr. Danford Thomas at Crowndale Hall, Crowndale-road, on March 11th, respecting the death of Charles Wheaton, who was alleged to have been shot by a fellow-lodger named John Rose. It transpired that the deceased and the supposed murderer were scarcely known to each other, and no motive could be found for the commission of the crime. We understand the prisoner has more than once been confined in a lunatic asylum, but as the case is *sub judice* we forbear commenting on its merits. From the evidence it seems that Wheaton was attacked whilst in bed, and that having received several revolver shots he rushed into the street. On his admission to the London Temperance Hospital it was found that he had four wounds, apparently produced by bullets, one each on the head, the face, the chest, and abdomen. It was surmised at first that the shot which struck the tenth left costal cartilage had travelled along the rib to the side of the spine, where it was found and extracted; but later, when symptoms of peritonitis supervened, it became apparent that the abdominal cavity had been penetrated. Two other bullets were removed during life, one from behind the left ear and the other from the sternum. The patient died on the third day. At the post-mortem examination it was found that the bullet which produced No. 1 wound struck the skull two inches and a half behind and half an inch above the upper attachment of the left ear, immediately over the lower part of the parieto-occipital suture. It had then passed forwards for about an inch. The hair was singed. The bone was not fractured, but a subjacent convolution of the brain was bruised. No. 2 wound consisted of a trench passing obliquely downwards and forwards on the left side of the face, the groove deepening from above downwards. The upper extremity of the wound was situate one inch and three-quarters in front and one inch below the external auditory meatus, and the adjacent portion of skin was peppered with large grains of powder. In a line

with the foregoing, and clearly made by the same missile, was No. 3 wound, over the middle of the sternum on a level with the lower border of the first costal cartilage. It passed downwards, backwards, and to the right, and ended opposite the first intercostal space, the sternum at this spot being slightly ploughed up. There were no powder marks around. No. 4 wound, the fatal one, was on the left side of the abdomen. The tenth costal cartilage was shattered. The omentum and jejunum were perforated, and the bullet having traversed the psoas muscle had passed backwards between the transverse processes of the second and third lumbar vertebræ and became arrested beneath the skin. There was general peritonitis, but the inflammation was most marked along the track of the bullet. Apertures corresponding in position with the orifice of the wound in the abdomen were found in the two shirts worn by the deceased man at the time of the affray; that in the outer shirt was surrounded by a blackened zone some two inches in depth, whilst the one in the inner was marked by a much narrower and fainter ring. No. 5 wound consisted merely of a furrow on the outer side of the left little finger, where the soft tissues had been torn up and stained by the bullet. With the exception of the last, all the wounds were evidently caused by a revolver fired close to the body; and the first two, though it was possible they might have been self-inflicted, could only have been so with the hand in an unusually strained position. For the wound behind the left ear to have been self-inflicted the shot must have been fired with the left hand. The haemorrhage and signs of inflammation about all the wounds showed the latter were received during life. The jury returned a verdict of death from peritonitis following a penetrating wound of the intestine, and held the prisoner chargeable with having caused the death of the deceased. Subsequently the prisoner was committed by the magistrate at the Clerkenwell Police-court to take his trial for murder at the next sessions of the Central Criminal Court.

THE PHYSIOLOGICAL ACTION OF HYOSCINE.

DR. H. C. WOOD of Philadelphia has recently published in the *Therapeutic Gazette* a series of observations on the physiological action of hyoscine. It has long been known from the researches of Ladenburg and others that henbane contains two active principles, amorphous hyoscyamine—which is quite distinct from true or crystalline hyoscyamine and hyoscine, an alkaloid yielding crystallisable salts. Dr. Wood in his observations has employed the hydrobromate almost exclusively, but in a few cases he resorted to the hydriodate. He finds that frogs are sensibly affected by $\frac{1}{65}$ of their weight of hyoscine, but that at least $\frac{1}{500}$ is necessary to produce a toxic action. The symptoms are very uniform. They consist of an increasing sluggishness, with a progressive loss of voluntary movement and a corresponding depression of the reflex activity, but without marked loss of sensibility. Death is brought about by failure of breathing, the heart beating for a considerable time after arrest of respiration. From this it would appear that in the case of the frog hyoscine acts as a motor-spinal depressant, killing by arresting respiration probably through a central influence. Any action that may be exerted upon the circulation is of a depressant character, but is so slight as to be of no importance. From a number of observations made on mice, cats, and other animals, it is seen that hyoscine acts upon mammals "chiefly as a spinal depressant; that it is a centric respiratory depressant, causing death by asphyxia; that it has very little effect on the circulation, what influence it exerts being in the normal animal set aside by the asphyxia it produces; that it does not paralyse the pneumogastrics; that in enormous doses it paralyses the vaso-motor system, and that on the heart itself its influence is very feebly depressant." Several experiments were made on the resident medical staff of the Philadelphia Hospital, and it was found that $\frac{1}{100}$ of a grain injected hypodermically always produced well-marked constitutional effects. The symptoms usually came on in about ten minutes, and consisted of dizziness, impairment of vision, dryness of the mouth, and an inability to walk straight. In some instances this was followed by deep sleep, lasting for many hours. Observations are being made on the clinical uses of hyoscine and it is anticipated that valuable results will be obtained especially in the treatment of certain forms of mania.

ALLEGED SUCCESSFUL TREATMENT OF HYDROPHOBIA.

A NATIVE surgeon, M. Nursimula, has written a letter to the editor of the *Times of India*, from which it would appear that he has treated successfully a case having all the symptoms of hydrophobia. The treatment adopted was the subcutaneous injection of a sixteenth of a grain of atropia. The breathing became infrequent (12 per minute), and the pulse slowed to the rate of 50 per minute. A quarter of a grain of morphia was injected hypodermically as an antidote to the atropia, and this was repeated several times. The symptoms disappeared the third day after the onset of the malady. The patient was a soldier, aged twenty-four, who had been bitten by a dog the week before the symptoms resembling hydrophobia appeared. If the case were one of hydrophobia, it must be allowed that the period of incubation was very short; the dog is not stated to have been mad, and it must not be forgotten that the presence of symptoms closely resembling, if not identical with, hydrophobia, do not *prove* that the case was one of genuine rabies.

FEES FOR NOTIFICATION OF INFECTIOUS DISEASES.

THE Health Committee of Birmingham have had under consideration the question of fees for the notification of cases of small-pox and scarlet fever, and have decided upon the following scale, to take effect after the 31st inst.:—"1. For the notification of cases where the patient is not removed to the borough hospital, 2*s.* 6*d.* 2. For the notification of cases where the patient is removed to the borough hospital, 5*s.* 3. For the notification of the existence of either of the diseases where more than one member of a household is affected at the same time, only a single fee will be paid, unless the patients are removed to the borough hospital; the fee of 5*s.* will be paid for each person so removed."

"DEATH AND THE DOCTOR."

OUR contemporary, the *Norwich Argus*, devotes a leader to the expression of its disapproval of the views of the coroner, Mr. Bignold, and of Dr. Doyle of Norwich, in reference to a case in which Dr. Doyle had been summoned out of his bed to testify to the death of a man who had expired in the night "plainly from apoplexy the result of an indigestible supper." We have not the full particulars of the case before us, so we write with some hesitation. But neither had the coroner, nor, for that matter, the *Argus*. We must say that the views of our contemporary on the respect due to the event of death (in which we entirely concur) would have been better enforced by descanting on the defects of the inquiry, rather than by reflecting on the doctor who left his bed to see the dead man and who was quite within his rights in complaining of the heartless want of public provision for the payment of medical men who do innumerable acts of humanity cheerfully and gratuitously in the dark hours of winter nights when their newspaper

critics are fast asleep. It is slight atonement for the *Argus's* strictures on Dr. Doyle that it devotes a line or two to the cheap praise of a noble and disinterested profession. The profession has been too much put off in this empty way. It will no doubt continue, as will Dr. Doyle, to act in the night as in the day. But that does not acquit the public and organs that should guide the public to a better recognition of their duties in regard to acts of mercy done in the night. We cannot conclude without a word on the unsatisfactory and inadequate inquiry into this case. The death of a human being unexpectedly in the night disposed of on the easy theory of an indigestible supper! This is disrespectful alike to life and to death. The theory has no basis, apart from a post-mortem examination, but it is flippantly adopted by our contemporary, who is in haste to devote a whole column of abuse to the doctor who left his bed to see the dead man.

OBSTETRICAL SOCIETY OF LONDON.

ON the 4th inst. Dr. Potter took the chair as President for the first time since his election, in succession to Dr. Gervis. There was a large attendance to hear the presidential address, which was listened to with marked approbation. After alluding to the wish of Dr. Gustavus Murray to postpone his candidature and not to hold office on this occasion, and also to the difficulty of following so judicious and so popular a president as Dr. Gervis, Dr. Potter reviewed the work of the Society and its objects, which he characterised as, first, political and social, and, secondly, scientific. He then gave suggestions for work in the future, and quoted Dr. West's introductory address of 1877 as to the position to be aimed at by obstetricians—"not that of mere specialists,..... but rather that of sound physicians and able surgeons, who for the public good have superadded to their general knowledge a particular acquaintance with certain departments of their art." He then expressed disapproval of the recent tendency to excessive local and surgical treatment of the diseases of women, to the exclusion of the constitutional aspect. The rest of the evening was occupied by the adjourned debate on extirpation of the uterus for cancer, arising from a paper by Dr. W. Duncan. The general sense of the whole debate seemed to be that for cancer of the cervix the operation is not justifiable, while for cancer of the body its justifiability is doubtful. We do not expect either operation to take root in England.

POISONING BY COLCHICUM.

A CASE of suspected poisoning by colchicum is just now attracting some attention in Paris. The accused is a person named Ribout, an artificial flower maker; and his wife having died suddenly, it was suspected that he had made away with her in order that he might marry his mistress. The remains of Madame Ribout were accordingly disinterred, and were submitted to a long and careful examination by M. L'Hôte, the chemical expert attached to the Paris Criminal Court. It is said that indications of the presence of colchicum were discovered, and that little doubt could be entertained that the unfortunate woman met her death from the administration of poison. It has long been known that meadow saffron is a powerful toxic agent. As far back as 1839 the case was recorded of a gentleman who took an ounce and a half of colchicum wine by mistake, and died in four hours. The symptoms are usually severe, and are fairly characteristic. At first there is burning pain in the stomach, with persistent vomiting and purging, the stools being mixed with blood. Irritation of the throat and intense thirst are soon added. The patient suffers from great prostration, pain in the head, a small weak or irregular quick pulse, muscular twitchings, and severe pains in the extremities and joints. In some instances the symptoms have been not unlike those of malignant cholera. At the post-mortem examination the stomach and intestines are usually found to be greatly inflamed, and purple patches are sometimes noticed on the skin and internal organs. A curious case of poisoning by "gout pills," composed chiefly of colchicum, was recorded in THE LANCET of March 15th, 1881.

"PROBABLY APOPLEXY."

AN inquest was held at Brookfoot on March 11th, touching the death of Elizabeth Beaumont, aged forty-seven. It appears from the evidence that the deceased had been somewhat excited on account of her daughter's marriage, and that she sat down in a chair in the pantry, and passed into a comatose condition, which her relatives mistook for natural sleep. She never recovered consciousness. The medical man summoned to deceased was not called at the inquest, but the coroner seems to have acted on the report of one of the witnesses, that in the opinion of the doctor death was due to apoplexy. We have it on the authority of Mr. G. A. Farrer that he expressed no such opinion. It is to be regretted that this gentleman was not asked to give his view of the case, for, to say the least, the death was not anticipated. The verdict of the jury was consistent with the facts deposed to at the inquest. Notwithstanding, we maintain that it is desirable in all cases where the cause of death is not manifest to take the evidence of a legally qualified practitioner. If the coroner is not a medical man, he cannot be expected to have the necessary knowledge to interpret the signs and symptoms indicating the mode of death described by ordinary witnesses.

MEDICAL HEROES.

AT a medical press dinner which took place at the end of last month in Madrid, there was present by special invitation Señor Fernandez Valdes, medical officer of the steamship *Gravina*, who was the means of saving the lives of 170 of the sailors of the Philippines. An official deed was also read setting forth the heroic and self-sacrificing services rendered to the sufferers during the terrible earthquake last Christmas-day by Dr. Miguel Hernandez Lozano, district medical officer of Pinos del Valle.

A HALFPENNY A WEEK.

THE Sheerness working men appear to be under the impression that satisfactory medical attendance, medicines, splints, &c., can be really obtained not only for themselves, but for their wives and children, for a halfpenny a week per head. An enthusiastic meeting has been held to promote a scheme for a "Medical Association" on the above terms. A statement was then made that the Portsmouth Association now contains 10,000 members, who actually pay their doctors —we wonder how many—between £300 and £400 per annum. If this is a fact, we can only express our astonishment that any medical man can be found to work on such unremunerative terms.

THE SPLEEN IN SYPHILIS.

THE view advocated by Mr. Jonathan Hutchinson that syphilis may be regarded as an acute specific fever in which the various stages are much more prolonged than in the ordinary acute specific fevers is one which cannot fail to keep the mind open to the possibility of the occurrence of those phenomena which are most usually associated with specific fevers. Facts dealing with the occurrence of alterations in the size of the spleen in syphilis are of course familiar to all, but the enlargement of the organ in the early stages of acquired syphilis still remains a debateable ques-

tion in the minds of some clinical observers. In a paper contributed to the *Vierteljahresschrift für Dermatologie und Syphilis* by Dr. Avanzini of Innsbrück, the author contends that the spleen undergoes demonstrable enlargement just prior to or in that stage of syphilis when the skin and mucous membrane are the seat of the ordinary secondary manifestations. He has also observed that after treatment diminution in size of the spleen sufficient to cause the disappearance of the cutaneous and lymphatic lesions does not take place.

A DEADLOCK IN LUNACY.

WE are very glad to find that workhouse authorities are declining to allow justices of the peace to any longer use those institutions as places of detention and remand for supposed or alleged lunatics. The deadlock created will hasten the search for a key to the difficulty.

THE total death-rate of Brooklyn for nineteen years (1848-1850 inclusive, and 1871-1876 inclusive, these being the only years of which the records are in a shape to be easily analysed) from all diseases was 116,910. Of these, 21,370 were cases of death from diseases of the nervous system. Deaths from accidents befalling the nervous centres, and deaths not directly due to nervous diseases, are not included in this total. The death-rate in the city of Brooklyn from nervous and mental disease may, therefore, fairly be said to be 19·43 per cent.

WE are informed that Her Majesty's Government has consented to distribute gratuitously to each registered member of the medical profession in the United Kingdom a copy of the revised edition of "The Nomenclature of Diseases," which has been prepared with much care and labour by the Royal College of Physicians. It is expected that the work will be in the hands of the profession within two months from the present time.

THE Committee of the Maidstone Local Board which manages the Infectious Diseases Hospital report that there are now three cases of small-pox. They advise an inspection of dustbins at the backs of cottages, and a report from the inspector of nuisances of the state of drainage of all the cottages. Alderman Spencer remarked on the advantage the hospital had proved to the town, and stated that its total cost during the last six months had been only £110.

La Gazeta Medica Catalana reports the case of a young primipara of feeble constitution, who, after the second month of pregnancy, was a great sufferer from vomiting. A variety of known remedies proved useless, when Dr. Mendez advised ether irrigation or spray on the epigastrium. The effect was instantaneous; vomiting at once ceased. It recurred twice during the pregnancy, but each time yielded readily to the local ether treatment.

WITH a view of being prepared for any emergency during the ensuing summer, the Port of London Sanitary Authority have decided to acquire an additional two acres and a half of land adjoining their Hospital for Infectious Diseases at Gravesend. Under any exceptional circumstances tents can be put up on the land. It is proposed to build a powerful steam launch for the conveyance of sick persons.

THE death is announced of Dr. Angel Villar, of Matías, Knight Grand Cross of the Order Isabel the Catholic, President of the Academy of Medicine and Surgery of Salamanca.

AMONGST the sick and wounded officers who have arrived at Cairo from the front are Staff-Surgeon Drew (suffering from hepatitis), Surgeon-Major W. H. Garde (suffering from dysentery), and Surgeon J. P. Myles (suffering from simple continued fever); they are all, however, reported to be doing well. The death of Surgeon Bradshaw at Korti on the 14th inst. from enteric fever is also announced. This is the second medical officer who has fallen a victim to that disease.

THE Vaccination Officers' Association has issued a first report, from which it would seem that the Association is in an active state, and doing good work in discussing questions affecting the working of the Vaccination Acts from the important standpoint of vaccination officers. Public vaccinators, medical officers of health, and others, are eligible as honorary members.

AT the meeting of the Metropolitan Board of Works on the 13th inst., recommendations of the Finance Committee that advances of £18,000 and £86,377 be made to the Metropolitan Asylums Board at the rate of 3½ per cent. were agreed to. The latter sum is to meet the expense of building the hospital at Winchmore-hill.

THE Rev. Henry Arnott, F.R.C.S., formerly Assistant-Surgeon and Lecturer on Pathology at St. Thomas's Hospital, has been appointed to the valuable rectory of Beckenham, in succession to the Rev. W. Cator, whose curate he formerly was. Mr. Arnott preached the sermon at Gloucester at the recent ordination.

CERTAIN new regulations for the examinations for the degree of Bachelor of Medicine of the University of Durham, to come into force on May 1st next, have been adopted, particulars of which will be given in our next issue.

WE are glad to learn from the *Boston Medical Journal* that the Index Medicus is to be continued "under the same conditions as heretofore," under the auspices of the publishing house of Parke, Davis, and Co.

THE Delegates of the Oxford Common University Fund have appointed Mr. Arthur Thomson, Senior Demonstrator of Anatomy in the University of Edinburgh, to a lectureship in Human Anatomy.

A PRIVATE letter dated Heidelberg, March 9th, is reported to contain an announcement of the serious illness of Von Bunsen, the distinguished chemist.

VOLUNTEER MEDICAL STAFF CORPS.—This corps is to be enrolled on April 1st. For the past year, however, the members of this corps have been drilling and acquainting themselves with the many duties devolving upon them. They are so far advanced, that it is believed the greater portion of the members of the corps will be pronounced efficient when enrolled. On Saturday, March 14th, the corps paraded, 300 strong, at Wellington Barracks, when it was inspected by Sir Guyer Hunter, K.C.M.G., in the presence of the Director-General of the Army Medical Department, Surgeon-General McKinnon, Brigade Surgeon Don, General Elkington, General Hall, and others. The corps, under the command of Mr. Cantlie, executed battalion movements with precision, and the stretcher drill was excellent. Seven companies were on parade, drawn up in the order of their enrolment—viz., Charing-cross, University, London, St. Bartholomew's, Middlesex, St. Thomas's, and Guy's. Two companies of the corps are going to take part in the Brighton review. One company, sixty strong, has volunteered its services for Egypt, but the Army Medical Department does not require their services at present.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 6189 births and 3779 deaths were registered during the week ending the 14th inst. The births were 375, and the deaths 152, above the average weekly numbers during 1884. The annual death-rate in these towns, which had not exceeded 21·4 and 20·6 per 1000 in the preceding two weeks, rose last week to 22·5. During the first ten weeks of the current quarter the death-rate in these towns averaged 22·5 per 1000, against 24·7, the mean rate in the corresponding periods of the nine years 1876-84. The lowest death-rates in these towns last week were 13·5 in Birkenhead, 15·5 in Portsmouth, 16·0 in Hull, and 16·8 in Brighton. The rates in the other towns ranged upwards to 27·6 in Newcastle-upon-Tyne, 28·6 in Manchester, 33·9 in Oldham, and 48·3 in Sunderland. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 377 and 395 in the previous two weeks, further rose to 398 last week; they included 129 from measles, 119 from whooping-cough, 41 from diarrhœa, 31 from scarlet fever, 31 from "fever" (principally enteric), 27 from small-pox, and 20 from diphtheria. No death from any of these zymotic diseases was recorded last week in Brighton; whereas they caused the highest death-rates in Bristol, Cardiff, and Sunderland. The highest death-rates from measles occurred in Huddersfield, Cardiff, and Sunderland; from whooping-cough in Preston and Bristol; from scarlet fever in Halifax and Wolverhampton; and from "fever" in Norwich. The 20 deaths from diphtheria in the twenty-eight towns included 8 in London, 3 in Liverpool, 2 in Nottingham, and 2 in Oldham. Small-pox caused 45 deaths in London and its outer ring of suburban districts, 3 in Manchester, 1 in Bradford, and 1 in Cardiff. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had declined in the preceding three weeks from 1223 to 988, further fell last week to 898; the cases admitted were 104 last week, against numbers declining from 255 to 94 in the previous four weeks. The Highgate Small-pox Hospital contained 92 patients on Saturday last, 16 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 384 and 374 in the preceding two weeks, rose last week to 455, but were 30 below the corrected weekly average. The causes of 96, or 2·6 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Leeds, Leicester, and in three other smaller towns. The largest proportions of uncertified deaths were registered in Oldham, Hull, and Wolverhampton.

HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 24·6 and 22·8 per 1000 in the preceding two weeks, rose again to 24·4 in the week ending the 14th inst., and exceeded by 2·3 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 16·6 in Perth and 17·5 in Leith, to 24·3 in Aberdeen and 29·9 in Glasgow. The 595 deaths in the eight towns included 22 which were referred to whooping-cough, 22 to measles, 17 to diarrhœa, 13 to scarlet fever, 8 to diphtheria, 6 to "fever" (typhus, enteric, or simple), and not one to small-pox; in all, 88 deaths resulted from these principal zymotic diseases, against 82 and 71 in the preceding two weeks. These 88 deaths were equal to an annual rate of 3·6 per 1000, which was 1·3 above the mean rate from the same diseases in the twenty-eight English towns. The 22 deaths from whooping-cough showed an increase of 3 upon the number in the previous week, and included 9 in Glasgow, 4 in Edinburgh, and 4 in Leith. Of the 22 fatal cases of measles, 21 occurred in Glasgow. The 17 deaths attributed to diarrhœa also exceeded the numbers in recent weeks. Ten of the 13 fatal cases of scarlet fever and 5 of the 8 of diphtheria were returned in Glasgow. The 6 deaths referred to "fever" included 2 in Glasgow and 2 in Greenock. The deaths referred to acute diseases of the respiratory organs in the eight towns, which were 122 last week, were 5 above the number returned in the corresponding week of last year. The causes of 93, or nearly 15 per cent., of the deaths registered in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 30·3 and 32·7 per 1000 in the preceding two weeks, further rose to 39·5 in the week ending the 14th inst. During the first ten weeks of the current quarter the death-rate in the city averaged no less than 33·4 per 1000, the mean rate during the same period not exceeding 21·5 in London and 20·2 in Edinburgh. The 267 deaths in Dublin last week showed a further increase of 46 upon the high numbers returned in recent weeks, and included 11 which were referred to measles, 8 to "fever" (typhus, enteric, or simple), 5 to diarrhœa, 4 to whooping-cough, 2 to scarlet fever, and not one either to small-pox or diphtheria. Thus, 30 deaths resulted from these principal zymotic diseases, against 18 and 27 in the preceding two weeks; they were equal to an annual rate of 4·4 per 1000, the rate from the same diseases last week being but 2·1 in London and 1·9 in Edinburgh. The 11 fatal cases of measles in Dublin, which had been 8 and 10 in the previous two weeks, further rose to 11 last week. The 8 deaths from "fever," and the 5 from diarrhœa, also showed a further increase upon recent weekly numbers. The fatal cases of scarlet fever, on the other hand, were fewer than in any previous week of this year. Three inquest cases and 4 deaths from violence were registered within the city; and 94, or more than a third, of the deaths were recorded in public institutions. The deaths of infants showed an increase, and those of elderly persons considerably exceeded the numbers in any previous week of this year. The causes of 37, or nearly 14 per cent., of the deaths registered in the city last week were not certified.

HEALTH CONDITION OF SOUTHPORT.

A voluminous pamphlet has recently been published by Dr. Strethill H. Wright, the main object of which seems to be to warn the ratepayers of Southport that the vital statistics of that place issued by the sanitary authority are untrustworthy, and give a far too favourable impression of its sanitary condition. Dr. Wright asserts confidently that the present population of Southport is considerably over-estimated, the effect of which would undoubtedly be to under-state the death-rate. It would be out of place to attempt a discussion of the main point in dispute—namely, the present population of Southport; but some of the issues raised by Dr. Wright are of more than local interest, bearing as they do upon the construction of local vital statistics, and upon their value as a test of sanitary condition. We have often found reason to complain of defects in the reports of medical officers of health similar to those pointed out by Dr. Wright in the reports issued by Dr. Vernon, the medical officer of health for Southport. It is, in the first place, essential that the method employed for estimating the population of each sanitary district should be clearly described. Now it appears that the enumerated population of the Borough of Southport was 18,086 in 1871, and had increased to 32,206 in 1881, and Dr. Vernon's estimate for the middle of 1883 is stated to be 35,065. There can be no doubt that Dr. Vernon should describe his method of arriving at this estimate, which is clearly not arrived at by the Registrar-General's method of assuming that the rate of increase that prevailed between the last two censuses has since been maintained. The rate of increase of population in Southport during the last intercensal period was exceptionally large, and we are not in a position to support or to deny Dr. Wright's assertion that since 1881 there has practically been no increase, but all who are interested in the vital statistics of Southport are bound to know upon what principle the population of the borough is officially estimated. Dr. Wright next asserts that Dr. Vernon excludes from the mortality statistics of the borough the deaths of borough residents recorded in the Union Workhouse and in the Fever Hospital, both situated outside the borough. There can be no doubt that this is unsound both in theory and practice, and is none the more defensible because other reports than those of Southport err in the same direction. Another objectionable feature of the Southport reports, fairly criticised by Dr. Wright, is what Dr. Vernon calls the "local" rate, obtained by the elimination of a certain number of deaths, of "bad lives imported." For instance, it is stated that of 568 deaths in Southport in 1881, 106 were of persons said to have resided in Southport under one year:

Dr. Vernon, by some method of estimate not stated, concludes that 90 of these were of "bad lives imported," thus making a large reduction in the death-rate, but one which is open to grave objection. When Dr. Vernon leaves out of account the workhouse deaths belonging to his population and deducts a large proportion of deaths on very doubtful authority, he appears needlessly to invite incredulity as to the value of his statistics. Dr. Vernon is not alone in his attempt to improve his death-rate by a liberal correction for deaths of visitors. This is a tempting but a dangerous practice, and should at any rate not be attempted unless the method of correction is most precisely described. The importance of health reputation to Southport is so great, and the impossibility of constructing sound vital statistics without a trustworthy estimate of population is so patent, that the Town Council, as the sanitary authority of the borough, should be induced to undertake a local census, which has in other places been carried out at a very moderate cost.

THE SERVICES.

THE Army medical officers recently inspected, at Woolwich Arsenal, one of the two Döcker tent hospitals supplied for use in Suakim. These tents or huts are constructed by Messrs. Christoph and Unmack of Copenhagen, and appeared to meet the approval of the medical staff by their sanitary arrangements and general suitability for a hot climate. Each tent or hut is 72 ft. long by 20 ft. wide, its height being 13 ft. Each tent has accommodation for fifty patients, forty-four in two large wards at each end, and six in a private ward.

The Assistant Professorship of Surgery at Netley having been vacated by Surgeon-Major R. Tobin, who has been *ordered* on foreign service, the duties will for the present be performed by Surgeon-Major O. Codrington, M.D. It is understood that the appointment will be conferred upon Surgeon-Major C. H. Y. Godwin, late medical officer of Woolwich Arsenal, where he was very successful in applying the antiseptic system to the numerous severe injuries with which he had to deal.

Surgeon-General J. Irvine, Principal Medical Officer to the Army of Occupation in Egypt, has been selected for a similar position to her Majesty's forces stationed in Madras.

ADMIRALTY.—The following appointments have been made: Surgeon Francis G. Wright, to the *Bullfrog*; Charles G. Maclagan to be Surgeon and Agent at Berwick and Cheswick.

ARTILLERY VOLUNTEERS.—1st Norfolk: Acting Surgeon George Henry Cressey resigns his appointment.

RIFLE VOLUNTEERS.—1st Forfar (Dundee): Acting Surgeon William Gibb resigns his appointment.

Correspondence.

"Audi alteram partem."

CHLOROFORM *v.* ETHER.

To the Editor of THE LANCET.

SIR,—My attention has only just been called to a letter from Mr. George E. Walker of Liverpool in your issue of last week. In this letter Mr. Walker states, as his opinion, that in the production of complete anæsthesia there is little or no difference between chloroform and ether, whilst in the after-effects, especially as regards vomiting, nausea, and depression of spirits, chloroform is much superior to ether. Now, this is exactly contrary to what I have been endeavouring for years to demonstrate, and I cannot see on what grounds Mr. Walker bases his opinion, which I not only consider erroneous as to fact, but dangerous in the extreme. May I point out to him that the great difference between the two is that ether is a cardiac stimulant, whilst, on the other hand, chloroform is a depressor of the heart's action; that the former never kills by stopping the heart, whilst, on the contrary, the principal cause of death in fatal chloroform cases is the sudden cessation of the heart's action. I do not deny that dangerous symptoms occasionally arise during the administration of ether; but when these do occur the respiratory organs are affected and there is plenty of time for the proper application of remedies, these symptoms being rarely followed by death. In the fatal cases of chloroform administration death begins at the heart, and is instantaneous. If Mr. Walker consults the statistics of fatal cases, he will find that the proportion of deaths in chloroform administration is about 1 in 4500, whilst that of ether is only 1 in 20,000. Granted that there is more vomiting, nausea, and depression of spirits, even then I reply that these trifling ailments do not counterbalance the great advantage of the safety of the one anæsthetic over the other; moreover, I affirm that, if ether be rapidly given so that a small quantity suffices to produce anæsthesia, then the insensibility is not followed by those after-effects of which he complains.

I am not fond of rushing into print, but I plead as my excuse my sincere desire that your columns should not be the means of propagating the suggestion that chloroform is as safe to administer as ether.

I am, Sir, yours obediently,

Maddox-st., March, 1885. WOODHOUSE BRAINE, F.R.C.S.

"WHAT WAS THE CAUSE OF DEATH?"

To the Editor of THE LANCET.

SIR,—My attention has just been directed to Mr. Knight's communication in your issue of the 7th inst. In consequence of the tone of his letter, and of its many inaccuracies, I desire the privilege of stating my version of the case, and of placing before the profession some additional facts which were not mentioned at the trial.

At 10 P.M. on Jan. 5th I had an interview at the Southern Hospital with the senior house-surgeon and Mr. Knight, and I gave to Mr. Knight a letter which I had received from the solicitor for the defence, in which it was stated that I had the coroner's permission to examine the body of Johnson. Owing to the hesitation exhibited by Mr. Knight to permit the examination, I suggested that he should think the matter over, and I arranged to meet him at 11 A.M. on the following morning. I arrived at the hospital within five minutes of the time specified, and was informed by the porter that Mr. Knight had gone out. After some trouble I found Mr. Gordon, the senior house-surgeon, in one of the wards, and he kindly left his work and came to the post-mortem room, and remained with me during my examination of the body.

The following is a copy of Mr. Knight's depositions before the coroner: "Externally, I find on the top of the head two wounds, one of them an inch in front of the centre, and an inch to the right of the middle; it was pretty clean cut, but with slight contusion. It was a small wound half an inch long and a quarter of an inch deep. An inch behind and two inches to the right of this wound I found another wound similar in every respect to the first. There was a third cut on the chin over the lower jaw. This wound was in the shape of the letter Y, about three-quarters of an inch long by one-third of an inch in depth. I found some bruises; one over—i.e., above the left eye, and another just below or under the right eye. He had also an abrasion on the middle of the nose. The right eyeball itself was bruised. He had a slight abrasion of the fore or first finger of the right hand, and some blood on the other fingers. He had a small abrasion two inches below the right elbow. He had a little blood on the left hand, but no injury. On the right leg there was a small abrasion four inches below the knee. I have now described all the injuries to the deceased outwardly visible. On opening the body I found all the organs pretty healthy. There was slight congestion of all the organs, but their state was consistent with perfect health. There was no injury at all to the bones of the head or body. The cause of death in my opinion, judging from what I have heard to-day from the witnesses and from my post-mortem examination, has been concussion of the brain, due to the blows on the head. There was no natural cause present sufficient to account for death. The condition of the organs gave no indication at all of alcohol."—By Mr. Maddin: "The deceased's lungs were slightly congested. The heart was quite healthy. It is quite possible that if the deceased had been on a heavy spree of drink, the congestion of his lungs might be in consequence of that."

The following are extracts from my depositions before the coroner:—"I substantially agree with Mr. Knight's evidence as to the external injuries upon the deceased. I differ from

him as to the internal condition of the body. The main bloodvessel of the heart, the aorta, has extensive and long-standing disease. The left lung is almost completely semi-solid. The right lung is also extensively semi-solidified. I do not think the solidified condition of the lungs is due to post-mortem changes from lapse of time. I found all the organs well preserved, and quite fresh. I could not be positive as to the cause of deceased's death. In the absence of any injury at all the condition of the deceased's lungs would quite account for death. I would attach more importance to the butting spoken of than to any of the other injuries. A man in deceased's condition to receive a severe butt in the stomach would be likely to suffer from a serious nervous shock, which would affect the heart's action and accelerate death. In the condition of the deceased's heart and lungs the effects of struggling would be sufficient to cause death."

Additional facts and remarks.—A calcareous plate about an inch long was transversely embedded in the aorta embracing the openings of both coronary arteries. Yet Mr. Knight, in the coroner's depositions, says that "the heart was quite healthy," and makes no reference whatever to this condition of the aorta. After my evidence he appears before the magistrate, and in these depositions he says, "There was extensive degeneration of the aorta."

No section of any kind whatever had been made of the left lung when I examined it. This condition, as well as the calcareous plate, I pointed out to Mr. Gordon, and yet Mr. Knight informs us that "the examination occupied three hours, and every organ and every cavity was carefully examined," and that the honorary surgeon and Mr. Knight's two colleagues were present during that time. I confess I cannot believe that Mr. Gordon would spend three hours examining a body and neglect to examine one lung and make only one section through the other, which was distinctly diseased. Nor shall I believe that Mr. Little and Mr. Gordon will state that the lungs of the deceased were only "slightly congested," and that the condition of all the organs was consistent with "perfect health." Why did Mr. Knight secure at the assizes the services of his junior, Mr. Dixon, instead of his senior, Mr. Gordon? I know that an urgent message was despatched for Mr. Little, but he was indisposed, and unable to appear.

The deceased was forty years of age and kept a brothel. All the witnesses to the assault are unfortunates and lodged in his house. One witness speaks of blows by a belt buckle, another of a ginger-beer bottle, and a third of butting. On finding such a marked divergence of opinion between Mr. Knight and myself I caused the defence to make application to the coroner for him to appoint a distinguished member of the profession to examine the body before burial. I submitted the following list—viz., Mr. Rushton Parker, Drs. Alexander, Glynn, and Cameron. The coroner would grant permission, but would not authorise any of those gentlemen to act.

Mr. Knight summons both the judge and the jury to his aid in deciding the pathological differences between us. I have no objection to this rough appeal in the absence of a better one. The prisoners were arraigned on a charge of murder, and were found guilty of manslaughter and sentenced to eighteen months' imprisonment. From these facts Mr. Knight infers that the pathological points have been decided in his favour. I have no doubt the inference is quite as scientific as his evidence.

The scraps from the daily papers which he has interlarded his letter with and the learned discovery which he has so kindly communicated to me—viz., "That the heart and the aorta were not quite the same"—I must gratefully acknowledge as tokens of good taste.

I am, Sir, yours truly,

WILLIAM WHITFORD, M.D.,
Honorary Assistant Surgeon to Stanley Hospital, and Senior Assistant Surgeon to the Liverpool Cancer and Skin Hospital.

Shaw-street, Liverpool, March 16th, 1885.

HICKS *v.* BEDFORD AND OTHERS.

To the Editor of THE LANCET.

SIR,—I have no doubt that your attention has been drawn to this case, a full report of which appeared in last week's issue of *The Times*, and from which we find that in summing up the case the judge laid down a view of the law bearing on the admission to and detention of lunatics in the insane wards of workhouses which must come in the nature of a very disagreeable surprise to many masters, relieving officers and others, who have for many years past been in the habit of admitting and sending lunatics into workhouses for detention and treatment—especially in these days, when there are so many to be found ready and anxious to bring actions against all who have more or less unwittingly sinned against the provisions of the various statutes in that behalf.

Mr. Justice Wills is reported to have stated in his charge to the jury that "there is no statutory power whereby anyone, lunatic or otherwise, can be detained in a workhouse against his will," and the lunatic wards thereof can only be utilised for the temporary reception of persons in the receipt of in-door relief who become insane pending steps being taken to remove them to an asylum. Acting on this view of the law, the jury gave a verdict of £50 damages against Mr. Douglas, the master of the Marylebone Workhouse, and of £200 collectively against four others who had been made parties to the suit brought at the instance of the plaintiff Hicks, who it was shown had been suffering from delusions at the time of her removal to the Marylebone Workhouse.

Now, this view of the provision of the statute may be, and probably is, correct; but, if so, it has neither been so understood nor acted on, for it is only a very fractional number of the inmates of workhouse insane wards who find their way there from the body of the house; by far the greater proportion come from outside, and for convenience may be arranged under the following three heads:—

1. Undoubted paupers of whose insanity the relieving officer has obtained some idea of, and who are sent into the insane wards so that a medical examination might be made of their mental condition, and, if found to be deranged, with the view to their removal to an asylum.

2. Persons not paupers who are similarly sent in on the order of the relieving officer, or, it may be, taken there by their friends, with the view to their being sent to the county asylum, the friends paying for their maintenance, or for their being transferred to Bethlem or kindred establishments, or, it may be, to some private asylum, when their relatives are sufficiently well off to pay for their maintenance.

3. Cases brought by the police. These form by far the largest proportion, and they include every grade of society, as anyone conversant with workhouse management can testify to.

Now, this condition of things has gone on unchallenged for as long as I have had to do with medical relief to the poor, and that is upwards of forty years: and that such has been the practice cannot be denied either by the late Poor Law Commissioners, the Poor Law Board, by the present Local Government Board, or by the Lunacy Commissioners. But now we are suddenly pulled up by a judicial decision, that this procedure, which has acted beneficially in the past, is altogether illegal, and as a result thereof this verdict is come to.

It has been stated that the Lord Chancellor is about to bring in a Lunacy Act Amendment Bill. If he does, I trust that the influence of your journal may be brought to bear so that the framers of the Bill may make provision to deal with the admission to and detention of lunatics in workhouses a little more in accordance with common sense and the fitness of things than now holds good.

In conclusion, I am very pleased to state that the guardians of the Marylebone Workhouse have decided to pay Mr. Douglas's costs, &c. It is true that they could not well do otherwise, seeing that he has only carried out the practice which, to my personal knowledge, has been adopted in that workhouse for the last forty-seven years.

I am, Sir, yours obediently,

JOSEPH ROGERS.
Montague-place, Russell-square, March 11th, 1885.

THE CASE OF DR. BRADLEY.

To the Editor of THE LANCET.

SIR,—My attention has been called to the comments in the medical journals upon this case, and especially to a letter from Mr. Palmer, surgeon, of Whittington, which appears in THE LANCET of Jan. 31st last. As counsel for Dr. Bradley, my opinion that he was entirely innocent will probably carry little weight, but such nevertheless is my view; and the case is an illustration of the desirability of establishing without delay a Court of Criminal Appeal. However, I do not wish to enter upon that question now, nor into the facts

of this case, which seem to me to be accurately stated in the several articles and letters which have appeared upon this subject. Of course I was thoroughly aware that epileptics are frequently subject to delusions after a seizure; and this fact I was desirous of establishing before the jury. Unfortunately no scientific witnesses had been provided on Dr. Bradley's behalf, and therefore the only professional witness upon whom I could rely for information upon this subject was Mr. Palmer, who was called on behalf of the prosecution. I was told on the morning of the trial that he might be relied upon as a witness whose scientific views were in accordance with the theory of the defence, and therefore proceeded in cross-examination to approach the questions upon which I was desirous of eliciting information. A very few questions satisfied me that Mr. Palmer, from some cause or other—nervousness possibly—was what in legal circles would be called a "hostile witness"; and therefore, with the full concurrence of my experienced junior, Mr. Richard Harris, I determined to let Mr. Palmer leave the box and rest the case upon the improbability of the prosecutrix's story in preference to examining a witness of whose evidence I had no "proof," and whose answers seemed likely to be—to say the least—uncertain in their tendency. My recollection differs from Mr. Palmer's as to what he said about the duration of the fit, but I have no note of the evidence before me. I should not have troubled you with these observations but for the fact that Mr. Palmer seems to think that counsel did not sufficiently avail themselves of his valuable testimony. No one could regret more than myself and my learned friend that the evidence of an "independent witness" could not under the circumstances be made in the least degree available for the accused, and I regret now that the novelty, doubtless, of Mr. Palmer's position in the witness-box should have prevented him from making apparent that sympathy which we now know from his letter that he throughout felt for Dr. Bradley.

I am, Sir, yours faithfully,

Temple, March 11th, 1885. MARSTON C. BUSZARD.

INSTRUMENT FOR THE REMOVAL OF FALSE MEMBRANE AFTER TRACHEOTOMY.

To the Editor of THE LANCET.

SIR,—I wish to introduce to the notice of the profession an instrument I have devised for the purpose of relieving the dyspnœa, especially common in children, which is so often fatal in diphtheria, and which is caused by the false membrane acting as a plug in the air-passages and impeding respiration. It is for use in those cases where tracheotomy has been performed, and where for some reason the oiled feather will not do its work. It can be used at any period subsequent to the operation without removing the tracheotomy tube. It does its work by suction.

The instrument consists of a glass tube, 1½ in. in superficial diameter for a child and 2¼ in. in length. The opening at one end is free, and the tube is here shaped at its edge so as to fit the convexity of the throat. The other end is closed by a metal cap, from the centre of which projects a metal tube, about 1¼ in. long, communicating with the interior of the glass tube. A piece of indiarubber piping about a yard in length is fitted tightly on to the metal tube. When it is wished to aspirate the trachea, the free end of the glass tube is placed over the tracheotomy wound, leaving a margin of skin between the edge of the tube and the incision all round. The tracheotomy tube is not withdrawn. Suction is applied to the free end of the indiarubber piping by means of the exhausting syringe which goes with the instrument. By these means a partial vacuum is made in the glass tube, and it adheres to the skin by atmospheric pressure. Air rushes up from the lungs through the tracheotomy tube to restore equilibrium, and the obstruction is carried along with it.

By the kind permission of Dr. Moore and Mr. Bowlby several experiments have been tried with the instrument in the post-mortem room at St. Bartholomew's Hospital, at which place I am a student. Two instances will suffice. In one case I injected about an ounce of vaseline and zinc ointment into the trachea of an adult, having previously done tracheotomy. A rather larger syringe than the one now with the instrument was used, and most of the substance injected came up through the tracheotomy tube (which was tied in) at the first stroke of the syringe. On continuing to work the syringe, the rest quickly followed. On opening the trachea it was found empty, with the exception of a small quantity of the substance, which had lodged in the upper part above the tube; some was also found in the divisions of the bronchi. In the second case, also that of an adult, the syringe used was the one now with the instrument. About three-quarters of an ounce of vaseline and zinc was injected. Two or three strokes of the syringe brought up this, which was followed by about four ounces of bloody fluid, which had flowed down into the trachea from a fractured base of the skull. The glass tube of the aspirator was filled, and about half filled a second time with this fluid. The syringe was worked pretty vigorously. On opening the trachea it was found empty. The instrument has also been experimented with in the case of a child who had died in the hospital, with similar results.

I remain, Sir, yours sincerely,

BERTRAND SHADWELL.

Bernard-street, Russell-square, Feb. 25th, 1885.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

COLLIERY EXPLOSIONS AND THEIR CAUSES.

THE recklessness displayed by miners was well pointed out the other day at the Durham County Police-court, when two lads were charged under the Mines Regulation Act with wilfully damaging a safety lamp in one of the mines in the district. The lads, it appeared from the manager's statement, who prosecuted, had taken a plate-nail and shaped it like a key; they then opened the lamp, took the wick out, and also the gauze off the lamp. The lives of about 300 men and boys were in danger through their reckless act, and it is no wonder that the manager wished them to be flogged if the law would permit, as fining them would only punish the parents. They got off, however, with a fine of five shillings, the magistrates leaving the flogging to "the discretion of the parents." Concerning the late sad disaster at Usworth, a correspondent writes to our papers to say that he cannot understand why our colliery engineers do not use Fleuss's apparatus when exploring the mines after an explosion, and points out in support of his view that at the meeting of the British Association at Montreal Mr. J. Clarke Hawkshaw, the engineer of the Severn Tunnel, described the explorations made when the tunnel was flooded in the following words: "To still further reduce the flood of water, an attempt was made by divers to shut a door across the drifting under the Severn about 330 yards from the bottom of the shaft, and thereby cut off the water flowing into the long driftway under the river. Divers in the ordinary dress failed to reach the door, but one, named Lambert, volunteered to go to it alone with Fleuss's apparatus. He succeeded in reaching the door and closing it, being under water without any communication with those above for one hour and twenty-five minutes." Mr. R. S. Newall of Gateshead, who writes the letter I refer to, says, "If a man can remain so long under water without any communication with the outer world, he can certainly walk more easily through an atmosphere of carbonic acid, and without the assistance of a mouthful of nails!—which, by the way, is one of the most ridiculous experiments I have read of for many years." Mr. Newall points out that every colliery ought to have several Fleuss's apparatus at hand, and that many a life would be saved if they were used.

A NEW AMBULANCE LITTER.

Mr. Robert H. Mushens, Secretary to the Sunderland Provident Dispensary, and the inventor of an ambulance emergency case which has met with considerable acceptance in many parts of the country, has just completed an ambulance litter which can be used in conjunction with or separately from the ambulance case. It consists of two brass tubes closed at the ends, eight feet in length. These are kept in position by two crossbars with hooks at each end, and secured with set screws. A piece of tarpaulin six feet in length runs between the crossbars, to one of which a pillow is attached, and two shoulder-straps or slings complete the arrangement.

THE CARRIAGE TAX.

The agitation against the continuance of the carriage tax has been taken up and carried on with much spirit and determination in the north of England. I have just seen a circular letter addressed to each member of the House of

Commons by Mr. John Philipson, the chairman of the movement here, in which the objections to the tax are forcibly and ably set forth. The matter is one which directly affects a large proportion of our *confrères* here and elsewhere over the country; so it is to be hoped that the efforts of Mr. John Philipson and others who are working so hard on the subject may be soon crowned with success.

THE DISTRESS IN THE NORTH.

At last there is a rift in the cloud which has so long hung over our industrial centres in the north. At Sunderland the returns showed a weekly decrease of 156 families on the distress fund. In Newcastle and Gateshead large numbers of working men are obtaining employment, and, the weather being very favourable, it is supposed that the relief operations may be soon brought to a close.

SUNDERLAND MORTALITY.

The death-rate in Sunderland last week was 48·1 per 1000, 116 deaths having occurred. In the previous week the death-rate was 41·9; in the corresponding week of last year it was 28·2. Last week there were forty-five deaths from measles, and fifteen suspected to have been caused by the disease, representing a death-rate from that cause alone of 24·9. The death-rate from ordinary causes was 23·2 per 1000. Since the commencement of the epidemic in January there has been a total of 217 deaths.

Newcastle-upon-Tyne, March 17th.

IRELAND.

(From our own Correspondent.)

ROYAL UNIVERSITY OF IRELAND.

IT is generally conceded that this University should, from the large number of its graduates, including those of the late Queen's University, possess one or two members to represent it in Parliament. It is probable that the subject will be ventilated in the House of Commons by Dr. Lyons, M.P. for Dublin, who, it is stated, has received promises of support from both Liberal and Conservative members of the House. One important fact should not be lost sight of—viz., that the number of graduates of the Royal University exceeds that reached by the London University in 1875, when that institution was accorded representation in Parliament.

JERVIS-STREET HOSPITAL, DUBLIN.

The additions to this hospital are now almost complete, and it is rumoured that a probability exists that H.R.H. the Prince of Wales will formally open the new building during his visit to Dublin early in April. The building has a frontage of 167 ft. by 100 ft. in height, and is substantially constructed. On the ground-floor, and the three storeys above, the wards are situated. It is furnished with staircases at either end, extending to the terraced roof, united to each other by glass corridors on each storey. The four main wards are of considerable extent, and the ventilation is on the most approved principles. A peculiar feature exists in the arrangement of the roofs of the buildings, which are flat, asphalted, and surrounded by a balustrade, so as to form a terrace for use by convalescent inmates of the hospital. From each storey access is obtained to the roof by means of a hydraulic lift. The cylinder which works the car can raise a load of 1200 lb., 154 gallons of water being used in raising that weight 75 ft. It is intended to extend the northern and southern wings eastward at some future date, arrangements for this purpose having been prepared in the designs for the completion of the hospital buildings.

CORK FEVER HOSPITAL.

During last year, although about thirty more cases of scarlatina, as compared with the previous year, were admitted, not a single death from this disease took place in this hospital. The mortality from typhus and enteric fevers amounted to 4 per cent., and from pneumonia 3·1—results which will compare favourably with those of any institution of a similar kind.

SIR PATRICK DUN'S HOSPITAL, DUBLIN.

The governors of this hospital are anxious to erect on the hospital grounds a detached building for the treatment of fever, small-pox, cholera, and other infectious diseases, and have commenced a subscription list for the purpose, contributions to which they solicit.

THE CONVALESCENT HOME, STILLORGAN.

This valuable institution has existed for seventeen years, but for the last few years the accommodation it provided has been found to be most inadequate. The Committee accordingly advertised for tenders for additions to the hospital, and ultimately accepted one amounting to £2200. The additional buildings are now nearly complete, while the building of the Napier wing, commenced at the same time, has made satisfactory progress, and when finished will add a new feature to the institution by extending its advantages to those who are in a position to contribute towards the expenses of their maintenance. Dr. Denham, one of the visiting physicians, having retired from practice, the vacancy has been filled by the appointment of Dr. Richard A. Hayes.

NATIONAL EYE AND EAR INFIRMARY.

During last year in the Dispensary for Diseases of the Throat, which was established two years since as an adjunct to the Ear Department, 131 new patients were treated, of whom a large proportion consisted of aural patients who were found to have throat complications. Both in the wards and the extern department the numbers obtaining advice have greatly exceeded former years, but the number of annual subscribers have not increased as could be wished.

On the 10th prox. his Royal Highness the Prince of Wales will lay the foundation stone of the New Science and Art Museum and National Library, Dublin. The buildings will cover an area of about one acre and a half, and the estimated cost will be £120,000.

Dr. Norman, late resident physician of Castlebar Lunatic Asylum, has been presented with an address and testimonial from the staff of that asylum, on his transference to the Monaghan Asylum.

Dublin, March 17th.

PARIS.

(From our Paris Correspondent.)

THE DIVULGENCE OF PROFESSIONAL SECRETS.

I ALWAYS understood that the divulgence of a professional secret constituted a criminal offence only when accompanied by evidence of malice; but the following example would seem to show such a conclusion to be erroneous. It may be recollected that after the death of the celebrated painter, Bastien-Lepage, which took place about the 12th of December last, several articles were published in the daily papers reporting the circumstance, in doing which the most uncharitable insinuations were made in some of them as to the nature of the malady from which the deceased suffered. After reading these reports, Dr. Watelet, his medical attendant, sent a letter to a morning paper to refute them, and at the same time mentioned that his patient died from a cancerous affection. This aroused the indignation of the judicial authorities, in consequence of which Dr. Watelet was sued before the Correctional Court last week. The judge admitted that the intention on the part of the defendant was praiseworthy, yet, as the act constituted a breach of the penal code, he was condemned to pay a nominal fine of 100 francs, and the editor of the paper in which Dr. Watelet's letter appeared was fined 16 francs for complicity. This case and the following prove how extremely difficult and delicate is the position of a medical man in his relations to society. About thirty years ago Dr. Delpech, a celebrated physician of Montpellier, was assassinated by one of his patients under the following circumstances. The Doctor having learned that his patient, who was suffering from a contagious malady, was engaged to be married to a young lady, the daughter of an intimate friend of his, advised him to discontinue his addresses, and threatened that if he persisted in his intentions he would expose the nature of the malady to the parents of the young lady. This, however, had no effect on the young man, and Dr. Delpech, seeing that his remonstrances were of no avail, informed the parents of the disease from which their intended son-in-law was suffering, in consequence of which the marriage was broken off. The young man, irritated, went to the Doctor's house and shot him dead. He was arrested, and tried before the Supreme Court, but acquitted.

RETIREMENT OF PROFESSOR BOUCHARDAT.

Dr. Bouchardat, Professor of Hygiene at the Paris Faculty of Medicine, has, after a service of nearly forty years, retired, and his name is transferred to the list of Honorary Professors.

Paris, March 17th.

MEDICAL NOTES IN PARLIAMENT.

The Poisons Bill.

IN the House of Lords on Thursday, the 19th inst., Lord Carlingford moved the second reading of the Poisons Bill, stating that it was an effort in the direction of providing protection for the public, which the present law did not provide. He did not think the objects aimed at by this measure could be attained by any amendment of the present law, against which many and continual complaints had been made to the Home Office. The Bill, in addition to many precautions necessary under the present Acts, added new clauses—among others the labelling of every poison sold, with name and address of the seller; that every person selling a poison must be a chemist and druggist or a medical practitioner; and that poisons could not be sold to persons under sixteen years of age. Other restrictions would be applied to the most virulent class of poisons: the buyer must be known to the seller, or introduced to him by someone with whom he is acquainted, and the seller must record every transaction on forms prescribed. With regard to patent medicines, a person selling any compound of that class, whether it bore a stamp or not, would have to take his chance as to the way in which he sold it. If he believed it innocuous within the meaning of the Act, and sold it as such, he would run the risk of penalties if in any case a medicine had been proved by judicial investigation to be a poisonous compound, and such medicine would be then included in the list of poisons. The Bill was read a second time.

St. Pancras and its Medical Officer.

In the House of Commons on the 13th inst., Mr. Russell, in reply to Mr. Firth, who asked whether Dr. Murphy's resignation as medical officer of St. Pancras was due to exceptional and discreditable means adopted to discredit him in his contest with those who were affected by his condemnation of insanitary property in St. Pancras, and whether the Local Government Board proposed to take any steps in the matter, said he understood Dr. Murphy had discharged his duties with great efficiency. The action of the local authority in this matter was in no way subject to the jurisdiction of the Local Government Board, which could not interfere.

Patent Medicines.

On the 16th inst. Mr. Puleston asked the Chancellor of the Exchequer whether his attention had been called to an article in THE LANCET on this subject. The matter is referred to in another column.

The Cheltenham Medical Officer of Health.

In reply to Mr. J. Campbell, Mr. G. E. Russell said that the Town Council of Cheltenham last month appointed to the office of medical officer of health a gentleman who at that time possessed a surgical qualification only. He had since obtained a medical qualification. The appointment was not reported to the Board within the time required by the regulations. The Board have asked for particulars as to the appointment, but seeing that the gentleman elected has now both a medical and a surgical qualification, the Board would not regard the fact that at the time of election he had one qualification only as being in itself a sufficient ground for withholding their sanction to the appointment.

The Royal Infirmary, Dublin.

On the 17th inst., in reply to Mr. Eaton, the Marquis of Hartington stated that during the first week of March two deaths occurred in the Royal Infirmary, Dublin. According to the latest returns, there were on duty in this hospital one surgeon-major in charge, four civilian surgeons, one sergeant of the Medical Staff Corps, with orderlies from Line regiments. It is quite true that under the former system the hospital orderlies would have been drawn from the regiments, and that they would have had a certain amount of hospital training, though far less than is now given to men of the Medical Staff Corps. Under that system during war the regimental hospitals at home would have their own orderlies; but in the field the trained orderlies would have had to be largely supplemented by untrained men, on whom the base hospitals would probably have entirely depended.

The Case of Mr. Charles Hillman.

In reply to Mr. W. Corbet, Mr. H. Fowler stated that the Secretary of State has called the attention of the Commissioners in Lunacy to this case, and they have reported to him that, after consideration, it appears to them that certain persons have been concerned in the unlawful taking and confinement, as an insane patient, of Mr. Charles Hillman; but they are of opinion, having before them the certificates of three medical men and the statement of the medical superintendent of the Lunatic Asylum for the county of Sussex, that Mr. Charles Hillman was in fact insane, and a proper person to be placed under care and treatment; and finding no evidence of malice or bad faith on the part of any of the persons referred to, they do not consider that a *primâ facie* case exists for the prosecution of such persons.

The Reception of Persons of Unsound Mind into Workhouses.

Earl Percy has given notice of his intention to ask whether the attention of the Local Government Board has been called by the guardians of the Westminster Union to the recent decision of Mr. Justice Wills, in the proceedings lately taken against the master of Marylebone Workhouse and other officials of that union, with regard to the reception of persons of unsound mind into workhouses, and whether the President proposes to issue any instructional letter to the masters of workhouses generally and relieving officers as to their duty in the matter; and whether it is proposed to introduce any measure for the amendment of the law relating to the reception of supposed insane persons into workhouses, and for protecting Poor-law officials from the responsibilities in which they may be involved by the strict application of Mr. Justice Wills's decision.

Obituary.

EBENEZER PYE-SMITH, F.R.C.S.

MANY old Guy's men will have been reminded of their early associations in seeing the announcement of the death, at a good old age, of Mr. Pye-Smith. Though retired from practice for more than ten years, he was closely connected with the traditions of that hospital and medical school.

The son of the Rev. John Pye-Smith, a theological writer and a Fellow of the Royal Society, whose name is still held in esteem, he inherited a love of knowledge, habits of industry, and deep religious principles. Having completed his course at Mill-hill School, at the age of eighteen he became a pupil of the Borough Hospital, and afterwards studied in Paris. Returning to England about 1830, Mr. Pye-Smith settled in the City, and soon afterwards married the lady who now survives him. He took pupils during the earlier part of his career, and between 1840 and 1850 had the discernment to send them up to the examinations of the then new University of London. Here they obtained remarkable successes, and he had the perhaps unexampled satisfaction of seeing not less than five of them, Dr. Oldham, Dr. Habershon, Dr. Pavy, his own son, Dr. Pye-Smith, and the late Dr. J. J. Phillips, in the position of physicians to the great hospital which he was proud to call his *alma mater*. After giving up practice he wisely travelled in Italy for more than a year, "to learn how to be idle," and after a short trial of Kensington, bought a house and garden at Sevenoaks, where he spent the last ten years of his prolonged life in peaceful but not inactive retirement.

Gifted with remarkably fine features, of tall and slender figure, with the courteous manners of the old school and the frank simplicity of a guileless nature, Mr. Pye-Smith was in all outward respects fitted to win confidence, while his insight and judgment, his skill in withholding, no less than his energy in enforcing, active treatment, and his unaffected sympathy with suffering confirmed him in the esteem of his patients. Those who knew him believe that his defects were giving too long time to individual cases and over-anxiety about results. The one made his work more laborious than was needful, and the other too often disturbed his peace. The large number of old patients who flocked to the funeral when Mr. Pye-Smith was laid to rest at Abney Park Cemetery, in the neighbourhood where the last twenty years of his professional life was passed, proved how lasting

was the memory of his skill and devotion. He was followed to the grave by his old friend, and the son of his father's friend, Sir Risdon Bennett; by his former pupil, Dr. Habershon; by Dr. Payne of St. Thomas's Hospital; by his fellow student, Dr. Lockhart, late of Pekin; by his five sons, two of them holding hospital appointments; Dr. Gilbert of Clapton, his successor in practice; Dr. Fotherby of Finsbury-square; Dr. Dubson, R.N., of Trinity-square; and Dr. Burchell of Stoke Newington.

His life is an example of how much happiness and respect and more than money's worth is within the reach of the medical practitioner who seeks to do well rather than to do much, whose ambition is moderate but his aims high, and whose entire course from earliest youth up to extreme old age is one of unselfish devotion to duty,

"As ever in the great Taskmaster's eye.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 12th inst.:—

Aldous, George Frederick, St. Bartholomew's Hospital.
Collinson, Thomas Arthur, King's College.
Ellison, Ernest Henry, King's College.
Hickey, Evan Lewis, King's College.
Raw, William Edmund St. Michael, London Hospital.

DR. BODKIN, of Chelmsford, has been recommended by the House Committee of the Infirmary of that town to fill the post on the staff rendered vacant by the lamented death of Mr. D. M. B. Wheeler.

DR. JOSIAH WILLIAMS, of Sheffield, intends forwarding a parcel of books and newspapers for our soldiers in the Soudan every week, and will be glad to receive contributions of suitable literature.

A SERIOUS epidemic of whooping-cough has ravaged the islands of Suva, Fiji. The malady has carried off all the very young native children, and left a decrease in the population on the year of 3000.

INTERNATIONAL INVENTIONS EXHIBITION.—H.R.H. the Prince of Wales, President of the International Inventions Exhibition, has fixed Monday, May 4th, for the opening of the Exhibition.

A CHELMSFORD paper mentions that the town seems to be attracting to itself quite an influx of fresh medical practitioners, no less than four having recently taken houses or arranged to do so.

PROFESSOR F. S. B. F. DE CHAUMONT, M.D., F.R.S., has accepted the presidentship of the Autumn Congress of the Sanitary Institute of Great Britain, to be held in Leicester from September 22nd to 26th inclusive.

MANCHESTER HOSPITAL SUNDAY AND SATURDAY FUNDS.—The amount paid into the bank to the credit of the Hospital Sunday Fund up to the present time is £4716 16*s.* 6*d.*, and to that of the Hospital Saturday Fund, £2780 19*s.* 5*d.*, the two sums making a total of £7497 15*s.* 11*d.*

FROM the report of the Committee of the Manchester and Salford Day Nurseries Association, it appears that during last year 4319 attendances were made at the two nurseries superintended by the Association. The income amounted to £212, leaving a surplus of £10 over the expenditure.

ON the 16th inst., it was decided in the Queen's Bench Division, in the case of Page *v.* Harrison, that the defendant was entitled to a new trial, which was accordingly granted. It will be remembered that the plaintiff, who is a medical man, obtained a verdict some months ago of £150 against the defendant for slander.

PROPOSED REMOVAL OF ST. LUKE'S HOSPITAL.—An application has been made to the churchwardens and overseers of the parish of St. Luke, on the part of the inhabitants, to join in a memorial to the authorities of St. Bartholomew's Hospital for the removal of St. Luke's Hospital from Old-street to Dulwich; the request, however, has not been acceded to.

MR. GEO. JOHN IAGO has been appointed Secretary and Librarian to the Westminster Hospital Medical School.

THE SEWAGE OF COVENTRY.—The Town Council have recently decided, in order to meet the increase in population, to considerably enlarge the sewerage works of Coventry. The sewage has for the past ten years been dealt with by a combined system of chemical precipitation and filtration through land, and the operations have given general satisfaction.

ROYAL ASYLUM OF ST. ANNE'S SOCIETY.—The Council of the Royal Medical Benevolent College are about to nominate the orphan daughter of a medical man to one of the perpetual presentations to the Royal Asylum of St. Anne's Society which have been placed in their hands. Immediate application should be made to the Secretary at the office in Soho-square.

DR. HENRY TOMKINS, on the occasion of his leaving the Monsall Fever Hospital, in connexion with the Royal Infirmary, Manchester, to which institution he has acted as resident medical officer for the last six years, was entertained at dinner on the evening of the 6th inst., at the Albion Hotel, Piccadilly, by a few of his friends and old fellow-students. V. A. Wartenberg, Esq., of Blackpool, was in the chair.

THE POPLAR HOSPITAL FOR ACCIDENTS.—The annual meeting of the subscribers to this institution was held on the 18th inst. The number of in-patients admitted during the past year was 612, and the out-patients treated were 7289. The total receipts amounted to £3624, and the expenses to £3054. It was decided that the committee should contribute £150 towards the expenses of a Convalescent Home at Southend.

AT the West Ham Police-court on Wednesday, March 18th, the medical officer of health for the Port of London applied for an order from the presiding magistrate for the destruction of forty-five tons of beef and a number of pigs, partridges, turkeys, &c., on the steamship *Newcastle City*, lying in the Victoria Docks. The vessel soon after leaving port met with very heavy weather, which necessitated putting back, and in consequence of this lengthening of the voyage the meat had decomposed.

MEDICAL OFFICERS OF HEALTH ASSOCIATION.—The annual meeting of members of the North-Western Association of Medical Officers of Health was held in Manchester on the 12th inst. It was stated that during the past year three new names had been added to the list of members. There are now thirty-three ordinary members, twenty-six associates, and four honorary members. In view of these figures, the committee strongly urged upon those connected with the Association the duty of making its objects more widely known. Dr. T. W. Hime was elected president for the ensuing year.

THE HAMPSTEAD SMALL-POX HOSPITAL.—At a meeting of the Hampstead Small-pox Hospital Removal Committee on the 14th inst., a letter from the Local Government Board was submitted in reply to a request that Sir C. Dilke would receive the deputation appointed at the great meetings recently held under the chairmanship of the Lord Lieutenant of Middlesex. The Board state that they will, on receiving a copy of the committee's memorial, consider whether they will grant an interview to the deputation, and it was resolved that the memorial should at once be prepared and forwarded.

MR. WALTER WHITE.—The retirement of Mr. Walter White from the assistant-secretaryship of the Royal Society, after forty years of faithful service, is an event that will be regretted by many members of the profession who hold the blue riband of the Society, as well as by the Fellows at large. The post of assistant-secretary is one of great responsibility, demanding incessant attention to details, and delicate management. In Mr. White the ability required for the task has been pre-eminent. Though it is not generally known, Mr. White is a poet as well as a scholar. In his exquisite ballad "The Prisoner and his Dream," he has translated the immortal "Progress" into verse; and in a volume of beautiful poems has depicted some fine scenes from the haunts of continental travel in which he has passed his hours of holiday. We trust, therefore, that what the Royal Society loses the world may gain in more ambitious literary ventures.

PROPOSED PARK AT DULWICH.—At a public meeting held in the Lambeth Vestry Hall on the 12th inst. the following resolution was carried:—"That this public meeting of the inhabitants of the parish of Lambeth supports the action of the estates governors of Dulwich College with respect to the proposed grant of seventy-two acres of land for the benefit of the inhabitants of South London, and that a copy of this resolution be sent to the governors."

IRISH GRADUATES' ASSOCIATION.—The dinner in connexion with this Association was held on the 17th inst., at the Holborn Restaurant, when sixty-six members and guests were present, amongst whom were Professor Stokes, M.D., F.R.C.S.I., Dr. H. Macnaughton Jones, Sir William MacCormac, Dr. Richard Quain, Mr. Savory, Dr. Playfair, Mr. Timothy Holmes, Mr. Jonathan Hutchinson, Dr. Crawford, Director-General A.M.D., and Dr. Frederick Roberts. During the evening nearly a score of new members joined the ranks of the Association.

LEEDS GENERAL INFIRMARY.—At the annual general board of governors of this institution, held on the 4th inst., it was stated that the number of patients admitted during 1884 was the highest in any one year since the opening of the infirmary—viz., 23,075. The number of in-patients admitted was 3807, against 3551 the preceding year, showing an increase of 256; and the number remaining in the infirmary on December 31st, 1883, was 233, making a total of 4040 treated during the year. The daily number of beds occupied was 230, and the average duration of treatment of each patient was twenty-one days. The rate of mortality was 5·43 per cent. The receipts for 1884 amounted to £16,102, as against £15,326 for 1803; and the expenditure to £14,316, as against £14,634.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—The sixth meeting of the twenty-ninth session, 1884-85, was held at the Royal Kent Dispensary, Greenwich-road, on Friday evening, March 6th, 1885, at 8 o'clock precisely, when the following gentlemen were balloted for:—Charters James Symonds, F.R.C.S., John Poland, F.R.C.S., Edmund Samuel Dashwood, M.R.C.S., L.S.A. Mr. Charters James Symonds read a paper "On the Employment of Simple Pressure in the Treatment of Acute and Chronic Diseases of the Joints;" T. Moore, F.R.C.S., Surgeon to the Miller Memorial Hospital, exhibited a case of an unusual form of Imperforate Anus; Dr. Ernest Clarke exhibited some specimens of Tumour of the Testis and Diseased Placenta, with microscopic sections of the same.

THE STATE OF THE THAMES.—At a conference of representatives of vestries and district boards of works, called by the vestry of St. George, Hanover-square, to consider the state of the Thames, the following resolutions were carried unanimously:—"That this meeting is of opinion that the evils of the present system of discharging the metropolitan sewage are such as to require a remedy, and that it is in the public interest that a remedy should be applied with the least possible delay;" and also, "That this meeting, having heard with great pleasure that experiments are now being made by the Metropolitan Board of Works at Crossness, do adjourn the further consideration of the question until the St. George's, Hanover-square, representatives think it desirable to call a further meeting of the delegates."

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BARRITT, GILBERT LACY, L.R.C.P.Lond., M.R.C.S., has been appointed Assistant Medical Officer to the Crumpsall Workhouse, Manchester Township, vice Winder, resigned.

BROWN, JOHN HENRY, M.B., C.M.Ed., M.R.C.S., has been appointed Assistant Medical Officer to the Crumpsall Workhouse, Manchester Township, vice Richmond, resigned.

BROWNE, EDWARD GEORGE, L.R.C.S.I., has been appointed House-Surgeon to the City of Dublin Hospital.

BYLES, HENRY, M.B., C.M.Ed., has been appointed Medical Officer of Health for the Sanitary District of Eccleshill, near Bradford, Yorks, vice Aston, resigned.

CALLAGHAN, JAMES LESLIE, L.R.C.S.I. & L.R.C.P.Ed., has been appointed Medical Officer of the Easingwold Union District.

CROPLEY, HENRY, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Buckland District of the Tavistock Union, vice Butters, resigned.

FOXWELL, ARTHUR, B.A., M.B.Cantab., M.R.C.P.Lond., has been appointed Assistant-Physician to the Birmingham General Hospital.

GARNHAM, G. J. WATERS, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer to the Chippenham District of the Chippenham Union, vice Francis Spencer, F.R.C.S., L.S.A.Lond., resigned.

HILL, P. E., M.R.C.S., L.S.A. Lond., has been appointed Civil Surgeon to Her Majesty's Ordnance Survey for the Crickhowell District.

JOHNSON, HERBERT, L.R.C.P., L.R.C.S., has been appointed Medical Officer of Health for the Borough of Whitby (Whitby Urban Sanitary District); also Medical Officer of Health for the Whitby Rural Sanitary District.

LEE, HERBERT GROVE, M.D. St. And., M.R.C.S., L.S.A.Lond., has been reappointed Medical Officer for the Haddenham District of the Aylesbury Union.

MORTON, SHADFORTH, M.D., M.R.C.S., has been appointed Surgeon to the Croydon General Hospital.

RICE, EDWARD, M.B.Lond., M.R.C.S., has been appointed House-Physician to the Radcliffe Infirmary, Oxford, vice Harris, resigned.

ROWLANDS, WILLIAM, L.K.Q.C.P.I., M.R.C.S., has been appointed Medical Officer for the North Sefton District of the West Derby Union, vice May, deceased.

RUGG, GEO. LEWIS, M.R.C.S., L.S.A.Lond., has been appointed Assistant Medical Officer and Dispenser to the Lambeth Infirmary and Workhouse, vice Roberts, resigned.

STEPHENSON, SYDNEY H. A., M.B.Ed., has been appointed Resident Medical Officer to the Rochdale Infirmary, vice W. Piercy Fox, resigned.

TAYLOR, EDWARD MUSCROFT, L.R.C.S., L.R.C.P., has been appointed Medical Officer to the Workhouse, Whitby; Medical Officer to the East Side District, Whitby; and Public Vaccinator for Whitby and District.

Births, Marriages, and Deaths.

BIRTHS.

BIGGS.—On the 9th inst., at Hillside, Child's-hill, N.W., the wife of John M. Biggs, Surgeon, of a son.

KING.—On the 15th inst., at Sutton-court-road, Chiswick, the wife of William Moore King, M.R.C.S., of a daughter.

MANSON.—On the 30th Jan., at Hongkong, China, the wife of Dr. Patrick Manson, of a daughter.

O'CONNELL.—On the 16th inst., at North Villa, Havelock-park, Southsea, the wife of Surgeon-Major E. O'Connell, Army Medical Department, of a daughter.

MARRIAGES.

CLAREMONT—HELMORE.—On the 9th inst., at Holy Cross Church, Crediton, Constantine Cecil Claremont, M.R.C.S., second son of Claude Clarke Claremont, M.R.C.S., L.S.A.Lond., of Millbrook House, N.W., to Jessica, second daughter of Frederick Helmore, Esq., of Taw Vale, Crediton, Devon.

GLYNN—GRIFFIN.—On the 12th inst., at Christ Church, Linnet-lane, Liverpool, T. R. Glynn, M.D., of Liverpool, to Alice Lewtas, daughter of the late Henry Griffin, of Grove-park, Liverpool.

JONES—SMITH.—On the 12th inst., at St. Andrew's, Haverstock-hill John Evans Jones, M.D., to Jessie Kate, eldest daughter of William Smith, Esq., Head Master Orphan Working School, Maitland-park, N.W.

DEATHS.

BARKER.—On the 31st Jan., at Alma-road, E., St. Kilda, Madeline Charlotte Skene, wife of Edward Barker, M.D., 53, Latrobe-street, Melbourne, and eldest daughter of the late Alexander Scott, Esq., Trinity, N.B.

CHRISTIE.—On the 13th inst., at South-street, St. Andrews, Scotland, Alexander Christie, Surgeon Bengal Medical Service, Retired List.

COLVILL.—on the 13th inst., at Lawton, Forfarshire, N.B., William Henry Colvill, Brigade Surgeon Her Majesty's Indian Army, Bombay (retired). Friends will please accept this the only intimation.

MAKENS.—On the 14th inst., at the residence of his brother, Colney, Norwich, John Makens, M.B.Lond., late of Middleton, Teesdale, third son of Robert Makins, of Ringshall, Suffolk, aged 44.

MASON.—On the 18th inst., Dr. Mason, F.R.G.S., of 182, Lewisham High-road, and 44, Finsbury-circus.

MILLER.—On the 17th inst., at Eye, Suffolk, Emily, the wife of W. W. Miller, M.D., aged 54.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, March 19th, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Mar. 13	30·49	E.	43	40	...	49	36	...	Overcast
,, 14	30·58	E.	41	40	...	50	40	...	Overcast
,, 15	30·61	E.	35	33	...	49	32	...	Foggy
,, 16	30·57	N.W.	39	36	...	53	32	...	Foggy
,, 17	30·17	N.W.	41	38	...	56	37	...	Bright
,, 18	29·60	W.	43	41	...	49	40	·03	Cloudy
,, 19	30·07	N.	37	34	...	55	34	...	Bright

Medical Diary for the ensuing Week.

Monday, March 23.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. C. E. Beevor: A Case of Chronic Spasms of the Upper Limbs.—Dr. Burney Yeo: On some Points in the Etiology of Phthisis.

Tuesday, March 24.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Gamgee: Digestion and Nutrition.
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Sir Andrew Clark: Lumleian Lecture on some Points in the Natural History of Dry Pleurisies.
ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. Mr. A. J. Duffield: The Inhabitants of New Ireland and its Archipelago.—Mr. R. Brudenell Carter and Mr. C. Roberts: On Methods of Testing the Sight of Civilised and Savage Peoples.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Discussion on Cholera, introduced by a paper from the President (Dr. George Johnson). Microscopical Specimens will be on view at 8 P.M.

Wednesday, March 25.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department: 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.
HUNTERIAN SOCIETY.—8 P.M. Mr. Jonathan Hutchinson: Notes on Symptoms.—Dr. Stephen Mackenzie will exhibit the Bacillus of Leprosy.
BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens by Dr. R. Barnes, Dr. Edis, Mr. Reeves, and others.—Dr. Bell (Glasgow): Dysmenorrhœa.—Dr. Lamprey: Plural Monstrosities.

Thursday, March 26.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Dewar: The New Chemistry.
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Sir Andrew Clark: Lumleian Lecture on some Points in the Natural History of Dry Pleurisies.

Friday, March 27.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
CLINICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Mayo Robson (Leeds): A series of cases of Spina Bifida treated by Plastic Operation (two patients will be exhibited).—Mr. Barwell: Three cases of Pistol-shot Wounds.—Dr. Hadden: A case of Choreiform Movements supervening in Infancy, and probably of Congenital Origin.—Mr. J. R. Lunn: Calculus and Tumour of the Bladder; lithotomy; death on the ninth day.
ROYAL INSTITUTION.—9 P.M. Prof. Victor Horsley: The Motor Centres of the Brain and the Mechanism of the Will.

Saturday, March 28.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. C. Armbruster: Richard Wagner.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.
All communications relating to the editorial business of the journal must be addressed "To the Editor."
Lectures, original articles, and reports should be written on one side only of the paper.
Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.
We cannot prescribe, or recommend practitioners.
Local papers containing reports or news-paragraphs should be marked.
Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

GAS FURNACE FOR DENTAL PURPOSES.

IN reference to a criticism by Mr. T. Fletcher of a paper by Dr. Rollins on Enamel Fillings, which recently appeared in the *Boston Medical and Surgical Journal*, it is but fair to the latter gentleman to state that early in 1880 we received from him a paper which not only contained a full description of a gas furnace for taking dental porcelains and artificial teeth, but was also accompanied by a woodcut of the furnace, taken from a photograph.

Quæsitor.—It is quite in the power of the guardians to continue the services of their medical officer, though living out of the district, in preference to the singly qualified practitioner living within the district; but in cases where great inconvenience is experienced by the poor from non-residence of their medical officer, representations having been made to that effect, the Local Government Board have acceded to the wishes of the guardians in sanctioning the appointment of a singly qualified medical man.

Dr. Kinkead (Galway).—The paper will be published in an early number.

HYDROCHLORATE OF COCAINE.

To the Editor of THE LANCET.

SIR,—I am at a loss to understand Mr. Churchyard's statement that when cocaine solution becomes old and flocculent he filters it through animal charcoal, adds salicylic acid, and it is as effectual as when freshly prepared. In a paper read at the Royal Institution here last week, I directed special attention to the fact that a solution of cocaine hydrochlorate of any given strength was most active when neutral or slightly basic; that the same solution if rendered decidedly acid is less effectual; in fact, that an acid hydrochlorate of cocaine, although more soluble, is less active than a neutral salt. There is no reason why solutions of cocaine hydrochlorate used frequently in large institutions should not be freshly prepared every two or three days; it is the work of a few minutes. If, however, it is desired to preserve it for any length of time, the suggestion of Dr. Fenwick in your issue of Jan. 31st—viz., to make the solution with camphor water—is an effectual preventive, more simple and far better than the remedy suggested by Mr. Churchyard.

I am, Sir, yours faithfully,

Liverpool, March 16th, 1885. CHARLES SYMES.

Dr. F. De Havilland Hall will find the correction made in another column.

THE LARYNGOSCOPIC MIRROR.

To the Editor of THE LANCET.

SIR,—With regard to the letters in your last issue respecting the use of glycerine and saliva to prevent the breath condensing on the laryngoscopic mirror, I would venture to point out that two objects are attained by heating the mirror in the usual way. First, it prevents the breath becoming condensed on the mirror; secondly, and not less important, it obviates the difficulties arising from the introduction of a cold body into the pharynx—i.e., spasm. This latter object is not attained by either glycerine or saliva. I am, Sir, yours faithfully,

Old Burlington-street, W., March 16th, 1885. GEORGE STOKER.

Pharmaceutist had better write to the Secretary of the College, to have the statement authenticated.

CARBOLIC OIL A REMEDY AGAINST MOSQUITOES.

To the Editor of THE LANCET.

SIR,—The practice of anointing is very nearly obsolete, probably owing to its being unsuitable to this climate; but it occurs to me that anointing with carbolic oil might prove to be an effectual remedy against the torment of mosquitoes to our troops in Egypt.

I am, Sir, yours obediently,

Bistree, March 2nd, 1885. D. DE BERDT HOVELL.

NEW TEST FOR TEA.

IT has been asserted that the quality of tea may be approximately estimated by the weight of ash which it yields, the value of tea being inversely proportional to the ash. M. Nikatinski has lately, says *The Grocer*, made a series of experiments with the view of testing the truth of this assertion, and finds that the ash is a very fair index of the quality of the tea. Thus a good Shanghai tea gave 5·16 per cent. ash, a cheap green brick tea 6·87, and two Orenburg teas, which are known to be adulterated with rose leaves, and of which the price was 115*s.* and 48*s.* per cwt., yielded respectively 7·87 and 10·42 per cent. of ash.

Dr. Kennedy is referred to the paragraph at the commencement of our analytical notices (see THE LANCET, Jan. 17th, p. 114) for information as to the terms on which we undertake such investigations.

Beaver.—Yes, to both questions.

"HOW TO CARRY, UNAIDED, AN INSENSIBLE MAN."

To the Editor of THE LANCET.

SIR,—In answer to the letter of "R. N. R." on the above subject in your issue of the 14th inst., I should recommend him to acquaint the officers in the Soudan, &c., with the following method adopted by and taught to the firemen of the London Fire Brigade.

A small platform, some forty or fifty feet high, has been erected on the roof of one of the buildings in the drill-yard. One half of the men who are drilling go up to this platform, and prostrate themselves in all kinds of peculiar attitudes, some on their backs, some on their faces, some on their sides, and some curled up. The other half have to go up and fetch them down single-handed. The rescuing fireman first straightens out the seemingly lifeless body of his comrade, and rolls it over on to the face. Then, taking hold under each armpit, he raises the body on to his right knee, so that he can put his arm round the waist, and the arm of the insensible man round his own neck. Taking a firm hold, he suddenly straightens himself up, and walks away with his burden in an upright position, and the whole weight of the other's body, supported and hooked, as it were, by the arm. He has then to carry his comrade through the window as best he can, and shoot him down the escape. I am, Sir, yours faithfully,

Leeds, March 16th, 1885. FRANK SALTER, L.R.C.P., &c.

To the Editor of THE LANCET.

SIR,—Let "R. N. R." try the following methods: 1. Pig-a-back. 2. Weigh butter. 3. Fireman's lift. Methods 1 and 2 are both well known as children's games. For 1, spread the patient's legs, and sit him up; then kneel, or, better, crouch down between the legs with your back to him, draw his arms as forward as possible over each of your shoulders, and by stooping forwards lift him gradually up until you stand upright; a hoist or two while holding firmly to the arms will mend the position. In 2 the bearer should get the patient into a sitting posture, then kneeling or crouching himself, back to back, hook his arms into the patient's arms, and gradually raise himself and his load until he stands up. The best, however, is the third method, which is described in Captain Eyre Shaw's book on Fire Protection, p. 271. The patient by this method is so well sustained that a certain amount of freedom is permitted to the hands of the bearer, which could be utilised in carrying any portable article, for climbing a rock, descending a ladder, &c. I am, Sir, yours truly,

March 16th, 1885. G. C. S.

To the Editor of THE LANCET.

SIR,—In reply to the query of your correspondent, "R. N. R.," I beg to suggest as follows. First, if possible, drag the insensible man close to a tree, large stone, or any object which may assist you in raising him from the ground; then strap or tie the legs loosely together below the knees; next turn the patient on his right side, and lie down on your left side, with your back to the patient's stomach, and insert your head between his thighs or knees above the strap; turn as much as possible upon your stomach, bringing the body with you, and you will not find it difficult to rise, and by a few jerks the body can be brought into a position convenient for carrying. The advantages of carrying a body in this position are obvious—viz., the compression of the abdomen, the position of the head, and the legs balancing the body (with perhaps a rifle laid at the back of the knees), with respect to the patient, and to the bearer the freedom of the chest from compression, and of the right arm for self-defence, &c. I am, Sir, yours truly,

Romsey, March 17th, 1885. SPENCER H. SIMPSON.

X. X.—With ordinary prudence, we believe the pay to be quite sufficient to defray all necessary expenses. We have known many gentlemen who have found it to be so.

Practitioner.—The Vaccine Department, Local Government Board, Whitehall, S.W.

THE LUNACY AMENDMENT BILL.

To the Editor of THE LANCET.

SIR,—I hope the profession at large will, through their Parliamentary representatives, secure the right of every registered practitioner to sign lunacy certificates. The monopoly which the Bill proposes to create should be prevented. I am, Sir, yours truly,

Cashel, March 12th, 1885. T. LAFFAN.

DR. BOUGIER'S THESIS.

OUR Paris Correspondent writes:—"In re-reading Dr. Bougier's thesis, referred to in my letter of last week, I find that the word 'moss' is evidently incorrect; it should be *froth*. The latter part of Conclusion 1 should therefore read thus: 'The appearance of froth at the mouth would be of some diagnostic value.' In Conclusion 6: 'The characteristic froth is found only in the submerged.' In using the terms 'submersion' and 'immersion' I simply followed the author, who evidently meant to express the former as taking place during life, and the latter after death. For instance, in Conclusion 3 the author states that the epiglottis is vertical in the submerged; it is only half open in the corpses immerged. Again, in Conclusion 4 he makes the same application of the words, which, after all, may simply be a distinction without a difference."

R. B. M.—1. It is exceedingly improbable that the quantity of the mercurial preparation reported to have been taken would cause "all the symptoms of severe poisoning," unless some soluble salt of mercury was present as an impurity.—2. The dose was certainly somewhat large, considering its frequent repetition. We have often written against the practice of submitting to treatment by medicines without medical advice. If people will persist in ignoring this warning, they must abide by the consequences. A chemist is not under the same legal obligations as a qualified medical man; but, of course, he is liable to a penalty if he administers a poison.

Mr. Foley.—The description of the apparatus will be inserted on receipt of the block.

CASE OF MONSTROSITY.

To the Editor of THE LANCET.

SIR,—The following case possesses features which appear to me worthy of record.

A. T——, aged forty-two, married nineteen years, had ten children, the eldest eighteen years old. Menstruation ceased last March, and she expected her confinement about the middle of November, at which time she consulted a doctor, who told her that if she went much longer she would probably have twins, she replying that she did not care so long as they were not "Siamese." On Jan. 22nd she went to the lying-in hospital, and stated that she thought there was something wrong with her, and that hæmorrhage had previously occurred. On the 23rd I found the patient had been in labour since 10 P.M. the previous night. On examination the head was found pressing on the perineum, and all pains had ceased. This being the case, I immediately applied the forceps, and delivered the head without difficulty; but it was not until after prolonged traction that the shoulders partially emerged, when I discovered that there was an outgrowth from the chest which prevented any further movement in that direction. I therefore passed my hand round the lower part of the abdomen, and delivered the breech and legs. The child was now entirely born; but finding it connected from the neck to the umbilicus with another child still in the uterus, I laid hold of the legs of the second one, and delivered it without difficulty. The placenta followed in a few minutes. There was only one cord proceeding from an umbilicus common to both. The children were dead, and were both boys. In the ordinary position they faced one another; but the connecting link was sufficiently lax to allow them to lie partially side by side. In every other respect they were perfectly formed, and weighed 11 lb. The next day, when the mother heard of their condition, she told the nurse that in March last she went to see the "Two-headed Nightingale," and fainted at the sight. I regret to say that the occurrence so affected her that three days after she committed suicide by jumping out of a window.—I am, Sir, yours obediently,

Birkenhead, March 9th, 1885. B. R. JOHNSTON, M.R.C.S., &c.

THE GENERAL HOSPITAL, BIRMINGHAM.

To avoid possible inconvenience, we may call attention to a printer's error in an advertisement inserted in our last issue announcing the appointment in April next of a Resident Medical Officer to the above hospital. The error consisted in stating the salary to be £150, instead of £130, with board, &c.

A Country Doctor (Perthshire) should in the first place remonstrate—best by personal interview—with the medical practitioners of whose conduct he complains.

Aphide.—We do not prescribe.

Mr. Fletcher (Ormskirk).—The reply referred to was addressed to another correspondent.

"CONSTANT TINCTURES."

To the Editor of THE LANCET.

SIR,—In reply to "E. W.," we beg to state that the constant tinctures" are made, not only from "good sound drugs," but from "picked" good sound drugs, and yet it is necessary to standardise them. His statement that he has rarely found any appreciable difference in the specific gravity of his more active tinctures is no answer to the fact, generally accepted by those who have worked on the subject, that tinctures prepared as he describes will vary in alkaloidal strength. There is no direct relation between the specific gravity of a tincture and its alkaloidal value. We remain, Sir, yours faithfully,

Oxford-street, March 18th, 1885. SQUIRE AND SONS.

DR. WRIGHT'S SANITARY NIGHT-LIGHTS.

MESSRS. J. C. & J. FIELD, of Lambeth, have forwarded us a sample of these useful adjuncts to the sick-room. These night-lights diffuse eucalyptol throughout the apartment, and their use is one of the most simple and effective methods of rendering rooms in which they are burnt wholesome and fresh. To some, however, the powerful smell of eucalyptol which pervades the apartment in which one of these night-lights has been burnt may be objectionable; but to persons to whom this odour is not an annoyance we can recommend them.

Mr. F. Dillon Woon.—The intention of the writer was to say that probably something like 90 per cent. of persons exposed to small-pox would take the disease. There are undoubtedly different degrees of vaccinating ability, as of every other kind of ability. One thing is clear, that there never was so much attention paid to the attainment of good vaccination as now.

L. M.—We will endeavour to find space for the notes in an early number.

"ON SYNCOPE, AND A METHOD OF AVERTING IT."

To the Editor of THE LANCET.

SIR,—In justice to myself, will you permit me to point out, with reference to Dr. Notley's article in your last issue on the above subject, that I have for some considerable time past adopted the hot water application to the head, which I have hitherto looked upon as a novel method introduced by myself in resuscitating patients when in a state of collapse other than that due to the administration of anæsthetics. I have pursued this method in a variety of instances, and have on several occasions alluded to the fact. For instance, in THE LANCET of Dec. 13th, 1884, under the heading of Anæsthetics, I make use of the following sentence, after describing the mode of application of almost scalding water to the forehead by means of a flannel:—"I have invariably found the 'hot water' application to be invaluable in various cases of syncope, and above all for the most speedy restoration or establishment of the circulation of new-born infants."

I am, Sir, yours truly,

Baron's Court, S.W., March 11th, 1885. R. FITZROY BENHAM.

THE report of the last meeting of the Ophthalmological Society, and several articles and communications, are unavoidably held over till next week.

ERRATA.—In Dr. Lucas's letter on Cascara Sagrada, published in our last issue, the word "pathological" was misprinted for *physiological* in the second line.—In our annotation columns last week, regarding the appointment of Dr. Simpson to the Surgeon-Generalship, the word "Bombay" was misprinted for *Bengal*, that gentleman being appointed to be Surgeon-General of the Presidency of Bengal, and not that of Bombay.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Braxton Hicks, London; Professor Humphry, Cambridge; Dr. De Havilland Hall, London; Dr. Hermann Weber, London; Dr. Wickham Legg, London; Mr. W. J. C. Miller, London; Dr. Pye-Smith, London; Dr. Leech, Manchester; Mr. S. J. Sulemani, Bombay; Mr. J. J. Joseph, London; Dr. Barnes, London; Dr. Ogier Ward; Mr. Eades, London; Mr. H. E. Armstrong, Newcastle-on-Tyne; Mr. R. W. Fitch, Birmingham; Dr. Laffan, Cashel; Dr. Dingley, Wolverhampton; Mr. R. B. Mole; Mr. Linnington Ash, Holsworthy; Mr. Shuter, London; Mr. R. F. Benham, London; Mr. W. Lawless, Martinique; Mr. G. A. Farrer, Brighouse; Mr. Woon, London; Dr. Prior, Bedford; Dr. F. R. Walters, London; Dr. Suckling, Birmingham; Mr. W. C. Morris, Chester-le-Street; Mr. F. East, London; Mr. Clutton, London; Mr. John Grant, Kettering; Mr. G. Stoker, London; Mr. F. Salter, Leeds; Mr. Lawson Tait, Birmingham; Mr. Woodhouse Braine, London; Mr. C. J. Bond, Leicester; Mr. A. G. Auld, Wick; Mr. C. Symes, Liverpool; Mr. H. W. Freeman, Bath; Mr. Howlett, Hull; Mr. Wiseman, London; Dr. Coleman, Surbiton; Mrs. Ponder, Eastbourne; Dr. Vernon, Southport; Mr. Kairn, Glasgow; Mr. Fenton, Bakewell; Messrs. Allen and Hanburys, London; Messrs. Burgoyne and Co., London; Mrs. Theobald, Leicester; Rev. Homfray, Redford; Dr. Adam, West Malling; Mr. Hoare, Burnley; Mr. Russell, Liverpool; Dr. Douglas Powell, London; Lieut.-Col. Graham, Bristol; Messrs. Gillon and Co., Leith; Mr. Gant; Messrs. Livingstone, Edinburgh; Dr. Roberts, Festiniog; Surgeon-Major Myers, Suez; Mr. Turner; Messrs. Lyngh and Co., London; Mr. Graham, St. John's Wood; Mr. Elkerton, London; Messrs. Bullock and Co., London; Dr. Kern, Halesowen; Messrs. Vigo and Co.; Dr. Heelas, Bonchurch; Mr. Maythorn, Biggleswade; Mr. Twyford, Hanley; Messrs. Heal and Son, London; Messrs. Reynolds and Branson, Leeds; Mr. Grant, Birmingham; Mr. Bickerton, Liverpool; Mr. R. Freeman, London; Mr. Geo. Lewis, London; Dr. Allchin, London; Dr. Cullimore, London; Mr. Wherry, Cambridge; Dr. W. Curran, London; Mr. Snell, Sheffield; Dr. Walker, Hanley; Dr. Whitford, Liverpool; Mr. C. F. Naismith; Mr. Babington, Manchester; Mr. J. Startin, London; Mr. Spencer H. Simpson, Romsey; Mr. Garret Horder, Cardiff; Dr. Kennedy, Peterborough; Mr. P. W. Squire, London; Mr. Cantlie, London; Mr. A. Squire, London; Mr. Page, London; Mr. H. Kimpton, London; Mr. Higgs; Mr. Wickford, London; Mr. Cusford, London; Messrs. Riddle and Co., London; Messrs. Steward and Co., London; Mr. Baker, Liverpool; Mrs. James, St. John's Wood; L. M.; Physician, Upper Edmonton; Lambeth; Beaver; A Country Doctor; Competitor; Pharmaceutist; An Old Practical Pharmacist; Quæsitor; G. C. S.; Vio; Dr.; Medicus, Manchester; General Practitioner; L.S.A.; Practitioner; M.D.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Wilsden; Mr. Bevan, Mumbles; Mr. Smith, Brighton; Mr. Burgess, Bristol; Miss London, Belfast; Mr. Sutherland; Mr. Flinders; Dr. March, Bradford; Dr. Eberle, Thirsk; Mr. Fulton, Canada; Miss Cooper, St. Mary Cray; Messrs. Keith and Co., Edinburgh; Mr. Jones, Sheffield; Mrs. Lay, Northampton; Mr. Piesse, London; Mr. Gordon, Southport; Mr. Newton, Liverpool; Mr. Fitzgerald, Queenstown; Mr. Mitchell, Holbeach; Mr. Thomas, Llanengen; Mr. Hodgkinson, London; Mr. Lodge, Barnsley; Mr. Dowse, Huddersfield; Mr. Crassweller, Clapton; Mr. Jones, Rochester; Mr. Saunders, Camden-town; Mr. Woolsey, London; Dr. Thomson, Luton; Messrs. Slinger and Son, York; Messrs. Woolley and Co., Stoke-on-Trent; Mr. Gross, Bury St. Edmunds; Mr. Jeffrey, Epsom; Dr. Braye, London; Mr. Holmbrook, London; Mr. Wetwan, Southwold; Dr. Davies, Cymmer; Messrs. Lee and Nightingale, London; Medicus, Cheltenham; R.; Matron, Barrow-in-Furness; W. W. H., Burnley; Nuntius; M.B., Attwell; Assistant, Rotherham; Branson; E. H.; Omega; Lady Superintendent, New Wimbledon; Omega, Monaghan; E. P., Eastbourne; Lady Superintendent, Bath; H., Guy's Hospital; T. W. L. B., Great Yarmouth; F.S.A., Wye; A. B. C.; M.D., New Brompton; Surgeon, Long Heaton; Socius; Medicus, Belper; A. M.; L.R.C.S.I., Derby; A. M. B., Sheffield; Alpha, London.

Manchester Examiner, Sheffield Evening Star, Baltimore Sun, Reading Mercury, North-Western Gazette, Norwich Argus, Middlesex County Times, Richmond and Twickenham Times, Pontypridd Chronicle, Calcutta Englishman, Lincoln Mercury, Nottingham Journal, Babyhood, Sunday Closing Reporter, Hairdressers' Weekly Journal, &c., received.

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Lumleian Lectures

ON

SOME POINTS IN THE NATURAL HISTORY OF PRIMITIVE DRY PLEURISIES.

Delivered before the Royal College of Physicians,

BY SIR ANDREW CLARK, BART., M.D.,
FELLOW OF THE COLLEGE.

LECTURE I.

MR. PRESIDENT AND GENTLEMEN,—I purpose in this and the following lectures to consider some points in the natural history of primitive dry pleurisies. Upon secondary pleurisies, upon pleurisies provoked by pneumonia, pyæmic blocks, tubercle and neoplasms of every sort, it is not at present my intention to dwell. By a dry pleurisy I mean such an inflammation of the pleura as issues in an exudation of lymph into the substance and upon the surface of the membrane unaccompanied by an amount of serous effusion sufficient to yield physical signs conclusive of its presence. Entering upon this inquiry, we are met by the question, Do such pleurisies exist? and on the side of affirmation, as well as on the side of denial, are ranged some of the highest authorities in medicine. Even when it has been admitted by the weight of evidence that dry pleurisies are pathological as well as clinical entities, their influence in originating secondary disease of the lung has been hotly contested. From the days of Laennec until now the most opposite opinions upon this subject have been advanced; and whilst one leader has declared primitive dry pleurisies to be mere clinical curiosities, another has asserted that they invade the lung and produce secondary and serious changes therein. The study of this controversy is at once sad and edifying; for whilst it shows us, even in the highest order of minds, how difficult it is, in the search for knowledge, to be in the philosophic sense impersonal, it makes plain to us the puerility as well as the peril of dogmatism and of finality in scientific statements. The scope of my inquiry is narrow, and the results of it are but few and imperfect. Nevertheless, I indulge the hope that they will not be found entirely useless, since, whatever may be thought of the inferences drawn from the cases forming the subject of this inquiry, the cases themselves will remain for future study; and, touching one of the most important questions of the age in which we live, may excite to fresh investigation others more qualified than I am to pursue it with profit. Furthermore, it will be to many disappointing to find that the direction of my inquiry will make it more interesting to the student of clinical medicine than to the student of pathological histology. But herein may lie the justification of my small endeavours; for whilst I remember that the traditions of this College make it sacred to the advancement of knowledge for its own sake, I cannot forget that they make it also sacred to the forcing of that knowledge into fruit for the uses of man.

In the present lecture I shall set forth the grounds which have led to the institution of this inquiry. In the second lecture I shall consider the anatomical constitution of dry pleurisies, their varieties, the changes which they undergo, and the influence which they exert on the evolution of pathological changes in the lung. In the third and last lecture I shall relate, in as far as they are known to me, the clinical peculiarities of the chief affections of the lung originating from dry pleurisies, and I shall conclude with a series of propositions which appear to be justified by the facts collected in the course of this inquiry.

In proceeding to set forth the grounds of this investigation, I find myself embarrassed by the number and variety of materials at my command. A critical examination, however, soon makes it plain that they fall naturally into groups, that the groups may be arranged in the order of an increasing complexity and importance, and that a single instance selected from each group will fairly represent the whole. Now, the grounds of this inquiry are, in the first instance, cases, and I have collected and related them in abstract with as much care as I could command. Nevertheless, they are all of them in varying degrees incomplete, and in some few particulars they may be even inaccurate. For a literal and sustained accuracy in narration is one of the rarest gifts granted to men; and the difficulties encountered in relating a case, and in recording its progress with minuteness and exactitude over a period of years, are so great that I cannot understand how, unless exceptionally, they are so commonly and easily overcome. Furthermore, after long study of a case, the sum of our knowledge of it comes to be made up partly of bare facts capable of literal record, partly of complex facts into the account of which our own subjectivity more or less largely enters, and partly of subjective impressions which, if they do not actually combine with the naked facts, so colour them that sometimes they are practically transfigured. I recognise this peril, from which I suspect no one is wholly privileged; and I have endeavoured in the narration of my cases to purge them of subjective adulterations, and to present them in their baldest objective forms. But to say that I have been entirely successful, would be to assume that I am more than entirely human. Lastly, the cases are not related in chronological order; but they are related in such order as seems best calculated to set forth the progress of primitive dry pleurisies, and the ways in which they invade, alter, and destroy the lungs.

CASE 1.—In 1866 I was consulted by a gentleman, thirty-five years of age, married, a traveller, and of somewhat irregular habits. He was fair and moderately nourished, but looked pale and ill. His family history was good; and of his personal history he said that he remembered having suffered from no special complaint, but that latterly he had been often ailing and sometimes "rheumatic." He consulted me on account of an odd feeling which he had in his left side, and described it as "resembling the movement of something out of joint." On examination, I found a grating pleural friction round the whole base of the left lung; but neither in the upper part of that lung, nor in any part of the right lung, could other indications of disease be discovered. Except in the region of pleural friction the breath sounds, the vocal resonance, and the percussion were normal. There was neither cough nor expectoration, but deep breathing produced general discomfort in the left side; there was no constitutional disturbance; and, beyond a slight gastro-hepatic catarrh, no signs of disorder elsewhere. Two months later the pleural friction had extended to the whole lower half of the left lung, but no material change had occurred in the local or general condition of the patient. Twelve months after the first examination the patient had failed in general health and suffered from a little cough, mucoid expectoration, and breathlessness on exertion. Pleural friction and creaking were heard at places throughout the lower third of the left lung. A superficial crackling or crepitation could be evoked by deep breathing or coughing; vocal resonance was diminished; there was dulness on percussion, and the tactile vocal fremitus was feeble. The lower part of the side appeared to be slightly contracted; the cardiac impulse was visible under the left nipple; the right ventricle was slightly dilated; the pulse was 76; the temperature was normal; and there was no evening fever. I did not see this case again; but a year afterwards I heard that he had been for a few months insane; that his chest had given no signs of trouble, and that he had just emigrated to New Zealand.

CASE 2.[1]—In February, 1874, Mr. Hutchinson requested me to examine, in his wards, a man who had somewhat suddenly developed pulmonary symptoms of an obscure kind. The patient was thirty-four years of age, tall, well built, and well nourished. He complained merely of urgent dyspnœa. His face was dusky and expressive of great anxiety. He breathed with great difficulty and labour; the thorax appeared to be inflated and incapable of complete recoil on expiration; the veins of the neck were distended; the skin was of a bluish tint; and the extremities were cold and damp. Examination of the chest yielded few definite results. There was nowhere dulness on percussion or any recognisable change in the tactile vocal fremitus. Everywhere the breath sounds were loud, harsh blowing, and here and there accompanied by a fine and moist or a rustling and dry crepitation. Throughout the axillary region of the right side and over the lower two-thirds of the back there was heard a superficial moist crackle or large crepitation, sometimes replaced by friction. Like sounds were heard in disseminated circumscribed patches in corresponding regions of the opposite

[1] See Appendix, Note 1.

side. The action of the heart was rapid and irregular; epigastric pulsation was strongly marked; the pulse was small and running; the temperature was under 100°. The tongue was swollen, furred, and bluish; the abdomen was distended; the bowels were confined; the scanty urine was loaded with purple lithates and free from albumen. The patient was restless, had slept little, and was occasionally delirious. On the day following my examination he died. After death both lungs were found to be emphysematous. The greater part of the right pulmonary pleura was coated with a thickish layer of loose, soft, reticularly arranged lymph more or less adherent to the subjacent membrane, and containing in its meshes a turbid, yellowish, glutinous fluid. Both the lymph and the subpleural areolar tissue were studded with small extravasations of blood. In the lung immediately beneath the pleura were narrow, irregular, and interrupted tracts of pneumonic consolidation. Similar appearances to a much less extent were found on the pleura and in the lung of the opposite side. The heart was dilated and somewhat soft. The valves and their corresponding orifices were free. In a few of the smallest branches of the pulmonary artery plugs were found.

CASE 3.—In January, 1873, Dr. Stephen Mackenzie called my attention to a patient in Harrison Ward of the London Hospital. He was about thirty years of age, tall, florid, thin, and healthy looking. He had been admitted for bronchitis and gastric catarrh. As the bronchial attack subsided and its attendant râles disappeared, there was noticed all over the right side a very superficial crackling and crepitation. It was just recognisable by the hand placed lightly over the side; it was little influenced by deep breathing or by coughing; and when listening with the stethoscope the impression made upon the mind was that the crackling was produced either in the walls of the chest or in the parts immediately subjacent. After a few weeks the patient was discharged from the hospital at his own request. He was in all respects well, except that the superficial crackling and crepitation remained unaltered. A year afterwards this patient was readmitted into the hospital. I did not myself see him on that occasion, but I was told that he had had a slight bronchial attack; that after its subsidence the right lung was found in the same state as before, and that the left lung was unaffected. In 1876 I had an opportunity of re-examining the patient. Except for a slight cough, mucous expectoration, and shortness of breath on exertion, he was fairly well, and able to follow his work. The left lung was quite free from any signs of disease. The right side moved less freely in breathing, looked slightly flattened and contracted, and the cardiac impulse was near the sternum below the cartilage of the fourth rib. Over the lower third from the front of the axillary region to the spine there were marked dulness, diminution of tactile vocal fremitus, feeble breath sounds, and impaired vocal resonance. During forced inspiration, practised after coughing, there could be heard in places creaking or obscure friction and some deeper sounding coarse moist crepitation. There was no notable change in the condition of the heart. The pulse was under 80. The temperature was slightly subnormal.

CASE 4.—In June, 1875, I was consulted by a young man for cough, expectoration, and pain in the right side. He was eighteen years of age, tall, and moderately nourished. The family history was good. Fourteen months before his visits he contracted a right pleurisy, and since then his chest had not been well. Nothing abnormal was discovered in the digestive, circulatory, genito-urinary, or nervous systems. On examining the chest, it was found that the cardiac impulse fell between the fifth and sixth ribs two inches in front of the nipple. The heart's action was strong and regular; the pulse was 68. The temperature was normal. The left side was normal in form and movement. The right side was slightly flattened, moved less freely on inspiration, and, except at the upper fourth, was dull on percussion. The tactile vocal fremitus was unaltered. Auscultation revealed in the dull region superficial creaking leather sounds, bronchial breathing, increase vocal resonance, superficial clicking, and large moist crepitation. This patient went to South Africa. I saw him two years afterwards on his return to England, and he declared himself to be quite well. A careful examination brought to light no evidence of disease except in the right side of the thorax, which was flattened, contracted, and a little twisted. The corresponding shoulder was depressed, whilst the lower angle of the scapula projected outwards from the ribs. Over the lower four-fifths of the right lung there was complete dulness on percussion, diminished tactile vocal fremitus, feeble breath sounds, no râles, and much impaired vocal resonance. During forced inspiration, creaking and sometimes little grating sounds were heard. I have not seen the patient again.[2]

CASE 5.—This was the case of an unmarried American gentleman, fifty-two years of age, a patient of Prof. Pepper of Philadelphia, who had recommended him to go to England for the benefit of change. He complained of general ill-health, of a nearly dry teasing cough, of shortness of breath, weakness, and indigestion. He was pale, thin, anxious-looking, depressed, and supposed to have had syphilis at a date not recorded. The illness for which I was consulted began in 1877, with an obstinate and incoercible right dry pleurisy. He went to Colorado, Florida, and the Sandwich Islands, with no resulting benefit. Subsequently he visited Toronto, and there began to improve. At the time of examination the patient was suffering from gastric catarrh, and had a suspicious-looking ragged ulcer, about the size of a sixpence, on the posterior wall of the rectum, within an inch of the anus. The urine was of fair density, and slightly albuminous. The heart was beating feebly a little to the right of its normal situation; there were no murmurs; the pulse was 84, small and compressible; temperature normal. The left lung on examination yielded no signs of disease. The right side of the thorax was a little flattened, and on inspiration moved much less freely than the left. Over the lower two-thirds, and chiefly from the anterior border of the axillary region to the spine, there were almost complete dulness on percussion, diminished tactile vocal fremitus, feeble and irregular breath sounds, slightly increased vocal resonance, and no râles. Deep forcible inspirations brought out superficial rustling crepitation, creaking leather sounds, and at one or two parts grating friction. Patient complained of general pains which disturbed his sleep, and of stiffness and achings of the joints. Nine months afterwards I re-examined the patient. His general health was much improved, but the condition of the right lung was unaltered, and there was still a trace of albumen in the urine.

CASE 6.—For this case I am indebted to the kindness of Dr. Goodhart. Unfortunately no dates are given in the record. Nine years before death the patient was admitted into Guy's Hospital for chronic interstitial nephritis. Soon afterwards he had an attack of right dry pleurisy, followed by hæmaturia. Four years, and again two years, before death the patient had hæmoptysis. The physical signs were reported to be those of bronchitis and of phthisis. The patient died unexpectedly and suddenly, with signs of failing action of the kidneys. On inspection after death it was found that the right lung was surrounded by a greatly thickened pleura, at some parts a third of an inch in thickness; that the whole upper lobe was converted into a mass of fibroid tissue, traversed by slightly dilated bronchial tubes; and that it seemed as if the fibroid invasion had arisen in and extended from the inflamed pleura. Part of the lower lobe was simply collapsed and penetrated by tracts or bands of fibroid tissue, which, starting from the pleura, were lost in the lung. A similar, but less advanced condition, existed in the summit of the left lung. The heart weighed eleven and a half ounces; two of the aortic valves had fused into one, and the third was enlarged. The kidneys were slightly granular on the surface, but there was no marked cortical wasting. There were, however, some recent epithelial changes and intertubular congestion.

CASE 7.—This case occurred in a gentleman seventy-six years of age, whose family was reported to be free from any taint of phthisis. Summoned in 1870 to see him on account of a small recurring hæmoptysis, I was informed that at about eighteen he had had a right pleurisy which "persisted in a curious way" for many months; that almost ever since that time he had suffered from his chest; that he had had several attacks of hæmoptysis; that he was liable to frequent and severe colds; and that notwithstanding these facts his general health had been fairly good, and he had been between his attacks equal to the ordinary duties and enjoyments of life. The attack of hæmoptysis having ceased in a few days, I was able to examine the chest with some care. The heart was found to be beating against the cartilage of the third rib on the right side. This was flattened and irregularly retracted; the shoulder was depressed; the scapula at its lower part projected outwards from the ribs; the neck was swollen and its superficial veins were distended and

[2] See Appendix, Note 2.

tortuous; and here, as well as in the face, the skin was of a pale dull leaden hue. The whole side, front and back, except at the apex, was dull on percussion, the tactile vocal fremitus was rather increased; the breath sounds were of the hollow bronchial variety, loud, harsh, and blowing; there was no vesicular breathing, but instead of it there were large, moist, gurgling rhonchi; and the vocal resonance along the course of the bronchial tubes was bronchophonic and almost pectoriloquous. At the base of the lung the physical signs were of a similar character, but much less advanced. Over the summit of the lung the tactile vocal resonance was diminished; the breath sounds, though feeble and harsh, were of the normal type; and the vocal resonance, except at the inner end of the clavicle, was diminished. The percussion note over the summit of the lung was of a tubular character, and resembled the sound which, in children, one can elicit by tapping the upper part of a lung, the lower part of which is surrounded by fluid. The left side was enlarged, rounded, and moved fully and freely on inspiration. Tactile vocal fremitus was everywhere distinct; the percussion note was more than naturally clear and resonant; the breath sounds, the vocal resonance, the respiratory rhythm, and the pleural movements were everywhere normal. Six weeks after the first I made a second examination of the patient when he had returned to his normal state. I found that he suffered from a slight catarrhal dyspepsia; that the urine, of low density, contained always a little albumen; that he had a habitual slight cough with muco-purulent expectoration; that when he was struck with a severe bronchial attack the cough became paroxysmal and ended in vomiting; and that he suffered from time to time with pains about the right shoulder and side. During this examination I heard but few râles; but a creaking leather sound—a sound as of the creaking of a new saddle—was clearly audible during deep inspiration. I did not again see this gentleman, who subsequently died of bronchitis, under the care of Messrs. Huxley and Nankivell at Torquay. Since these notes were written I have learned from Dr. Toogood many interesting particulars of this patient's case. Chief among them is the circumstance that the patient suffered occasionally from attacks of dry pleurisy on the right side.

CASE 8.—In the early part of 1870 I was summoned to see a gentleman complaining of pain in the lower part of the left side, which he considered to be an attack of internal gout. The patient was sixty years of age, tall, thin, and somewhat infirm, but vivacious. He had suffered from regular attacks of gout for many years, until the last five years, when the attacks became irregular, and when, as the patient alleged, instead of occurring in the foot or hand, they occurred in the lower or back part of the left side. On examining the chest, I found slight dulness over the lower and back part of the left side, increased tactile vocal fremitus, harsh grating friction, feeble breath sounds, and slightly modified vocal resonance. The patient was himself conscious of the pleural friction, and it could be felt by the hand laid lightly on the chest. Nothing abnormal was discovered in the right lung. There were uneasiness in the left side and shoulder, pain and slight cough on deep inspiration, some slight difficulty of breathing on exertion, and a little viscid, frothy expectoration discharged with difficulty. The heart was large, weak, irregular, and murmurish in the mitral area; the arteries were slightly thick. The patient suffered a good deal from indigestion. The bowels were sluggish. The urine had a density of 1018, frequently deposited showers of uric acid, and contained traces of albumen. There were no signs of disease in the nervous system. The skin was for the most part harsh and dry, but now and then there were partial sweatings. The hands and feet were deformed by repeated attacks of gout. The patient was a generous liver, and dined almost daily *à la mode* in the company of his friends. The patient continued in much the same condition until June, when he went to the south of England, and I lost sight of him for two years. During his absence it was said that his chest was quite well, but that he had had repeated attacks of ordinary gout. Towards the close of 1872 I was again summoned to see this gentleman in London, and I found him in every way worse. He had frequent paroxysms of cough, ending partly by cough, partly by vomiting in the expectoration of a fetid muco-purulent matter often stained with blood; he was breathless on exertion, and he had pain, aggravated by coughing, round the base of the right lung. The sputum contained areolæ of elastic tissue, and made sure the diagnosis of an excavation in the lung. The whole base of the left lung was now completely dull on percussion, the tactile vocal fremitus was diminished, and, except at one point about to be noticed, the breath sounds were feeble and the vocal resonance diminished. At the point excepted in the middle of the posterior base, and a little way above the upper limit of hepatic dulness, the breath sounds were cavernous and the voice bronchophonic. Occasionally either no cavernous breathing was heard in this locality, or else there were bubbling or gurgling râles. Immediately after free expectoration the breath sounds were hollow; some hours afterwards, and before the occurrence of a paroxysm of coughing, auscultation gave no evidence of the presence of a cavity. The right lung was entirely free from any sign of disease. The heart, drawn a little upwards, was weak, irregular, and indistinctly felt. The pulse, frequent and quick, beat over a hundred times a minute. There was not only no elevation of temperature, but the temperature, unless on exceptional occasions, varied from one to two and a half degrees below the standard of health. The digestion was much disturbed, the bowels were obstinately confined, and the patient was troubled with hæmorrhoids. The urine was now abundant and pale; it contained habitually traces of albumen, but there were no casts. The patient was thin, weak, ailing. The face and particularly the eyelids were puffy. The finger ends were swollen. The superficial cervical veins were distended. The skin was yellowish and dry. There had been no serious attack of external gout for many months. The nervous system was unstrung and the temper had become irritable. The nights were restless and vaso-motor storms were frequent. On this occasion I saw the patient only twice or thrice. He did not improve much, and thinking that he needed more frequent relays of food and more ample supplies of wine than my regulations for management permitted, he sought the advice of another physician who understood his constitution better than I, and who held more liberal views respecting its management. In 1875 the patient again came under my care. He was thin, weak, and worn; his feet and legs were œdematous; he was depressed in spirts and irritable in temper; his nights were sleepless and his days distressed by frequent paroxysms of exhausting cough. The expectoration was abundant, muco-purulent, and sometimes almost unbearably fetid. On occasions the fetor disappeared for days and the expectoration consisted only of a frothy viscid or watery mucus, dotted with tiny pellets of pus or of blood. His breathing, always short and shallow, turned into distressing breathlessness when he ascended a flight of stairs. The digestive organs were greatly disordered, flatulent attacks with palpitations were frequent, the bowels were irregular, and the urine, having a density of 1012, contained about 5 per cent. of albumen but no casts. The skin, harsh and dry, had a pale-bluish or leaden tint. The eyelids were œdematous and the right side of the neck and chest as well as the right upper arm were traversed by gorged and tortuous veins. The heart, drawn upwards and outwards, lay behind the third rib, its action was weak and irregular, and, in addition to a low-pitched murmur in the mitral area, there was a loud roaring systolic bruit close to the cartilage of the third rib at its junction with the sternum, and thence along the course of the aorta. About this time Mr. G. W. Mackenzie was associated with me in the charge of the case, and to his skill, judgment, and firmness was due the improvement which subsequently occurred in the patient's condition. By careful management, chiefly hygienic, the patient improved greatly in general health; but the signs of local lung disease, although quiet, persisted. Returning to the duties and pleasures of society and continuing therein, the patient in autumn caught a severe cold. This was followed by small attacks of generalised gout, an increase of albumen in the urine, œdema of both lower extremities and failure of general health. Again, after a time the general condition of the patient improved; but as the bronchial catarrh persisted, and as there were evidences in the sputum of advancing lung disease, the patient was sent to Torquay, and placed under the care of Dr. Usher Huxley. There for some months the condition of the patient's chest improved; and with the exception of daily paroxysms of cough ending in vomiting, habitual but scarcely felt breathlessness, and occasional attacks of irregular and tumultuous action of the heart, the patient suffered little and enjoyed his limited life. On a certain day, however, he having got chilled, he began to have irregular accessions of fever. The appetite failed,

the albumen in the urine increased, a pleuritic effusion appeared in the right side, the breathing became oppressed, the heart slowly failed, and the patient, falling into a state of stupor, died. To Dr. Usher Huxley I am indebted for an account of the autopsy, and for that part of the affected lung which included the naked-eye evidences of disease. The base of the left lung was surrounded by several layers of adventitious pleural membranes, varying in consistence and character. The innermost of these layers appeared to extend through the interlobular fissures, and along the bloodvessels into the substance of the lungs, which was hard, tough, dark, and cut with difficulty. Within an inch of the posterior surface of the lung, and near its base, were two irregular cavities, containing blood-stained purulent matter. The walls of both cavities were shaggy, and in the immediate neighbourhood of one of them were a few small knots of fibroid tissue, about the size of hemp-seed. There were no bronchial dilatations. The bloodvessels were everywhere thickened. The lymphatics of the interlobular fissures were here and there swollen, knotted or saccular, and contained at some parts small clots, and at others masses of a cheesy consistence and aspect. The upper part of the lung contained no deposits of any kind. The free margins and isolated central portions of the lung were emphysematous. The pleura investing the summit was much thickened. Except for patches of pleural thickening, the right lung was apparently unaffected by disease. The heart was dilated and soft; the valves were roughened; and the aorta was atheromatous and slightly dilated. The kidneys were congested, the capsules adherent, and the cortex granular. Nothing of the nature of tubercle as ordinarily understood was anywhere found.

CASE 9.—In 1866 a man was admitted into the London Hospital, and placed under my care, complaining of severe pain in the lower part of the right side, passing upwards as high as the nipple and downwards as far as the umbilicus. He was twenty-three years of age, tall, dark, thin, and by occupation a costermonger. There was no family history of phthisis, and the patient himself had enjoyed good health until the appearance of the illness for which he had been admitted. He confessed, however, to the habitual and free use of alcoholic beverages. A week before admission the patient had a rigor, followed by severe pain in the right side, cough, fever, and considerable prostration. The whole facts of this case were carefully studied and recorded by my colleague, then my clinical clerk, Mr. J. M'Carthy. From his notes I have extracted all that seemed to bear directly upon my present purpose. The patient complained of dry cough, of pain in the right side, made excruciating by coughing or by deep inspiration, of loss of appetite, and of great prostration. The lower part of the right side moved imperfectly on inspiration. The tactile vocal fremitus was slightly diminished. There was no marked dulness on percussion. Over the whole base could be heard with the stethoscope pleural friction, superficial moist crackling, and, at scattered circumscribed places, bronchial breathing with increased vocal resonance. Between those places the respiratory sounds were rather feebly heard through the crackling and friction. Examination of the upper part of the lung yielded no signs of disease beyond a few mucous râles. The left lung was apparently healthy. The heart's action, unaccompanied by any abnormal sound, was frequent and weak. The pulse 110, small and compressible. The temperature 103°. The tongue was loaded; the bowels were confined; the urine was scanty, and deposited purple lithates. The patient looked and felt very ill. After a week he had frequent distressing cough with muco-purulent expectoration, and occasional attacks of dyspnœa, with severe pain in the right side. The physical signs remained practically unaltered. Fever continued, and the patient took little food, had restless nights, and was extremely prostrate. At the end of a month he was much worse. The physical signs, still of the same general character, had extended to the whole lower third of the right side, and there was extreme tenderness over the hepatic region. Coarse, moist crepitation, with mucous râles, was heard throughout both lungs. There were harassing cough, thin muco-purulent expectoration, and occasional attacks of breathlessness in the midst of shallow and painful respirations. The pulse was 120; the temperature at night 104°; there were occasional chills during the day, and sometimes profuse sweats at night. The patient lay upon his back, took little food, and expressed himself as very ill. The tongue was loaded and the breath fetid. Constipation alternated with diarrhœa, and light with dark fæces. The urine, more abundant in quantity, contained a little albumen. Exploration of the right side with a fine trocar showed that there was no free fluid in the pleural sac. Several physicians who at this time examined the case suspected it to be one of acute tuberculosis, with secondary pleuro-pneumonia of the base of the right lung. Before the patient's death, about two months after admission, new physical signs arose in the base of the right lung, two inches below the nipple. Over a circumscribed space, dull on percussion, there were heard cavernous breathing, pectoriloquy, and on coughing a hollow gurgling rhonchus. After death it was found that the structural evidences of disease were confined almost entirely to the lower third of the right lung and the upper surface of the liver. The base of the lung was surrounded by a thick layer of loose, yellowish, soft, and almost diffluent lymph, infiltrated at parts by a fluid resembling pus, but composed of degenerating cells of various forms, with glandular débris. The old membranous exudations in contact with the pleura were quite firm, and could be traced throughout the lower part of the lung in two forms: as white, tough, intersecting bands, and as a dense, hard, almost formless fibroid infiltration. At the lower part of the base, near the anterior surface, there were found pyriform bronchial dilatation and one or two minute cavities. Throughout the intercurrent portions of lung two different structural changes were visible. The first consisted of disseminated, rounded caseous lumps, for the most part confined within the limits of the pulmonary lobules, but sometimes extending beyond them. Histologically the lumps resembled the consolidations begotten in caseous pneumonia, and were at one or two points melting into excavations. The second kind of structural change was due to the presence, in small numbers, of spheroidal greyish or yellowish bodies, about the size of hemp-seed and resembling tubercles. They had not, however, the arrangement of parts and structural characters of veritable tubercle. They were divisible into two groups; the members of one group were mere knots of fibroid tissue; the members of the other appeared to consist of choked and distended lymphatic spaces, traversed by an adenoid reticulum. In the abundant soft lymph lying between the under surface of the lung and the diaphragm there was found an abscess about the size of a large walnut, and this abscess could be followed through the diaphragm into the liver, where there existed another abscess of a like size and character. Round about this abscess, and within the space of an inch from it, were several spheroidal masses, each about the size of a very small cherry, of a yellowish colour, and not unlike the caseous lumps in the lung. In the pleura of the under surface of the lung, in contact with the soft diffluent lymph, I observed, and recorded with illustrations in my work-book, the presence of cup-shaped depressions, bordered and lined with flattened nucleated epithelial cells. I did not at the time of examination understand the nature of these bodies, and was disposed to regard them as mere alveoli of mechanical production. The researches of Rechlinghausen, Ludwig, and Klein make it now probable that these bodies were temporary or permanent stomata. Besides these stomata communicating with lymphatic spaces, there were found other minute openings leading by tortuous channels into the pulmonary parenchyma. Nothing of importance was found in any of the other organs or tissues of the body.

CASE 10.—In May, 1878, a gentleman consulted me for severe pain in the left side, teasing cough, slight breathlessness on exertion, and recurring irregularity of heart. The patient was sixty-one years of age, spare, florid, dark-haired, light-eyed, and, although disposed to stoop a little, well preserved. He was regular in his habits, fairly moderate in the use of alcohol, active, and a considerable smoker. The family history was characterised by rheumatism, gout, heart disease, and asthma. In the past personal history of the patient the most notable events were indigestion, often recurring, rheumatism, some stray visitations of gout, and two or three attacks of pleurisy of short duration. The attack for which the patient consulted me was of a week's duration, and was ascribed by him to having got chilled whilst driving late in an open cab. The lower half of the left side was slightly contracted, and expanded imperfectly on inspiration; the tactile vocal fremitus was at most parts greatly diminished; there was complete dulness on percussion; grating friction and a superficial rustling crepitation obscured the normal breath sounds; the pitch of the vocal

resonances was lowered and curiously uneven. A few mucous rhonchi with sparse, coarse, moist crepitations were heard over the upper part of the same side. A few sibilant and sonorous rhonchi with large moist crepitations were heard throughout various parts of the right lung. The heart, drawn a little outwards, was weak and irregular; a systolic bruit was heard within both the mitral and the aortic areas. Nothing special was noted in the condition of the digestive, urinary, or nervous systems. Both hands, the knees, and certain parts of the spine exhibited osteo-arthritic changes. I had no opportunity of seeing this patient again until July, 1883, when, in conjunction with Mr. Gifford Ransford, I had charge of him until his sudden and unexpected death in March, 1884. In the early part of June, at Aix-les-Bains, the patient was seized with a sharp attack of pleurisy, and was placed under the care of Dr. Berthier. It is probable that the character of the thoracic signs led to a suspicion of fluid effusion, for I understood that an exploratory needle was used, and that no fluid was found. At the time of examination the patient complained of frequently recurring paroxysmal cough, ending in vomiting of muco-purulent, sometimes fetid, expectoration, of severe pain in the left side, of breathlessness on exertion, of night sweats, of slight fever, and of great prostration. The left side of the chest was irregularly contracted and flattened, and rose feebly on inspiration. Over the lower two-thirds there were diminished tactile vocal fremitus and complete dulness on percussion. The breath sounds generally were feeble, hollow, distant, and at most parts the vocal resonance was lowered in pitch and diminished in tone. At two places, one below the lower angle of the scapula, and the other about an inch external to it, the breath sounds were cavernous; the large moist râles had a metallic quality, and there was loud bronchophony. Throughout the upper two-thirds the percussion note was hyper-resonant; the respiratory murmur, of normal type, was loud, harsh, and accompanied by medium-sized moist crepitations; the vocal resonance was increased. Nothing abnormal was discovered in the right lung. The muco-purulent expectoration, of ordinary histological characters, contained areolæ of elastic tissue from the lung; but, although several times sought for, no tubercular bacilli were found. When the sputa were fetid micrococci were abundant. The heart, drawn upwards and outwards, was enlarged, weak, and irregular; at the place of impulse a loud systolic bruit was heard; and in the pulmonary area there existed another bruit, louder in pitch and fuller in tone. The temperature, falling in the morning, rose in the afternoon to 101°. There were slight chills and sweats. The digestive organs were much disordered; the tongue was loaded and the breath unpleasant. With anorexia and thirst, there was much flatulence; the bowels were irregular. The urine, at one time loaded with urates or depositing uric acid, was at other times limpid and slightly albuminous. Nothing worthy of notice was found in the condition of the nervous system. For months the patient steadily improved, and the condition of the left lung became quite passive. There were, it is true, occasional fits of paroxysmal coughing, some morning expectorations of the usual kind, and breathlessness or palpitation on exertion, but they did not materially interfere with the patient's comfort in life, and he did not himself give them any consideration. Curiously enough, however, as the condition of the lung and of the general health improved, the osteo-arthritic trouble returned, became slowly worse, attacked the neck, shoulders, back, hips, and hands, and was the cause of much suffering.

In February, 1884, the patient began to improve, and in the early part of March he had gained flesh and become in every way much better. But on the 10th of this month, being in his usual condition and exceptionally free from trouble, he suddenly began to cough up blood, and in a few minutes expired. The autopsy was made by Mr. John Morgan and Mr. Gifford Ransford. The whole left lung was united by layers of thick, dense, hard pleural lymph to the walls of the chest, and was removed with great difficulty. The lung was much diminished in size, dense and leathery to the touch, and invested by several layers of adventitious pleural membranes, varying in thickness and character at different parts. About the middle of the lung, where these membranes were thickest and most closely connected, they had, when cut, much of the aspect of a fibrous growth, and seen apart from their visceral connexions could have been easily mistaken for one. When laid fully open the lung appeared for the most part of a dark-red colour, and was found to be dense, hard, tough, and cut with difficulty. Fibrous bands passing from the pleura, and intersecting at various angles, traversed the middle portions of the lung, and compressed small bronchial tubes and bloodvessels. In the base of the upper lobe, and nearer the posterior than the anterior surface, there were two ragged irregular cavities. One, about the size of a walnut, contained curdy matter and blood; the other, rather smaller, was empty. Several bronchi in the neighbourhood contained clots of blood. The summit of the lung was encased in a thick capsule of laminated and indurated lymph; but the lung substance itself was substantially free from disease. Except at its anterior and inferior free margins, where there was much vascular emphysema, the immediate base of the lung although greatly congested and traversed by intersecting fibrous bands, was pervious to air, and free from any marked consolidation. The bronchial tubes were nowhere dilated. The right lung, beyond some pleural thickenings, exhibited no sign of disease. The bronchial glands were enlarged, but not caseous. The heart was enlarged, soft, dilated, and fatty. The mitral valve was rough, irregularly and finely nodulated, and incompetent. The aortic valves were atheromatous and incompetent; and the aortic lining was irregular, rough, and studded with patches and streaks of atheromatous deposits. In the sputum, many times examined during life, no tubercular bacilli could be found.

CASE 11.—In 1851 the patient, then a tall, stout, healthy bricklayer, forty-two years of age, with a good family history, fell from a scaffolding, and, having injured his right side, was admitted into the London Hospital, under the care of Mr. Luke. There it was found that he had fractured two of his right ribs and was severely bruised. After two months the patient was discharged from the hospital, and, although declaring himself well, had frequent cough, with blood-stained expectoration. In 1857 the patient came under my care for hæmoptysis. He was still stout and healthy-looking, and declared himself to be quite well, except for pain in the right side, a troublesome cough, and spitting of blood. A careful examination of the patient elicited no signs of disease, except in the right side of the thorax. There in the mammary and mid-axillary regions were slight dulness on percussion, increased tactile vocal fremitus, pleural grating, large moist crepitation, and moderately heightened vocal resonance. Coughing and deep inspiration produced sharp pain about the nipple. The pulse was 76, and the temperature 98·2°. In 1860 the patient again fell under my observation, and had altered much for the worse. He had become bald; his face, pasty and œdematous, wore an expression of suffering; his abdomen was loaded with fat; and he moved about with difficulty on account of shortness of breath. He still declared that there was nothing the matter with him but cough, profuse expectoration, pain in the right side, and dyspnœa on exertion. Inspection of the chest showed that the disease had considerably advanced since 1857. The right side of the thorax, between the clavicle and nipple, was retracted, and rose feebly on inspiration. The corresponding side of the neck was swollen, and the superficial veins, distended with blood, were not emptied during inspiration. In the retracted region there were found dulness on percussion, slightly diminished tactile vocal fremitus, pleural grating or creaking, bronchial breathing with coarse moist crepitation, and some increase of vocal resonance. These signs in more or less degree were found in the mid-axillary and scapular regions. In the summit of the lung the respiratory sounds were harsh and accompanied by crepitation; in the base no evidences of disease were found. The left lung appeared to be normal. The expectoration, which was abundant and gelatinous, or muco-purulent, consisted of a mucoid stroma having embedded in it leucocytes, blood-discs, granule cells, and epithelium. The heart was large, somewhat feeble, and beating at the junction of the cartilage of the fifth rib with the sternum. The pulse was 80; the temperature 98·8°. No notable signs of disease were found in any other part of the body. In 1866 the patient had lost flesh, strength, and colour, and his whole appearance suggested the existence of malignant disease. The face had a leaden tint; the features were full, and the under eyelids baggy with serum; the neck was swollen; the right arm was œdematous; and the right side of the thorax, greatly retracted, was covered by the ramifications of over-distended veins. The movements of inspiration were shallow, laboured, and frequent; the heart was seen beating to the right of the sternum, at its junction with the fourth rib; and periodical

paroxysms of cough, making the face livid and sometimes ending in vomiting, discharged quantities of muco-purulent phlegm. In this phlegm were found from time to time areolæ of elastic tissue from the pulmonary alveoli. Beyond some fine moist crepitations near the summit in front, nothing of moment was found in the left lung. Examination of the right lung yielded the results which follow. In the supra-clavicular region there were found hyper-resonant percussion note, increased tactile vocal fremitus, hollow bronchial breathing, prolonged expiration, crackling, clicking, and crepitating rhonchi and bronchophonic vocal resonance. In the infra-clavicular and mammary regions there were found great retraction of the thoracic walls, scarcely visible expansion on inspiration, diminished tactile vocal fremitus, blowing, and at some parts cavernous, breathing, clicking, crackling, and crepitating rhonchi and bronchophonic or pectoriloquous voice. In this region, also, the expiratory sounds were greatly prolonged, the rhonchi had a metallic quality, and pleural creaking or grating was sometimes audible. In the lung below these regions the respiratory sounds were jerking and harsh, the expiration was prolonged, and with both movements of breathing fine moist crepitations were heard. Percussion and the resonances were unaltered. The action of the heart, drawn, as already mentioned, to the right, was feeble and frequent. A low-pitched systolic murmur was heard at the base. The pulse, small and compressible, beat about 80 in the minute. No unsoundness was detected in the arteries. The extremities were cold, and the feet slightly œdematous. The tongue was loaded, appetite impaired, and thirst considerable. The liver was enlarged, and descended more than an inch below the free margins of the lower ribs. The bowels were irregular, and external hæmorrhoids sometimes distressed the patient. The urine was abundant and low in density. It contained about 5 per cent. of albumen, but deposited no casts. The skin was acting well, but there were neither night sweats nor chills. The evening temperature was 97·8°. About this time the patient was examined by most of my colleagues, and there was much discussion amongst us as to the nature of his malady; but the balance of opinion turned in favour of malignant disease. The patient remained for many months in the hospital. The physical signs of disease of the right lung continued after seven months substantially unchanged; but in all other ways, in appetite, flesh, strength, colour, and sense of well-being, the patient had become, to use his own phrase, "another man." Feeling thus much better, and anxious to get into some sort of work, he was, at his own request, discharged from the hospital. At the end of eighteen months the patient was found to be in extreme poverty, and becoming rapidly worse in health; and on October 1st he was re-admitted into the London Hospital. At this time the condition of the chest was much the same as when last examined; but in one or two places about the middle of the upper lobe of the left lung there were signs of fresh disease; slight circumscribed dulness, moist crepitations, jerking inspiration, increased resonances. The heart was still displaced to the right; there were systolic murmurs at the base; the pulse at the wrist was small, feeble, and under 80. The temperature was about midday 97·4°. It was, however, in his general condition that the patient had relapsed and become worse than at any previous time. With pallid and dusky hue of face, with greatly swollen neck, traversed by gorged and tortuous veins; with wasted body, and œdematous legs; with short and laboured breathing, interrupted almost to suffocation by paroxysms of cough; unable to move about without sweats and tremors—he looked the picture of suffering and weakness. The tongue was of a bluish hue, and thickly coated with a yellow fur; only fluid food could be taken; there was much flatulence; attacks of diarrhœa were frequent. The urine was of low density, moderately albuminous, and deposited granular and hyaline casts. The extremities were cold and blue. The skin acted freely and fell often into profuse sweatings. No notable sign of disease was discovered in the examination of the nervous system. Nothing done for the patient gave him relief. He became slowly weaker; and at length, after seventeen years' conflict with his malady, he succumbed. The thorax and abdomen alone were examined after death. The heart and great vessels lay beneath, and a little to the right of the sternum, corresponding to the third, fourth, and fifth intercostal spaces. The heart was large, soft, and loaded externally with fat; there was no demonstrable valvular imperfection; the lining membrane of the aorta and small portions of the pulmonary artery were atheromatous. The veins at the root of the neck were partially compressed by adhesions connecting the upper lobe of the right lung to the neighbouring parts. It was only by the free use of the knife that the right lung could be removed from the chest. Greatly diminished in size and irregular in form, surrounded by a tough fibrous capsule, at some parts over an inch and a half in thickness, and having disposed along its inner surface from the apex to near the base a flattened mass of lobulated yellow fat, the organ on superficial inspection looked more like a tumour than a lung. A longitudinal section having been made, it was seen that the fibrous capsule investing the lung consisted of several closely superimposed layers of different character and thickness; that, where uncut, the outer surface was rough, uneven, and obscurely warty; that from the inner layers fibrous bands of unequal breadth penetrated the lung, and passing along the inter-lobular septa, or accompanying the vessels, or surrounding the smaller bronchi intersected in various directions, produced an areola of varying size and form; and that chiefly at the intersections, but also occasionally elsewhere, the fibrous bands exhibited small, hard, tough, nodular swellings. Corresponding to the place where the ribs had been fractured, the adventitious pleural membranes were infiltrated with flakes and particles of calcareous matter. The upper two-thirds of the lung were intensely congested and riddled with small, ragged, irregularly-shaped cavities. Here and there were small consolidations due to the presence in the alveoli of an amorpho-granular obscurely fibroid matter. The pulmonary arteries, and at some parts the pulmonary veins, were thickened. Once in a lobular branch of the artery a nodule was seen almost entirely obliterating the lumen of the vessel, and growing from its inner wall. Almost everywhere the adventitia was thickened, not apparently by cell proliferation, but by a nearly homogeneous infiltration. In several instances in which small branches of the pulmonary artery were apparently much compressed or thickened, the alveolar territory to which it was distributed was in a condition either of fatty usure or of atrophic emphysema. This relation between the state of the vessel and the state of the lung was so frequent that one was disposed to regard it as causal. Some of the larger bronchial tubes in the upper part of the lung were dilated, whilst their walls had become thin and soft, but tough. At these parts the ciliated epithelium was replaced by a subspheroidal one, the cartilages were wasted and inelastic, and the muscles had apparently undergone fibroid degeneration. Here and there an early division of the intralobular bronchi was found almost obliterated, and the alveoli connected therewith were collapsed. Immediately beneath the pleura throughout the whole extent of its diseased portions the lung exhibited uninterrupted lines or patches of pneumonic consolidation. In the worst part the consolidation was of the croupous sort; but at several points where the consolidation was larger, and in immediate relations with lymphatic spaces or vessels, it was caseous. At some parts in the midst of the fibroid induration the alveolar walls were greatly altered in structure, and the alveoli contained a matter composed of free nuclei, leucocytes, epitheliod cells, and pigment globules. The alteration of the alveolar walls was considerable. They were thickened; the epithelium lining them was subspheroidal, and arranged sometimes in a single and sometimes in a double or even triple layer. Some of the alveolar capillaries were obliterated; others were dilated, almost saccular; all of them appeared to be thickened. The intervascular spaces, much larger than in health, had a fibrillated appearance, and were crowded with oval nuclei irregularly disposed. Once or twice an alveolar wall was seen to be nodulated; and both in structure and arrangement the nodule resembled a minute fragment of a nucleated fibroma. The lower third of the lung was intensely congested, and yielded on pressure an abundant frothy blood-stained muco-purulent matter. On its surface, and particularly at its free margins, the lung was emphysematous; but emphysematous patches were found also about the centre of the lung, close to, and sometimes in the midst of the fibroid induration. The left lung, of large size and a greenish-red colour, was connected by loose adhesions to the costal pleura. The whole lung was greatly congested, and yielded on pressure an abundant frothy sanguinolent serum. In the middle of the upper lobe there was a group of bodies which, in their naked-eye characters, could not be distinguished from what are called veritable

tubercles or grey granulations. About the size of a hemp-seep, spheroidal, and projecting above the level of the cut surface of the lung, they were greyish, semi-transparent, dense, hard, tough, and free from every trace of caseous change. Each body, composed for the most part of fibro-corpuscular elements, interspersed with epithelial-like cells and short nucleated fusiform fibres, might have been regarded, according to the subjective attitude of the observer, either as a mere fibrous knot or as a true tubercle. The irregular layers of new membrane constituting the capsule of the lung were of two kinds, but not alternately arranged. The one kind was hard, close, and similar to a lamellar fibroma; the other resembled a loose areolar tissue in the trabeculæ of which were branched connective-tissue corpuscles, and in the meshes thereof decaying leucocytes and epithelial-like cells. The bronchial glands were enlarged and loaded with pigment, but not caseous. The juice, in addition to the normal lymph corpuscles, contained in enormous numbers spheroidal multi-nucleated cells in a state of active endogenous proliferation. The liver and spleen were enlarged and congested. The capsules of both organs were greatly but irregularly thickened. In the former, cirrhotic changes were beginning. Both kidney were enlarged and much congested. Their capsules were opaque, thickened, and adherent. The capsular surface of each kidney was obscurely granular and mottled; but there was little wasting of the cortical substance. In many of the arteries, however, there was thickening of their outer and inner coats. I have in this case described some of the pathological changes found after death at greater length than the scope of these lectures will fairly warrant; but I excuse myself on the ground that they affect questions of fundamental importance, and that having followed the case throughout its whole course, I may venture, with less hesitation than will be necessary in the other cases, to deal with the conclusions which the study of the case seems to justify one in drawing from it.

CASE 12.—I now proceed to relate briefly the history of a case which in the group of advanced and complex cases represents that section of it composed of patients who have continued to live. This case is the last which I have chosen for the illustration of my subject, and at the close of the lecture it will be submitted to your own examination. The patient is unmarried and a potman, but, as is alleged, of temperate habits. The father died some years ago of consumption; the mother with a brother and sister are in good health. The patient himself never had any illness until September, 1875. About that time he had a chill, from which he speedily recovered. On October 28th, whilst walking in the street, he became suddenly cold, giddy, faint, powerless, and fell to the ground. Consciousness was retained throughout. Carried home and put to bed, he was seized with a sharp cutting pain in the left side, shortness of breath, dry cough, and recurring chills. On the 29th the patient recovered power; but after this time losing ground in other ways, he was received into the London Hospital on November 2nd. Examined after admission, the following facts were recorded. The left side of the thorax moves on inspiration less freely than the right; over lower three-fourths the tactile vocal fremitus is increased; and in the same region there are dulness on percussion, large moist crepitations, bronchial breathing, increased vocal resonance, and scattered patches of grating pleural friction. Examination of the right lung yielded no evidence of disease therein. Heart's action weak and frequent; pulse 94, small and compressible. Temperature 101°; respiration 28. The tongue was furred and dry; the breath was fetid; there was complete anorexia; the bowels were confined, and the urine was scanty, high coloured, and loaded with purple lithates. The skin was dry and harsh and the face flushed; the eyes were bright and the pupils dilated. The patient complained of headache, general pains, a sharp stitch in the left side, dry cough, and malaise. A week after admission an effusion of serum had occurred in the left pleura; the heart was pushed to the right of the sternum; and the patient's breathing had become rapid. Within a month all signs of fluid in the left pleura had disappeared; the heart had returned to its normal position; and, but for an uneasy sensation throughout the lower part of the left side, the patient said that he would be well. The pulse, respiration, and temperature were almost natural. Round the base of the lung, however, there were loud grating pleural frictions, and deep inspiration or cough produced pain. When the patient was dismissed, some months afterwards, the pleural frictions were still present, but he expressed himself as in other respects well. During the following year the patient was readmitted into the hospital with dry pleurisy of the right side. He was in poor general health, looked pale and ill, suffered from gastro-hepatic catarrh, and had scanty high-coloured urine, slightly albuminous, and free from sugar, but loaded with purple urates. The heart occupied its natural place in the thorax, was free from signs of disease, and beat about 80 a minute. Throughout the mammary and axillary regions of the right side there were grating or rubbing pleural frictions and pain on inspiration or coughing. The respiratory murmur was feeble and interrupted, and the resonances were diminished; but in as far as it could be ascertained there were no pulmonary râles. The left side of the thorax moved less freely than the right, and it was irregularly flattened. There was dulness on percussion in the infra-clavicular, mammary, axillary, and mid-scapular regions; the tactile vocal fremitus was slightly diminished; the breathing throughout was feeble and hollow; coarse moist crepitations, accompanying both respiratory movements, were heard in several places; and the vocal resonance, varying at parts, was on the whole increased. An inch below the outer end of the clavicle there was a patch of dulness equal in size to a florin, where there were heard bronchial, almost tubular breathing, a few small moist râles of metallic quality and bronchophony. Here and there intermittently pleural creaking or grating was heard. Patient had a short hacking cough, a moderate amount of muco-purulent expectoration, and breathlessness on exertion. The sputum consisted of a mucoid stroma, having embedded in it leucocytes, young epithelium, pus globules, granule cells, and much amorpho-granular matter in little masses or streaks. No elastic areolæ were found. A systolic bruit was heard in the pulmonary area; the pulse was 84; the temperature was 99°. The patient remained in the hospital until June, 1877. During all those months he improved in general health. The condition of the left lung remained without material change until the time of his discharge. And although on the right side the pleural frictions were often absent for weeks, they always returned for longer or shorter periods, and appeared to be causally connected with changes slowly advancing in the middle and lower part of the lung. In these regions the intercostal spaces were deeply retracted; there was diminished movement on inspiration; dulness on percussion had become considerable; the respiratory murmurs feeble, hollow, distant, resembled those heard in moderate pleural effusion, and vocal resonance was muffled. There was no displacement of organs; and various alterations of the position of the patient produced no perceptible change in the outlines of the area of dulness. On readmission to the hospital in 1882, the patient was found to be much worse than when he left it in 1877. Pale, thin, weak, breathless, he complained of troublesome cough, with a good deal of muco-purulent expectoration, and of acid and flatulent disorders of digestion. Furthermore, he had a small strumous-looking abscess over the second lumbar vertebra, and chronic enlargement of both testicles, unconnected with any venereal affection. On examination of the chest it was seen to be retracted, chiefly on the right side. Its movements during inspiration were shallow, frequent, and irregular, and the intercostal spaces were everywhere deepened. Over the upper half of the left lung there were dulness on percussion, slightly increased tactile vocal fremitus, pleural creaking, moist metallic crepitations, bronchial breathing, and increased vocal resonance. An inch below the outer end of the clavicle, and over a space of the size and form of a florin, there were to be heard cavernous breathing, large moist râles, and loud bronchophony. In the supra-clavicular region the respiratory sounds were merely feeble and hollow. In the upper third of the right lung no evidences of disease were discovered. The lower two-thirds were retracted, and rose little on inspiration. There was complete dulness on percussion; the tactile vocal fremitus was much diminished; the respiratory murmur was feeble; no râles were heard; but there were distinct pleural rustlings, creaking, and friction; the vocal resonance was muffled and distant. The state of the digestive organs was unsatisfactory; the tongue was coated and the breath fetid; the tonsils were enlarged, and stuffed with cheesy lumps; acidity, flatulence, and sensations of burning accompanied the digestive processes; the liver, rather small, was pulled upwards by the contracted lung; the bowels were irregularly and inadequately relieved. The urine, turbid from a little mucus, had a density

of 1016, contained about one-twentieth of its bulk of albumen, and, according to West's process, yielded with an average daily discharge 2 per cent. of urea. The heart, occupying its normal position, was slightly enlarged; at its base, within the pulmonary and aortic areas, a systolic bruit was heard; the pulse was 84, of moderate volume and strength; the arteries were soft. The evening temperature stood at 98·4°, the morning at 97·2°. The skin was rather harsh, dry, and indisposed to sweating. Nothing of moment was discovered in the examination of the nervous system. The morning sputum, not exceeding two drachms of muco-purulent matter, contained elastic areolæ from the pulmonary alveoli. The areolæ had become so changed as to admit of being broken by proper manipulation. In the sputum of the drier cough of the afternoon and evening moulds or casts of the tonsillar crypts were occasionally present. They resembled, but with ordinary care could be easily distinguished from, the elastic areolæ of the pulmonary alveoli. On leaving the hospital in 1883 the patient had greatly improved in flesh, colour, and strength. The digestion had become good; albumen was found only occasionally in the urine, and the percentage of urea had risen. The condition of the lungs had also improved; it is true that the physical signs of structural disease remained practically unaltered; but cough and expectoration had ceased, breathlessness was less, and the patient declared that he had no discomforts in his chest. When, in February, 1884, he again came under my professional care, he had again fallen into deplorable health, and was in every way worse than he had been at any former time. Thin and pale, bent and breathless, showing an uncertain gait and œdematous legs, it seemed as if his malady had greatly advanced, and as if life must be drawing to an end. Nevertheless, a careful examination was sufficient to show that, although there were cough, expectoration, and breathlessness, there was no material change in the actual physical condition of the respiratory organs. The patient's relapse was plainly due to failure in other parts of the organism, brought about by bad hygienic management, and by recurring bronchial and gastric catarrhs. The tongue was thickly furred; there were little appetite and much thirst; acidity, flatulence, weight, and pain frequently distressed the patient; the bowels were irregularly and inadequately relieved, and the fæces were deficient in bile. The urine, having a daily discharge of over fifty ounces, was pale, turbid with mucus, acid, of a density of 1014, and contained, according to the old tests, about a tenth of its bulk of albumen. The signs of a cavity under the outer end of the left clavicle had become much less marked; and the sputum, carefully and repeatedly examined, contained no elastic areolæ from the lung and no tubercular bacilli. The heart's sounds were muffled, seemingly from the development since last examination of some alveolar emphysema; the pulse was 104, small and compressible; the extremities were bluish and cold. The thermometer recorded an evening temperature of 98°. Once more under hospital care the patient rapidly recovered, and when discharged in August, 1884, he expressed himself well. No signs of active disease were to be discovered in the lungs; the digestion was good; albumen had disappeared from the urine; flesh, strength, and colour had been recovered; and beyond breathlessness on slight exertion the patient felt nothing of which he could much complain. On the 13th of March of the present year I examined for the last time the subject of this case. As usual after leaving the hospital, he had failed in health and become pale, thin, weak, and nervous. He complained of morning retching, of an occasional choking sensation in his chest, relieved by the "breaking of phlegm, which he could never get up;" of a slight, dry, hacking cough; of breathlessness on much exertion; and on epigastric cramp when he is hurried. He said, however, that he would be well but for the morning retching, and being closely examined with respect to this, he would not allow that it could be in any way connected with his manner of life. The tongue was furred, the breath foul, and the appetite capricious. Various discomforts were felt in the course of digestion, particularly a churning and burning, relieved by vomiting. The bowels acted daily, there were no hæmorrhoids. The urine, turbid when voided, was acid, phosphatic, moderately albuminous, and deposited after standing a flocculent sediment, consisting of phosphates, epithelium, pus cells, and some mucus. The head of the epididymis of each testicle was enlarged, nodulated, and tender. The thorax was irregularly flattened, from before backwards and from above downwards. The left side was more rounded, larger, and more movable than the right. The left clavicle was higher, and less prominent than its fellow; the shoulders were depressed; the breathing was shallow, laboured, abdominal, and very frequent. During inspiration the supra-clavicular spaces retracted. There was no venous engorgement of the neck. In the upper part of left side, in front and in the greater part of right side, the intercostal spaces in breathing are moved in the same manner as the abdominal muscles. Over the upper fourth of the left lung there were found diminished expansion; dulness of tympanic tone on percussion; generally increased, but at some spots diminished, tactile vocal fremitus; hollow bronchial breathing; at some parts a just audible vesicular murmur; and almost everywhere loud bronchophony. There were no râles; but in the lower and outer part of this region a superficial rustling, rubbing, or creaking could be occasionally heard. Between the third and sixth ribs there were found slight dulness of tympanic type, moderate tactile vocal fremitus, broncho-vesicular breathing, distant inspiratory crepitations, and diminished voice resonance. At the lower border of the sixth rib the gastric percussion note was heard. Over the summit of the right lung there were found diminished expansion, tympanic dulness on percussion, increased tactile vocal fremitus, hollow breath sounds, increased voice resonance, and no râles. From the middle part of the lung to its base, especially in the axillary region, there were found decreasing expansion, diminished tactile vocal fremitus, feeble bronchial breath sounds, pleural rustling or creaking, and muffled voice resonance. No râles were heard anywhere throughout this lung. The area of superficial cardiac dulness was increased. The impulse of the heart could be seen in the fourth intercostal space, just below and about an inch outside the nipple. In the second intercostal space, within an inch of the sternum, the auricular contractions were visible.[3] The first sound was muffled and mumurish, the second loud and reduplicated. The pulse was 94, small and compressible; the evening temperature was 98°. Except at the extremities, which were cold and damp, the skin was thin, rough, and dry. No sign of disease was discovered in the examination of the nervous systems. I have brought the patient here to-day, and he may be seen in one of the rooms below.

The justice of introducing this case as one of primitive dry pleurisy may be, I confess, fairly questioned. Sprung from a phthisical father, and the subject of strumous tonsils and testicles, some might plausibly contend, with the fashion of the time in their favour, that the primitive disease was tubercular, that the dry pleurisies were only its secondary manifestations, and that, arrested by fibroid evolution, substitution,[4] or invasion, the case was one of ordinary tubercular phthisis, which, in the felicitous diction of Dr. Moxon, was "writ old." But, more than this, it might be contended that as some of the lymphatic vessels arising in the deeper parts of the lungs empty themselves into the subpleural lymphatic spaces, tubercular changes among the lymphatic rootlets too far from the surface to be discovered by physical signs would manifest the earlier of their secondary consequences in subpleural adenitis or plastic exudations. And, furthermore, it might be asserted that in the beginning of this case tubercles did exist in the lung beyond the reach of physical exploration; that they excited secondary structural changes in the adjacent tissues; and that those changes, through the medium of the lymphatics, begot the dry pleurisies herein alleged to be primitive. All this, it is true, may be justly said. But it is also true that there is much to be said on the opposite side, and more than it would be proper for me to say on this occasion. Nevertheless, in passing, I may be permitted to remark that phthisical predecessors do not necessarily beget more than pulmonary vulnerability; that analogical arguments are not conclusive evidence; that facts ascertained upon evidence ordinarily considered adequate are not to be rejected upon merely theoretical grounds; that radical departures from all the several characters which collectively constitute a given type of disease demand, even if conditional, either a conclusive proof of unity or a separate recognition of autonomy; that the true criterion of the nature of a case lies less in the pathological

[3] Perhaps these movements were really due to a retracted lung and a dilated pulmonary artery.

[4] Cruveilhier, Boudet, Blase, Brichteau, and perhaps Pollock and Moxon.

changes which it exhibits after death, than in the completed history of its origin, course, and issues during life; and that if the case just recorded were made one with every other form of pulmonary phthisis, through the causal agency of a bacillus, loyalty to knowledge and service to society would alike require some more rational explanation than has yet been given; why, within the limits of a unity, real or imagined, forms of disease widely differing in their symptoms, signs, course, complications, duration, and issues should be refused a distinctive, although still dependent recognition. I do not know whether through this refusal the loss to science or to society is the greater; but I am sure the loss to both is great, and I shall advert to it again.

Here I must bring to an end this narration of cases. Every one of them represents but inadequately the group to which it belongs, and from none of them can be obtained a connected, and, as far as our present knowledge extends, a complete view of the subject matter of our inquiry. But when all these cases are collated, compared, and otherwise critically considered, one case will be found to illustrate or explain another, the more complete will in some measure supplement the less complete, and in the pathological changes found in those cases in which autopsies were made, we may fairly form probable judgments of the pathological changes which would have been found in other cases in which autopsies were forbidden. In this way it may happen that we shall at length succeed in getting larger and better knowledge than we now possess of the origin, course, and issues of dry pleurisies. And although it must be that this knowledge shall prove in many ways defective, and in some even inaccurate, it will at least suffice to provoke inquiry, and to make plainer and easier the way for those who follow in the search for what remains to be corrected and discovered therein.

A Museum Lecture

ON THE

ANATOMY OF SPINA BIFIDA.

Delivered in the University of Cambridge,

BY PROFESSOR HUMPHRY.

GENTLEMEN,—Finding considerable difference of opinion among surgeons respecting the anatomy of spina bifida, and especially, at which I was surprised, respecting the usual relations of the spinal cord and the spinal nerves to the sac, I have recently examined the specimens of this affection in most of the pathological collections of London, as well as some recent specimens which have been kindly submitted to me by Dr. Goodhart and Mr. Stewart. The chief points are, however, sufficiently demonstrated in the specimens before you, most of which were dissected and placed in the museum of the University by myself a good many years ago.

The name "spina bifida" is derived from one, and that not the most important, feature of the affection—viz., the separation or divergence, and in some instances the dwarfing, of the vertebral arches. This is associated with, and probably caused by, the protrusion from the vertebral canal of a sac containing a thin colourless fluid situated in the middle line, and of variable size. The affection is most common in the sacral, or the lumbo-sacral, region. The sac is more or less covered by skin, rarely altogether, but commonly to some extent of its circumference; the middle part being usually covered, rather formed, by a thin, translucent, bluish-red, more or less vascular, membrane; though in some instances this middle part has the appearance of a cicatrix. The thin, translucent, or cicatricial middle part is continuous with the surrounding skin, the line of demarcation between the two being pretty clearly defined. The sac is commonly circular in outline, and its upper and lower borders afford some criterion of the extent in the spinal column to which the vertebral arches are deflected, and the vertebral canal is open. Still, the sac not unfrequently overlaps the unaffected arches above and below, and it usually overlies and extends beyond the everted arches at the sides. Dissection in most instances shows the spinal cord turning beneath the lowest entire vertebral arch—that is, the arch immediately above the spina bifida, and passing into some part of the wall of the sac. In some cases the cord runs free through the upper part of the sac to the middle of its wall, where it is composed of the thin membrane just mentioned. In other instances, immediately upon reaching the sac the cord is blended with the wall of the sac, and requires a little dissection for its demonstration. The nerves, traced from the sacral, or the lumbar, intervertebral foramina, do not form a cauda equina in the usual manner, but are directed transversely, or nearly so, towards the same membranous part of the sac as the spinal cord; and, like the spinal cord, they are, in some instances, seen in their course to this part, lying free in the sac, whereas in others they lie in their whole length in the wall of the sac. In a third set of cases they present intermediate conditions, being partially free in the sac and partially embedded in its wall; or they are more or less united together by membranous bands which may be regarded as derivatives from the inner layer of the wall of the sac; and it is probable that the compartments, and even the cysts, occasionally found in connexion with spina bifida sacs may be thus produced. Thus, both cord and nerves pass to the sac, being stretched or lengthened in proportion to the size of the sac; and they are more or less blended with the thin membranous hinder part of it. In this specimen—at the lumbar and upper sacral region—the cord is seen entering the sac, traversing the upper part of its wall, blended with the hinder thin part, and then reappearing at the lower part, where something of a cauda equina is formed by the junction of the nerves of the two sides with the cord, and the median filament extends onwards towards the coccyx. The cord therefore in this case may be traced, and the anterior spinal artery is visible upon its surface, along the whole of the interior of the back of the sac, and from the sac into the sacrum; and the several lumbar nerves, from the two sides, pass on the wall of the sac to the cord. There was hydrocephalus in this case; and the central spinal canal, which communicated above with the distended cerebral ventricles, is dilated down to the spina bifida.

The nerve-roots and their ganglia in cases of spina bifida are not infrequently situated within the vertebral canal; and in some of the specimens before you, two or three adjacent ganglia are seen to be approximated and even joined together, and contained in one sheath of dura mater. This approximation and fusion are probably a result of the traction exerted upon the nerves in their passage upon the wall of the sac.[1]

The cavity of the spina bifida, which, as we have seen, is in some cases traversed by nerves and partitioned by membranous septa, looks in many specimens as if it were continuous with the arachnoid sac, and as if it were lined by the arachnoid membrane. In some this is the case. It is so in the dorsi-lumbar specimen I have just shown you. The sac of the spina bifida is here formed by a dilatation of the anterior part of the spinal arachnoid cavity, the posterior part of that cavity, the part behind the nerve roots, being obliterated, or not having been formed. But a careful and close examination shows, in some at least, perhaps in most of those in the sacral or sacro-lumbar region, that this is not the case. The parietal and visceral surfaces of the arachnoid in the spinal canal, near to the sac or at its orifice, may be seen to be adherent; or the epithelial lining is reflected from the one to the other, so that the arachnoid membrane is not traceable into the spina bifida, and the spinal arachnoid cavity is shut off from the cavity of the spina bifida. The sac of the spina bifida accordingly appears to be formed in the subarachnoid space, and the lining of the sac, as well as the coverings of the cord and of the nerves, and the more or less complete membranous septa, where these exist, must in that case be formed by the subarachnoid or pia mater tissue. It is not always easy to determine, even on dissection, whether the sac of the spina bifida is thus separate from the arachnoid cavity; but where it is so the fluid in the sac, and, in like manner, any fluid injected into the sac, will not readily pass into and along the arachnoid cavity of the spinal canal and the skull, though it may permeate the thin membrane which forms the wall of the sac, and so reach the arachnoid cavity or the loose subarachnoid tissue of the cord, and extend along the cord to the brain.

The specimen of lumbo-sacral spina bifida which I have

[1] This fusion of the ganglia was pointed out by Dr. Fisher, Downing Professor of Medicine in this University (London and Ed. Phil. Mag., vol. x., 516, 1837).

here, entrusted to me by Dr. Goodhart, and which has been recently dissected by Dr. Anningson, shows well many points of the anatomy of this malformation. The sac is of about the size of an orange, with the usual cicatricial tissue at the middle of its wall and with skin over the circumference. The skin and fat were easily removed near the spine, but are adherent to the subjacent layers of the sac near the middle, and ultimately blend with them in the cicatricial tissue. A tough structure, apparently the lateral halves of the interspinous ligament, cleft like the spinous processes, was found beneath the skin and fat on the sides of the sac. It was connected laterally with the recurved and shortened vertebral arches and spinous processes. The dura mater of the cord expands over the sac, forming a thick covering, pierced by the spinal nerves at the sides and blended with the other structures at the border of the cicatricial tissue. Beneath the dura mater is a double layer—visceral or spinal, and peripheral or subdural—of the posterior arachnoid (the arachnoid, that is, behind the nerve roots and the ligamentum denticulatum). These layers, though in close contact, were easily separated, the posterior arachnoid cavity being thus displayed. Like the other components of the sac, they are adherent and blended in the cicatricial tissue, and they are also closely adherent at the junction of the spina bifida with the spinal canal—at the level, that is, of the lowest complete vertebral arch; so that the posterior arachnoid cavity of the sac (in the wall of the sac) is quite shut off from the posterior arachnoid cavity of the rest of the spine. The visceral and peripheral surfaces of the anterior arachnoid (the arachnoid that is in front of the spinal nerves and the ligamentum denticulatum) were non-adherent; and the anterior arachnoid cavity was quite free along the whole length of the vertebral canal, including the spina bifida. The cavity of the sac is formed altogether in the anterior subarachnoid space, is entirely lined by subarachnoid or pia mater tissue, and is partially divided by imperfect septa of that tissue, projected into it by the spinal cord and nerves. A thick nerve-bundle, consisting of the spinal cord, with surrounding lumbar and upper sacral nerves, and forming, as it were, a retroverted cauda-equina, turns beneath the last vertebral arch, leaving the bodies of the vertebræ, the anterior dura mater, and the anterior arachnoid. Thus, invested with pia mater or subarachnoid tissue only, it runs for a short space free in the sac to the cicatricial tissue of the hinder wall of the sac; here the component cord and nerves, with their investing pia mater, are lost in the cicatricial tissue. The spinal nerves pass from the intervertebral foramina in regular order and pierce the dura mater separately all the way down from the head to the coccyx. The lower lumbar nerves having entered the dura mater, are, as we have seen, directed downwards, accompanying the cord to the back of the sac. The upper two sacral nerves, piercing the wall of the sac, take a more transverse course to the same point; and their ganglia, like those of the lumbar nerves, are outside the cavity of the arachnoid, and invested with sheaths of the dura mater. The nerve roots of the lower sacral nerves also pierce the dura mater, then run between the arachnoid layers in the wall of the sac—that is, in the posterior arachnoid cavity of the wall of the sac,—and so reach the cicatricial tissue; and the ganglia of their posterior roots lie in this posterior arachnoid cavity. Thus the wall of the sac is formed by the dura mater, the arachnoid, and the outer layers of the pia mater, together with the spinal cord and nerves; and the cavity of the sac is formed in the anterior subarachnoid tissue, and is lined, probably, by the endothelium of that tissue. Along the fore part of the vertebral canal the three coats, with the anterior arachnoid cavity, are undisturbed, and retain their normal relations with the bodies of the vertebræ, except that, as just said, the cavity is formed in the anterior subarachnoid or pia mater tissue, and a layer of that tissue is therefore expanded over the cavity; whereas at the hinder part of the vertebral canal, the three coats with the posterior arachnoid cavity, together with the nerves and the spinal cord, are stretched out to form the bulging wall of the sac, are more or less adherent to one another, and are all, as well as the cutaneous coverings, lost in the cicatricial tissue of the hindmost part of the sac. This specimen may be taken as illustrating the usual anatomy of a spina bifida, an accumulation of fluid in a cavity formed in the anterior subarachnoid or pia mater, with all the structures posterior to it—namely, subarachnoid tissue, spinal cord and nerves, posterior arachnoid membrane and cavity, dura mater, vertebral arches, subcutaneous and cutaneous tissues—stretched over it, and more or less imperfectly formed.

It is evident from the above anatomical considerations that the failure of development upon which spina bifida depends must occur at an early period of fœtal life, in most instances before the spinal cord has been segmented from the epiblastic, or epithelial, layer of the embryo from which it is developed. It accordingly remains adherent to that external epiblastic covering; the imperfectly developed tissues of the cord and of the nerves passing to it, together with this covering, form the membranous wall of the sac; and the various structures which should be produced between the cord and the epiblast are to a greater or less extent abortive. The failure may even take place, it is believed by some usually to do so, before the central spinal canal has been closed; or the recently closed canal may give way and be reopened by fluid accumulating in its interior; and in such case the median posterior exposed surface of the sac must correspond with the epiblastic tissue which should have formed the epithelial lining of the central canal.[2] This often cannot easily be determined, for the central canal becomes occluded where the cord joins the membranous wall of the sac, in the lower regions of the vertebral column at any rate; and its precise relations to the sac cannot therefore be made out. It was so in the specimen we have just seen, when there were hydrocephalus and dilatation of the central canal down to the spina bifida. The canal in this case could easily be traced down to the spina bifida, but no further; and it was impossible to say positively whether the structure which represented it was continued into the cord lining the sac of the spina bifida, or whether it was continued upon the external surface of the sac, though the appearances are in favour of the former supposition.

Associated with the failure of segmentation and development of the several structures between the cord and the epiblast is the accumulation of fluid, or dropsy, by the pressure of which the sac is formed, the vertebral arches are recurved or stunted, the nerves and the spinal cord are elongated, and the tumour is produced. It is possible that the dropsical condition, due perhaps to something of an inflammatory process, may be the prime agent, and that by its pressure it has prevented the segmentation of the tissues from the epiblast, as well as induced the other changes mentioned; or the dropsy may be due to a want of resistance consequent on the non-segmentation and arrested development of those tissues—that is to say, it may be cause or effect. The balance of opinion and of probability is perhaps in favour of the former view. Further, when several vertebræ above the sacrum are affected, the fore part of the spine, composed of the bodies of the vertebræ and the intervertebral substances, being unsupported by the vertebral arches and articulating processes, which are abortive or deflected, may bend backwards or forwards. In this specimen, in the loins, it is bent backwards; in this specimen, in the neck, it is bent forwards, so that the chin rests on the sternum; and in this third example, also in the neck, it is bent backwards, so that the occiput lies on the back. These several defects in the vertebral column, including the open state of the vertebral canal with the separation, eversion, or stunting of the vertebral arches, are all consequences of the arrested development and the imperfect segmentation and imperfect formation of the various structures in the median line, and of the dropsical accumulation associated with them. The greater frequency of this failure and of the presence of spina bifida in the lower—the sacral and lumbo-sacral—parts of the spine, is probably owing to the fact that the closing of the primitive furrow, which is a little dilated at this part, and other phenomena take place here rather later than in the upper regions; and they are therefore more likely to be interfered with or to be imperfect in this situation. A trace of this imperfection in the otherwise well-formed body is often to be seen in the smallness or incompleteness of the arch of the upper sacral vertebra, and also in the dimple in the skin over the coccyx.

I have thus described to you the anatomy of spina bifida, as it usually occurs in the sacral or the lumbo-sacral region; and you will have noted that the accumulation of fluid is usually in the subarachnoid space in front of the spinal cord, that the cord and the nerves are stretched backwards and outwards upon the sac, and are there confluent, together with the arachnoid, pia mater and dura mater, or their repre-

[2] See Contribution to the Study of Spina Bifida by Professor Cleland. Journal of Anatomy and Physiology, vol. xvii., p. 257.

sentatives, in the thin membrane which forms the hindmost part of the wall of the sac. Moreover, it is to be remarked that the cord, being unsegmented from this thin membrane and therefore fixed at this spot, and so fixed from a very early period of fœtal life, does not undergo that shifting in relation to the vertebral canal which ordinarily takes place during the later periods of fœtal life, and which is due to a greater proportionate growth of the vertebræ as compared with that of the cord. Hence the spinal cord, instead of terminating, as it does in the normal state, in the upper lumbar region, extends through the lumbar region into the wall of the sac, and may, in some instances, be traced beyond it to the lower part of the sacrum; and, as a sequence, the sacral and lumbar nerves pass transversely towards the cord in the sac, instead of ascending obliquely and forming a cauda equina; indeed, not unfrequently, as in a specimen I have shown you, the nerves traversing the spinal foramina just above the spina bifida take the reverse of their usual course and pass downwards, rather are dragged downwards, to the sac to join the cord. This, I say, is the usual disposition as demonstrated by much the larger number of specimens. In some cases, however, when the failure has occurred at a later period of fœtal life, the segmentation and the formative development of parts have taken place to a greater extent; and the skin, with its epithelium and the subcutaneous tissue, may have been formed in a natural manner all over the sac. This is the most frequent in the neck. In some, as in this lumbo-sacral specimen before shown you, the neural axis is more separated than in the other cases—that is to say, it is less completely fused with the wall of the sac, and forms a distinct cord or band attached along the whole of the inner surface of the hinder wall of the sac. It would seem, too, that in a few cases the segmentation and formation of the cord have been still more complete, so that it has become fully separated from the cutaneous and other tissues, and retains its normal place along the bodies of the vertebræ, and the dropsy, with the sac formed by it, is upon the hinder aspect of the cord. The cord then does not pass into the sac, at least does not pass along, and is not attached to, the hinder bulging wall of the sac. This would constitute a "hydro-meningocele" or "hydrorachis externa" posterior, in contradistinction to a "hydrorachis externa" anterior in which the cord and nerves enter the sac, and blend with its wall; and both these are to be distinguished from a "hydro-myelocele" or "hydrorachis interna," in which the fluid accumulates in the central spinal canal. It may be that this is so in a specimen in the museum of St. Bartholomew's Hospital. The specimen is a small spina bifida at the lower part of the sacrum, and the median filament of the cord and the nerves seem to be at the fore part of the sac; but further dissection is necessary to make the anatomy clear. In the College of Surgeons museum is a specimen from an infant who died three days after the application of a ligature to a cervical spina bifida. The narrow peduncle of the sac passes through between the sixth and seventh cervical spinous processes, which are almost fully developed, and nearly meet in the middle line. The cavity of the sac appears, from the direction of a bristle placed in it, to communicate with the hinder part of the arachnoid cavity, and the cord possibly is not in the least degree implicated, and passes free along the hinder surface of the bodies of the vertebræ. But further dissection is required to make sure of this. It may be, as in an apparently similar case represented in Förster's Misbildungen, that the affection consists in a dilatation of the central spinal canal, and that a thin dilated sheet of the hinder part of the cord is prolonged into the wall of the sac—that is to say, it may be an example of "hydrorachis interna." This can only be determined, if in such a specimen it can be determined at all, by removing the dura mater, and making a careful examination of the specimen. Whether the sac in this case was covered by skin or not cannot be seen. In cases of cervical spina bifida, occasionally met with, in which the sac has a narrow neck, and is covered by skin, the disposition is probably similar to that in the specimen just referred to. Like it, such cases furnish examples of the slightest degree of the malformation; and the examination of a larger number of specimens of the kind may enable us to judge what inference, as to the disposition of the cord and its relations to the sac, may be drawn from the presence of a covering of skin over the sac—whether, that is to say, the segmentation and development which have produced skin over the surface are associated with a corresponding segmentation and development of the cord sufficient to set it, with its pia mater and arachnoid, free from the sac, or so far free as to allow it to maintain its proper place in contact with the bodies of the vertebræ.

The fluid, as I have already said, appears commonly to be in the subarachnoid space in front of the cord; and the sac must in such cases, I conclude, be lined by an endothelium developed from that of the subarachnoid lymph spaces. In some instances the fluid is in the arachnoid cavity in front of the cord, and then the sac is lined by the endothelium of the arachnoid. The fluid may be, though this rarely is so, in the subarachnoid space, or in the arachnoid cavity *behind* the cord. In these last cases the cord would occupy its normal position upon the bodies of the vertebræ, and the nerves would also have their normal position; whereas in the cases in which the fluid, whether arachnoidal or subarachnoidal, is in *front*, the cord and nerves are separated from the bodies of the vertebræ, and are applied upon and coherent to, or blended with, the wall of the sac. The dura mater is in all instances expanded upon the sac, and traceable to the same extent as the skin, becoming like it, and at about the same place, lost in the homogeneous membrane of the hinder part of the sac. Though I admit that the fluid may be behind the cord, the cord retaining its normal position, I must say that I have not been able to satisfy myself that this was the condition in any one of the many specimens I have examined. In every one, unless the one presently to be mentioned be an exception, in which the anatomy was clear, the cord, or some part of it, and usually the nerves, passed into the sac, and was united with the wall of the sac.

In those cases where the vertebral arches are more extensively deficient, and which are often associated with deficiency of the vault of the skull and with more or less deficiency of the brain, the vertebral canal is usually covered only by a thin membrane, and the spinal cord, with the several superadjacent tissues, is absent or represented by that membrane into which the spinal nerves pass and are lost. In the specimen, however, which I now show you this is not the case. The fœtus is acranial and with spina bifida along the whole spine; the neck is bent sharply forward so that the back of the head is in contact with the dorsal part of the spine. The cerebral mass is quite rudimentary; and the axial cord, of considerable thickness, passes directly backwards from the floor of the skull, bridging over the concavity of the neck, upon the dorsal vertebræ, and is continued upon the bodies of the vertebræ along the whole length of the lower dorsal, the lumbar, and the sacral portions of the spine. The nerves join it in regular sequence; but in the neck they are crowded together, and the lower cervical ganglia on each side are blended into one mass invested by a common capsule of dura mater. In the upper part of the cord the central spinal canal is wide and open, forming a continuation of the fourth ventricle. It gradually diminishes to the lower dorsal region, where it is closed in as usual; and below this the cord tapers into the median filament which is continued to the coccyx. The specimen when it came into my hands, many years ago, was in its present condition; and to what extent the spinal central canal was dilated in the upper part, how it was covered in, what kind of covering existed over the spina bifida, and what was the cause of the eversion of the vertebral arches could not be ascertained. All that we can see is that the vertebral arches, without evident diminution of size, are thrown outwards and forwards, the vertebral canal is wide open in its whole length, and the spinal column is bent sharply forwards in the cervical region, and backwards in the dorsal region. The cord and the nerves lie on the bodies of the vertebræ in the sacral, lumbar, and dorsal regions, and pass, straight over the concavity of the cervical curve, from the dorsal region to the skull; and in this part where it bridges over the curve the central spinal canal is dilated. It is a remarkable case, and it appears to constitute an exception to the rule of the cord being closely connected with the hinder wall of a spina bifida, and to the ordinary manner of formation of spina bifida.

I say nothing about other exceptional varieties of spina bifida, such, for instance, as where there is cleavage of the bodies of the vertebræ, bony growths from them into the vertebral canal and other malformations. I have directed your attention chiefly to the more ordinary forms of spina bifida, the anatomy of which has acquired increased importance from the reintroduction of the treatment of the abnormality by injection. With reference to this treatment, you

will understand that it is better to introduce the needle, not in the mesial line, especially in the upper part, where the cord is almost certain to be connected with the wall of the sac, but on one side. Further, you will perceive that the separateness of the cavity of the sac from the cavity of the spinal arachnoid, in most instances, is some security against the direct passage of the injected fluid into the latter cavity, and that the advantage of Morton's fluid, as an injection, probably depends upon the addition of glycerine to the iodine and iodide of potassium, lessening the liability to the diffusion of those irritating substances through the delicate lining of the sac into the surrounding subarachnoid tissue.

ON THE

AFFINITY OF SIMPLE AND MALIGNANT JAUNDICE.

By J. WICKHAM LEGG, F.R.C.P.L.,
ASSISTANT-PHYSICIAN TO, AND LECTURER ON PATHOLOGICAL ANATOMY AT, ST. BARTHOLOMEW'S HOSPITAL.

In the January number of the *Revue de Médecine* there appeared an article by M. Chauffard on catarrhal jaundice, which was considered of sufficient importance to be noticed at length in the columns of THE LANCET. For my own part, I may say that I have read the paper with much interest and satisfaction, especially as M. Chauffard and myself had come to much the same views independently of one another. The two main opinions which the French observer sets forth are these: that catarrhal jaundice (a better name seems to be simple jaundice, because no theory of its cause is then assumed) is more of a general disease than is usually thought; and, further, that it is only one of a series of diseases, of which the lowest is the simple jaundice and the highest the malignant jaundice, the icterus gravis, or acute yellow atrophy of the liver. Though I have not followed exactly the same path, yet in one particular, at all events, as to the connexion between simple and malignant jaundice, I have arrived at the same point. So long ago as 1878, when writing in the St. Bartholomew's Hospital Reports,[1] I spoke of the affinity between simple and malignant jaundice. Pointing out that jaundice sometimes appears amongst kinsfolk or those living in the same house, it was said that in some of these patients the jaundice ran a harmless and uncomplicated course, while in others the jaundice first appeared to be as free from danger as in the rest, but later grave nervous symptoms came on, and the patients died. I added: "I am inclined to attribute the origin of the two to one cause—a poison introduced into the body in a greater or smaller amount; for we find that the epidemic jaundice appears in neighbourhoods where military ditches have been drained, or large diggings undertaken, or in the bad hygienic states which follow war or famine. Thus, if but a small dose of the poison be introduced into the body, only vomiting or diarrhœa may follow—a gastro-intestinal catarrh, followed by jaundice; or if the dose be greater or the patient predisposed, a malignant jaundice from parenchymatous changes in all the muscles and glands may prove fatal. The effect of a predisposition is well shown in the relation of the epidemics to pregnant women, nearly all of whom perish in an epidemic of jaundice, the state of their tissues predisposing them to the disease"—i.e., to the grave malignant jaundice. Much the same position was taken in a work on the "Bile, Jaundice, and Bilious Diseases" which I brought out in 1830. At p. 402, speaking of the difficulty of making a diagnosis between simple and malignant jaundice, it is said, "The line which separates these two must be very narrow ..... It seems to be a question of degree, not of kind." So far M. Chauffard and myself are in accord; we agree that the cause of the two diseases is a poison common to both; he thinks that in all likelihood the poison will be the septic alkaloids—ptomaines, as they are now called. This was an idea expressed by Gerhardt some few years ago, who thought that the acute yellow atrophy of pregnant women might be caused by the putrefaction of the dead fœtus.[2] But while of course acknowledging that the septic alkaloids may be the cause of simple and malignant jaundice in many cases, it would be a misfortune if they were to be looked upon as the only possible cause. It would be better to own that the causes are multiple. There are many poisons, organic and inorganic, which in small doses cause only a simple jaundice, in larger malignant jaundice. Amongst these alcohol stands pre-eminent for the frequency with which it causes attacks of simple jaundice, while on the other hand it does not seem to cause malignant jaundice so often as the other poisons akin to it in physiological action. It is well known that a debauch in wine will be often followed by a simple jaundice. On this point my experience is quite in accord with that of M. Chauffard. He found that an excess on what is now the national fête day, July 14th, was followed by a simple jaundice, while I have long been in the habit of pointing out at St. Bartholomew's that the festivals instituted by Sir John Lubbock are often followed by a small epidemic of jaundice amongst the out-patients. That alcohol will cause a malignant jaundice is shown by the classical case of Leudet. A man took by mistake a quantity of pure spirit, which act was followed by a three days' drunkenness; on recovery from this state he showed all the phenomena of malignant jaundice, both before and after death.[3] There are also other cases on record, though alcohol seems not nearly so prone to cause malignant jaundice as phosphorus or arsenic. In the chronic poisoning by alcohol, cirrhosis, its part seems to be to cause a general disease, of which the brunt falls upon the liver, which therefore draws to itself most attention, just as malignant jaundice used to be called acute yellow atrophy of the liver, and was considered a disease of the liver, though it is now by nearly all owned to be a general disease. Some years ago, in 1877, when speaking of a case of febrile cirrhosis in the St. Bartholomew's Hospital Reports, I stated some facts which seemed to me to point to the idea that cirrhosis of the liver was only a local expression of a general disorder, the outcome of a long-continued physiological action of certain poisons, which, when they act acutely and rapidly, cause malignant jaundice from parenchymatous degeneration; so that cirrhosis may really be looked upon as a chronic form of acute yellow atrophy of the liver.

Green-street, Park-lane, W.

[1] Vol. xiv., p. 47.
[2] Volkmann's Sammlung Klin. Vorträge, 1870-75, p. 107.
[3] Gazette Médicale de Paris, p. 405, 1860.

A CASE OF EXCISION OF THE RECTUM FOR CANCER.

WITH REMARKS ON THE PREVENTIBILITY OF SUBSEQUENT CICATRICIAL CONTRACTION.

By HERBERT L. SNOW, M.D. LOND.,
SURGEON TO THE CANCER HOSPITAL.

SARAH W——, married, no children, aged forty-six, was admitted into the Cancer Hospital on Jan. 29th, 1884. There was no family history of cancer, but she was suffering from the effects of much mental trouble and hard work as cook in a hotel, lifting heavy weights, &c. Her husband failed in business four years previously. These facts are given as pointing to the frequent initiation of cancer by depressing emotion and debilitating nervous influences. The symptoms had been noticed for a year. On examination the rectal wall was found thickened and infiltrated as far up as the finger could reach; the mass was freely movable; beyond it the tissues appeared healthy. Much contraction existed towards the anus; there were great pain and difficulty in defecation. On Feb. 5th the diseased part was excised by the method recommended by Mr. Harrison Cripps, in his valuable Jacksonian essay. There was free hæmorrhage, checked without difficulty. The recto-vaginal septum was much infiltrated, and the dissection left this very thin. Subsequently iodoform was applied, and the patient placed in bed with the trunk elevated. The catheter was ordered to be used three times in the twenty-four hours; the wound to be syringed three times a day, and also after every evacuation, with a 5 per cent. boroglyceride solution; and a circular water-cushion, with marine lint filling the central aperture, to be kept under the pelvis. Four inches of the whole circumference of the intestine had been removed. The temperature records on the mornings of the next few days were as follows:—Feb. 6th, 101·4° F.; 7th, 100°;

8th, 100°; 9th, 99·6°; 10th, 98·6°. On February 11th two copious evacuations took place without medicine. The temperature subsequently did not rise above 99°; the bowels acted as a rule without aperient, and the patient rapidly regained health. She was not allowed to leave her bed till April 25th, and after two days was again sent back to it. On May 13th the rectal wound had entirely healed, but at the anal orifice there was a slight superficial excoriation. There was complete control of the evacuations, except when diarrhœa existed, and no difficulty whatever in defecation. The anal opening barely admitted the tip of the forefinger, a plug of intestinal mucous membrane filled it, and was visible externally. A small part of the recto-vaginal septum had sloughed away, leaving an opening into the vagina anterior to the new anal opening. The general health was good, and the patient was allowed to get up. On June 3rd it was found necessary to excise a recurrent ulcer of about the size of a threepenny-piece at the margin of the anal opening, and a smaller one on the fringe of mucous membrane at the edge of the vaginal perforation. Potassa fusa was subsequently applied rather freely. On July 8th the wounds had healed. There was necessarily much more rigidity at the anal orifice than before the second operation, and the patient could not retain her evacuations so well. On the 29th the note was: "No aperient has been taken for a week. The patient is very comfortable, with evacuations two or three times a day, the anal aperture becoming much more dilatable (now of the diameter of a shilling), closed by valvular folds of mucous membrane. The recto-vaginal septum is almost entirely obliterated in front of the new anus." On the 31st the patient was discharged well, and, to the best of my knowledge, there has been no further recurrence. In a short time she was able to resume her situation as cook, to hold her evacuations perfectly, except when liquid, and go about without wearing even a diaper. No bougie had ever been passed or required.

Remarks.—A grave stigma rests on the operation for excision of the rectum; while greatly prolonging, and often saving, the patient's life, it yet frequently leaves him with a permanent and very painful burden, owing to the cicatricial contraction which is only too apt to ensue. The above case, in which several inches of the whole circumference of the bowel were removed, was surely just such a one in which this disability might have been expected almost as a matter of course. The patient's immunity from it I am disposed to attribute simply to her having been kept rigidly in bed from beginning to end of her necessarily tedious convalescence. At the outset of this case it appeared to me that in the filling up of a large chasm with new fibrous tissue, and in the adaptation of this to peculiar functions, perfect rest must be a most essential element of the process; that, on the other hand, movement and pressure must necessarily irritate the organising tissue cells, and so probably originate the painful after-condition of which we often read. It is, of course, impossible to decide from this single case whether the above supposition is correct; but the rarity with which rectal cancer comes before the surgeon in a sufficiently early stage for excision must be my apology for publishing it. For if we can obviate the painful results of cicatricial contraction by the simple plan of keeping the patient in bed throughout the tedious convalescence, a great point will have been gained in perfecting the operation in question.

Norfolk-terrace, W.

TWO CASES OF POISONING BY CARBONIC OXIDE; RECOVERY.

BY JAMES MILLAR, M.D., C.M.

EARLY one morning in December last I was hastily summoned to attend two young men several miles in the country, who had been poisoned by coal gas. I could scarcely believe the messenger, but he insisted that such was the case. On my arrival I found two young men lying on the floor, rolled in blankets and packed with hot bottles. A. was of dark complexion, twenty-one years of age; and B. of fair complexion, nineteen years of age. On the previous night a fire composed of coal and coke had been kindled in their bedroom, and they were told not to close the door when they went to bed, because the room would be filled with smoke if they did so. A. went to bed, leaving the door of the room open; but B., having fallen asleep by the fire, rose in a sleepy state and closed the door. Both had been in bed for a considerable time, when the occupants of the next room were awakened by their stertorous breathing. They were unconscious, and had vomited freely during the night. The other inmates of the house had applied friction to the surface of the body, mustard to the legs, and hot bottles all round the body. When considerably shaken B. could speak, but immediately relapsed after giving an answer to a question. A. had never spoken, and could not be roused, and when I arrived all hope of his recovery had been given up. Both were cold and clammy, the surface of the body pale, and the conjunctivæ and mucous membrane of the mouth, &c., bright red. Both lay with their legs crossed and rigid. A. had his right arm so firmly flexed on his chest that it was almost impossible to unbend it; he was breathing stertorously. The conjunctivæ were insensitive to light and the pupils dilated. Pulse 40 per minute, sluggish, and easily compressible; respiration slow and laboured, and he could not be roused. B. had a small quick pulse, no stertorous breathing, pupils contracted. He could be roused for half a minute at a time, but not longer. He then complained of pain in the back and head, and relapsed into his former state.

At first I thought the poisoning must be due to something else, but from minute and careful inquiry, and the appearance of the patients, I was perfectly satisfied as to the cause. What to do had to be decided on at once. Friction and warmth to the surface of the body had been already tried, and were again had recourse to, but without any benefit. Artificial respiration was tried for some time, but had no good effect. A small quantity of brandy was poured into B.'s mouth, which he swallowed. The muscles of the lower jaw of A. were in a state of clonic spasm. His mouth was opened with difficulty and a little brandy poured in, which he also swallowed. The brandy caused vomiting in both cases, of which the patients were quite unconscious. The brandy was repeated. Ammonia, strong tea, and other stimulants had the same effect; they all caused vomiting and produced further depression. The doors and windows had been previously opened, so that there was plenty of fresh air. Venesection might have been done, as some recommend; but I have always failed to see that removing half the quantity of impure water from a vessel makes the remaining half purer. I believe venesection with transfusion would have been of service, but I was not prepared for that single-handed. Seeing carbonic oxide forms such a stable compound with the hæmoglobin of the blood, I thought a direct stimulus to the muscles of respiration might be of service, so with the end of a wet towel I commenced to flap the chest of B., when he soon began to cry out and sit up; this had a beneficial effect. After a further prolongation of the same process on A. there were a few deep inspirations, then he began to strike out in all directions, opened his eyes, sat up, and asked the cause of the disturbance. Both being now perfectly conscious, they were put to bed in another room, and after a few hours rest awoke with slight headache and feeling a little giddy. Next day they were perfectly well, with the exception of slight pain in the back and legs.

I am sorry my notes of two very interesting cases are so imperfect, but I had no time to take notes at the moment, and, having two patients to attend to at once, it was impossible. What I wish to draw attention to is the fact that stimulants made the cases worse, and, as latest authorities tell us, artificial respiration alone in such cases is useless. I believe what is wanted in such cases is a stimulus to the muscles of respiration, and the proceeding I have mentioned will be found to answer very well, where there is no time to procure assistance for the performance of such operations as venesection with transfusion, &c.

Arbroath, N.B.

HOSPITAL FOR EPILEPSY AND PARALYSIS.—At a meeting of the governors and supporters of this institution, which was held on the 25th inst., it was stated that there had been a marked increase in the number of in-patients during the year, the total having been 141, as compared with 78, 64, and 125 in the preceding three years, whilst the "attendances" of out-patients had been 7688, as compared with 7531 in 1883. The receipts from all sources during the year were £2439, out of which there remained a balance of £80, or the same as at the close of the preceding year.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

A VERY LARGE UTERINE FIBRO-MYOMA, TOGETHER WITH THE UTERUS, ITS APPENDAGES, AND BOTH OVARIES, SUCCESSFULLY REMOVED BY ABDOMINAL SECTION.

(Under the care of Mr. HENRY MORRIS.)

THIS case will be found interesting from several points of view, and illustrates well the modern advance of surgery in the direction of the removal of large uterine tumours by abdominal section, and is a good example of the mode of doing so, and of the after-treatment. It will be seen that the pedicle was secured by a clamp, and retained outside the abdomen, in contrast to the treatment of the pedicle in ovariotomy, which is secured by means of silk ligatures, and replaced in the abdominal cavity. Some prefer the use of a drainage-tube in addition to the extra-peritoneal treatment of the pedicle after removal of uterine tumours. The mortality after the removal of uterine fibro-myomata has been very high. Dr. Bigelow, in March, 1884, collected a list of 359 operations, the records of which had been published, with only 227 recoveries, there being a mortality of more than one in three. Should the cases which have been operated on during the last year be added to the list, the percentage of deaths will be found considerably reduced. Removal of the uterus and its appendages for fibro-myoma cannot be classed with those cases in which it is removed for cancer. In both the mortality is high, but when the former has been removed the patient need fear no recurrence, whilst in the latter recurrence usually takes place in a painful form within a few months, and the general opinion of the profession appears to be that the operation for cancer should be abandoned. For the report of the case we are indebted to Mr. W. Roger Williams, surgical registrar.

The patient, a moderately nourished, healthy looking, fair complexioned woman, aged forty-eight, was admitted with a large abdominal tumour. She complained of weakness and of a feeling of sinking at the pit of the stomach, and of pain in the left iliac region. On examination the whole abdomen was greatly distended, especially at its lower part. The greatest girth, a little below the umbilicus, measured forty inches. A large, smooth, elastic, but non-fluctuating mass could be felt, filling almost the whole of the abdomen; it was slightly movable. There was tenderness in the left iliac region. On percussion of the front of the abdomen, with the patient supine, dulness extended from the symphysis pubis to within two inches of the xiphoid, in the middle line. Laterally the dulness extended over a widening area from above downwards, until it included the whole of the front and lateral parts of the abdomen. Both loins were resonant. On vaginal examination the os uteri was very high up, almost out of reach of the fingers. There was no vaginal discharge. The patient says she first noticed a slight swelling at the lower part of the abdomen fifteen years ago, but it was not more on one side than the other; this has since slowly increased. It caused her no inconvenience, except from its weight and bulk, until a few months ago, when she became subject to occasional attacks of pain in the left iliac region. During the last month she has suffered much from this pain. The day before admission she fell and sustained a scalp wound, but thinks that the abdomen was not injured. Her previous health has been good; she can recollect no serious illness since childhood. She married at twenty-five, and had one miscarriage three years afterwards. She has never since been pregnant, though she has continued to live with her husband. The catamenia first appeared at the age of fourteen and a half, and continued regular until she was forty-six years; since then she has occasionally seen a little sanious discharge at irregular intervals. Of her parents she knows nothing. She is one of a family of four; a sister died of cancer of the uterus, aged forty-four; the others are dead, but she does not know the causes of death. She was born at Cripplegate, London. She had been for eight or nine years under the occasional observation and treatment of Mr. Morris, who was at length determined to the operation by the constant and often severe pain in the left iliac fossa which had of late been suffered. This pain was aggravated by the slightest movement, and was not completely relieved by absolute rest in bed. Nearly a month after admission, during the greater part of which time she had been kept in bed, the operation was performed. A longitudinal incision two inches long was made in the median line of the front of the abdomen, midway between the umbilicus and the pubes. On examination of the tumour through this wound it seemed to be free from adhesions in front. The incision was prolonged a little upwards and downwards. When proceeding in the latter direction care was taken to avoid injuring the bladder. This organ, however, never came in the way during the operation. The great omentum was now found to be adherent to the upper part of the tumour, and in it there was a cyst containing clear fluid. In raising the tumour out of the abdomen a small rent was made in its left side; immediately the blood gushed out in a torrent. It was arrested by pressure with the thumb. The external incision was further extended upwards; it was now six inches and a half long. The bowels were protected by flat sponges in the peritoneal cavity. The tumour was then turned out of the abdomen with the omentum still adherent. The latter was clamped and divided; its bloodvessels were very large; there were six or seven veins as large as the external jugular. The tumour was now held to the uterus (which was raised high out of the pelvis) by a pedicle about an inch and a half in diameter. This was clamped with Kœberlé's serre-nœud, and the mass was cut away. It weighed nineteen pounds. It was a solid tumour, for the most part smooth on the surface, but presenting at its lowest part several rounded nodulations. Here was the body of the uterus, greatly enlarged, with half a dozen fibroids in its walls, varying in size from a small walnut to a large orange. Portions of each Fallopian tube were also adherent to it; but the bulk of the tumour was due to a single enormous fibro-myoma, presenting the ordinary characters of that kind of growth. Both ovaries and the remains of the Fallopian tubes were next removed. The left ovary contained five small cysts. The left Fallopian tube was greatly distended, tortuous, and adherent to the left side of the pelvis, so that it could not be entirely removed. The right ovary was normal. The division of the pedicle had passed through the cervix uteri. On examination of the stump it was found to contain three small fibroids; these were enucleated. Lawson Tait's clamp was then applied to it close above the vagina, and the distal part was cut off. The abdominal wound was closed by superficial and deep sutures, and the pedicle was left projecting from its lower angle. The wound was dressed with boracic lint and iodoform wool, and over these the usual abdominal flannel binder. The operation lasted about an hour. Chloroform was commenced at 9.45 A.M.; the patient was comfortably in bed by 11.10 A.M. During the first week after the operation the temperature ranged at about 100° F.; it never went above this. During this period all urine had to be drawn off with the catheter. It was turbid, alkaline, and contained muco-pus. At first she complained of pain, thirst, and flatulence; and she was occasionally sick. Morphia suppositories and hypodermic injections were administered. On the third day a troublesome hacking cough set in, and on that day the dressing was first changed. Subsequently it was changed every day for a week, and then every other day. During the first three days after the operation she took only small quantities of ice and milk; on the fourth day some jelly beef-tea was added; on the sixth a slice of bread-and-butter, and subsequently other things. Purulent vaginal discharge was noticed on this day, so a plug of iodoform wool was introduced into the vagina and changed daily. During the second week the temperature ranged from 98° to 99° F., and subsequently it remained nearly normal. On the first day of this week eight of the deep sutures were removed, and two of the superficial ones. The bowels were first moved about the middle of this week after two enemata. Catheterism still required, though occasionally she micturated without it. On the eighteenth day after the operation the clamp was taken off and the distal fragment of the pedicle came away, and the last two of the deep sutures were removed. After this catheterism

was seldom necessary. In a week the wound was quite healed, with the exception of a few granulations at its lower part. She left the hospital convalescent five weeks later.

MANCHESTER ROYAL INFIRMARY.

CORXISTING RENAL AND BILIARY CALCULI, CHOLECYSTOTOMY; DEATH; NECROPSY; REMARKS.

(Under the care of Mr. G. A. WRIGHT.)

FOR the following notes we are indebted to Mr. V. Wigglesworth.

Thomas C——, aged forty-four, was admitted under Mr. Wright's care on Jan. 2nd, 1885. He had previously been an out-patient for some weeks. He had been a healthy, temperate man till two years ago, when he was seized with severe pain in the right groin. At this time his urine was muddy; but it is doubtful whether this was from the presence of blood or merely from lithates; however, the pain decreased when the urine was thick. This state of things went on for a year with intermissions. Seven months ago he entered the Leeds Infirmary, and was discharged after a fortnight, temporarily relieved. A month later the pain returned, and he therefore came to Manchester as an out-patient. The diagnosis was made of probable renal calculus. He improved for a time with lithia, but soon the pain and inability to do any work made something more radical necessary. Mr. Wright therefore took him in. On admission he was a rather thin, worn-looking man, whose main complaint was of a fixed pain about midway between the right kidney and the bladder in front; there was sometimes pain in the right loin. He was always able to pass urine easily and without pain; no gravel; he never had jaundice or any other liver trouble; bowels natural. He was quite unable to work. Urine strongly alkaline, with large phosphatic deposit; no albumen, blood, &c. There was tenderness on pressure over the painful spot, but no tumour could be felt. The right kidney region was distinctly more tender and resistant than the left, but no enlargement could be felt. After admission he was somewhat easier while lying in bed, but on getting up for an hour the pain was increased. Diagnosis as before: calculus probably in ureter. The urine (sp. gr. 1014) became acid on taking benzoate of ammonia, but no improvement resulted. On January 29th the right kidney was explored through a lumbar incision made first obliquely downwards from the costal margin, and subsequently enlarged by incisions along the last rib and crest of the ilium. On reaching the kidney it was not enlarged, but an abnormally hard spot was felt in the region of the pelvis. Next the fingers were passed downwards and forwards after making the lower incision towards the painful spot in the groin, and here a hard mass moving freely with respiration was felt. With some difficulty this was drawn up to the wound, and was at first thought to be a calculus in the ureter. The cyst wall covering it was incised and the calculus removed. It was then found to be a gall-stone lying in a large cavity with smooth walls—the gall-bladder. The edges of the opening in the bladder, which contained no fluid, were stitched to the skin, and as the stone corresponded almost exactly to the seat of pain the kidney was not further examined. The gall-stone was as large as a pigeon's egg. On the second day the patient developed evidence of acute peritonitis, and gradually sank, dying on February 3rd. The last dressing, on February 2nd, showed slight bilious discharge.

Necropsy.—Lungs: Both bases congested; some old adhesions. Abdomen: Recent acute peritonitis; lymph and pus most abundant in the right loin. Gall-bladder pulled down and adherent by its apex to the wound in the loin, to which it was united by sutures and recent adhesions; old adhesions, however, bound it down to the abdominal parietes nearly as low as the groin. The liver was drawn downwards and towards the right, and tilted, so that its upper surface looked almost directly forwards; it showed old marks of peri-hepatitis, but was otherwise healthy, though pale; it weighed fifty-six ounces. The gall-bladder was greatly enlarged and contained mucus, but no bile or gall-stones; the cystic duct was quite patent, and could have been obstructed only by the flexion resulting from the position of the liver and gall-bladder. Kidneys each weighed six ounces; the capsules were slightly adherent; cortex fairly normal; slight pyelitis in the left, more marked in the right. In the pelvis of the right kidney corresponding to the firm spot felt during the operation was a pyramidal calculus the size of a hazel nut, with its apex in the ureter; the stone was smooth, and apparently composed of uric acid. Bladder and ureter healthy.

Remarks by Mr. WRIGHT.—The case is remarkable from the unexpected coexistence of the two calculi, and we were led away from the correct opinion formed before the operation by finding the gall-stone, which apparently fully accounted for the pain, and which was practically his only symptom. I am not aware of a similar complication having occurred; though, as my friend and colleague, Dr. Steell, has pointed out to me, the coexistence of renal and biliary calculi is common, as recorded by Murchison and others. Probably in any case, with both kidneys damaged, a bad result would have followed; but the fact is worth bearing in mind. Mr. Whitehead and Mr. Southam helped me at the operation.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Discussion on Cholera.

AN ordinary meeting of this Society was held on Tuesday last, Dr. George Johnson, F.R.S., President, in the chair. The meeting might well be termed extraordinary, both in point of the number of individuals present and in the wealth of the display of specimens illustrating the bacteriology of cholera. Specimens were exhibited by Dr. Klein, Mr. Watson Cheyne, Dr. Warden, Dr. Heron, and Dr. Thin.

Dr. GEORGE JOHNSON read a paper on the Etiology, Pathology, and Treatment of Cholera. The object of the communication was to submit for discussion the main points relating to the etiology, pathology, and treatment of that disease. Cholera is believed to result from the action of a specific contagium or morbid infecting agency, which may enter the system either with the air through the lungs, or with food, water, or other liquids through the alimentary canal. Facts were mentioned which tend to prove that the contagium enters the circulation, where it probably undergoes increase at the expense of some blood constituents, which are then excreted through the mucous surface of the alimentary canal, and are ultimately expelled by vomiting and purging, and thus the patient recovers. In the more severe cases collapse occurs. That collapse is not the result of the liquid discharges from the system is shown by the notorious fact that in the most rapidly fatal cases there is rather an inverse than a direct ratio between the degree of collapse and the amount of the liquid discharges. A complete arrest of the discharges during collapse is a sign of fatal import; while, on the other hand, there is a continuance of the discharges in a greater or less degree during recovery from collapse. The effect of various and opposite modes of treatment is also inconsistent with the theory that the worst symptoms are the result of the liquid discharges. Those methods of treatment appear to have been most successful which have been least repressive in their tendency. The sudden onset and the rapid passing away of extreme collapse are inexplicable by copious exhausting discharges. That the main and essential cause of choleraic collapse is a greatly impeded circulation through the lungs is proved by the appearances found after death, and by the complete explanation thus afforded of the chief symptoms of collapse. When the chest is opened soon after death in collapse, the left cavities of the heart are found nearly empty, while the right cavities, the pulmonary artery, and the systemic veins are distended with blood. Extreme contraction of the pulmonary arterioles is the only probable explanation of this arrest of the circulation. The blood thickening is the consequence, and not the cause, of the impeded circulation. The small stream of blood through the lungs during collapse, with the resulting defective oxidation, explains the suppression of bile and urine, while in the case of nursing women the mammary secretion, which is not an oxidised product, continues. The marvellous temporary relief afforded by injecing a hot saline solution into the veins is due to the warmth of the liquid relaxing the arterial spasm, and thus allowing the blood to pass on; while the beneficial effect which has often resulted from venesection is explained by its lessening the distension of the right cavities of the heart, and so increasing their contractile power. Reference was made to

other causes of arrested pulmonary circulation—pulmonary embolism, exclusion of air, and the inhalation of nitrous oxide gas. The intestinal discharges are the means by which the disease is conveyed from the sick to the healthy. In this respect there is a close resemblance between cholera and enteric fever. With regard to prevention, it is believed that quarantine is as powerless to exclude cholera as to shut out typhoid fever. The true preventive means consist in the enforcement of cleanliness and the complete disinfection of the choleraic discharges. An indiscriminate opiate and repressive treatment in the diarrhœal stage is believed to increase the danger of collapse by preventing or retarding the escape of the morbid poison. An evacuant or cleansing method is consistent with the true theory of the disease, and has been amply justified by a large experience, more especially by such results as have been recorded by Drs. M'Cloy and Robertson in a paper published in the fiftieth volume of the Royal Medical and Chirurgical Transactions. The object and the results of a rational evacuant treatment are, not to increase the discharges from the blood into the alimentary canal, but to prevent the retention and to quicken and facilitate the expulsion of offensive morbid secretions from the stomach and intestines. That treatment of choleraic diarrhœa is the best which most speedily arrests the discharges without subsequent ill effects. On the other hand, the only safe use of opium is to allay irritation after the expulsion of noxious materials.

Dr. KLEIN said that there could be no doubt that epidemics of cholera were the result of importation from localities the seat of cholera. The point to be determined was, What was the infective agency? In some cases the linen and clothes were the means by which cholera was conveyed, and an epidemic investigated by Hirsch at Wildhausen in 1873 showed that importation had taken place from the United States; the clothes and linen came from the infected locality; these articles had not been worn by cholera patients. Again, persons not sick of cholera may convey the disease from one part to another, which proved that the infective agency was not necessarily associated with the cholera dejecta. The infective agency must be a living entity, because it is capable of undergoing self-multiplication, and nothing merely chemical possessed this power. The question had to be decided whether the infective agency was identical with the virus of cholera; whether cholera belonged to the class of true infectious diseases, like anthrax, tuberculosis, gonorrhœa, &c. Or whether the micro-organisms were the generators of the actual virus; whether the infective agency lived and multiplied outside the body, as was the case in septic poisoning, where bodies called ptomaines were the real virus. He believed that cholera belongs to the second class of infectious diseases. The incubation period of cholera may be half an hour to a few hours, and, if so, it was impossible to believe that in such a short space of time micro-organisms could accomplish the result. A chemical ferment formed outside the body, and when absorbed was the real poison at work in cholera. This chemical virus acted on the blood and nervous tissues, and gave rise to all the phenomena of cholera. From all his experience, he concluded that the bodies of patients suffering from cholera do not contain organisms which could be regarded as specific and pathogenic, and in this he was directly opposed to Koch. In all true infectious diseases the organisms were present in the morbid products in great numbers, but such was not the case with cholera. When it was remembered that linen not soiled can convey the infection, and that water which had come in direct contact with choleraic discharges did not produce the disease, he considered that his position was rendered still more secure. In ordinary non-epidemic times emanations from sporadic cholera gain access to the water in tanks, and this water is drunk by by those who dwell round the tanks, yet no epidemic appeared, as he could testify. Benares, which was a filthy town, was a site where sewage was discharged into the river, and where the natives, bathing in the Ganges close to the outlet of a sewer, and even drinking the water, yet remained free from any epidemic of cholera. These facts proved that the evacuations of cholera were harmless. In hospitals devoted to the treatment of cholera the attendants remain unaffected as a rule; but, as Pettenkofer pointed out, the hospital itself sometimes becomes a cholera locality, and then the residents in the hospital are as liable to cholera as other individuals. The virus of cholera is not present in or dependent on the dejecta of cholera, but its formation is dependent upon locality, as Pettenkofer has maintained. These views were in irreconcilable antagonism with contagionists such as Koch. In beginning his researches on cholera, Koch was struck by the peculiar shape of the comma bacillus, and it was the morphological peculiarity which first led him to say that the comma bacillus was specific; but since the same shaped bacillus had been found in other normal and abnormal conditions, Koch had altered his standpoint. The more typical, the more acute, the case of cholera, the more numerous were the comma bacilli, according to Koch. But he (Dr. Klein) had not confirmed the statements of Koch, for he had found that the bacilli were exceedingly scarce in some fatal cases of cholera. Koch had asserted that the bacilli were chiefly found in the lower part of the ileum, and that Peyer's glands were specially affected in this region, whilst the intensity of the disease diminished the further we went away from the lower part of the ileum. The appearance was not different at this part of the ileum, so far as he (Dr. Klein) had made out, for the whole small intestine was filled with clear watery fluid, in which mucous flakes floated, and there was no distinct difference between one part and another of the small intestine. Though he agreed that the comma bacilli specially affected the lower part of the ileum, the bacilli could not be specially connected with the disease, seeing that the whole of the intestine was equally affected, and yet the bacilli prevailed only at one part. Nor was it possible that the comma bacilli produced a chemical poison, for the quantity of the poison should be dependent on the number of bacilli; but in some fatal cases the comma bacilli were exceedingly scarce. With regard to the presence of the bacilli in the wall of the intestine, he denied the statement, and had found no other organism in the tissue of the intestine. This fact was also testified to by the French Commission, which had been able to verify the presence of the bacilli only in dead tissues. So that having regard to these points, and to the scarcity of the bacilli, he concluded that the bacilli can have nothing to do with the cause of cholera. Koch had affirmed that in the mode of their growth in cultivation media this comma bacillus was special and peculiar, and cultivation served to isolate it from other kinds of bacilli. Even here Dr. Klein was not disposed to agree with Dr. Koch that their growth was peculiar and specific, for he knew of other organisms found by Dr. Timothy Lewis in the salivary secretion which presented similar appearances, as the tubes shown by him at the meeting were held clearly to demonstrate. The comma bacillus, if it were a definite species, could not be shown to be pathogenic by its behaviour in solid nourishing material, though by the growth in solid media we could recognise with the unaided eye different varieties of comma and other bacilli. Referring to the water-tank incident in Calcutta, he said that there were 200 families living in huts around this tank, and on February 13th, 1884, Koch found comma bacilli in the water; but the epidemic had lasted more than a month, and the cholera dejecta were constantly thrown into the tank; so that he thought it logically absurd to conclude that the bacillus was the cause of the cholera. Now he (Dr. Klein) was present at the beginning of November, 1884, at the same tank, and not one case of cholera occurred in the dwellers around the tank, and yet the comma bacilli were present in the tank and the water was unquestionably drunk by the people. Coming next to the experiments on animals, he said that Koch had had nothing but negative results. Nicati and Rietsch had obtained some results; but was it cholera that they had induced in animals as the result of the injection of comma bacilli? Ligature of the bile-duct was practised by these observers, and it was suggested by Friedländer that this had been done because there was no bile in the intestines in cholera. He suggested that tying the ureter might just as well have been done on the plea that there is suppression of urine in cholera. In some of these experiments on animals positive results were obtained, and the symptoms resembled those met with in what the French term "choléra foudroyant." In these cases (dogs were used) the comma bacilli grew and multiplied in the small intestine, but he would have been surprised if such had not been the case. He questioned, however, whether the induced disease was cholera; might it not have been a form of septicæmia? In guinea-pigs, also without ligature of the bile-duct, positive results had been obtained, and at the post-mortem examination detached epithelium, mucous flakes, and hyperæmia of the mucous membrane were discovered; but such appearances were very commonly witnessed in septicæmia. Koch, working afresh on dogs

without ligaturing the bile-duct, had succeeded in causing certain symptoms followed by death in three days, and here the intestines were hyperæmic and the canal contained a watery fluid. But were the experiments performed antiseptically? In India he (Dr. Klein) had injected syringefuls of the comma bacilli into the jugular vein, the intestine, under the skin, and into the peritoneum of rodents, cats, dogs, and monkeys with purely negative results; he had also employed cultivated comma bacilli. Mr. Horsley and Mr. Dowdeswell had worked at the subject also, and with similar negative conclusions. But even allowing that the experiments on animals yielded sometimes genuine results, does it prove that the organisms are pathogenic as regards man? Rodents were liable to a form of septicæmia due to organisms which, however, were not pathogenic to man. He next referred to the existence of certain minute straight bacilli in connexion with lymph corpuscles and mucous corpuscles. He had detected these organisms only in cases in which the autopsy was made within two hours after death, and they were the only organisms discovered which had any relation with actual living tissues. He ventured to think that if Koch had detected these minute straight bacilli, he would have regarded them as pathognomonic of cholera. These bacilli were detected by the ordinary methods of staining. He suggested that Koch had missed them because his autopsies had not been made as early as they might have been done. These bacilli grew chiefly on the surface of the solid media, They did not liquefy the gelatine like putrefactive bacteria In conclusion, he summed up his views by asserting that the infective agency of cholera was extraneous to the body, that it had its breeding-ground in a suitable soil, and that it produced a chemical virus which was the real cause of cholera.

Mr. WATSON CHEYNE at the outset objected to the tone in which Dr. Klein had reviewed Koch's work. He then passed on to say that Dr. Klein's view with regard to the importation of cholera hardly explained how it was that an epidemic appeared on an island immediately after the arrival there of a patient suffering from cholera, seeing that the dejecta on Dr. Klein's showing contained merely the products of the action of the virus and none of the infective agency itself. But it was with the bacterial aspect of the subject that he specially wished to deal; and these phases of the question had to be treated. Was there a definite organism associated with cholera? Was it always present in cholera? Was it ever found anywhere else? With regard to the first point, he maintained with Koch that there was a definite organism associated with cholera; the specificity of the bacillus did not rest alone on its shape, but on the peculiarity of its mode of growth, in the way in which it grew at different temperatures, and on different substances. It was on the sum of all these characters that Koch had ventured to call the bacillus a specific one. It was to be regretted that Dr. Klein should ever have supposed that Koch meant to diagnose an organism solely on its morphological characters. Moreover, as Koch had long ago made out, the bacillus of glanders also presented the comma shape. Neither was growth in a particular manner ever regarded by Koch, or anyone else, as proving an organism to be pathogenic. The peculiarity of the method of growth merely served as a means of recognition of an organism. With regard to the second question, most observers agree that the bacillus was always present in cases of Asiatic cholera, though there were discrepancies of statements as to the numbers and site of the organisms. As to the method of estimation of numbers, if the microscope were used the number would be smaller than really existed; moreover, when growing rapidly there were fewer bacilli to be found which retained the comma shape; estimations by the method of cultivation were the only satisfactory ones. In the evacuations of an exceedingly acute case, from which Mr. Cheyne made cultivations within a quarter of an hour of their passage from the patient, he found that 95 per cent. of the organisms were comma bacilli; whereas in the dejecta themselves the comma bacilli were very few in number, but small straight bacilli were very numerous. The more acute the case the fewer comma bacilli would be found. The existence of a straight stage of the comma bacillus would probably explain a good deal of the controversy on the score of numbers. Koch had found bacilli in the intestinal wall, but neither Dr. Klein nor he had been able to find them, and he had examined two cases specially. But the comma bacilli are difficult to stain in the tissues. Koch had always found them there, but only faintly stained. Was it not possible that Koch was more efficient in the use of the methods than he or Dr. Klein? The next cardinal question was, Are the bacilli ever found anywhere else? Observers had found them in every case of Asiatic cholera that had been examined, whether in India, Egypt, Italy, France, or Spain. He had examined the saliva, evacuations, putrefying materials, and dejecta of dysentery, and had failed in every case to find the comma bacillus of Koch, or to find bacilli which in every particular agreed with the comma bacillus of Koch. The statement to the same effect made by Koch last summer was still adhered to by him. In dysentery and other diseases large numbers of comma bacilli may be found, but were they identical with Koch's? There were Finkler's, Deneke's, and Müller's comma bacilli, and he asked which one had Dr. Klein found? None of these bacilli exactly agreed with the bacilli of Koch in their mode of growth on potatoes, &c. He asked Dr. Klein in what number of cases in which it was on microscopical evidence alone, and in what number of cases it was on the mode of growth, and other characters, that he based his assertions with regard to the comma bacillus. In cholera nostras the comma bacilli did not grow in the same way as the bacillus of Koch. The bacillus found in the salivary secretions appears to be very like that of Koch, but Koch and his pupils, as well as he (Mr. Cheyne), had entirely failed to cultivate the comma bacillus from the saliva. Müller, in the *Deutsche Medizinische Wochenschrift*, had written to the same effect. This observer had found a comma bacillus in a carious tooth, which could not, however, be cultivated in the same media as those in which Koch's bacillus could be cultivated.

Dr. KLEIN interposed to say that he could not succeed if the same media were used as those which Koch used.

Mr. CHEYNE, continuing, said that that just proved his point. Dilute acids and putrefaction prevented the development of the comma bacillus of Koch. With regard to the fact that the inhabitants about the water tanks did not take the cholera, another explanation than that offered by Dr. Klein was possible: they may not have been in a condition to take the disease. Dr. Klein probably believed that the bacillus was the cause of tuberculosis and of anthrax, and yet although many individuals were exposed to the influence of the bacillus, but few became the subjects of tuberculosis or malignant pustule. As to the experiments on animals, Dr. Klein seemed to think that the positive results obtained were due to a septicæmia; in two cases out of fifteen or sixteen experiments he (Mr. Cheyne) had obtained a positive result; the symptoms during life were diarrhœa, cramps, and collapse; at the autopsy the intestines were hyperæmic, Peyer's patches were swollen, and in one of them a hæmorrhage was seen; comma-shaped bacilli were found in abundance in the contents of the intestines. It was easy to prove whether cases were due to septicæmia by making inoculations on other animals, and by examinations for the detection of an organism in the blood. All Koch's experiments on animals were conducted with complete antiseptic precautions. He considered that Koch's position had remained so far unassailable.

Dr. WARDEN gave a full account of the antiseptic precautions adopted by Koch. The abdomen was first shaven, and then carefully washed with a carbolic solution; all the water used was thoroughly boiled; the hypodermic syringe was provided with an asbestos plunger; the instruments and hands were soaked in carbolic solution. Crucial experiments were made on other animals, the only difference being that the comma bacilli were not injected. Experiments with Finkler's and Müller's bacilli yielded negative results. In a paper read before the German Board of Health Koch described small and large straight bacilli as having been found by him in cases of cholera.

Sir JOSEPH FAYRER made a few remarks, in the course of which he stated that in his opinion we were not one iota nearer the truth as to the *causa causans* of cholera, though he acknowledged his obligation to the gentlemen who had so largely contributed to the discussion.

MEDICAL SOCIETY OF LONDON.

Repair after Gangrene of Scrotum.—Choreiform Movements of Long Duration.—Etiology of Phthisis.

AN ordinary meeting of this Society was held on Monday last, Dr. W. Miller Ord, President, in the chair.

Mr. WALTER PYE showed a living specimen illustrative of the extraordinary powers of Repair after Gangrene of the

Scrotum. The patient was a man aged fifty, whose illness began with shivering, followed by inflammation about the penis; gangrene was present twenty-four hours later; in four days the gangrenous swelling burst and discharged an offensive fluid; it was at this time that the patient was first seen. There was most extensive gangrene of the penis, scrotum, and perineum, and external urethrotomy was performed. The very large slough came away on the ninth day, leaving the testes and penis bare. An abscess appeared a week later in the left iliac fossa, and this burst a week later. In the course of two months the parts exposed became completely covered by natural processes alone.—The PRESIDENT suggested that noma might have been at the root of the gangrenous condition.—Dr. SANSOM thought the case hardly presented the history which usually obtained in noma; there was none of the characteristic induration.—Mr. PYE was not certain that the disease was not one of spontaneous gangrene.

Dr. BEEVOR showed a case of Clonic Spasms of the Upper Limbs, with Anæsthesia of the Left Side, in a girl aged sixteen, who had had scarlet fever ten years ago, and six months later began to have twitching of the head and face to the left and movements in both arms. Seven years ago Dr. Barlow observed the choreiform movements affecting all the limbs. The movements have persisted ever since. A year ago the left arm was alone affected with pronation, extension of elbow, and adduction of elbow, but voluntary movements were possible; there were occasional rapid twistings of the head and both eyes to the left. Last October the right arm became affected in a similar way, and the left arm became anæsthetic and analgesic. At present the movements of the left arm were much quieter, but the limb was almost completely paralysed, anæsthetic, and analgesic. The anæsthesia also affected the whole left side of the trunk, head, and neck, as low as the level of the umbilicus; in the area of complete anæsthesia all forms of sensation were completely abolished. The face was only slightly anæsthetic; the left conjunctiva, left nostril, mouth, tongue, and fauces were deficient in sensibility. The muscular sense of weights was lost in the left arm. The sight was not affected. There was no optic neuritis. Menstruation occurred but twice a year. There was no cardiac disease. In the arms the muscles affected corresponded to those involved in Ferrier's and Yeo's experiments on the sixth and seventh cervical nerves. The case was probably of a functional or hysterical nature. The movements were irregularly rhythmical, at the rate of about sixty to eighty per minute, and ceased during sleep; though simulating chorea, they were much more regular, and affected only certain muscles; the movements of one arm were synchronous, but the two arms did not move, as a rule, at the same time. The diagnosis was supported by the character of the patient, the variation of the spasms, and the supervention of anæsthesia after so long a duration.—The PRESIDENT said that the case raised a good number of hypotheses. He suggested that during the coming year the clinical value of the deep reflexes as a means of diagnosis might be discussed with advantage. Had "transference" been tried?—Dr. HADDEN said that he had seen three very similar cases, but they came on much more rapidly; all were hysterical; the affection was like "canine chorea," which, however, ended in paralysis, and proved fatal as a rule. In the canine disease he had found areas of leucocytes around the capillaries of the spinal cord. Nerve-stretching might prove of value in Dr. Beevor's case.—Dr. BEEVOR believed that the case might spontaneously undergo rapid cure; he had not yet tried "transference."

Dr. BURNEY YEO read a paper on the Etiology of Phthisis. He said that one of the most considerable and interesting contributions to the inquiry into the etiology of phthisis that we have had of late years is to be found in Dr. Andrew's Lumleian Lectures delivered last year before the College of Physicians. He was not at one with the conclusions announced in those lectures. In admitting the bacillus of tubercle as the exciting cause of phthisis, Dr. Andrew's subsequent argument rests on the following assumption: that the bacillus of tubercle has an "independent" as well as "parasitical" phase of existence; and this assumption has borne the whole weight of the conclusion that phthisis is neither directly nor indirectly communicable! This "independent" phase of existence was no more than a pure assumption. Dr. Andrew's argument might be phrased thus: There is a bacillus of tubercle found existing as a parasite in certain men and animals; it is capable in its parasitic form of exciting phthisis in other men and animals, yet it never does so, for when it does so it is always in an "independent" phase of existence. All his (Dr. Yeo's) experience of natural phenomena led him to oppose such an argument. He considered that if one single case of phthisis has been or can be caused by an infective organism which has pre-existed in another person, the whole case of the non-contagionists is surrendered; for then the question is no longer one of communicability or non-communicability, but simply one of degree. He simply argued for the fact of communicability. He next criticised in some detail the views expressed by Dr. Douglas Powell at Belfast last year. He thought there was no evidence to support the notion that the bacilli were harmless. He believed that it was demonstrated as a fact that the bacillus of tubercle is not commonly or widely diffused even in a consumption hospital, and quoted some remarks of Dr. Hermann Weber on this subject. He narrated cases which proved to his mind that phthisis could be communicated. He quoted Dr. William Roberts to the effect that no candid person could read the report of the Collective Investigation Committee, and the detailed evidence on which it was based, without coming to these practically important conclusions: that no healthy person should be permitted to occupy the same bed with a sufferer from pulmonary consumption; that no person with an hereditary predisposition to tubercular disease should be allowed to have continued and intimate personal contact with a phthisical patient. Dr. Yeo combated at great length the arguments used by Dr. Andrew in criticising the report of the Collective Investigation Committee. He said that the appeal to clinical evidence in the present state of knowledge of the nature of pulmonary consumption could only furnish proof of the degree of communicability and the laws which govern it, and were it only one tithe of what it is, it would be sufficient to support the fact of communicability. —The PRESIDENT agreed in large measure with the conclusions contained in the paper.

OPHTHALMOLOGICAL SOCIETY.

Prevention of Blindness from Ophthalmia Neonatorum.—Nævus of Choroid.—Favus of the Upper Eyelid.—Tuberculosis of Cornea.—Evisceration of the Globe of the Eye.

A MEETING of this Society was held on the 12th inst., Mr. Jonathan Hutchinson, F.R.S., President, in the chair.

Dr. BRAILEY read the report of the special committee appointed to inquire into the Means for the Prevention of Blindness from Ophthalmia Neonatorum.

The special committee having considered the Registrar-General's letter to the Local Government Board referred to them at the last meeting, submit to the Society the following report: "That, as in the opinion of the Registrar-General, the reading over of a printed form by the registrars of births to the parents would entail a considerable expense, this may be dispensed with; and that, in place of this reading, the following notice be printed on all official documents issued to parents in relation to the birth, registration, and vaccination of children: 'If the eyelids become red and swollen, or begin to run with matter within a few days after birth, the child is to be taken without a day's delay to a doctor. The disease is very dangerous; and if not at once treated, may destroy the sight of both eyes.'"

Mr. HENRY POWER proposed and Mr. TWEEDY seconded that the deputation which already existed should be asked to wait upon the President of the Local Government Board with a view of laying before him the above recommendation of the Special Committee of the Ophthalmological Society. This motion was carried unanimously.

Mr. J. B. LAWFORD showed microscopic sections of Nævus of the Choroid. These were obtained from the left eye of a child aged eight, in whom there was an extensive capillary nævus of the same side of the face. The nævus involved the posterior part of the choroid surrounding the optic disc, and consisted of vascular channels of varying size, traversing the choroid in all directions. The retina was completely detached, stretching from the optic disc forwards to the posterior capsule of the lens. There was a large subretinal hæmorrhage. The lens was opaque and shrunken.

Mr. MCHARDY brought forward a case in which there was a rapidly extending isolated patch of Favus on the Upper Lid of a woman aged thirty-seven. It had the appearance of a

dry scabbed ulcer, and grew with great rapidity; it was excised, and the actual cautery applied. Microscopical sections and a drawing of the original disease were shown. The patient, who had completely recovered, was present.—Mr. JONATHAN HUTCHINSON said that he had seen cases of favus occurring in single patches on the skin of the body; the disease was intractable only when the scalp was affected.

Dr. C. E. BEEVOR showed a case of Opaque Nerve Fibres in a woman aged thirty-five.

Mr. W. LANG exhibited drawings of two cases of Detached Retina in the Yellow Spot Region. The patients were brother and sister; the sister was present for examination. He also showed a case of Detachment of the Retina at the Yellow Spot Region following a blow; and a third case of Central Choroiditis with Disseminated Patches in the remainder of the fundus.

Mr. STANFORD MORTON showed a case of Atrophy of the Choroid in a man aged fifty-five.

Messrs. JULER and ANDERSON CRITCHETT exhibited the case of Vesicle of the Cornea which they had shown at the December meeting. They had been unable to effect a cure, though they had tried every means known to them.—Mr. MCHARDY thought that until arsenic had been tried the case should not be regarded as incurable.

Mr. MCHARDY exhibited a man aged thirty-nine upon whom Argyll-Robertson's new operation for obstinate Ectropion of the Lower Lid, due to long-continued chronic conjunctival inflammation, was performed.

Mr. NETTLESHIP showed a case of Total Detachment of the Retina, including the yellow spot region. The affection was of several years' standing. There was practically no power of vision; even with glasses the patient could barely read 20 Jaeger.

Mr. ARTHUR BENSON read a paper on a case of Tuberculosis of Cornea and Iris. The patient was a girl aged eighteen, whose father had recently died of "decline," and whose sister was dying of the same disease. She had herself no physical signs of lung disease, but had enlarged lymphatic glands under the jaw. Two months previously the left eye, and six weeks later the right eye, became affected; greyish-yellow nodules formed in the cornea and iris, and increased in number and size. They resembled exactly the appearances seen in cases of tubercle of the iris, and in rabbits whose anterior chamber had been inoculated with lupus. The left eye was enucleated, and, microscopically examined, there were several nodules of a translucent grey colour in the substance of the cornea. They were situated external to the posterior elastic lamina, which, though extensively displaced and raised up by the masses, seemed to have resisted disintegration; the layer of endothelial cells on its aqueous surface remained intact. The neighbouring cornea was infiltrated, and its structure partly destroyed, the lamellæ being separated by masses of cell-growth. The nodules consisted of an agglomeration of round nucleated cells, in the centre of which a caseating area existed. Epitheloid cells were also abundant. In places there was an appearance as if several masses of cells had coalesced; the peripheral portions of each mass stained much better than the central. No distinct giant cells had so far been found. The nodules on the iris seemed very similar in structure. The sections prepared for detecting the specific bacilli so far yielded only negative results, but the examination had not been completed! The diagnosis was, so far, dependent upon the clinical history, the macroscopic appearances, and the anatomical peculiarities of the growth, and must therefore be left open to the possibility of error. Two inoculation experiments had failed to yield definite results. Sections of the growths, and of the inoculation growths, as well as drawings, were shown.—Mr. JESSOP asked how soon after the inoculation the rabbits were killed; whether the lungs were affected; whether any other method than that of Heneage Gibbes were used; whether any cultivations of the bacilli were made, and whether any growths were found in the choroid. He said that inoculation from pure cultivation into the anterior chamber was followed by tuberculosis of the iris and choroid as well as by general tuberculosis. So that in infection from the anterior chamber the body at large was affected, whilst in general tuberculosis of the rabbit the choroid escaped. Mr. Jessop also inquired whether the patient had any symptoms of general tuberculosis.—Mr. NETTLESHIP asked whether the growths had shrunk, and whether scraping had been practised.—Mr. J. HUTCHINSON said that he had seen cases in all respects like that of Mr. Benson's patient, with the exception that the cornea was not involved. At the suggestion of the President, a committee, composed of Mr. Jessop and Mr. Mules, was appointed to examine into the specimens submitted to the Society by Mr. Benson.—Mr. BENSON, in reply, said that one rabbit died after one week and the second one after two months; there was no tubercle in the rest of the body. Heneage Gibbes' method was the only one used. The patient showed no sign of tubercle in the system generally. No scraping had been done, and the shrinking of the untouched nodules could not be explained properly. There were enlarged glands at the angles of the jaw.

Dr. MULES (Manchester) read a paper on the Preventive Treatment of Sympathetic Ophthalmitis by Evisceration of the Globe, and the use of an Artificial Vitreous. In reviewing the history of the operation, he stated that Mülder and Græfe were working out the same operation at the same time as he was himself without any previous interchange of ideas. He pointed to the result of this new operation as a further proof of the correctness of the views advocated by Snellen, Leber, Brailey, and Max Kines, that travelling organisms were the cause of sympathetic ophthalmitis. The operation which he performed was identical with that performed by Graefe; but in addition to the operation of evisceration, Dr. Mules prepared the eviscerated globe for the application of an artificial eye, by the introduction of a hollow glass sphere or artificial vitreous, which was permanently retained; by this means the shape of the globe was maintained and very good movement obtained. The results, therefore, were æsthetically good. The operation was performed as follows. The patient was anæsthetised; the hand-spray was used, and the appendages thoroughly cleansed and disinfected with a 1 in 1000 solution of corrosive sublimate; the front of the eye was transfixed, and removed with a sharp knife at the corneo-scleral junction. He considered it better not to cut the conjunctiva. The contents of the globe were then emptied out, in any way that was convenient, taking special care to remove the ciliary body and choroid, leaving only a clean white sclera. The sublimate solution was to be allowed to run into the eye through a thin indiarubber tube, used syphon-wise, during the whole time the operation was in progress. The hand-spray was also employed as an additional precaution, and its use continued till the bleeding nearly or quite ceased. The sclera was then slit between the inferior and internal recti muscles, until the glass sphere selected would enter the cavity. A catgut drain (to be removed next morning) was introduced into the lower angle of the wound and the sclera was sewn up from above downwards. A layer of finely powdered iodoform was spread over the whole conjunctiva, and a dressing of wood-wool, in a double layer of Lister's gauze, was applied. As a precautionary measure, the patient was kept in bed for four or five days. The eye was dressed daily under the spray. If the wound were kept aseptic, the reaction was comparatively slight. If early suppuration ensued, the pain and distress were severe and prolonged. Too much stress could not be laid upon the necessity for antiseptic treatment, without which the operation should never be performed. Three sizes of artificial vitreous have been, so far, found to be sufficient.—Mr. HENRY POWER said the paper was valuable physiologically, as showing that little or no inflammation need result from the wearing of such a glass sphere; and it was valuable ophthalmologically, as showing how extremely good a stump for the application of an artificial eye could be got by thorough evisceration. He had seen Mr. Hancock perform the operation of evisceration in cases of glaucoma attended with hæmorrhage, and did not regard the operation as altogether a new one.—Mr. J. HUTCHINSON said that no doubt evisceration had not been done in a systematic manner with antiseptics, but he had not unfrequently performed evisceration intentionally, though usually more of the front of the eye was removed than was the case in Dr. Mules' patient.—Mr. CHARLES HIGGENS asked whether Dr. Mules had more evidence to show that this procedure prevented sympathetic ophthalmia.—Mr. ADAMS FROST said that a planned operation for the perfect removal of all the contents under antiseptic precautions had not been previously performed, and such an operation was very different from an accidental evisceration, where total clearing of the sclerotic was not aimed at. It remained yet to be seen whether wearing the glass sphere would give rise to any kind of irritation. Accidental breaking of the sphere was not very likely to happen; many glass eyes were broken, but not whilst they were in the orbit. He asked how long

a time the operation required for its full performance.—Mr. G. HARTRIDGE asked whether celluloid might not be tried as a material for constructing the sphere.—Mr. A. BENSON thought some irritation from the glass sphere might ensue at a late period.—Mr. JULER asked what kind of instrument was used to scrape out the globe.—Dr. MULES, in reply, said that he believed sympathetic ophthalmitis was always the result of an infective process by means of cells migrating from the diseased to the sound eye. The glass sphere had been worn for five weeks, and there was no irritation. He used about half a gallon of the solution of corrosive sublimate, and the operation lasted from fifteen to twenty minutes, including the time required to produce anæsthesia. He thought gilt aluminium would be the lightest material, but wished to try glass first, and he considered that it would not be broken; he did not think the glass sphere could get roughened on its surface. For clearing out the sclerotic dried lint rolled round a pair of forceps was used, but any device of the surgeon might be employed.

ACADEMY OF MEDICINE IN IRELAND.

AT a meeting of the Surgical Section, on January 23rd,

Mr. SWANZY read a paper on Transplantation of Skin Flaps without Pedicle for the Cure of Cicatricial Ectropia. He reviewed the steps of the proceedings as usually practised, and gave particulars of six operations he had recently performed, four of them being successful and two unsuccessful. The successful cases were exhibited. In addition to the points generally regarded as important, he drew attention to the following:—1. It is desirable that the wounded surface on the eyelid should be made as extensive as possible by the dissection of the everted lid being carried to the fullest extent. It is not sufficient, as usually recommended, to carry the dissection only so far as to bring the free margin of the eyelid being operated on in contact with the free margin of its fellow, but the dissection of the lid from the surface underneath to which it is attached should be gone on with until, on reflection, the free margin reaches up to or beyond the eyebrow, if it be the lower lid, or as far as or below the infra-orbital margin, if it be the upper lid. The object of this is to provide for the inevitable shrinking which takes place in the transplanted flap, so that the ultimate size of the eyelid may not be less, or much less, than normal. This second point had not before been mentioned. 2. With regard to securing the flap in its new position by sutures, it would be much better if sutures could be done without, as they cause suppuration at each point. The author had no experience of Wolfe's method of securing the flap without sutures. If sutures are used, they should be of fine silk or of fine platinum wire, and only so many as suffice to keep the flap in its place. Catgut sutures are not suitable, as they do not hold long enough to enable the flap to become adherent. A large number of sutures is unnecessary, and causes a line of suppuration around the margin of the flap, but platinum wire seems to cause little suppuration. 3. With regard to the dressing, carbolic acid should not be used in any form, being apt to irritate the delicate skin flap and increase the liability to peeling of the epidermis. He did not agree with Wolfe that the "so-called antisepticism" has no place in ophthalmic surgery. In this proceeding the dressings should be antiseptic, but they should be also non-irritating. Boracic acid and sero-sublimate were among the suitable applications. Finally, the author pointed out that where the epidermis has not peeled the shrinking is slight in comparison with where it comes away, and where the rete Malpighii has to throw out a new cuticle.—Dr. BENSON said that at the late Surgical Society he had himself read a paper on the same subject, giving the results of eight cases of transplantation from the arms to the eyelids without pedicle, and with a tolerably fair average of success, though not so large as Mr. Swanzy had. As to the failures, he asked if the lid was made better by the operation, even though the flap sloughed. He also inquired as to the time of the return of sensation in the transplanted skin. The use of carbolic acid as a dressing he condemned, the effect being to irritate the wound; he preferred vaseline.—Mr. WHEELER observed that in the formation of new noses, where the flap was taken from the forehead, sensation returned earlier than when taken from the cheeks or by Syme's operation.—Mr. STORY remarked that all the nerves had to do when the flap was taken from the forehead was to continue growing in order to restore sensibility; but when the skin was transplanted *en masse* from the arm without pedicle, the new nerves had to join on to the skin beneath, and therefore the early return of sensibility was not to be expected. — Mr. SWANZY, in reply, was mindful that Dr. Benson had anticipated him in the operation. His experience of it was extremely favourable. Of seven cases, two had been complete failures, while the rest were, surgically and therapeutically, complete successes. The two failures occurred in the same patient, and arose from the untimely melting away of the sutures. As a rule the epidermis came away, but he did not desire that result, the flap not being unlike the skin of the cheek when it remained, and the tissue underneath had not to go through the granulating process. He did not note the return of sensation, but it did not take place in less than a week or a fortnight.

Mr. STOKES read a paper on Astragaloid Osteotomy in the treatment of Flat-foot; and Mr. KENDAL FRANKS read a paper on the Treatment of Flat-foot by Ogston's Operation. The discussion on both papers was postponed to the next meeting.

MIDLAND MEDICAL SOCIETY.

AN ordinary meeting of this Society was held on the 4th inst., the President, Mr. T. H. Bartleet, in the chair.

Dr. THOMAS showed a patient on whom he had resected about an inch from the centre of the shafts of the left radius and ulna, to remedy severe Angular Ankylosis of the Wrist. The bones of the forearm had been fractured in 1881, and during the treatment a deep slough formed on the posterior aspect, leaving a cicatrix about two inches in length closely adherent to the bones. The wrist was firmly ankylosed in a position of acute flexion, and the use of the arm further impaired by an unreduced dislocation at the elbow. The cicatrix was dissected away, and about an inch of the bones removed. It was found that the wrist deformity was very little affected immediately, though considerable improvement ultimately followed. The ends of the two bones were placed together, the corresponding periosteum being united by fine catgut sutures. Considerable opening out of the angle of the wrist was secured, so that the arm was much more useful than before.

Mr. JORDAN LLOYD showed a Tumour which had grown in the breast of a girl, aged nineteen, within a period of eight months. The tumour was movable in all directions; at times painful and rapidly growing. The skin was full and traversed by large veins, the glands in the axilla enlarged. The whole breast was excised, the skin plentifully sacrificed, and the axilla thoroughly cleaned out. The patient has done well since. Microscopic sections were shown, the growth being an adeno-sarcoma.

Dr. SUCKLING exhibited Squibb's Apparatus for the Estimation of Urea, and recommended it as being cheap, portable, and accurate. He also showed a case of Cerebral Syphilis. The patient, a woman aged thirty, had had two miscarriages. Last December she was taken ill with severe pains in the head, vomiting, and vertigo, and was confined to bed for three weeks. She attended the Queen's Hospital as an out-patient in February, and had been treated with iodide of potassium in increasing doses. There were paresis of the right side, with increase of the deep reflexes, paralysis of the right third nerve, and peripheral paralysis of the left facial nerve, "the reaction of degeneration" being well marked. The speaker pointed out the multiplicity of the paralyses as being very characteristic of syphilis, and indicated the probable situation of the growths. There was no optic neuritis. The hemiplegia and paralysis of the third nerve were improving rapidly under the administration of thirty-five-grain doses of iodide of potassium thrice daily; but the facial paralysis remained unaffected. Dr. Suckling further showed a case of Peripheral Monoplegia in an infant of five months; the paralysis dated from birth, great difficulty being met with in delivering the shoulder. There were anæsthesia and contracture. The reaction of degeneration was present in a severe degree. He believed the accident to be a very common one, and urged the necessity of immediate treatment.

Dr. PURSLOW showed a specimen of Spontaneous Rupture of the Œsophagus into the Right Pleural Cavity, from an infant aged eleven months. There was no appearance of ulceration in the wall of the stomach or œsophagus, and no trace of a foreign body. The child was admitted with bronchitis twelve hours before death, and the fatal termi-

nation was sudden and unexpected, and preceded by convulsions.

Mr. EALES read a paper on Concomitant Internal Strabismus, and drew attention to its being almost invariably associated with hypermetropia. He then explained the mode in which the defect in focus brought about the squint; and having alluded to astigmatism and certain other conditions causing defective vision in one eye, pointed out how monocular defect contributes in a large degree to the occurrence of strabismus. He maintained that the essential cause was the hypermetropia, and that most cases if taken in time might be cured without operation by wearing suitable glasses. He thought operation should not be resorted to till glasses had failed to cure the squinting, and considered them necessary adjuncts in the after-treatment. He thought that the cure of squint by atropine drops without the aid of glasses was most improper, as the patient's vision was then bad for both distant and near objects. He had in a few cases cured squint by eserine drops, but found the result to be very rare. He thought this method of treatment only worth a trial in children too young to wear glasses.

WOLVERHAMPTON DISTRICT MEDICAL SOCIETY.

A MEETING of the above Society was held in the Bell Library, Wolverhampton, on March 5th, the President, Dr. Ballenden, in the chair.

Mr. VINCENT JACKSON showed two children lately operated upon for the Radical Cure of a severe form of Inguinal Hernia. The operation consisted in ligaturing and excising the sac, and closing the external ring with silver-wire sutures. No truss had been worn since the operation, and its curative character had been well tested, as each child had been a sufferer from whooping-cough since its performance.

Mr. VINCENT JACKSON also showed a Tongue removed on account of an Epithelial Cancer of the left side, the point of interest being the fact that, although the excision was performed slowly with the chain écraseur, yet, upon detachment, both lingual arteries required ligaturing.

Mr. CROCKETT then continued the discussion adjourned from the last meeting by reading a paper on Puerperal Fever, which, after alluding to the varied nomenclature and treatment, he divided into the three varieties of "inflammatory," "sapræmic," and "septicæmic," and subdivided all cases into autogenetic and heterogenetic. As to treatment, he strongly insisted on thorough antiseptic precautions, and thought the hyposulphites promised to be useful.—The debate was continued by the chairman, Drs. Totherick and S. Smith, and Messrs. Newnham, Jackson, and Magrane.

Dr. LYCETT then exhibited an instrument for facilitating the Radical Cure in Pyo-pneumothorax, and also an instrument for Dilating the Cervix Uteri.

CARDIFF MEDICAL SOCIETY.

The Measles Epidemic.

AT a meeting of the above Society, held at the Infirmary on the 11th ult., a discussion took place, in which the following members took part:—Mr. C. E. Hardyman (President), Dr. Campbell, Dr. M. G. Evans, Mr. A. Blain, M.B., Mr. W. H. Greener, M.B., and Mr. T. Garrett Horder (Hon. Sec.). The principal facts enunciated were:—1. That the deaths were in a large number of instances caused by pneumonia and broncho-pneumonia, and that these affections were rapidly fatal in the families of poor people. 2. That the epidemic was most fatal in the districts of Grangetown and South Splotlands. 3. That the cases in parts of the Cardiff district, especially in that part called Cathays, were of a mild nature. 4. That in three instances at least children were known to have passed through two distinct attacks within a month. 5. That many children suffered from gangrenous affections of the mouth and skin. It was pointed out that when the epidemic commenced the weather was very cold, the wind being easterly or north-easterly. It was also pointed out that in Grangetown (where the epidemic was most fatal) very bad smells had been noticed since the flooding of the district; and it was suggested as being probable that the main sewers had become disconnected by the force of the flood, and had caused the sewage to flow under the basements of the houses. The deaths recorded from this epidemic from Oct. 25th, 1884, to Jan. 24th, 1885, were as follows:—Grangetown, 55; Canton, 15; Cardiff, 33; Roath, 50—total, 155.

Reviews and Notices of Books.

Syphilis and Pseudo-Syphilis. By ALFRED COOPER, F.R.C.S. London: J. & A. Churchill, 1884.

THE literature of syphilis appears to keep pace even with the rapidly increasing number of affections which are attributed to the disease. Besides the large work by Bumstead and Taylor, and the recent enlarged edition of Berkeley Hill's treatise, we are now presented with the results of Mr. Cooper's large experience in private and hospital practice in this department. The work commences with an interesting inquiry into the history and the geographical distribution of syphilitic affections. The author then reviews at some length the relationship between the hard and the soft sore. He agrees with most of the authorities in this country that the poison of the hard chancre is a "specific virus, a pathological agent separate and distinct from every other animal poison." But he declines to attribute to the soft chancre any specific character whatever, believing that such an ulcer may "arise *de novo* from inoculation of the products of inflammation." We cannot, however, regard the evidence adduced by the author as conclusive of this theory. This evidence mainly consists in the fact that pustules of various sorts, such as acne, contain a discharge which, if inoculated, is capable of producing a similar lesion to that from which it was itself derived. While not denying this, which indeed is a matter of everyday observation, in the case of boils, &c., we cannot admit that this excludes the possibility of a soft chancre being due to some specific poison. It does not follow, because matter from an ordinary pustule can reproduce a similar pustule, that an ulcer has no specific characters because its discharge is capable of doing the same, and the uniform course and duration of the soft chancre which Mr. Cooper describes point to the sore being the result of some special poison. We are surprised that the author, who insists that a soft chancre is nothing more than a pustule resulting from irritating secretions, should give it the name of "pseudo-syphilis."

In subsequent sections the various forms of eruptions on cutaneous and mucous surfaces are described with much care and minuteness, and a considerable space is devoted to Diseases of the Eye, this chapter having been subjected to the criticism of Mr. Anderson Critchett. The nervous lesions due to syphilis are those especially on which our knowledge of late has increased, and here Mr. Cooper has secured the advantage of revision by Dr. Buzzard.

The chapter on Hereditary Syphilis describes in much detail the pathological alterations found in the bones and other tissues, but we would suggest that in future editions some separation between clinical appearances and anatomical appearances should be made. Mr. Cooper raises an able protest against the abolition of the compulsory clauses of the Contagious Diseases Acts, and quotes the authority of Mr. Parker Wilson, Surgeon to H.M. Military Prison, Brixton, that already as a result not only is the number of cases of syphilis increasing, but "the character of the disease, which had become modified, is beginning to assume its old virulent type." Under "Prognosis in Syphilis" Mr. Cooper asserts that rupial ulcerations in an early stage are likely to be followed by severe cerebral symptoms, but he is evidently of opinion that the actual prognosis in most cases depends on the care and discretion with which mercurial treatment is carried out.

Valuable information is given as to the treatment of the

various symptoms, and Mr. Cooper especially insists on the baneful effects of alcohol in syphilitic patients. The work is an instructive and comprehensive treatise on the effects of syphilis, comprising the latest information on the subject, and it will doubtless not disappoint the author in his expressed hope that it may be of service to practitioners and to students.

Practical Pathology; a Manual for Students and Practitioners. By G. SIMS WOODHEAD, M.D., F.R.C.P. Edin. Second Edition. Edinburgh: Young J. Pentland. 1885.

THE comparatively brief interval that has elapsed since the publication of the first edition of this book shows that its merits have been well appreciated, for it occupies almost a unique position, and constitutes a thoroughly trustworthy guide in pathological research, which might well be made the basis of class instruction. The student has now so many excellent treatises on pathology to select from that his choice must often be an embarrassing one; but if he were limited to one book he would do wisely to select that which furnishes him with instruction how to investigate morbid tissues for himself, for the knowledge thereby gained is that which is the most enduring. To our thinking the ideal plan of pathological teaching is that which enables the student to see, handle, and prepare the specimens for himself, added to an exposition of their characters, and preceded by a general disquisition on the broad principles of pathology. In this, as in other departments of medical education, the most value is derived from the practical work which supplements the theoretical matter derived from reading and systematic lectures. Dr. Woodhead has submitted his book to careful revision, and amongst the most important additions is a chapter on the Female Organs of Generation, contributed by Mr. Milne Chapman, M.B. We confess we should like to have seen this chapter dealing more in detail with uterine cancer than it does; and we should be disposed to question the statement that the commonest variety of such malignant disease is a true carcinoma, although there can be no question of its being a form of "diffuse-infiltration" growth. The highly interesting subject of ovarian new growths and cysts is also too cursorily dealt with. In other sections there still remain deficiencies, which will doubtless be supplied in future editions, notably in the chapter on the Nervous System; and as there still remain organs not yet included in the treatise, we may look forward to the gradual evolution of a work which shall be well nigh exhaustive of the subjects. The number of the illustrations, which, it may be remembered, are coloured so as to reproduce the appearances of the stained preparations from which they were drawn, has been increased, and we notice that some of those present in the earlier edition have been replaced by others more characteristic of the lesions represented. It is not difficult to predict for the book an enduring success.

SANITARY CONDITION OF CALCUTTA.

THE mixed committee which was appointed by the Lieutenant-Governor of Bengal in September last to inquire into the alleged defective nature of the arrangements for the cleansing and conservancy of Calcutta, and to report as to what further provision should be made for this important duty, have submitted their report to the local Government. It has not yet reached us, but judging from the copious extracts given in the *Calcutta Englishman*, the committee appear to have examined the subject carefully and impartially, and, while pointing out the defects, give the municipal sanitary commissioners full credit for the improvements they have already introduced. The committee made frequent examinations of the sewers, and heard all the evidence brought before them. The conclusions at which they arrived with regard to the main sewers were that, although there has been a marked change for the better in their condition since the increase of the conservancy establishment in 1883, there is still considerable room for improvement; but they think that before any expense is incurred in the way of erecting flushing tanks or reservoirs, it would be advisable to wait to see the effect which the extension of the waterworks will have on the sewers. At the same time they point out the importance of keeping a sufficient establishment to remove by hand the deposit which, even with increased flushing power, can scarcely fail to take place. As regards the second-class brick sewers, they say that they act fairly well, but in the dry season "they depend for their sweetness entirely upon the quantity and character of the sewage brought down by the pipe sewers; and it cannot be said that at present the flushing of the pipe sewers affects to any appreciable extent the removal of deposit from the brick sewers." The pipe sewers are stated to be in a very unsatisfactory condition, and the means of cleaning them inadequate, and the committee recommend the provision of greater facilities for flushing. They express an opinion that none of these pipe sewers should be left more than a month without being examined, and doubt whether the existing establishment is sufficient to carry out this duty efficiently. The difficult and important question of the ventilation of the sewers was carefully considered, and although no recommendation on the subject has been made, the committee acknowledge the objection to the system of gratings opening at the street level, and appear to favour the erection of pipes connected with the sewers and carried well above the roofs of the houses, which the commissioners are authorised by the Act to do. With regard to the estimate for the year 1885-86, which they were to submit, the committee report that they have found great difficulty in coming to a conclusion. They are of opinion that the work of filling up foul tanks should be proceeded with as quickly as possible, but that the order in which these should be taken must be left to the decision of the commissioners and the executive. While giving the commissioners credit for the very able manner in which they have managed their financial affairs, the committee express the opinion that the expenditure for the cleansing and conservancy of the town has not been on a scale commensurate with its requirements, and that the representations of the executive have not been treated with the consideration they deserve. They point out, in fact, that there has been "a tendency on the part of the commissioners to regulate their expenditure so as to keep down taxation without paying sufficient regard to the actual requirements of the town." And again they remark, "When we find the executive, year after year, asking for increased establishments and appliances to work with, and when we ourselves find that, with the existing machinery, the work is not satisfactorily performed, we cannot help thinking that the sanitary requirements of the town have been sacrificed to the desire to maintain the house rate at 7½ per cent." The committee bring under notice the necessity, in the interests of the town, for extending to the suburbs the sanitary measures which are necessary to bring them into a satisfactory health condition. "The town can never hope to enjoy a low death-rate so long as it is surrounded on three sides by an insanitary tract like the suburbs." The report concludes with a summary of the recommendations made by the committee as to improved drainage, increased water-supply, filling up of foul tanks and wells, the provision of additional bathing platforms, improvement of public latrines, increased establishment for road cleaning and conservancy, putting the registration of births and deaths more directly under the control of the health officer, and placing the suburbs under the same municipal administration as the town. The report of the committee, so far as we can judge from the extracts which have reached us, appears to show that in the agitation which was got up in Calcutta on the subject, sufficient credit was scarcely given to the municipal corporation for the sanitary improvements they had effected, but it also fully justifies the course adopted by Sir Rivers Thompson in instituting a searching inquiry into the complaints made of serious existing defects. We sincerely trust the labour the committee have bestowed upon it may not be thrown away, but that the municipal commissioners will co-operate cordially with the executive in carrying out, with as little delay as possible, the sanitary measures which have been recommended, and in extending them to the suburbs.

THE LANCET.

LONDON: SATURDAY, MARCH 28, 1885.

RARELY has the Royal Medical and Chirurgical Society been the scene of so large a gathering as that which took place last Tuesday, on the occasion of the first night's debate upon Cholera; and certainly those who attended the meeting were well rewarded, for at length the profession had the opportunity of hearing the statements of those who have been actively engaged in the study of the bacterial organisms associated with the disease, and of witnessing on a lavish scale microscopical preparations and cultivations in various media of the lengthening list of comma-shaped organisms which have been brought to light since KOCH first discovered a similar microbe in Asiatic cholera. These preparations were shown by Professor WARDEN of Calcutta, who has recently spent some months working under Dr. KOCH'S direction at Berlin, by Drs. KLEIN and GIBBES, Mr. WATSON CHEYNE, Dr. HERON, and others, the whole furnishing a demonstration which was alone worth the visit. As for the debate itself, interesting as was the exposition of his views given by the President, of far greater interest were the speeches of Dr. KLEIN and Mr. WATSON CHEYNE, presenting as they did the two aspects of the question which has for so many months agitated the scientific world. It is much to be regretted that the limited time at the disposal of the Society did not allow of an extension of the debate upon this particular point, for although the subject is to be continued at an extra meeting, it was intimated that on that occasion discussion will be mainly directed to the general pathological and therapeutical questions, as raised by Dr. JOHNSON.

The President's opening paper was a clear and well-reasoned argument in favour of the doctrine that the choleraic virus has its seat in the intestine, and that the choleraic collapse is due to obstructed pulmonary circulation from arterial spasm excited by the action of the poison. This theoretical consideration was supported by a plenitude of reasoning from experimental physiology and pathology. Upon this view, which regards the alvine discharges as more or less critical, and the channel whereby the poison is eliminated, is based the notion that the best means of treatment is an early evacuation of the bowels before the poison is absorbed; whilst measures, such as opiates, to arrest the discharges are harmful. Dr. JOHNSON has long advocated these views, but it is well that they should again be laid before the profession, which requires, in spite of the experience of half a century, to be instructed upon the most rational treatment to be pursued. It is not unlikely that in the coming months opportunity will be offered for this, and in initiating a debate upon the subject the Royal Medical and Chirurgical Society is doing a work which will be much appreciated.

But, as we have indicated, the leading feature of the evening was the speech of Dr. KLEIN and the criticism passed upon it by Mr. WATSON CHEYNE; and it was to illustrate this portion of the subject that the remarkable demonstrations referred to were devoted. The conclusions arrived at by Dr. KLEIN and his colleague, Dr. HENEAGE GIBBES, have already been fully laid before our readers, but hitherto they have passed without challenge. Dr. KOCH has not himself replied to these statements, but his position was fully represented by Mr. CHEYNE, who studied the subject during the recent epidemic in Paris. Dr. KLEIN took great pains to show, in his opening remarks, that the choleraic virus could not be of the same nature as that of such infectious diseases as tubercle or anthrax; depending, that is, upon a micro-organism which penetrated the blood and was reproduced throughout the body. He pointed out the facts telling against the contagionist doctrine, which Dr. JOHNSON had just previously said could not be denied, and even went so far as to state that the virus was not contained in the excreta. The position which he holds is much the same as that of PETTENKOFER, who seeks in conditions external to the human body for the source of the virus. No doubt we shall hear a very great deal more upon this point, which has so long been contested, and upon which so many arguments may be adduced on either side. Were it not for the fact that many physicians concur with Dr. JOHNSON in the contagionist doctrine and the infective character of the excreta—in other words, were Dr. KLEIN'S position accepted as beyond dispute, then there would be no justification at all for elaborate search for the contagium in the alimentary canal. If Dr. KLEIN held these views before undertaking his research in India, he must have been influenced by them, and could hardly have approached his investigation in an unprejudiced spirit. Apart from this, there remain questions of fact which are in dispute, and these ought to admit of settlement. First, there is the question as to the invariable presence of the curved bacilli in the choleraic discharges and intestinal contents. Dr. KLEIN admits so much, but is unable to corroborate KOCH'S assertion that in the acuter cases and soon after death the lower ileum contains these bacilli in remarkable abundance. Dr. KLEIN found just the reverse, and asserts that the nearer to the time of death that the examination is made the sparser are the bacilli; but he adds that even more constant were small straight bacilli in the mucous flakes. Mr. WATSON CHEYNE'S reply to this was that KOCH'S statement did not rest upon the morphological criteria alone; it was based on the fact of cultures, which showed that in such cases the ileum contains hardly any other species of bacterium. And Mr. CHEYNE had not only confirmed this himself, but could also confirm Dr. KLEIN'S statement as to the paucity of curved bacilli and the number of straight forms. The fact is, much misconception appears to have arisen from the adoption of the phrase "comma-shaped," for it appears that the curving is but an incident of one stage in the life of the bacillus, which, whatever its morphological changes, exhibits invariably the same reactions and characters on cultivation. Dr. KOCH and Mr. WATSON CHEYNE are positive upon this point. No other bacterium known to them, be it comma-shaped or not, can exhibit the same characters when cultivated. It is a distinct species. But Dr. KLEIN showed gelatine cultures of the mouth-bacillus (of MÜLLER and LEWIS) which were indistinguish-

able from those of the choleraic organism. Mr. CHEYNE stated that he and others had repeatedly tried to cultivate the mouth-bacillus in the same media as KOCH'S organism, and failed; and he inferred that Dr. KLEIN'S cultures must have been in different media. The acknowledgment that this was the case was most significant; for, small as the point may be, it suffices to show that there *is* a specific difference between the two comma-shaped organisms, just as they each differ from the bacillus of FINKLER and that of DENEKE. Another striking point of divergence arose upon the subject of transmission of cholera to the lower animals. Dr. KLEIN was justified in ridiculing the original experiments of NICATI and RIETSCH, for the preliminary ligature of the bile-duct they deemed necessary before injecting cultures of the comma bacillus into the duodenum. That procedure, which much complicated the issue, was unneeded, and was abandoned; and some successful inoculations have been practised by KOCH, WATSON CHEYNE, and others. Dr. KLEIN never succeeded, and attributed the results of others to septicæmia, forgetting, as Mr. CHEYNE and Dr. WARDEN reminded the meeting, that of all men KOCH is the most likely not only to recognise septicæmia when he meets with it, but to take suitable precautions against the possibility of such a mischance occurring. Space will not permit us to follow other matters, such as the absence of any gross anatomical lesions in the intestine according to Dr. KLEIN, and the swollen and injected condition of Peyer's glands invariably found by Dr. KOCH; nor the question as to the penetration of the mucosa by the bacilli, which Dr. KLEIN never saw, but which is shown in Dr. KOCH'S preparations, and is attributed by Mr. CHEYNE to the latter's skill in staining them. Nor need we do more than refer to the instance of the now famous tank visited by both Dr. KOCH and Dr. KLEIN, but under very different conditions as regards the prevalence of cholera in the vicinity, and the naturally divergent inferences drawn by each in consequence.

It is at any rate satisfactory that the results of Dr. KLEIN'S Commission, which were so opposite to those of Dr. KOCH'S, should at length have been submitted to the criticism of those who have come to the same conclusions as the latter; and it surely is not difficult to harmonise the two to this extent—viz., that the choleraic intestine does contain invariably a microbe of special and peculiar properties, which appears to go through many changes in form in its development—straight, curved, spiral, &c.; but which is perfectly distinct from any other known species of microbe. To Dr. KOCH remains the credit of demonstrating this fact; and Dr. KLEIN'S investigations, when read by the light of reason, may be held to confirm it also. But, singular as this fact is, are we justified in assuming that this microbe is specific and pathogenic? Here Dr. KLEIN'S criticisms upon the nature of the choleraic virus deserve more attention than they have received; and we imagine that at present the verdict must be one of "not proven." For it is remarkable how meagre is the evidence which connects this choleraic organism with the origin of the disease itself. It may yet be that by a closer imitation of the conditions under which cholera is transmitted (for, *pace* Dr. KLEIN, we cannot doubt that it is directly communicable) this crucial point will be satisfactorily determined. If it were established beyond dispute, the task would still remain to harmonise the other abundant and discordant facts concerning the disease which have accumulated in the history of epidemics with the new doctrine, which Dr. KOCH himself does not hesitate to adopt.

THE Hospitals Association was well occupied on the 18th instant in hearing a paper by Dr. BRISTOWE on the out-patient question, including the subject of provident dispensaries. This subject has been very much discussed. A large amount of sense and a still larger amount of nonsense have been talked about it. Lately, in accordance with the spirit of criticism which is abroad, everything in the old-fashioned administration of our medical charities has been questioned, a disposition has been shown to add to the torture of sickness that of a severe inquiry into social circumstances, and to convert hospitals and dispensaries, in which needy and sickly people have been in the habit of finding medical help on charitable terms, into petty shops in which, on low commercial terms, whosoever pleased may find all the resources of surgery, physic, and pharmacy. This tendency will be most beneficially checked by the address of Dr. BRISTOWE, which should be carefully read by every person interested in the dignity of medicine and in the welfare of the sick poor. It shows the really complicated nature of the questions involved in any attempt seriously to curtail the proportions of the out-patient departments of hospitals, or to commercialise the terms on which patients are relieved in our medical charities. It takes a true physician to make such a statement as that of Dr. BRISTOWE. The definition of poverty, or rather the demonstration of the impossibility of defining it; the inadequacy of a mere wage or income test of it; the delicate appreciation of what we may call refined poverty, the poverty of those who have known better days, or whose means are hopelessly disproportionate to their necessities or their necessary appearance in society; the striking account of the amount of grave disease treated in hospitals—are all features in the address which should make the advocates of wholesale change in our public medical institutions pause. It has been too much the fashion of those who dislike the out-patient department of hospital work to represent the diseases treated as trivial and fanciful. Fanciful disease does not much frequent hospitals. Dr. BRISTOWE is nearer the mark in showing how people "suffering from chronic, incurable, or obscure disease gravitate towards a hospital"; "those with heart disease, chronic renal disease, bronchitis and chronic forms of phthisis, chronic diseases of the liver, abdominal tumours and uterine disorders, dyspeptics, the epileptic and the hysterical," &c. We cannot even afford room for the list; but it represents a great mass of suffering, which is borne with wonderful patience and absence of complaint, and which in the rich would be met with the wisdom of a dozen consultants and with the virtue of as many different climates. These are not the days for weakening the human and sympathetic bonds which have long existed between the different classes of society—classes to which, on the one hand, it has been so pleasant to give help, and on the other so convenient to receive it.

We are glad to see that Dr. BRISTOWE demolished that "million" that is so loosely said to "sponge" on the medical

charities of London, not from any actual disease, but just for the pleasure of taking cheap physic. With no wish to see unfit cases treated at hospitals or dispensaries, and without denying that there are not a few such, we have often protested against this coarse statistic as a thing that would not bear examination. Dr. BRISTOWE shows how one and the same chronic sufferer figures as a new patient each time he changes his letter; how he goes through the same process in other institutions; and how, even in the same hospital, he may be under treatment in two different departments. By such means he carries the reduction of the million to one or two hundred thousand. This is a bolder reduction than even we have ventured to make; but there is much truth in it, which we venture to recommend to Mr. FREWEN of the Hospital Saturday Fund, who since Dr. BRISTOWE's address has enlarged the million to one million and a quarter in an address on Metropolitan Hospital Reform, and whose sole idea of hospital reform seems to be that all hospitals should reduce their expenditure per bed to 25*s.* per week.

Dr. BRISTOWE expressed great objections to payments by patients in hospitals, especially in their tendency to lead the poor to think that they were actually buying medical advice and medicines, and thus to put hospitals into a kind of competition with private practitioners. Dr. BRISTOWE spoke in similar tones of the tendency of Provident Dispensaries, or at least of those that aim at supplying medical treatment and medicines "at unremunerative prices." This has been the tendency of the metropolitan provident dispensaries, and *a fortiori* of those Provincial Medical Associations which aim at breaking up the family doctor relation of the practitioner to the working classes, and exacting an enormous amount of work for a mere pittance. Better far retain our medical charities for generous and not too critical use in the emergencies of life, or by the afflicted members of humbler families, and leave these very families to pay what they can to their ordinary trusted adviser—generally a larger sum, we venture to say, than is paid under the much-vaunted provident dispensary system, which has done much to lower the estimate of medical service. We cannot prolong our notice of this admirable paper of Dr. BRISTOWE, even to dwell on that part of it which shows the enormous educational advantages of the existing hospital system. But we hope we have said enough to encourage our readers to give it careful perusal. It is gratifying to be able to add that many members present expressed concurrence with Dr. BRISTOWE's views.

EARL GRANVILLE'S circular letter to the British ambassadors abroad, calling for reports on the laws relating to lunatics in force in other countries, must be accepted as evidence of a desire on the part of the Government to amend the laws of our own land in the light thrown on the subject of insanity in its socio-legal aspects by the lessons to be learned from the practice of contemporary nationalities. If this be the temper of the Legislature as well as of the executive, there is one lesson—and we hold it to be most important—which stands out so conspicuously that it cannot be disregarded. We allude to the precautions taken by nearly every State except our own to ensure the identification of each person alleged to be insane, and to prevent the individuality of the case from being lost. If only this advantage could be secured for the victims of "certifying" in this country, a great step would be taken on the road to reform, and a very considerable, if not practically all-sufficient, safeguard for the sane would be gained. The initial fault and the crying evil of the lunacy system in operation in this country lie in the fact that whereas certificates of lunacy actually deprive the person named in them of his civil rights, they do not so specialise his case that it can be—or we would prefer to say must be—kept under official observation, *in the interests of the person alleged to be insane*, with a view to the instant detection of any error which may have been made in the necessarily hasty judgment formed by his medical examiners, or the restitution, immediately on recovery, of the rights and privileges of which he has been deprived. It is simply intolerable that because a man happens to have some disturbance of the functions of the cerebrum, perhaps of quite a temporary nature, he should be deprived of that self-control and self-respect which are the most cherished attributes of the human consciousness, and placed in the position of a cowed creature held in bondage by those around, a slave in every mental sense, to the sore wounding and chafing of soul and conscience, and to the lasting detriment of the whole moral nature. It is a grievous pity that any consideration should be thought to make such a degradation of the man sick in mind needful; but, if it must be so, clearly it is incumbent upon us to see that when and where this humiliation is imposed its subject or victim may not for a single instant be permitted to pass out of the field of vision. When and while NEBUCHADNEZZAR is compelled to eat straw like an ox, at least let some thoroughly impartial person be set over him to see that he is really mad, and to lead him back to the ways of humanity the instant his reason is restored.

The precautions taken in foreign countries to make sure that the alleged victims of insanity are really insane are better than those nominal measures held to suffice at home. In Austria "official sanitary authorities must study the history of the malady of each patient." This is part of the bounden duty of the inspectors of asylums. Imagine for one moment the consternation likely to be produced at our Board of Commissioners if such a rule were to be enforced here! In France "in the case of private asylums, the Prefect shall send within three days [of the admission of a patient] one or more experienced men to report upon the case." In Germany "a patient cannot be confined at the request of a private person, not even if such person be a parent, husband, or wife (as the case may be) in any asylum, public or private, but only at the request of the court or of the local police authorities." We in England care nothing who makes the request; it may be any man hired out of the street for a couple of shillings, or the most dire personal enemy of the person to be confined, perhaps one who can work vengeance or make profit by getting the subject of the "order," or request, out of the way and deprived of his civil status and powers, though it be only for a brief period. And in Germany, if wrong be done in this way, there is no such thing as mere sueing for damages; but the doer of the wrong is punishable with hard labour up to ten years, if the "deprivation of freedom last over one week." In Italy the medical certificate requires the

affidavits of "two witnesses," or "a decree of the judicial authorities," to make it valid. In the Netherlands "authorisation for the admission of a patient into a lunatic asylum must be applied for in writing to the judge of the court of the district in which the patient resides by one of his relatives or his guardians, or, in their default, by the officer or justice of the said court.....It is only on the exhibition of the authorisation in question that any person can be admitted—and this only provisionally—as a patient in an asylum." In Portugal "a lunatic is admitted to the asylum in virtue of a judicial decree on the demand of the administrative authorities," and "the examination of the lunatic by the certifying physician must take place in the presence of a judge and witnesses." In Russia, unless there has been an official examination before the admission of a patient to an asylum, "the Governor [of the province] shall immediately ascertain—in a private manner and without publicity—whether, in placing the person therein, there has been any abuse of power," &c., and "at the examination of insane persons, whether at the seat of the county or local administration, the Governor shall preside over the proceedings in person."

All this shows how careful the Governments of other States are to protect the insane and to prevent malpractices. If we compare our method with that of almost every other civilised people we must see how deplorably we fall short in the discharge of a great public duty. In Sweden and Norway the medical examiner is not left without express guidance as to the mode of his examination, and so full and precise are the details to be furnished by him, that it is scarcely possible that in the absence of intentional fraud an error can be committed. In the United States of America there is a strangé want of uniformity in the law and practice; but in some States—for example, Massachusetts—"no person can be committed to a lunatic asylum except by a judge's order." While side by side with this excellent provision "the superintendent [of an asylum] is allowed to receive and treat any person as a boarder and patient who is willing to undergo treatment, but whose case is not sufficiently serious for a physician's certificate," thus supplying a much-needed facility for the prompt aid of the large class of patients not yet actually insane, but in danger of becoming so—a class for which, in England at least, we make no provision, and practically refuse to help in the self-conscious stage of their malady.

Whatever else may come of the lunacy reform undertaken by Her Majesty's Ministers, we trust that the first great lesson to be learnt by the reference of the Foreign Secretary to the laws and practice of other nations will not be unheeded.

THE subject of the Croonian Lectures, just delivered at the Royal College of Physicians, is one of the highest practical importance, and it could have received few exponents better qualified to deal with it than Dr. HERMANN WEBER. The time has happily gone by when pulmonary phthisis was regarded as a hopelessly incurable disease, but such teaching as Dr. WEBER'S is needed to enforce not merely the truth of its curability, but of the possibility of its prevention. In this country especially, where consumption claims so many victims, it is imperatively necessary to listen to such doctrine, and to spare no effort to follow the lines indicated for the prevention of this scourge. The task is beset with difficulties, but they are not insuperable, for were the sums now freely expended in the waging of wars, the ultimate advantage of which by no means counterbalances the sacrifices endured, devoted to measures for combating the enemy within our gates, a vast addition would be made to the sum of human happiness and many human lives saved. We have no intention of following Dr. WEBER through the subjects so admirably and genially dealt with by him. The lectures deserve to be read and studied, as they will be, and will neither bear compression nor need analysis. The point, however, which the lecturer appeared most desirous to urge upon his professional hearers was the pressing need there is for improving the facilities for the care of the consumptive poor; for modern science has clearly shown that the only treatment, whether prophylactic or curative, that is of avail is not the medicinal, but the hygienic and climatic—a watchful supervision of the invalid and his surroundings during the whole of his life. This implies not only a liberal expenditure of money, but the intelligent co-operation of the patient himself, and hence it is that the well-to-do and the educated are in a far better position for reaping the advantage of such treatment than the poor.

The conditions under which the poor live are precisely those which favour the progress and spread of consumption. To cope successfully with the disease, everything depends upon a sufficient and good supply of food, good clothing, well-regulated exercise varied by adequate rest, an ample supply of pure air; and who can say that a single one of these conditions is at the disposal of the vast majority of the phthisical? Nor when admitted into a hospital, not specially devised for the treatment of phthisis, is any advantage gained; for there is not a hospital physician who can deny the assertion of Dr. WEBER as to the unsuitability of the ordinary hospital life for the subject of phthisis. What then is required, and how is it possible to meet the demand? The magnitude of the undertaking involved in the answer to this question is such that a feeling of despair at its fulfilment is engendered. For it means the multiplication by hundreds of sanatoria such as the few now existing, and the placing them under qualified medical control. Dr. WEBER clearly showed that the requisites for such institutions are numerous if they are to be really efficient; but the guiding principle of them should be to afford an ample supply of pure air, sunshine, and protection from wet and wind. Dr. HASSALL'S admirable hospital at Ventnor may be taken as the type of what is needed in many parts of the country, if the amount of relief afforded is to be anything like commensurate with the extent of the disease.

If the striking and forcible manner in which attention has been drawn to this matter by Dr. WEBER shall issue, as we trust it may, in a great impetus being given to provision for the phthisical, and the bestowal of the advantages of pure air on those who are unable to seek it for themselves in mountain valleys, much will be gained. But how much will yet remain undone. The conditions of civilised urban life forbid the hope that phthisis can ever be banished from our midst. It is a melancholy reflection that, do what we

may, our efforts will only ameliorate, they cannot expel, this ever-present disease. Moreover, the number of the sick is so vast that, with the most extensive system of sanatoria it would be impossible to treat more than a minority.

Turning from this view of the subject, which concerns the philanthropist, to the arguments whereby Dr. WEBER proved the benefit ensuing upon the open-air treatment of phthisis, it will be admitted that his plea for a mountain climate was very forcible, whilst his refutation of adverse statements as to the efficacy of such climate was complete. But here, as in all departments of practice, the good derived from the treatment will depend upon the suitability of the case submitted to it; and we fear that there is not always sufficient discrimination shown in the choice of a health resort. To use the cant phrase that every case must be judged "on its own merits" is to imply that the physician should have a thorough knowledge of his patient's constitution, of the type of his pulmonary disease, and of the climatic conditions most suitable for him individually. Certain broad rules have been formulated as to the contra-indications for the tonic and stimulating influence of the sunshine and pure still air of high altitudes; but we still need the knowledge, which experience may ultimately bring, of the precise indications which will determine a preference for the converse climatic conditions. It is not that Madeira is better than Davos for all cases indiscriminately; but it is that for some forms of the disease Madeira is preferable and for others Davos. *Cæteris paribus*, that climate is the most suitable which will permit the invalid to enjoy as much of the day as possible in the open air; and dryness, sunshine, with freedom from wind, are the conditions which best allow of this. Dr. WEBER raised a note of warning against the danger of a health-resort like Davos being deteriorated by becoming too popular. The best way to prevent such a result is to seek for other regions equally favourable which can be utilised for the same purpose. Moreover, those who are responsible for the sanitation of these places should use every effort to render them free from endemic disease.

Annotations.

"Ne quid nimis."

THE UNIVERSITY OF LONDON AND THE PROPOSED TEACHING UNIVERSITY.

THE present relation of these bodies is briefly as follows. On Feb. 24th the special committee appointed by the Convocation of the University of London on Jan. 6th was reappointed, with full powers to promote the carrying into effect by the University of the objects of the Association for promoting a Teaching University. A meeting of the committee was held at Burlington-gardens on the 25th inst., and the following resolution was passed *nem. con.*: "That a subcommittee, consisting of the chairman and four members, be appointed to confer with the Association for promoting a Teaching University for London, or any committee of that body, and thereafter to prepare a draft scheme, or the heads or outline of a scheme, for the carrying into effect by the University of the objects of the said Association." The subcommittee will be composed of Lord Justice Fry, and Messrs. Savory, Anstie, Thiselton Dyer, and McDowall, as representatives of Medicine, Laws, Science and Arts respectively. The members of the Committee of Convocation have evidently now determined to take the first practical step towards the reform of the University, and, although there may exist doubts as to the possibility of their success in proposing a workable scheme that will be generally acceptable, they have our best wishes in their endeavours, for we feel assured that they are working in the right direction, and in the best possible manner to attain their ends.

THE NEW POISONS BILL.

THE new Poisons Bill which was introduced into the House of Lords by the President of the Council, and read for the second time last week, presents nothing of any positive interest to the medical profession. The omission to deal with the question of the Patent Medicines Stamp Tax is a subject for regret. Lord Carlingford, in his speech, showed that he was fully alive to the necessity for legislation on the subject, for he practically admitted that there was nothing to be said in favour of the retention of the stamp, except that it brought in an annual income of a few thousands. The Bill seems to have been very carelessly drafted, and the omission to include phosphorus and its preparations in the schedule of poisons is likely to provoke much adverse criticism. That the sale of colchicum should be in no way restricted is somewhat surprising, especially when it is remembered how frequently this drug is used for criminal purposes. Only as recently as last week we drew attention to the subject. We notice that in the first part of the schedule "all poisonous vegetable alkaloids" are included except morphia, which for some reason is retained in the second part. The insertion of the restrictive adjective "vegetable" in this phase is certainly a mistake, for there are many alkaloids and alkaloidal bodies of animal origin, some at least of which will probably come into use as therapeutic agents. Digitalin is expressly mentioned by name, obviously because, being a glucoside and not an alkaloid, it would not be included in the previous clause. The omission to insert the words "and all poisonous glucosides" is certainly strange, and indicates a marvellous ignorance of the technical points under consideration. We are pleased to find that special mention is made of lobelia and its preparations, and we trust that this will suffice to put a stop to the traffic which has long been carried on by herbalists and others. The nomenclature and orthography adopted by the framers of the Bill seem to us to be somewhat peculiar. Why the term "morphine" should be preferred to that of "morphia" and "emetic tartar" to "tartar emetic" we do not know. The Earl of Milltown has given notice that on the motion to go into committee he will move that it be referred to a select committee for consideration. This is certainly very necessary, and we trust the opportunity will be taken to move an amendment dealing with the repeal of the Patent Medicines Stamp Tax.

AREA CELSI.

THAT alopecia areata depends upon the growth of a fungus is a doctrine that has been often advanced only to be refuted, and has now few, if any, supporters. Nor can there be any doubt that mistakes have been made in the various attempts to settle what might seem to be a simple question, and certainly amongst those who have upheld the parasitic nature of the affection there has been little agreement as to the precise nature of the fungus concerned. It has been reserved for these days of microphytic pathology to revive the doctrine in a more refined form. Alopecia areata is due to the growth of a micrococcus, at least, so says Dr. von Schlen of Munich in a paper contributed to the current number of Virchow's *Archiv*. He

describes five cases, in all of which the stunted and diseased hairs were mostly the seat of colonies of micrococci, averaging 0·5 μ in diameter, some smaller ones being of the diplococcus form, and larger ones with median constriction. From their situation in the shaft, it would seem that they occurred in connexion with the ducts of the sebaceous glands, and it is inferred that they invade the hairs by these ducts. The micro-organisms were not found in any but the diseased hairs, and not universally in them. By cultures in agar-agar peptone it was ascertained that the organisms were distinctive in their mode of growth, and experiments were made with a view to ascertain whether they were really capable of transmitting the disease; on the human subject the attempt failed, but on white rats there appeared, on the spots where the material of some of the cultures had been rubbed in, scaly patches, over which the hairs at first became yellow-coloured, and then fell out. The writer reconciles the notion that these micro-organisms have a causal relation to the affection, with the other well-proved facts of its association with trophic disturbances—(e.g., vaso-motor derangements), by assuming that the occurrence of such disturbance prepares the soil for the growth of the micrococcus. Holding such views, he advocates, and has had good results from, epilation and the use of corrosive sublimate; and also urges the importance of cleanliness in the use of brushes, &c., as a prophylactic measure.

ARMY COMMISSARIAT AND TRANSPORT SERVICES.

THE subject of the defective organisation of the Commissariat and Transport services of the Army was incidentally brought under the notice of the House of Commons last week in the form of a motion by Colonel Stanley to reappoint the select committee nominated last year on the motion of Dr. Cameron. The committee had, before the close of the session, collected a great mass of information bearing on the subject, but had been unable to complete the inquiry and report their opinions. They had, however, laid on the table a voluminous Blue-book containing the evidence taken, and had unanimously recommended that they should be reappointed with a view to the completion of the report; and Colonel Stanley, in his official capacity of chairman of the committee, brought forward a motion to that effect. This was opposed by Lord Hartington on the ground that the heads of the Departments of Supply and Transport were at present so overtaxed by the work in connexion with the Nile and Suakim expeditions and the operations in Bechuanaland that it was quite impossible they could spare the time or give the attention necessary for the efficient working of such an inquiry, and that some of the officers whom it was considered of great importance to examine were now absent on service, To this he added, "that the evidence of the principal officers already examined before the committee showed that there had been no breakdown of any sort in the organisation, and that such difficulties as occurred arose from military exigencies of an exceptional character." From this opinion Dr. Cameron, who was one of the members of the committee, dissented, believing that there had been a very great breakdown, and he commented on the unprecedented course followed by the Government in opposing the reappointment of a committee which had unanimously recommended its reappointment. "He believed that a desire to burke further inquiry had a good deal to do with the refusal of the Government." Those who have read Dr. Cameron's "Romance of War; or, How the Cash goes in Campaigning" will, we believe, agree with him in thinking that the present organisation is very far from providing efficient service, and that to the system, and not to the officers who have to carry it out, must attach the blame of the shameful mismanagement and blundering which occurred in Egypt. Dr. Cameron was supported in his views by Colonel Milne Home and Sir H. Fletcher. Mr. Carington and Dr. Farquharson, while of opinion that the subject required full investigation, suggested that the appointment of the committee should be delayed till after Easter, "when the pressure of work connected with the troops in the Soudan going into summer quarters would be over." The motion for its reappointment was negatived by a majority of nineteen, but Dr. Cameron gave notice of his intention to move a resolution on the subject on going into supply on the army estimates. Dr. Cameron deserves great credit for the pertinacity with which he has kept the subject under notice, and for the clear and able manner in which he has shown up the results of the defective organisation. We have every confidence that he will find an opportunity to have the subject fully discussed, and that he will force upon the authorities the necessity for important alterations in the working of both the supply and the transport departments.

OVERWORK IN TELEGRAPH OFFICES.

OF the various public services the railway and the telegraph departments are two in which employés have probably to do harder and more continuous work than in any other. While each of them is contrived to meet the demands of sudden emergency, and to make use of all available time by day or night, it cannot be said that the working staff of either receives that consideration which is fairly due to it. The effects of this neglect have at times been painfully apparent in accidents and narrow escapes recorded on the line, and these we may hope have taught some lessons in organisation which were much needed, and are even now still better known in theory than observed in practice. The case of telegraph clerks is different. The risks arising out of overpressure do not usually concern the employers so much as the employed. They are such as tell severely on the health of individuals, many of them mere boys and girls, through the nervous and muscular strain of concentrated effort during a daily period of twelve hours. We do not forget that youth is, with many, a time of great constitutional elasticity. At that age a shock or a crisis may come and go and leave no lasting mark, and likewise high degrees of labour tension may be undergone and rallied from. At the same time one is forced to admit that much of the working material which passes into the telegraphic and every other service by competitive examination is by origin and habit physically unfit to sustain such effort. A shorter working time or greater division of duties appears therefore to be indicated, if we are to shield from needless hurt those whom we select on the present system.

"SIGNS OF DEATH."

OUR contemporary the *Echo* published a note on the 21st inst. headed "Life in the Coffin," and mentioned one of the supposed signs of death—flaccidity of the eyeball—as a test which, if trustworthy, should be universally known, but left the reader in ignorance of the degree of trustworthiness. It is well known that the state of tension of the eye varies according to the mode of death, being greatest in cases of asphyxia, especially where this has been produced by compression of the cervical veins, as in hanging. After death in all instances the eye sooner or later loses its natural lustre and prominence, but when this has so far developed as to be conclusive other signs of death are present. Without going through all the criteria—and their name is legion—that have been proposed to aid in the solution of the question, we may state that the advent of cadaveric rigidity and the supervention of decomposition are of infinitely greater value than the strongest evidence obtainable from an examination of the eye. They are, in fact, singly and collectively, the grounds which no reasonable person would contest.

RETARDATION OF THE PULSE IN MITRAL INSUFFICIENCY.

THE outcome of a scientific interpretation of the signs yielded by mere auscultation of the heart alone appears to be that such signs are inadequate of themselves to establish the nature of the lesion on which the murmur depends. In making this statement, we would have it understood that we wish to regard the matter solely on its scientific basis. Dr. Keyt of Cincinnati has done much in the cause of scientific diagnosis of cardiac disease by his papers on the Retardation of the Pulse in Valvular Disease of the Aortic and Mitral Orifices. He has found that abnormal retardation of the arterial pulse, and notably that of the carotid artery, is a real phenomenon of mitral insufficiency. It is present in all cases of pure organic mitral insufficiency, and is absent only in insignificant regurgitation or in regurgitation complicated by aortic insufficiency. The degree of retardation of the pulse is a measure of the amount of the regurgitation. The retardation may be present in two other organic conditions, and possibly in a third. In conjunction with an apex systolic murmur its presence is conclusive of mitral insufficiency. Compared with the apex systolic murmur, this sign is more positive, and distinguishes between harmful regurgitation and harmless conditions, which the latter does not. By the aid of the retardation of the pulse alone, a positive diagnosis may be made at once in any stage of the case under investigation, without waiting for the development of the usual sequelæ. Such are the conclusions at which Dr. Keyt has arrived. His evidence has been fully set forth in the *Journal of the American Medical Association* of Dec. 20th, 1884. The chief kinds of evidence adduced are the simultaneous tracings taken from the heart and the carotid artery of cases of pure mitral regurgitation, afterwards verified as such by post-mortem examination. For example, the normal interval between the time of the occurrence of the cardiac impulse and the pulse in the carotid, when the heart is beating 100 per minute, would be about one-seventeenth of a second. In the case of a boy aged nine having the signs of pure mitral regurgitation with a pulse rate of 100 per minute, the interval was found to be two-seventeenths of a second. The autopsy proved that the mitral regurgitant lesion was alone present. Dr. Keyt believes that he has also proved the point on an artificial schema of the circulation. The investigation is one which would well repay further attention.

THE ANTI-VACCINATION DEMONSTRATION IN LEICESTER.

AFTER the excitement of a crowd is over the sensible working men of Leicester will begin to ask themselves whether they have been making a very creditable appearance before the civilised world. Most of their own fellow-countrymen think they have been doing the reverse, and on the Continent and in the United States the opinion will not be very different. It is not necessary to maintain that vaccination is an absolute protective against small-pox, though few things are more clear than that it is so, if rightly used and at least once repeated. Nor is it necessary to deny that in very exceptional cases it has been followed by inconvenient effects, though these are so rare that many practitioners of standing have never seen them. To abandon a great good for the fear of incurring an infinitesimal evil is foolish indeed, and is to play into the hands of the medical profession, who have much more to gain from epidemics of small-pox, from which they absolutely protect themselves and their families, than they have from the slight and cheap operation of vaccination, performed for the most part by a few public vaccinators. It is only necessary to show that the fanatics of Leicester are placing themselves in opposition to the common sense of mankind, and of two evils prefer the infinitely greater one. It is well pointed out in *The Times* that in Leicester alone over 300 deaths from small-pox have been known to occur in one year. It cannot be doubted that, notwithstanding the comparative immunity of late years, the materials of future trouble are accumulating in spite of arrangements which are just as much violations of personal liberty as compulsory vaccination is. If Leicester could keep all its small-pox to itself, there would be some show of reason in its demand for exceptional legislation; but it cannot do so; and it is a poor prospect for the future if civil and religious liberty is to include the liberty to have small-pox and to spread it in all directions throughout the country, leaving its victims and their dependants to the mercy of the State. We commend these reflections to Professor Stewart and other members of Parliament who have found themselves able to make political capital out of the disparagement of laws which have saved life on a prodigious scale.

THE BICYCLE ACCIDENT AT CAMBRIDGE.

ON March 18th Mr. H. Gotobed, the borough coroner, held an inquest in the Master's Court, Trinity College, Cambridge, touching the death of Sir J. G. Aylmer, an undergraduate. From the evidence it appears that the deceased baronet had a severe fall from his bicycle, which stunned him for a time, and that he seemed to have recovered from the effects of the injury—so much so, in fact, that Mr. T. Hyde Hills, who attended him professionally, did not anticipate the fatal result. On the following evening he fell into a comatose state, from which he never rallied. It was known that deceased had been the subject of diabetes for some years. The symptoms of the fatal illness were those of diabetic coma, from so-called "Kussmaul's acetonæmia"; and the doctor certified the cause of death accordingly. Meanwhile the accident and its supposed result had been reported in the papers; and the coroner, on the information laid before him, decided—very properly, as we think—to hold an inquest. During the inquiry it transpired that the investigation before the court would not have been deemed necessary if Mr. Hills had stated in his certificate that the death was in no way attributable to the accident, or if he had given that assurance in writing at the request of the coroner. The misunderstanding led to a passage of arms between the coroner and Mr. Hills, which was described in the local papers as "a scene." The facts of the case were very obvious; and it only required a little tact to avoid the conflict of opinion that took place in open court. It is beyond doubt that the deceased had suffered from diabetes. It seems probable that his death was due to diabetic coma. Notwithstanding, we maintain that, in the interest of the public and the profession, it was not only desirable that an inquest should be held, but that a post-mortem examination should be made. Claude Bernard showed that puncture of the floor of the fourth ventricle of the brain in a rabbit caused temporary diabetes, and cases are on record in which a like result has followed injury to the head in the human subject. We know of one instance where the glycosuria was permanent. It seems not unreasonable, then, that the injury may have had some influence in producing the acute symptoms, or rather in determining the onset of the acetonæmic state. A valuable opportunity for pathological observation has unfortunately been lost. There is another reason why a post-mortem examination should have been made and the question of the bearing of the fall from the bicycle on the cause of death stated with precision. The deceased might have insured his life, and clearly a very important issue would then have to be determined—viz., whether the death was in way owing to the injury. The

jury found that "the fatal symptoms of the disease developed rapidly in consequence of deceased having been thrown from his bicycle"; upon which the coroner remarked "in the contemplation of the law, on that verdict the cause of death was the accident." It seems to us that the finding of the jury, although not improbably correct, was scarcely warranted by the medical evidence, for Mr. Hills discreetly declined to commit himself to the expression of a definite opinion as to the relation of the coma to the accident.

FURTHER EXPERIMENTS WITH CHOLERA VACCINIA.

THE experiments we noticed in a recent issue have been continued by Dr. Ferrán of Barcelona. Drs. Serañana and Jacques, in whom cholera vaccinia had been induced, were, nine days afterwards, again given injections of attenuated fluid, but this time entirely without effect. Several other experimenters submitted to similar treatment with the same fluid, with the result that they all suffered from headache, nausea, pyrexia, and general malaise, some of them being so severely affected as to be obliged to give up practice and keep their rooms. One of those whose symptoms were most severe was Dr. Llorens Gallart, who gives the following report:—"Having been inoculated by Dr. Ferrán, by means of a Pravaz syringe, with half a cubic centimetre of attenuated cholera fluid injected into each arm, three hours afterwards I began to feel severe pain in both arms, which increased until numbness supervened. There was also increasing general lassitude, a feeling of intense cold, which caused shivering for three hours; the pulse was 96, and there were nausea and intense frontal headache. All these symptoms reached their maximum twelve hours after the inoculation, causing dizziness. I was then obliged to lie down and cover myself up. The reaction, for which I had not long to wait, was intense. The pulse was 125 and full, the temperature 39° C. (102·2° F.), and there were great thirst, restlessness, and a condition bordering upon delirium. These symptoms lasted from the twelfth to the seventeenth hour after inoculation. After this had left me I still suffered from pain in the arms and from prostration, which, however, gradually passed off, ceasing completely in five days." Dr. Ferrán has also experimented on rabbits. Having protected some by a prophylactic dose—that is, having given them cholera vaccinia—he has proved that such are quite unaffected by double the dose which was found to be fatal to unprotected individuals. Further experiments are proposed to be made with cholera fluid, and also with that of other diseases.

NULLITY OF MARRIAGE.

ON March 19th Sir J. Hannen had before him another petition for a decree of nullity of marriage. It was sought to satisfy the court that the respondent, Mrs. Cannon, was insane at the time the marriage contract was entered into. The same line of argument was adopted as in the recent Durham case. It was proved by the medical evidence that five days after the wedding Mrs. Cannon was insane, and, further, that her father had been put under restraint for mental alienation. The judge decided the action on its general merits, holding that it was not proved that the respondent had shown unmistakable signs of insanity before the wedding ceremony; at the same time, he expressed his sympathy with the husband, who appears to have acted quite blamelessly. Dr. Savage is reported to have said that in his opinion the respondent "was insane before the marriage," and that, although "she understood to a certain extent what was taking place, she did not properly understand the matter." The terms of these statements not improbably represent the actual state of affairs, but yet it appears to us the doubt is too great to warrant the issuing of a decree. Apart from the legal construction of the evidence, it must not be forgotten that the possibility of the respondent's recovery is a very weighty factor against the advisability of releasing the petitioner from his contract. There should be unimpeachable testimony to warrant a decision that would leave a woman neither wife nor widow, yet something more than spinster. The history of this unhappy case gives additional proof of the correctness of the theory that hereditary neurotic taint strongly predisposes to unsoundness of mind.

THE MILITARY CLUBS.

WE have heard with much regret that there has of late been an apparently organised system of excluding from some of the service clubs certain classes of officers, and especially those of the Medical Department. We are very unwilling to believe that any body of gentlemen would be guilty of blackballing candidates who are eligible according to the rules of the club, and against whom there is nothing objectionable either socially or professionally. But our information has been derived from a quarter which leaves no doubt on our mind as to its accuracy, and unfortunately it is not the first time such a course has been followed in more than one of these clubs. We trust that the committees of the clubs where this has occurred may at once take steps to put down a practice which cannot fail to bring discredit upon the clubs themselves. We refrain from comment on the conduct of a few men—we feel sure they are but a few—who forget what is due not only to those whom they exclude, and who as a rule are quite as honourable as they are, but to themselves as gentlemen. We feel sure that no man of honour would feel himself justified in putting a black ball into the box of a candidate against whom nothing unfavourable can be alleged, and who is eligible by the rules of the club. On former occasions, when a similar practice was begun, the committees of the clubs succeeded in immediately checking it, and we cannot believe that on the present occasion their successors will fail either in the will or in the ability to bring about a similar result.

NERVOUS PYREXIA.

THE remarks on this subject in our issue of the 28th ult. having elicited some correspondence, we may take the opportunity of returning to the question. It is convenient to speak of heat centres without implying anything more than the mere existence of nervous apparatus capable of augmenting or diminishing the amount of heat formed in the organism. In discussing the subject we may leave aside the question of the localisation of the thermic centre or centres, merely stating that it is probable that the generation of heat in the organism is under the supervision of a principal centre and subsidiary centres, very much as is believed to be the case with the vaso-motor apparatus. The assumption that some such regulatory centres do exist is rendered most probable by all that is known of the physiology of temperature, and by nothing more so than the fact that a normal diurnal variation of temperature exists, and even manages to make itself apparent, when "fever" is present. Many modern authorities have advocated the view that some varieties of pyrexia are dependent on the direct action of the nervous centres regulating the temperature. In one of his Brown lectures, Mr. Victor Horsley strongly supports the doctrine that some cases of surgical interference give rise to pyrexia as the result of abnormal influences acting directly on sensory nerves, the influence of septic agents being supposed to be excluded. An excellent article on

the theory of a heat centre from a clinical point of view has been contributed by Dr. Hale White to the Guy's Hospital Reports, and Mr. Bowlby has written on the subject in the last volume of the St. Bartholomew's Hospital Reports. About a year ago Mr. Tait read a paper at the Obstetrical Society which tended to show that some of the rises in temperature observed in the puerperal state were the result of intrinsic disturbance of the heat regulating centres, and not due to the presence of poisons circulating in the blood. The subject is a wide one, and cannot here be fully discussed. But, granting the power of abnormal conditions of peripheral nerves to alter the production of heat in the organism, we do not see any reason why central disturbance of the same centres should not take place. Every argument of an *a priori* kind points to the conclusion that these things are possible. The difficulty is to prove the point. In any given case it would have to be shown that the nervous disturbance was primary if we would place on a safe foundation the occurrence of hysterical pyrexia. Now, it is possible that nervous disturbances of the kind under consideration may originate as the result of a poisonous state of the blood due to an idiopathic disorder of the processes of assimilation going on anywhere in the body, and it would be almost impossible to exclude the influence of such toxæmic conditions. Take, for example, those cases of pyrexia which have been supposed to be the direct result of emotional disturbance. Here it is perfectly legitimate to assume that the emotional element first deranges assimilation, which in turn causes the alteration of temperature either by the production of some abnormal material or in some other way. Even when sepsis is assigned as the cause of pyrexia, it is most probable that the septic poison acts on certain parts of the nervous system, and not directly by universal excitation of all the active tissues of the body. The considerations advanced, and many others that might be urged, place beyond cavil the conclusion that a definite proof of the existence of pure nervous pyrexia, however likely, is hardly susceptible of actual demonstration.

THE DENTAL REGISTER.

THE Dental Register for 1885 is issued. It shows that of dentists registered either on account of British qualifications, or as having been in practice as dentists before the Act came into force, there are 5255, or 36 less than in 1884. Those practising on foreign diplomas were 9, as against 5—viz., 6 Doctors of Dental Medicine of Harvard, 6 Doctors of Dental Surgery of Michigan. The explanation of the smaller number registered is probably to be found in the erasure of names by the registrar under clause 12. A case was heard in the Wandsworth Court a few days ago, in which a summons had been issued against Mr. A. G. Yeates for using the title of Surgeon-Dentist without being registered. But he was able to show that he had been registered up to 1880, and that his name dropped out merely by change of residence. Mr. Paget dismissed the summons, and ordered the complainant to pay costs.

SMALL-POX REGULATIONS IN ONTARIO.

A SPECIAL report has been issued by Dr. Bryce, Secretary to the Provincial Board of Health and Chief Medical Officer at Ontario, on an outbreak of small-pox in the township of Hungerford in Hastings County. The outbreak appears to have had its origin in infection brought from the Liverpool Industrial School. The first patient was an immigrant boy from that school who had left Liverpool on August 25th, had landed in Quebec with about forty other boys from the same class of school on Sept. 7th, and who sickened on Sept. 18th or 19th. The dates forbid the notion that the disease was contracted in Canada, and since there was no illness during the voyage, the infection was probably contained in the clothing or effects with which each boy was provided, and to which he had access during the course of his journey. This view is supported by the statement of the immigrant lad, to the effect that there was small-pox at the Industrial School two months before he came out. Certain steps are reported to have been taken with a view of preventing the spread of disease, which were doubtless very useful, but which certainly go beyond anything that is regarded as necessary in this country, where, as regards small-pox, the duty of self-protection by vaccination is deemed to suffice, in the place of many restrictions which it might otherwise be considered desirable to impose on others. Thus, lest any persons who had been exposed to infection should be making their way to other localities, instructions were conveyed to the station agent of the Ontario and Quebec Railroad to issue no tickets to persons other than those having passes from the medical officer of health. And again, with a view of preventing people from the northern part of the affected township from going south or east, police were placed on the roads leading into the districts referred to. We fear that if we adopted measures of this description in England, a new society would soon be formed to protest against the infringement of the liberty of the subject. But in the Far West such protests do not carry much weight in the face of a common danger to public health.

RELIEF IN PHYSICAL AND MENTAL SUFFERING.

IT is the frequent and painful duty of every member of the profession in active practice to detect in some of his patients, when consulted, it may be, about some trifling indisposition, the beginning of one of the many fatal diseases for which our art can suggest no remedy, but simple palliation. After such a diagnosis a medical man would lack common humanity who did not experience a feeling of commiseration for a fellow-creature thus afflicted. Few men can leave a patient thus doomed to a premature end without reflecting on the many shortcomings of the professional art it is his province in life to administer. To whom is it best that the painful intelligence should be made known? Should it be to the patient himself, young, full of hope and promise it may be, or to his friends? The embarrassment of such a position is at once apparent, and often to the patient it begets mistrust of a medical man's judgment; and not unfrequently to make the painful fact known to the friends begets an equal mistrust. Even with such a prospect before him the duty of a medical man is a plain one. Candour, if not to the patient, to his friends is clearly a medical duty, yet very often it is evaded as being too trying to discharge. In another class of cases, where recovery is not so utterly hopeless, but where danger is imminent, it is less easy to define the scope of a medical practitioner's duty. He very naturally leans on the resources of his profession, which under his administration have often before rescued a patient from an almost inevitable abyss. Under such circumstances hopefulness becomes in itself a remedy, and not infrequently a very potent one. To communicate his anxiety about the case to the patient's friends is often tantamount to communicating it to the patient; for it is seldom that such anxiety in immediate friends can be sufficiently suppressed to escape the sufferer's notice. But very few men indeed fail to feel the sense of responsibity thus incurred of permitting a fellow-creature to pass from this life unwarned, it may be unprepared. The foregoing reflections naturally lead to the question, Is it within the province of a medical attendant to administer more than to the physical ailments of the body? To speak, it may be, a

word of warning or of spiritual comfort is to pass from the domain of the physician to that of the divine. An opportunity to do this is a frequent occurrence to every practitioner. Men differ much in their sense of duty in this respect. Each heart must be its own guide under such circumstances. While indiscreet intrusion into the province of the clergy is to be deprecated, the fact is not to be lost sight of that medical men are members of the great Christian community to whom are given more than usual opportunity, intended not to be wasted, but used. These thoughts have been suggested by some extracts from the writings of Charles Kingsley, compiled by his wife, and dedicated to his memory, entitled "Out of the Deep." To be the means of placing such comfort within reach of the afflicted as this little work affords can scarcely be beyond the sphere of medical duty.

THE DRINK BILL FOR 1884.

IT is very unsatisfactory to find that the drink bill for last year is bigger by £872,981 than that for the year before. More beer and less spirits have been drunk. The Chancellor of the Exchequer will, nevertheless, lose £260,000 of revenue in consequence of the fact that beer pays so much less a tax than spirit. Thus British spirits are taxed 10*s.* per gallon, foreign spirits 10*s.* 4*d.* per gallon, and wine from 1*s.* to 2*s.* per gallon, according to strength; beer is only taxed $2\frac{1}{2}d.$ per gallon. Of two evils, beer and spirits, beer is perhaps the lesser; but it is by no means a drink that can be taken in large quantities with impunity. "He that drinks beer thinks beer," was Dr. Johnson's way of expressing its dulling effects on the brain; and it serves other organs, equally useful and essential, in the same way, giving ample work for physicians, and spoiling the best work of surgeons.

TROPHIC DISORDERS.

THE existence of special trophic nerves has always been denied by Dr. Brown-Séquard, who believes that the occurrence of acute eschars which appear after fracture of the vertebral column and myelitis may be avoided by preserving the skin from the irritating effects of the normal effete discharges. He believes the trophic lesions which result are due to an irritative lesion caused by simple section of the nerve aggravated by external injury. The importance of the external injury is attested by the following experiment. If a guinea-pig be rendered epileptic by section of the sciatic nerve, the lesions which usually appear on the leg are not produced if hemisection of the spinal cord be performed on the same side of the body. This hemisection prevents the animal from carrying the injured extremity to its mouth, and thus does away with the injury casually inflicted on the limb by the teeth.

MEASLES IN SUNDERLAND.

IT appears from the Registrar-General's recent weekly returns that the annual death-rate in Sunderland was equal to 42·1, 48·3, and 44·1 per 1000 respectively in the first three weeks of March; and it may also be noted that the rate averaged 32·7 in the first eleven weeks of this year. The main cause of this excess has been an exceptionally fatal epidemic of measles, which has caused 244 deaths within the borough since the beginning of the year. In addition to these deaths from measles, 20 from scarlet fever, 9 from whooping-cough, 7 from "fever," 4 from diphtheria, and 4 from small-pox have also been registered during the same period. Indeed, the principal zymotic diseases have caused a death-rate equal to 11·1 per 1000 during the first eleven weeks of this year, which is more than five times the mean death-rate from the same diseases in the twenty-eight large English towns dealt with by the Registrar-General. This disastrous waste of life, mainly of child life, will not have been entirely without compensation if it lead to an exhaustive inquiry into the causes which have conduced to the present exceptional mortality from measles. For it is impossible to doubt that the proportional mortality among the cases of measles during the present epidemic in Sunderland has been very considerably above the average. The proportional mortality of 89 cases treated last year in the London Fever Hospital was only 3·4 per cent.; this proportion would signify no fewer than 7000 cases in Sunderland since Christmas! It is worthy of note, moreover, that nearly 200 deaths from this disease occurred in Sunderland in 1882.

THE LATE MEDICAL OFFICER OF HEALTH FOR ST. PANCRAS.

AT a meeting of the Mansion House Council on the Dwellings of the People, held at the Mansion House on March 17th, the following resolution was unanimously passed, and the Hon. Secretary was requested to communicate the same to the press:—

"This Council learns with great regret that Mr. Shirley Murphy has felt himself compelled to resign his position as medical officer of health of St. Pancras, in consequence of the difficulties which he has encountered at the hands of certain members of his vestry, which have rendered it impossible for him to efficiently and conscientiously continue to discharge his duties. The exceptional abilities of Mr. Murphy and his wide experience in sanitary matters render his resignation an incalculable loss to the parish. This occurrence serves also to emphasise in the strongest manner the necessity for an immediate change in the relations of medical officers of health to the local authorities. In the opinion of this Council, the change should take the direction pointed out in its report, that medical officers of health should hold their office at the will of the Local Government Board only."

We most heartily endorse the spirit of the above resolution. Mr. Murphy is far too good a medical officer of health to be lost to the public service, and we confidently hope and trust that the resignation of his late office, however unfortunate for St. Pancras, will lead to his obtaining a more congenial post, as well as to the early amendment of the law as affecting the efficiency and independence of officers of health.

THE SPANISH HYGIENIC SOCIETY.

THE Spanish Hygienic Society has commenced its annual session under the presidency of Señor Pidal, Minister of Patronage. It does not seem to have been as successful as it was at first hoped it would have been in stirring the Government and the public to set about the reformation of the numerous sanitary defects which seem to be especially abundant in Spain. Many of the influential personages whose names formerly appeared as its members have from one cause or another dropped off. It is at present mourning the loss by death of one of its most active and zealous workers, Señor Mendez Alvaro. The *Genio Medico-Quirurgico* complains that the Government, though ready to assist and subsidise most trivial projects, is unwilling to lend a helping hand to such an important matter as the sanitation of the country.

COCAINE AS A HÆMOSTATIC.

IN the *Philadelphia Medical Times* of Feb. 21st, Dr. W. F. Waugh records a case of purpura with repeated hæmorrhages from the lips and gums, in which the application of a 4 per cent. solution of hydrochlorate of cocaine proved eminently successful, after the failure of many other hæmostatics to arrest the bleeding.

THE PRESIDENCY OF THE ROYAL COLLEGE OF PHYSICIANS.

IN accordance with custom, the Fellows of the College of Physicians meet in Comitia on the day after Palm Sunday, to elect a President. Although the office is an annual one, it is customary to retain a President in office for at least five years, and even longer, as was the case with Sir Henry Halford, who was President for twenty-two years, and Dr. Paris, for thirteen years. There is therefore no reason, unless it be Sir William's own expressed desire, why the present distinguished occupant of the presidential chair should not be re-elected for another term.

MILITIA SURGEONS.

WE would call the attention of all militia surgeons to the notice of motion given by Sir E. Wilmot for this day (Friday) to refer their claims for compensation to a select committee, and urge the necessity for militia surgeons to bring what influence they possess to bear on members of Parliament on both sides of the House to support the motion. If they do so there is every prospect of success, as on the last occasion, in 1883, the motion was defeated by only a very small majority, which was composed largely of members of the Government. This is not a party question, and the request to refer the case to a select committee is so reasonable that we hope the Government will see their way to grant it. It is not likely that the motion can come on till after Easter on account of the Redistribution Bill; this gives more time for applying to members of Parliament.

CAUTERISATION OF THE HARD CHANCRE.

THE treatment of excising the hard chancre does not appear to have met with favour by surgeons generally. M. Hallopeau has attempted the destruction of the primary sore by means of the powerful bichloride of mercury. In a recent number of the *France Médicale* he narrates a case of hard chancre in a man aged forty, on whom he practised the treatment of cauterising the sore by placing a thick layer of powdered corrosive sublimate thereon five days after the sore was first noticed; the powder was removed at the end of half an hour, and the ulcer dressed with dried lint. Some pain was experienced. The scab came away on the eighth day, and cicatrisation was completed by the sixteenth day. Nevertheless, the symptoms of secondary syphilis appeared in due course.

DEWSBURY RESPONSIBLE FOR SMALL-POX IN LEEDS.

AN instructive letter to the *Yorkshire Daily Post*, signed "Pax," points out the burden and cost which have been occasioned to Leeds by the occurrence of small-pox in three children who were born in the Dewsbury Union, and who, according to the lax views on such matters prevalent there, had not been vaccinated. The danger, however, has not terminated with them; four other cases have occurred in the same locality, and it is feared that others will arise. This, says the writer, is one result of the folly shown by the Dewsbury Board of Guardians in not enforcing the vaccination law within their union.

CREMATION IN ENGLAND.

WE understand that at the crematory erected near Woking station by the Cremation Society of England the body of a lady was on the 25th inst. reduced to ashes, in the presence of the representatives of the deceased. The cremation lasted one hour only, and was pronounced most satisfactory. This is, we believe, the first instance of cremation being publicly performed in England.

UNIVERSITY COLLEGE, LONDON.

THE vacancy caused by the resignation of Professor John Marshall, of the Chair of Surgery in University College, has been filled up, we are pleased to announce, by the appointment of Professor Marcus Beck; the chair carries with it the post of full surgeon to the hospital. We feel sure that the appointment of Professor Beck will meet with the approval of all who are interested in the welfare of the College.

DR. STORRAR.

WE understand that, in consequence of his increasing age, Dr. Storrar intends to resign the chairmanship of Convocation of the University of London at the next meeting in May. Dr. Storrar has most ably discharged the duties of the office for the long period of twenty-one years. We presume that, in accordance with the custom of the University, his successor will be chosen from the Faculty of Arts or Laws. An influential requisition has been signed asking F. J. Wood, Esq., LL.D., to allow himself to be nominated. Sir Julian Goldsmid's name has also been mentioned as a probable candidate.

SANITARY CONDITION OF QUETTAH.

THE Calcutta Correspondent of the *Daily News* telegraphs that there will be three divisions of the new Quettah Force, numbering 24,000 men, drawn from the three Presidencies, and that there will be a reserve of 11,000. We find confirmation of this in Reuter's telegram of the same date to the press generally. Such being the warlike movements necessitated by the state of affairs on the Afghan frontier, we take this opportunity to recall attention to the unsatisfactory sanitary condition of Quettah, and the large amount of sickness and mortality from enteric fever resulting therefrom. It was not long since we had occasion to draw attention in THE LANCET to the mortality in a British regiment marching thence down the Bolan Pass. We trust that the matter may receive the prompt attention it demands.

"STRANGE ADVENTURES" OF A BULLET.

A CASE of pistol-wound of the thorax has recently been recorded by Schmidt in which the bullet penetrated one of the left pulmonary veins, and then passed along it into the cavity of the left auricle, merely leaving a small erosion on the posterior wall of the vein. From the auricle the bullet must have gained access to the left ventricle, and must then have been forced into the aorta, and so down to the femoral artery, where the projectile was found, apparently accidentally, at the autopsy. The reporter declares that no other explanation of the presence of the projectile in the femoral artery can be given.

AN INSANITARY LOCALITY IN NORWICH.

A MEMORIAL has been presented to the Norwich Corporation complaining of the insanitary condition of a particular locality in New Catton. It was stated that "the house-drainage, frequently blocked, was conveyed into cesspools, some of which were only covered by trap-doors. Some of the wells had been condemned, as the water was unfit to drink. The cesspools were provided with a pipe which conveyed the filth into the undrained road, where it remained till it evaporated." The Sanitary Committee was urged by the member presenting the memorial to move in this matter as speedily as possible. It was, he observed, much more important for the welfare of the city than the introduction of party feeling and the ticketing of individuals "blue and white," "orange and blue," &c. A

member stated that he had previously complained of the condition of this locality. Some of the houses had no water supply, because the wells could not be used, and the water-company had not laid on water for the neighbourhood. The fountain head of typhoid fever was just such a locality as this, and if sanitary precautions were neglected a severe retribution was sure to follow. It was stated that the medical officer had said that such a condition of things ought not to be allowed to exist. The matter was referred to the sanitary committee, who, we hope, will take immediate steps to compel the owners or those who are liable to put an end to such a disgraceful state of things.

"CHARLEY KINGSTON'S AUNT."

IT has lately been rumoured abroad that the interesting medical novel bearing the above title, and published as "by Pen Oliver, F.R.C.S.," is in reality the work of Sir Henry Thompson. This rumour we can confirm, since we have the means of knowing that Sir Henry, during his last autumn holiday, gave up his hitherto invariable habit of painting a picture (usually for the Royal Academy), and devoted his leisure time to writing a medical story—a self-imposed task which was accomplished during the limits of his holiday.

IN answer to a memorial, signed by upwards of fifty Liberal members of Parliament, urging the repeal of the Contagious Diseases Acts before the present Parliament is brought to a close, Mr. Gladstone has replied that he fully recognises the importance of the representation, but he cannot pledge himself on the subject beforehand, especially at a moment when the time of Parliament is forestalled under exceptional circumstances. He anticipates, however, that some statement will in all probability be made before the end of the session indicating the views and intentions of the Government regarding this matter.

THE death is announced of Dr. Morison Watson, F.R.S., Dean of the Medical School, Curator of the Medical Museum, and Professor of Anatomy at Owens College, which took place on Wednesday last at Manchester, in his fortieth year. On February 3rd, whilst addressing the students, he ruptured a bloodvessel in the head, and had been almost continuously unconscious since. He was the author of numerous articles in scientific journals, his most important work being a contribution to the Reports on the Scientific Results of the Voyage of the *Challenger*.

CONCERNING the vacancies in the staff of the East Suffolk Hospital, a question has arisen as to the eligibility of an honorary physician, who was formerly for several years house-surgeon of that institution, on account of the distance of his present residence, which is about eight miles. A good deal of feeling seems to have been excited about the appointments, and the meeting of the governors has been adjourned for a month. There are three candidates for the two vacancies.

SURGEON I. R. LANE, attached to No. 1 Field Hospital, who was severely wounded in the assault on the Arab position at Hasheen on the 20th inst., has, we regret to learn, since died. Surgeon Lane entered the service so recently as August last. On the 22nd inst. Surgeon M. Digan, R.N., was severely wounded.

THE official report of the Commissioners appointed to inquire into the educational arrangements, &c., of the Queen's College, Ireland, has just been issued as a Parliamentary Blue Book.

AN election of a correspondent of the section of Medicine and Surgery of the Paris Academy of Sciences took place recently. The candidates were Dr. Hannover of Copenhagen, Sir James Paget, Dr. Leudet of Rouen, Sir Joseph Lister, and Dr. Panum of Copenhagen. For Dr. Hannover, who was elected, forty-one votes were given, against five for Sir Joseph Lister and three for Dr. Panum.

THE firm of J. F. Richter, of Hamburg, are about to publish a work entitled "Ueber Elephantiastische Formen," which has been edited by Dr. Esmarch and Dr. Kulenkampff. A large amount of information on the obscure group of diseases collectively known as "elephantiasis" may confidently be anticipated in this forthcoming volume.

WE learn from our contemporary, the *Bombay Gazette*, that on the eve of the occasion of Dr. Blanc leaving Bombay early this month on furlough to Europe, and retirement from the service thereafter, a large concourse of native medical practitioners met at a tea-party in his honour.

THE University of Vermont has (says the *Canada Lancet*) announced its intention of granting degrees in Medicine to registered British medical practitioners who pass a satisfactory examination in medicine, surgery, and midwifery. The fee to be charged is $30.

WE have received from the Fine Art Society an engraving which they have recently published of Professor Huxley. The likeness is an excellent one, and all who desire to possess a characteristic portrait of Mr. Huxley will do well to inspect this production.

DR. THOMAS BARLOW, F.R.C.P. Lond., has been appointed full Physician to the Hospital for Diseases of Children, Great Ormond-street, in place of Dr. Gee, resigned.

THERMO-ELECTRIC PROSTATOTOMY.

ENLARGEMENT of the prostate is one of the affections of the genito-urinary apparatus which, even in these days of operative triumphs, has been least successfully attacked by the surgeon. A fair estimate of the preference given to palliative measures may be inferred from a passage in Erichsen's last edition.[1] "The sole treatment of enlarged prostate consists in the regular use of the catheter, in order to draw off retained urine; and when once this treatment has been commenced, it must be continued for the remainder of life, the patient being taught to use the instrument for himself." This is in substance the orthodox teaching of the older, as of the modern, cliniques; but Professor Bottini of Pavia counsels a much bolder practice, which substantially amounts to making a free passage for the urine by thermo-electric cauterisation of the prostate.[2] Here is a case in point.[3] Signor P. A——, aged sixty-eight, from Noghera, had been unable for some years to micturate unassisted, when, at the commencement of last June, he consulted Professor Bottini at Pavia. The urine was then highly ammoniacal, with muco-purulent deposit, only evacuated through the catheter. The prostate was enlarged. The state of the urine and the power of the bladder were greatly improved by cold vesical irrigation, with solutions of boracic acid and of sulpho-carbolate of zinc; general nutrition and strength revived; the urine became neutral and then acid, and was expelled with impetus

[1] The Science and Art of Surgery, vol. ii., p. 1062, 1884.
[2] L'Iscuria da Prostatici Ingrossamenti del Prof. E. Bottini in Collezione Italiana di Letture sulla Medicina, diretta dal Dott. Giulio Bizzozero, vol. ii., No. 2. Milano, 1883.
[3] Gazzetta degli Ospitali, Feb. 11th, 1885, No. 12.

through the catheter. On the 5th of July, while the patient was under chloroform, a small quantity of urine having been withdrawn, Professor Bottini introduced his thermo-electric cauteriser into the bladder, turned the cauterising blade (A, Fig. 1) against the swelling, and lighted the cautery by connecting it with the battery poles, while a current of iced water, through B and C, kept the staff cold. The generation of cauterising heat at the desired part of the instrument, which is kept cool throughout its length, is rendered possible by its method of construction as a double-channelled metallic catheter. Within the inner tube are the insulated electric wires, leading down to a platinum plate, and heating it when the circle is completed. At the same time a stream of cold water circulates in the space between the two tubes, and prevents the diffusion of heat to the surrounding parts. In the case under notice the burning and consuming of the prostate were continued

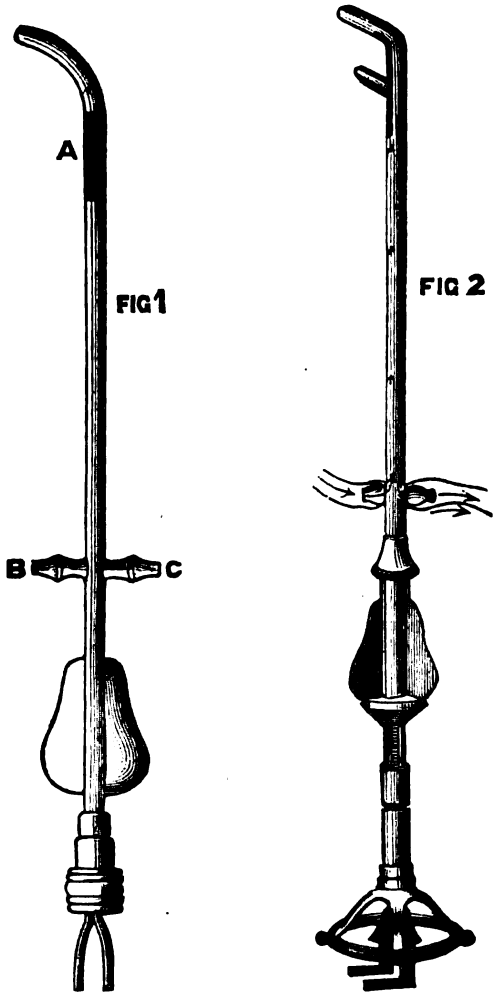

FIG 1

FIG 2

during forty-five seconds, when the instrument was withdrawn. On handing it to those present they found it cold throughout. A catheter was fixed in the bladder, and the urine drawn every three hours. No fever ensued, and belladonna suppositories proved effectual in relieving occasional vesical tenesmus. Four days later, the patient being in a very good state, the catheter was removed and the urine directed to be drawn every six hours, the bladder to be injected morning and evening with a 2 per cent. solution of sulpho-carbolate of zinc. On the 7th of August small sloughs were passed with the urine; they increased in quantity the following day, and gradually decreased without any trouble to the patient. The first natural emission of urine took place in drops twenty-four days after the operation; increasing day by day in quantity and impetus. The catheter continued to be used occasionally, from time to time, to prevent any possible accumulation. At the expiration of three months micturition was natural and the urine acid, clear, and healthy. At the date of the last report (January 23rd, 1885, six months and a half after the operation) the patient was fully restored to robust health. In reviving the tone of the bladder great assistance had been derived from the internal administration of the extract of nux vomica, and the local application of an induced electrical current.

Fig. 2 represents a thermo-electric incisor which Professor Bottini employs, according to the indications of particular cases, on the same principle as the instrument already referred to. He dwells on the advisability of accustoming the patient to the introduction of the instrument before the operation, which is performed in the ordinary lithotrity position. The rectum is to be previously evacuated with a bland enema; but unless the bladder be wholly, or nearly empty, injection of water is not necessary. The operation is not painful, and anæsthesia is only necessary in the case of timid or very sensitive patients. After the operation, tepid hip-baths are of great service, and so are belladonna suppositories.

To form an accurate judgment on the value of this procedure, it would be interesting to have records of a series of cases of prostatic enlargement treated by thermo-electricity. On one point especially, information is desirable—the permanency of the improvement. General experience teaches that eschars after burns contract much more than after incised wounds; and it remains to be proved whether the free passage made by the electric cautery in an enlarged prostate remains patent, or is liable to become the seat of thermo-traumatic stricture. Pending the answer, which only clinical experience can supply, the Professor of Pavia may be congratulated on having devised a method of treatment for enlarged prostate which has achieved some brilliant results, and promises to be a real addition to surgical therapeutics, in a malady which has hitherto baffled attempts at radical treatment.

UNIVERSITY OF DURHAM FACULTY OF MEDICINE.

THE following regulations for the examinations for the degree of Bachelor in Medicine of the University of Durham have been adopted, and will come into force on May 1st, 1885, viz.:—

There will be three examinations instead of two, as heretofore.

The subject of materia medica and pharmacy will be transferred from the final examination to the second examination, and the subjects of chemistry and botany from the second examination to the first examination.

The subjects of each examination will be as follows:—First examination: (1) elementary anatomy; (2) elementary physiology; (3) chemistry and chemical physics; (4) botany and medical botany. Second examination: (1) anatomy; (2) physiology; (3) materia medica and pharmacy. Third examination: (1) medicine; (2) surgery; (3) midwifery and diseases of women and children; (4) pathology; (5) medical jurisprudence; (6) therapeutics; (7) public health.

Candidates will be admitted to each of these examinations after duly certified attendance at a recognised medical school on courses of instruction in the various subjects of the examination, as set forth in the schedules of certificates issued by the University. Each examination must be passed in its entirety before the next can be proceeded with.

As heretofore, each candidate before presenting himself for the third or final examination must have spent one winter and one summer session in attendance at the University of Durham College of Medicine, Newcastle-on-Tyne, and must have passed one of the recognised arts examinations.

A candidate who has passed the first examination of the Conjoint Board in England of the Royal College of Physicians of London and the Royal College of Surgeons of England will be exempt from the first examination of the University of Durham, except in the subject of chemistry, on which he will be re-examined.

A candidate who has passed the first and second examinations of the University will be exempt from the first and second examinations of the Conjoint Board, and will be entitled to present himself for the final examination of the Board on the completion of the necessary curriculum.

Full particulars of the examinations, together with synopses of the subjects schedules of certificates, and any information

required, may be obtained on application to the Registrar of the University of Durham College of Medicine, Luke Armstrong, M.D., 26, Clayton-street West, Newcastle-upon-Tyne.

WILLS OF MEDICAL MEN.

THE will of Edward James Parry, M.D., late of Swan Hill, Shrewsbury, who died on Dec. 19th last, was proved on the 19th ult. by Mrs. Bertha Parry, the widow, and Mr. Malcolm Scarlett Parry, the son, the acting executors, the value of the personal estate amounting to over £15,000. The testator, subject to the payment of a few legacies thereout, leaves all his property upon trust for his wife for life; and at her death £3500 upon trust for his daughter Bertha Susannah Jones, certain railway stocks upon trust for his daughter Caroline Helen Parry, and the ultimate residue of his property to his said son.

The will of St. George Wade Tucker, M.D., retired Surgeon-Major, Her Majesty's Indian Army, formerly of the Island of Bermuda, but late of Edmondsham House, Bournemouth, who died on Jan. 13th last, was proved on the 6th ult. by Mrs. Julia Catherine Maréchaux, the sister, one of the executors, the value of the personal estate exceeding £6000. The testator leaves all his property upon trust for his said sister for life, and then for his two nieces, Georgiana Fanny Maréchaux and Alice Louisa Maréchaux.

The will of Charles Langstaff, M.D., late of Southampton, who died on Nov. 9th last at Havre, was proved on the 2nd inst. by Mrs. Anne Langstaff, the widow and sole executrix, the value of the personal estate exceeding £3600. The testator gives all his real and personal estate to his wife absolutely.

The will of John Toswill Veitch, M.D., of "Brahrang," Warrington-road, Ipswich, who died on Nov. 10th last at King's-road, Chelsea, was proved on the 24th ult. by Mrs. Celia Gertrude Veitch, the widow, Mr. Harry James Veitch, the nephew, and Mr. Thomas Drew Dewdney, the executors, the value of the personal estate exceeding £2000. The testator bequeaths all his articles of personal, domestic, or household use or ornament, excepting some specially bequeathed, to his wife; £250 to his nephew, Arthur James Veitch, of Brisbane; and numerous legacies to relatives and others. The residue of his real and personal estate, including his share in some plantations abroad, he leaves upon trust for his wife for life; and then, subject to an interest in part given to his brother Robert and his wife Sarah, for his nephews and nieces, Peter Christian, Masseyna, Quinten Reid, Walter, Robert Louis, Maria Rebecca, Helen Mary, Alice Susan, Florence, and Anna Veitch, in various proportions.

The will of Nathaniel John Haydon, M.D., F.R.C.S., late of Tiverton, Devon, who died on December 6th last, was proved on the 27th ult. by Mr. John Nathaniel Haydon, one of the executors, the value of the personal estate exceeding £1500. The testator leaves his property upon trust for his daughters, Mary and Edna Kate; but his son Edgar is to be allowed to select a medical book or instrument.

The will of James Robertson, M.D., formerly of Pall Mall, but late of 14, Queen's-square, Bath, Physician and Surgeon, who died on December 2nd last, was proved on the 8th ult. by Mr. William Woodham, the sole executor, the value of the personal estate exceeding £1300. The testator, after giving some legacies, gives all his real estate and the residue of the personalty to his brothers William and Robert.

The following legacies have recently been left to hospitals and other medical institutions:—Mr. William Hartridge, of the Stock Exchange, and of Addelam, Upper Deal, Kent, £200 to the Royal Hospital for Incurables, Putney.—Mr. Henry Skynner, late of Temple Chambers, 32, Fleet-street, Solicitor, and of 6, Neville-terrace, Onslow-gardens, South Kensington, £500 to St. Bartholomew's Hospital, in commemoration of his brother, and to be called the "Robert Charles Skynner Prize Fund," the income to be given annually to the student passing the best examination in the anatomy of the human body and the best treatment for scarlet fever and rheumatic fever; and 50 guineas each to the Seamen's Hospital Society, Greenwich, St. Bartholomew's Hospital, St. Mark's Hospital for Fistula, Charterhouse-square, St. Mary's Hospital, Paddington, the London Hospital, Whitechapel, the Cancer Hospital, Fulham-road, and the Hospital for Consumption, Fulham-road.—Miss Mary Clark, of 10, Albert-road, Regent's-park, £400 to the British Home for Incurables; £300 to the Central London Ophthalmic Hospital, Gray's-inn-road; £250 each to the Royal Free Hospital, Gray's-in-road, the University College Hospital, Upper Gower-street, and the City of London Hospital for Diseases of the Chest, Victoria-park; and £200 each to the Hospital for French Rufugees, Victoria-park, King's College Hospital, and the Royal Westminster Ophthalmic Hospital, King William-street.—The Right Hon. Mary Anne, Viscountess Torrington, £200 each to the Brompton Hospital for Consumption, and the St. Andrew's Convalescent Home, Folkestone.—Mr. Edward Jauverin Emanuel, of 15, Austin Friars, Solicitor, and of 4, Hyde-park Mansions, Hyde-park, £20 each, free of legacy duty, to University College Hospital, the London Hospital, St. Mary's Hospital, Paddington, the Male Lock Hospital, the Female Lock Hospital, Ormond-street Hospital for Sick Children, and Portsmouth Hospital, Landport.—Mr. Alfred Tylor, of 2, Newgate-street, and of Shepley House, Carshalton, £100 each to the Invalids' Home, Stamford-hill, and the North-Eastern Hospital for Children.—Mr. William Overend, Q.C., of Lincoln's-inn, and of West Retford House, Retford, Notts, £100 to the Sheffield General Infirmary.—Mr. George Trist, of 62, Old Broad-street, and Eliot Lodge, Sydenham-hill, £200 to the Sussex County Hospital, and £50 each to the Charlwood Dispensary and the Sydenham Home for Sick Children.—Mr. Henry William Franklyn, of Shedfield Lodge, Droxford, Hants, £50 each to the Bristol General Hospital, the Bristol Royal Infirmary, the Bristol Deaf and Dumb Institution, and the Bristol Home for Sick Children.—J. L. Kelly, £50 to the Hospital for Incurables, Dublin.—Miss Ross, £500 to the Adelaide Hospital, and J. Castles, £100 to the same institution.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Carlisle Urban District.—Carlisle has now an estimated population of 37,300. In calculating the death-rate fifty-three weeks are taken as included in the year, and with this the rate is 21 per 1000 living. The death-rate from the principal zymotic diseases was very low, only reaching 1 per 1000; indeed, it is the lowest of the twenty-eight towns in England which are comparable with Carlisle. A good deal of valuable information is tabulated as to the conditions which led to such diseases as enteric fever, and the authority have, in consequence, had it specially brought under their notice that it is absolutely necessary to maintain a proper control over houses whilst they are being built if the common causes of the disease are to be eradicated. No town like Carlisle should be without a skilled officer to see that really efficient bye-laws as to new buildings are being properly carried out. Merely to look at and to pass plans affords no sufficient guarantee as to the character of the actual work that will be executed. It is somewhat curious that eleven cases of enteric fever were found to be associated with the existence of nuisances, as from animal ordure at slaughter-houses; and Mr. Brown adverts in his report to the fact that, elsewhere, such a condition has been regarded as favourable to a *de novo* origin of the contagium. Under any circumstances the conditions ascertained speak but ill for the control and inspection of slaughter-houses in Carlisle; and Mr. Brown does not fail to point out to his authority the defects that call for remedy in this direction.

Rochester Urban Sanitary District.—Dr. Sladden Knight states the death-rate to have been 20·8 per 1000, which, by deducting deaths in hospitals, is reduced to 16·8. The death-rate under one year was 191 per 1000 births. The zymotic death-rate was 3·2, which is partly due to deaths in St. William's Hospital from infectious disease contracted outside the district; also to the excessive temperature in August and September, which caused many infantile deaths from diarrhœa. There was only one fatal case of small-pox which was contracted in London. Great care was taken both in this instance and in such others as occurred, by vaccination, fumigation, disinfection, &c., to prevent the spread of the disease with such success that in no instance

did any second case occur. The existence of St. William's Hospital as a means of isolation for infectious cases was of very great advantage. The patients have been much pleased with the attention they received in it, and the mortality has been very moderate. The governors have wisely desisted from demanding payment for maintenance from those in needy circumstances, rightly judging that as the public generally benefit by the removal from their midst of infectious cases, so the public ought not to grudge the expense of such protection.

Chesterfield Rural District.—In this extensive colliery district great improvement has been effected during recent years under the administration of Dr. Angus Mackintosh. The death-rate for 1884 was 17 per 1000. Scarlet fever periodically adds materially to the mortality. The district contains a large population of very independent workpeople at the child-bearing age, and hence there is a large number of children. In addition to this, and notwithstanding numerous efforts in this direction, it has not yet been found feasible to secure a combination of authorities for the purposes of hospital provision. The result is a recurring necessity for school-closing, which must seriously interfere with education, and which might otherwise not be requisite. During 1884 four elementary schools were thus closed. Measles again seriously affects the infantile population, but having regard to the fact that this disease is probably infective at a stage before it is at times even recognisable, the chances of staying its prevalence in such a district as this are not very hopeful. Some cases of enteric fever in connexion with contaminated water are recorded, and outbreaks of small-pox have occurred, which go to show the great need for adequate means of isolation. Amongst the several places still needing an improved water-supply, Dr. Mackintosh especially refers to the village of Gleadless Townend, where repeated attacks of enteric fever have occurred. Many other matters are adverted to in this interesting report, and as we look through the record it gives of excellent sanitary administration in a district which, mainly owing to Dr. Mackintosh's energetic labours, has been one of the foremost in carrying out structural sanitary works, we can only regret the fact that, now that the most burdensome part of the work is finished, a majority of the authority fail to appreciate as they should do the services which have brought about so many satisfactory results.

Halifax Combined District.—This important district comprises the Halifax rural and seventeen urban districts. Taking the district as a whole, the death-rate has been 18·8 per 1000, which is certainly too high; it has varied from 12·5 in Luddenden Foot to 25·5 in Rastrick. The zymotic death-rate for the entire district was 2·1 per 1000. Rastrick, where the highest rate of mortality prevailed, is a place for premature marriages and neglect of children, and many of the latter die, before reaching the age of five years, of scarlet fever and other zymotic affections. Dr. Britton shows by his record of work in connexion with each sanitary district that a careful supervision is maintained. Analyses of suspected waters are regularly made, and numerous works both of water-supply and drainage are carried out with a view of remedying the defects which come under notice.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5823 births and 4018 deaths were registered during the week ending the 21st inst. The births exceeded by 9, and the deaths by 391, the average weekly numbers during 1884. The annual death-rate in these towns, which had been equal to 20·6 and 22·1 per 1000 in the preceding two weeks, further rose last week to 23·5. During the first eleven weeks of the current quarter the death-rate in these towns averaged 22·6 per 1000, against 24·4, the mean of the rates in the corresponding periods of the nine years 1876-84. The lowest death-rates in these towns last week were 14·0 in Derby, 17·4 in Birkenhead, 18·2 in Brighton, and 19·0 in Portsmouth. The rates in the other towns ranged upwards to 29·6 in Newcastle-upon-Tyne, 31·7 in Cardiff, 32·9 in Manchester, and 44·1 in Sunderland. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had ranged in the preceding ten weeks between 356 and 398, rose last week to 443. These included 164 from measles, 119 from whooping-cough, 41 from scarlet fever, 37 from "fever" (principally enteric), 32 from diphtheria, 26 from diarrhœa, and 24 from small-pox. No death from any of these zymotic diseases was recorded last week either in Brighton or in Blackburn; whereas they caused the highest death-rates in Bristol, Cardiff, and Sunderland. The highest death-rates from measles occurred in Bristol, Cardiff, and Sunderland; from whooping-cough in Plymouth, Norwich, and Bristol; from scarlet fever in Wolverhampton; and from "fever" in Norwich. The 32 deaths from diphtheria in the twenty-eight towns included 20 in London, 3 in Leeds, 2 in Liverpool, and 2 in Salford. Small-pox caused 43 deaths in London and its outer ring of suburban districts, and 1 each in Liverpool, Manchester, Bradford, Sunderland, and Newcastle-upon-Tyne. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had declined in the preceding four weeks from 1223 to 898, had further fallen to 830 on Saturday last; the admissions, however, which had been but 94 and 104 in the preceding two weeks, further rose last week to 137. The Highgate Small-pox Hospital contained 83 patients on Saturday last, 8 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 374 and 455 in the preceding two weeks, further rose last week to 487, and exceeded the corrected weekly average by 3. The causes of 101, or 2·5 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leicester, Newcastle-upon-Tyne, and Derby. The largest proportions of uncertified deaths were registered in Oldham, Hull, and Halifax.

HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 22·8 and 24·4 per 1000 in the preceding two weeks, were 24·2 in the week ending the 21st inst., exceeding by 0·7 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 13·8 and 17·7 in Aberdeen and Dundee, to 29·0 in Paisley and 29·9 in Glasgow. The 590 deaths in the eight towns included 35 which were referred to whooping-cough, 28 to measles, 7 to scarlet fever, 6 to diarrhœa, 5 to diphtheria, 4 to "fever" (typhus, enteric, or simple), and not one to small-pox; in all, 85 deaths resulted from these principal zymotic diseases, against 71 and 88 in the preceding two weeks. These 85 deaths were equal to an annual rate of 3·5 per 1000, which was 0·9 above the mean rate from the same diseases in the twenty-eight English towns. The 35 deaths from whooping-cough showed a further increase of 13 upon the numbers returned in the previous two weeks; 17 occurred in Glasgow, 5 in Edinburgh, 4 in Greenock, and 4 in Leith. The 28 fatal cases of measles also showed a further increase upon recent weekly numbers, and were all returned in Glasgow. The deaths from scarlet fever, however, which had been 17, 12, and 13 in the previous three weeks, declined to 7 last week, of which 3 occurred in Glasgow and 2 in Edinburgh. Four of the 5 deaths from diphtheria and 2 of the 4 from "fever" were returned in Edinburgh. The 6 deaths attributed to diarrhœa were less than half the number in the corresponding week of last year. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 119 and 122 in the previous two weeks, further rose to 124 last week, and exceeded by 26 the number returned in the corresponding week of last year. The causes of 94, or nearly 16 per cent., of the deaths registered in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 30·3, 32·7, and 39·5 per 1000 in the preceding three weeks, declined to 34·6 in the week ending the 21st inst. During the first eleven weeks of the current quarter the death-rate in the city averaged no less than 33·5 per 1000, the mean rate during the same period not exceeding 21·5 in London and 20·4 in Edinburgh. The 234 deaths in Dublin last week showed a decline of 33 from the high number returned in the previous week, and included 16 which were referred to measles, 6 to whooping-cough, 3 to "fever" (typhus, enteric, or simple), 3 to diarrhœa, 2 to scarlet fever, and not one either to small-pox or diphtheria. These 30 deaths corresponded

with the number in the previous week, and were equal to an annual rate of 4·4 per 1000; the rate from these diseases last week in London and Edinburgh did not exceed 2·3 and 2·7 respectively. The fatal cases of measles, which had been 8, 10, and 11 in the previous three weeks, further rose to 16 last week, and exceeded the number in any previous week of this year. The 6 deaths from whooping-cough also showed a further increase upon recent weekly numbers. The deaths referred to scarlet fever, "fever," and diarrhœa showed, however, a decline. Six deaths from violence, but only 3 inquest cases, were registered within the city; and 67, or more than a quarter, of the deaths were recorded in public institutions. The deaths of elderly persons showed a marked decline from the number in the previous week. The causes of 24, or more than 10 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

THE VOLUNTEER REVIEW.

IT will be interesting to follow the medical arrangements for the marching columns to Brighton on Good Friday, since the authorities at the Horse Guards and Whitehall-yard are anxious to complete them in the most perfect manner. It is proposed to carry them out in every detail as though the columns were acting during hostilities, an arrangement that never has as yet (except in one imperfect instance) been detailed in the regular army during the progress of any war. The present medical field service has of late been considerably improved, and this opportunity is taken to try its adaptability to the service. It is an honour to the Volunteer Medical Staff to be singled out as the pioneers in so important a matter, and we trust that the zeal of the Volunteer surgeons will afford every assistance to these endeavours of Government. One prominent feature in the day's details will be the first appearance of the bearer companies, whose services have just been accepted by Government, and which will be enrolled in time for the Review. These bearer companies, complete in every detail, will follow up the first aid given by the regimental surgeons and bearers to the wounded, who will be transferred in order to the rear, where they will pass into the hospital which accompanies the column. Of course to carry this out a number of men will be detailed as wounded, and these, with their tickets describing their wounds, will be attended at once by the regimental officers, who, passing on, will leave them in safety, to be taken up by the bearer companies. These bearer companies will number from 100 to 120 men, with the full complement of surgeons; and the hospital and brigades will be credited with their full staff. The details are being elaborated by Surgeon Cross, Grenadier Guards, who is well known in connexion with his late appointment at Aldershot as instructor to the Army Medical Staff; and under his efficient aid in the route as chief medical officer, we may expect to find success in the proposed scheme.

WAR OFFICE.—Army Medical Staff: The following Surgeons-Major to be Brigade Surgeons:—Austin Jonas Ferguson, vice William Skeen, M.D., promoted; John Robinson, vice Alfred Malpas Tippetts, promoted; St. John Killery, vice Rowland Wimburn Carter, granted retired pay; William Alexander Gardiner, vice Chamney Graves Irwin, M.B., promoted; George Scott Davie, M.D., vice William Cathcart Boyd, granted retired pay; Surgeon-Major Donald McEwen, M.B., retires from the service, receiving a gratuity; Surgeon Henry Brougham Guppy, M.B., has been placed on the retired list of his rank.

INDIA OFFICE.—The Queen has approved of the retirement from the service of the undermentioned officers of Her Majesty's India Military Forces:—Brigade Surgeon Robert William Cockerill, of the Madras Army. The undermentioned officers are granted a step of honorary rank on retirement:—Deputy Surgeon-General Colvin Smith, M.D., C.B., of the Madras Army, to be Surgeon-General; Brigade Surgeon Charles Kilkelly, of the Bengal Army, and Brigade Surgeon Robert William Cockerill, of the Madras Army, to be Deputy Surgeons-General; Surgeon-Major Thomas Gray Skardon, of the Bengal Army, and Surgeon-Major William Edward Allen, of the Bengal Army, to be Brigade Surgeons.

Surgeon-Major R. Boustead, Her Majesty's Indian Medical Staff, has been appointed Senior Surgeon 1st Divisional Field Hospital at the front with Her Majesty's Indian Forces in the Soudan.

Dr. A. Barry, of the 2nd Bombay Lancers, has been appointed to act as Surgeon to the Goculdas Tejpal Native General Hospital in Bombay, vice Dr. Vandyke Carter, on leave.

Surgeon-Major E. H. R. Langley, Indian Medical Service, Bombay, has been promoted to be Brigade Surgeon, vice Brigade Surgeon W. P. Partridge, retired.

Deputy Surgeon-General W. J. Moore, Indian Medical Service, Bombay, has been permitted by Her Majesty's Secretary of State for India to return to duty.

Brigade Surgeons John Jones and William Henry Kirton, Indian Medical Service, Bengal, have been permitted to retire from the service.

ADMIRALTY. — The following appointments have been made:—Fleet Surgeon William Graham, to the *Tamar;* Surgeon Arthur S. Nance, to the *Shannon;* Surgeon Henry J. Gordon, to the *Tamar;* Surgeon Alexander F. Harper, to the *Sea Lark;* Surgeon Edward B. Townsend, to the *Sea Flower;* Surgeon Edward W. von Thuzelmann, to the *Martin;* Surgeon George A. Dreaper, to the *Nautilus;* Surgeon William H. O. Meara, to the *Pilot;* Surgeon William W. Jacobs, to the *Liberty.*

MILITIA MEDICAL STAFF.—Surgeon-Major Richard Commander Kibbler, 7th Battalion, the Rifle Brigade (the Prince Consort's Own), resigns his commission, also is permitted to retain his rank, and to wear the prescribed uniform on his retirement; Surgeon William Sproule Love, 4th Battalion, the Royal Inniskillen Fusiliers, to be Surgeon-Major.

THE VOLUNTEER MEDICAL STAFF CORPS.—Acting Surgeon James Cantlie, M.A., M.B., from the 7th Middlesex (London Scottish) Rifle Volunteer Corps, to be Surgeon-Commandant; Surgeon John Lees Hall, A.M.D., to be Adjutant.

ARTILLERY VOLUNTEERS.—1st East Riding of Yorkshire: Surgeon Eleazar Sherwood, M.D., resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the corps on his retirement.

RIFLE VOLUNTEERS.—2nd Lanarkshire: Surgeon William Crawford, M.D., resigns his commission.—1st Dumbartonshire: Lieutenant Robert Braid resigns his commission; Alexander Martin, Gent., M.B., to be Acting Surgeon.—2nd (South) Middlesex:—Stephen Henry Moore, Gent., to be Acting Surgeon.

Correspondence.

"Audi alteram partem."

THE UNIVERSITY OF LONDON.

To the Editor of THE LANCET.

SIR,—The long-felt discontent with the course pursued by the University of London has at length found expression, and the hitherto half-suppressed murmurs of dissatisfaction have now shaped themselves into active demands for change. It is far from my desire to interfere in so good a cause; nor do I propose to express an opinion as to whether the University has been the important factor in the improvement of general education as claimed by some of its supporters; or whether it is necessary or desirable that the general practitioner of medicine should possess a degree; or whether the present standard of the University should or should not be lowered, tempting as these and similar questions are to discuss. But I venture to ask for space to indicate a side of the question that, so far as I know, does not seem to have obtained the consideration it deserves, and neglect of which appears to me likely to lead to a waste of time and energy.

Beyond the very general feeling that something should be done to render the University of London more worthy of its name, there cannot be said to be very much agreement, and in the first steps of such an undertaking, when each one wishes to ride his own particular hobby, such diversity is not to be wondered at, and the remedies proposed are almost as varied as the grounds of complaint. After a good deal of preliminary skirmishing the attack upon the existing institution may be said to have taken two lines, and the schemes that are now in process of maturing, although widely

different from each other, have, as may be supposed, several points in common; and either would, if it succeeded, result in establishing a very different University from that we at present possess. The Association for Promoting a Teaching University for London, and the Council of the Metropolitan Counties Branch of the British Medical Association, alike desire to give a greater direct share in the control of the University to actual teachers engaged in instruction, and by associating the examination with teaching, would aim at rendering the degrees granted a better and truer evidence of education and real knowledge than the certificates of successful cramming, which they are very generally regarded as being at present.

The work that the Association for promoting a Teaching University for London has marked out for itself includes among other items the "entering into communication with the Senate and Convocation of the University of London, with the governing bodies of all other teaching institutions, with the authorities of the legal and medical professions, and other bodies." As this stupendous labour is assigned to a committee of thirteen gentlemen, most or all busily occupied by their professions, it is not reasonable to expect any result of their work for some time to come. To aid them in their communication with the University of London Convocation has appointed a committee of forty of its members, with power to confer with the Senate, in order to "promote the carrying into effect by the University of the object of the Association," which Convocation, at its meeting on the 24th ultimo, declared would "add to the importance and usefulness of the University."

The Council of the Metropolitan Counties Branch of the British Medical Association, dealing with a much smaller subject than the other body—viz., the wants only of medical students—have advanced considerably on the road, and having drawn up, discussed and accepted, a most exhaustive report, absolutely conclusive from its point of view, are now on their way to confer with the Senate in support of their objects, and, failing in obtaining the concession they desire, are prepared to take such steps as practically amount to establishing another degree-granting body—i.e., another university. No such alternative to the failure of their proposals is suggested by the committee of the other Association, who profess in their objects the utmost loyalty to existing institutions; although it would not seem very clear how far their respect for the present University would prevent the independent prosecution of their purpose should they fail in obtaining their object.

Now, are not these bodies, with their excellent aims, somewhat reckoning without their host? I would ask, Can the present University of London entertain the proposals of either of these suppliants? The neglect with which the tentative proposals in the direction of "conferring a substantive voice in the government of the University upon those engaged in the work of university teaching and examining" hitherto made by Convocation have been treated by the Senate, does not argue a very strong wish on their part to assent to any change, nor does it seem to me that the reverse could be expected, and it is more than probable that when the proposals reach that august body with the weight conferred by the distinguished individuals now approaching them they will be met by a simple *non possumus*. Reference to the charter of the University would seem to show that the course pursued by the Senate is quite in accordance with their constitution, and that it is not in their power to alter themselves in accordance with the wishes of the Association or of the other suitor, however much they might wish to do so. If, then, such changes as are desired can only be effected through the power from which the authority of the University emanates—viz., Parliament,—would it not be more reasonable and economical of time to petition Parliament to grant a Royal Commission to inquire into the working of the University? And this is the more justifiable to ask since the institution is heavily subsidised by the State. Supported by the names of those who are concerned in the various movements, it would be difficult for the Government to refuse the appeal, since it would be in no way casting a reflection upon those who have only too faithfully administered according to their charter, but would be merely an inquiry into the working of what is virtually a State institution, with an authority that no present association, however distinguished, could possibly pretend to, and with this further advantage, that their recommendation when formulated would be more likely to be carried out.

Nothing, to my mind, can be more fatal to the success of those who desire a change in the conduct of the University than to admit for a moment the possibility of another degree-granting power existing in London. To allow such an alternative to be suggested is to court defeat, and would strengthen those who are satisfied with matters as they stand, in their refusal to alter. If this be so, it only remains to bring the existing University into harmony with the desired aims, and this, I believe, can only be done by appeal to its masters.

I am, Sir, yours faithfully,

W. H. ALLCHIN, M.B.,
University Scholar in Medicine.

Chandos-street, W., March, 1885.

CHLOROFORM *v.* ETHER.

To the Editor of THE LANCET.

SIR,—In a communication in your issue of the 7th inst. Mr. George Walker of Liverpool narrates a case of recovery from chloroform narcosis, and institutes a comparison between chloroform and ether, which is to the prejudice of the latter agent. Mr. Woodhouse Braine has taken exception to the statement of Mr. Walker, and warns the profession against the use of chloroform. It appears to me the question is of such great importance that, so far from an apology being needed for those who desire its thorough ventilation, it is a manifest duty for experts to lay all the knowledge and experience they possess before the profession. All who are conversant with the working of our London hospitals know that, as a rule, the majority of students receive no regular instruction in the practice of anæsthetising, and hence few men know the risks they run in private practice when called upon to administer anæsthetics. It is, then, certainly of the last importance that every means be adopted whereby the busy practitioner be kept well abreast of the times in the scientific knowledge of anæsthesia. It is far more common for men in general practice, and especially country practice, to employ chloroform rather than ether. They do so because the apparatus is far simpler, resolving itself into a bottle of the anæsthetic and a towel. In adopting this method but few practitioners contemplate that they are placing the lives of their patients in jeopardy. Again, patients themselves infinitely prefer chloroform. In London, where we habitually induce unconsciousness with nitrous oxide before administering ether, we hear little of the strong distaste patients declare for ether. In the country *tout cela est changé*. There is also a further claim which chloroform has upon the laity. It is the familiar agent to them, and being familiar lacks the awe which the uncanny name of ether provokes. All these reasons tend to induce a far more frequent resort being had to chloroform than to ether, while still another cause leads to the same end. To administer chloroform with apparent success is certainly more easy than to induce narcosis by ether. In the hands of a master of the art like Mr. Braine, the etherisation of a patient becomes to outward semblance a matter of superlative ease; to the tyro it presents pitfalls in practice, and symptoms which, to his 'prentice eyes, assume a truly portentous gravity. The question yet remains, Which agent should be recommended for universal use? Mr. Braine says ether, because (1) mortality from its use is lower than from the use of chloroform; (2) the fatality from ether narcosis is more gradual in development, and so admits of more successful treatment. While most persons conversant with the subject would agree with Mr. Braine, they would possibly suggest that he has not considered the question from every side, and that some of his statements need limitation. It will take a great many arguments to induce a man to relinquish chloroform if he finds that agent more handy, and if he is unfamiliar with the use of ether; yet I agree with Mr. Braine that the choice should, practically, in every case fall upon ether. I would, however, add this, that until ether administration is clearly and systematically taught, I believe its use will never be general, nor its benefits appreciated. I also submit that, as Mr. Braine writes, "dangerous symptoms occasionally arise during the administration of ether," and such symptoms need a far more thorough scrutiny than has as yet been accorded to them. It further must be said, no administrator of ether should lay the flattering unction to his soul that untoward symptoms appear only gradually or recede as soon as the ether inhalation is stopped. The very method which Mr. Braine appears to advocate—the rapid induction of ether narcosis—lends itself to adverse criticism on this score.

If my memory serves me, Mr. Braine, in a paper read before the Medical Society of London, advocated the employment of Ormsby's inhaler. This instrument is open to the objection that it allows a saturated atmosphere of ether to impinge suddenly upon the delicate and sensitive mucous membrane of the larynx and respiratory tract in general, often giving rise to most alarming dyspnœa from spasm of the glottis. This, then, is one of the many dangers to which ether narcosis is liable, and I think it is matter of moment that, while we warn the unwary against the reckless use of chloroform, we should not clothe ether with virtues which its use will speedily repudiate. When nitrous oxide cannot be used, I think and the annals of many years of severe testing in University College Hospital bear out my contention that none of the methods of etherisation can approach that instituted by Mr. Clover, a method alike sound in its scientific basis and convenient for its pre-eminent practicability. Were it competent in this place to consider the question of statistics, it would be my duty to cast some doubt upon the value of such as indicating the relative merits of the two agents, since at present no attempt has been made to arrive at any really accurate return of the number of times ether and chloroform are respectively employed, and of the cases in which death supervenes. Many such cases are not returned at Somerset House as "death from chloroform poisoning." Again, surely "vomiting, nausea, and depression of spirits" are not in many cases trifling ailments. It must occur to all anæsthetists to find persons who evince a peculiar obnoxiousness to ether, and in these many surgical operations could not be performed were ether employed to produce unconsciousness. Nor, again, can straining, sickness, and hiccough, which will every now and again appear, be compatible with the well-being in the post-operation stage of such cases as gastrostomies, &c. Mr. Braine confines himself within such narrow limits that it is impossible for him to do more than offer a very casual glance at the physiological side of the question, and hence it is that his statements, although strictly accurate, yet do not quite cover the whole ground. I may further emphasise the warning given by Mr. Braine by quoting the words of Schiff, the value of whose opinion on this matter can hardly be over-estimated. He says: "Chloroform should be banished from practice as an anæsthetic agent, except in cases in which an extraordinary resistance to the action of ether shows itself."

In conclusion, I would submit that it seems to my mind very doubtful if Mr. Walker is quite accurate in attributing to nitrite of amyl the recovery of his terrier. He employed artificial respiration coëtaneously with the nitrite, and my experience of dogs narcotised with chloroform, which is rather wide, has taught me that artificial respiration, if persevered in for a sufficiently long time, will, in nearly every case, succeed, and if it fails, nitrite fails also. At the same time, as many careful observers have recorded cases which they believe derived benefit from nitrite inhalation, it is unquestionably our duty to try it in every case. The search for amyl nitrite should never, however, be allowed to distract the administrator's attention from performing artificial respiration, which is *the* thing most needful.

I am, Sir, your obedient servant,

DUDLEY W. BUXTON, M.D., B.S.,
Administrator of Anæsthetics in University College Hospital and at the Hospital for Women, Soho-square.
Mortimer-street, Cavendish-square, W., March, 1885.

ELECTRIC ILLUMINATION OF VARIOUS CAVITIES OF THE HUMAN BODY.

To the Editor of THE LANCET.

SIR,—Allow me to complete the information given in my paper on the above subject, and published in your numbers of the 14th and 21st inst., by the statement that incandescent lamps are now manufactured of the same size as those described in my paper, but of a power of eight volts. By using two accumulators coupled together in connexion with these lamps, an illuminating power is obtained which rivals in brilliancy the hydro-oxygen light. [The coupling of the accumulators is effected by connecting the positive pole of the one with the negative pole of the other by means of a small piece of copper wire. The wires connected with the handle of the instrument are then attached to the free poles.] Messrs. Weiss and Son will soon receive a supply of these lamps.

As several letters dealing with the question of warming the laryngoscopic mirror have been recently published in your columns, I wish to state once more distinctly, that the mirror of the electric laryngoscope can be warmed in exactly the same manner as the common laryngoscope—i.e., by holding it over a gas, oil, or spirit lamp, or by dipping it into warm water, *after* it has been attached to the universal handle. No danger of the incandescent lamp cracking or of other accidents happening is to be apprehended.

I am, Sir, yours obediently,

FELIX SEMON.
Welbeck-street, Cavendish-square, W., March 22nd, 1885.

LEACH AND ROOKE MEMORIAL FUND.

To the Editor of THE LANCET.

SIR,—A proposal has of late been made to collect a fund for putting up in our new chapel a window to the memory of Mr. Harry Leach and Dr. Henry Rooke, who were both for many years connected as medical officers with this institution. On behalf of a committee formed by our physicians and surgeons, I beg to bring this project under your notice, and to suggest that we would be pleased to receive any kind help in our endeavour to keep up the memory of these former members of our medical staff, who, during their long association with the Seamen's Hospital, were so widely esteemed.

I am, Sir, yours truly,

W. JOHNSON SMITH.
Seamen's Hospital, Greenwich, March, 1885.

The following subscriptions have been received or promised in furtherance of the fund:—

	£	s.	d.		£	s.	d.
Dr. Robert Barnes, Consulting Physician, Seamen's Hospital	2	2	0	Dr. Robert Farquharson, M.P.	1	1	0
G. Busk, Esq., Consulting Surgeon	2	2	0	W. Johnson Smith, Esq....	2	2	0
Dr. John Curnow, Visiting Physician	1	1	0	John Croft, Esq....	2	2	0
Dr. Robert Carrington, Visiting Physician ...	1	1	0	Gay Shute, Esq....	2	2	0
G. R. Turner, Esq., Visiting Surgeon	1	1	0	Dr. Collingridge	2	2	0
				W. M. Corner, Esq.	1	1	0
				John Tweedy, Esq.	1	1	0
				Dr. Ralph Gooding	1	1	0
				Dr. William Walker	1	1	0
				THE LANCET	2	2	0

MEMORIAL TO DR. FAIRLIE CLARKE.

To the Editor of THE LANCET.

SIR,—Some of the friends of the late Dr. Fairlie Clarke, desirous of evincing their esteem for him, and wishing to perpetuate his memory in some practical manner, have undertaken to erect a drinking fountain in Southborough, where he spent the last eight years of his life. They have come to this decision because among his papers were found plans for a drinking fountain, with the view to the erection of one in this town, and because they feel sure that, to all who knew him, it will commend itself as a suitable memorial. At present donations amounting to £80 have been promised, and if any of your readers would like to subscribe to this fund, subscriptions will gladly be received by the Rev. H. J. Bigsby, Rev. T. A. E. Williamson, General Rowlatt (all of Southborough, Tunbridge Wells), or

Yours faithfully,

H. VERR PEARSON, Treasurer.
Park-road, Southborough, Tunbridge Wells, March 21st, 1885.

LIVERPOOL.

(*From our own Correspondent.*)

THE NEW LYING-IN HOSPITAL.

FOR upwards of forty years there has been in Liverpool a lying-in hospital, and for nearly a century a maternity charity for attending poor married women at their own homes, this latter being known as the Ladies' Charity Each has had its supporters and advocates, while the former has also had its opponents. The new hospital is an honest, and so far a very successful, attempt to give the patients all the benefits of a lying-in hospital without any of its dangers. It consists of two detached cottage hospitals, situated respectively east and west of the central building,

which comprises the rooms for the administrative staff, board-room, kitchen, offices for registration of patients, &c. Each wing is approached from the central building by iron galleries on the ground and first floors, the hospital proper consisting of only two floors. On each floor are three lying-in rooms, each with a single bed and the nurse's room. The whole are so arranged that the nurse can see all the three patients from her room without leaving it. All the sanitary arrangements are admirable, as are also those for securing the thorough cleansing and disinfection of each room after every confinement. Every precaution has been taken to prevent the possibility of contagion. At present patients are admitted without regard as to whether the confinement is expected to be normal or otherwise; but it is probable that the twelve beds will in time be fully required for difficult or complicated labours.

UNIVERSITY COLLEGE.

Dr. Ewing Whittle has resigned the lectureship of forensic medicine and hygiene, which he has held for upwards of twenty years. Among other candidates for the vacancy are Mr. Frank Thomas Paul, Surgical Tutor, late Pathologist and Demonstrator of Physiology; and Dr. James Barr, Visiting Surgeon, H. M. Prison, Kirkdale.

JUVENILE DRUNKARDS.

A boy fourteen years of age was admitted into the Royal Southern Hospital in the afternoon of Sunday, the 15th inst., in an insensible condition. He had been found by the policeman on duty lying in a gutter. Dr. Gordon, the house-surgeon, found him in a state of collapse from alcoholic drinks, and applied the stomach-pump; but it was some time before he was completely restored. It subsequently transpired that the boy reached home late on Saturday night in a state of intoxication, and having slept this off consumed two pints of beer and two glasses of whisky between three and five o'clock on Sunday afternoon. Disgusting though this is, it is only an aggravated example of what is sadly too common in this city in the young of both sexes.

MANCHESTER.

(From our own Correspondent.)

ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN.

AT the annual meeting of St. Mary's Hospital for Women and Children the cry so common from our medical charities was again heard—expenditure was outrunning income. The charity certainly has special claims, being the only one with a maternity department in the city and neighbourhood, the patients in which during the past twelve months numbered 3045. The cases admitted into the wards were 544, while the total patients under treatment were 14,192. The chairman, Mr. Duncan Matheson, who succeeds the late Canon Bentley, who for so many years was an earnest supporter of the hospital, alluded to the necessity of steps being taken at the earliest possible opportunity to reconstruct or build a new hospital, but the committee were loth to take any further steps in the matter until they could see their way clear to obtaining the funds required for that purpose. It was decided to bring more prominently before the public of Manchester and the surrounding district the work and needs of this particular hospital.

WITHINGTON HOSPITAL.

To the hospital belonging to the Chorlton guardians at Withington additions are shortly to be made, owing to the crowded state of the wards; it was recently stated by one of the members of the Board (a medical man) that it was not safe to perform any serious surgical operation there on account of the overcrowded state of the hospital.

A NEW HOSPITAL FOR INFECTIOUS DISEASES.

At the Crumpsall Workhouse, belonging to the Manchester guardians, plans have been passed for a new hospital for the treatment of infectious diseases, to be erected at a cost of £2400. Hitherto the guardians have sent most of their infectious cases for treatment to the Monsall Fever Hospital. It is certain that, in the event of any serious epidemic in the city, the cases coming under the charge of the guardians could never all be treated and the diseases properly separated the one from the other with the hospital accommodation that can be provided for the above sum.

THREATENED OUTBREAK OF SMALL-POX IN MANCHESTER.

At present we are threatened with an outbreak of small-pox; three deaths were reported last week, a larger number than has occurred for many months; and there are at the present time more cases under treatment than there have been for a considerable time. Scarlet fever, which has been so prevalent for the past eighteen months, appears now to be subsiding; and at the last meeting of the Salford Town Council honorariums were voted for the resident medical officer and matron of the Fever Hospital, of £20 and £10 respectively for the increased work and responsibility thrown upon them during that time.

A NEW PATHOLOGICAL SOCIETY.

A new Pathological Society is about to be formed, which has developed out of the Microscopical Section of the Medical Society. The Microscopical Section was formed some few years ago; but the members have lately felt that its scope of work might be very materially enlarged by adding to it the exhibition and description of pathological specimens—the more so as at the Medical Society's meetings there is always an abundance of contributions of a more strictly clinical character. The founders are actuated by no spirit of opposition or antagonism to the parent Society, but simply desire to work more particularly in a field which they think is neglected, or for which there is not sufficient time and opportunity at the meetings of the Medical Society.

A NEW MEDICAL SOCIETY.

There is a rumour of a new Medical Society being formed by several members of the profession, who object to the meetings and reading rooms, &c., being all located at Owens College, and who have urged the desirability of some more central position. Nothing very definite has, however, yet transpired with regard to this project.

NORTH-WESTERN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

At the annual meeting of this Association, Dr. Hime of Bradford was elected president for the coming year. The Society has steadily increased in numbers and influence since its formation some nine years ago, and has had before it for discussion during the past year many subjects of interest and importance from a sanitary point of view. Two subjects which might profitably engage attention, and which are at present before the notice of the public here, are: the pollution of rivers, a Bill respecting which is again before Parliament, and is also a subject at present occupying the attention of the Corporation; and the ship canal scheme from this city to Liverpool, which will require some careful watching in order that provision shall be duly made to prevent the docks, &c., in connexion therewith degenerating into vast cesspools.

PARIS.

(From our Paris Correspondent.)

PROFESSOR BROWN-SÉQUARD ON COCAINE.

AT the last meeting of the Société de Biologie, Professor Brown-Séquard read a note on the local analgetic action of cocaine, which he looked upon as a new example of inhibitory action. Experiments performed by the author proved that cocaine acted through the medium of the peripheric nerves on the nervous centres, which react in producing an inhibition of sensibility. The phenomena which result from the injection of a certain quantity of cocaine at the level of the larynx are absolutely the same as those which are consecutive to the application of a jet of carbonic acid on the mucous membrane of the larynx. Two minutes after this injection there is a generalised anæsthesia and an analgesia of the different wounds made on the body of the animal. The cutaneous anæsthesia lasts only a few minutes, but the analgesia of the wounds persists even till the following day. If fresh wounds are made, these, far from being analgetic, become, on the contrary, hyperalgetic. That which proves that cocaine acts on the nervous centres, and particularly on the cerebellum, is that the injections of this substance produce sometimes a rolling motion to the side opposite to the injection, and at others a turning motion. Evidence of the inhibitory action may be obtained by another experiment: when the dose

of cocaine injected has been large enough to produce convulsions, it is sufficient to pull or forcibly flex the toes to immediately stop the convulsions. In animals which die under these conditions the author found the temperature of the body after death as high as 44·4° C., or 111·6° F.

THE ADJUNCTION OF CHLOROFORM AND COCAINE.

Dr. Ferrier lately read a report before the Surgical Society of Paris on a work by Dr. Dransart, who proposed the adjunction of chloroform to cocaine for operations on the eye. The chloroform is administered in the usual way after an instillation of cocaine, and the time taken up to administer the former is thus reduced to one or two minutes. The advantages claimed for this method are that the deeper tissues of the eye, such as the iris, muscles, optic nerve, &c., may be cut into without causing pain, which would not be the case with the instillation of cocaine alone. The duration of chloroformisation being considerably reduced, the dangers attending the administration of chloroform are *pro tanto* diminished.

VASELINE IN PASTRY.

At a recent meeting of the Council of Hygiene and of Salubrity of the Department of the Seine, M. Alfred Riche read a report concerning the employment of vaseline in pastry as a substitute for grease or butter. The reporter stated, in the name of the commission charged to investigate the matter, that however advantageous the use of vaseline may be to vendors of pastry, inasmuch as it prevents the latter from becoming rancid, it is nevertheless, used for that purpose, injurious to health. Moreover, as vaseline does not possess the nutritive qualities of fat or butter, and as the action of the derivatives of petroleum on the economy, particularly on the digestive apparatus, is as yet but little understood, the council have recommended the interdiction of the employment of vaseline for alimentary purposes.

Paris, March 24th.

NEW YORK.

(From a Correspondent.)

So many contradictory statements have been made regarding the nature of the disease with which the veteran General Grant, ex-President of the United States, is afflicted, that I thought your readers would like some authentic report on the subject. For this purpose I visited Dr. George R. Elliott, of 105, Madison-avenue, who has made microscopic preparations of the morbid growths removed from General Grant's throat and examined them at his leisure. The following is his report written for THE LANCET at my request:—

"The disease is not extensive, the ulcerations being limited to the right pillars of the fauces, the anterior one being perforated near its base. The adjoining side of the tongue is but slightly indurated, as is also a neighbouring gland. The case being somewhat unique in its development and progress, a microscopical examination of a small portion of the growth was deemed advisable as an aid in arriving at an exact diagnosis. General Grant readily consented to the removal of a piece for this purpose, and a portion about the size of a pea was taken from the ulcerated edge by Dr. F. C. Riley at the request of Dr. J. H. Douglas. This specimen was rapidly hardened in alcohol, and at the end of thirty-six hours sections were made, stained and mounted for examination. The following histological findings were readily made out:—The structure is largely composed of epithelial tissue, which in places appears in the form of distinct lobules. In portions of these lobules the cells are grouped into concentric globes or cell-nests. The individual epithelial elements present great multiformity in shape, and lie in close contact with each other. Marked evidence of cell proliferation is seen in the deeper layers of the specimen. There is a more or less complete stroma or framework running through portions of the growth, composed of fibrous tissue rich in small round cells. By way of summary, thus: the more or less lobulated appearance of the epithelial mass, the grouping of the epithelial elements into concentric globes, the great diversity in the shape of the cell elements, the evidence of cell proliferation and the peculiar arrangement of the stroma, would warrant a diagnosis of epithelioma of the squamous variety. The specimen was removed on February 18th, 1885, and the report submitted on February 23rd. The diagnosis was arrived at only after the greatest possible care had been taken to exclude all sources of error, with a full knowledge of the clinical history and with a mind anxious to find only the microscopical evidence of a benign or innocent growth. After rendering the report the specimens were shown to Dr. T. E. Satterthwaite, the well-known pathologist, who fully confirmed the diagnosis. Upon request they were also exhibited to the eminent gentlemen of the consulting staff—viz., Drs. Fordyce Barker, H. B. Sands, J. H. Douglas, and G. F. Shrady."

With this detailed report you will, doubtless, be in a position to draw your own conclusions as to General Grant's condition. My own impression is, after a careful examination of the microscopical preparations and consultation with Dr. Elliott, that there is nothing in the nature of the disease that is likely to kill General Grant at an early date, although the failure of his general health may precipitate a crisis at any time. Stimulants do not act kindly, and cocoa only has been administered with success. Still, if the general tone of his system could be maintained, his naturally strong constitution may enable him to combat the ravages of the disease for some time. If an early fatal termination of the case should happen, it will probably be due to the invasion of his sick room by some half-dozen physicians, and reading the exaggerated reports which are daily printed in the public press.

VIENNA.

(From our own Correspondent.)

SMALL-POX IN VIENNA.

SPORADIC cases of small-pox have occurred in Vienna every week for years, but during the last few weeks a progressive increase of such cases has been noticed. While their number amounted formerly to from 10 to 15 weekly, 13, 14, 30, 46, 43, 46, 41, 59, 64, and 96 cases have been reported in each respective week of the present year. In the western suburbs of the city the cases of small-pox have become so numerous (the latest return being 108) that several schools have had to be closed. It is noteworthy that the disease has attacked unvaccinated individuals for the most part, and that the deaths occurred exclusively in that class, and in the aged, on whom the effect of vaccination may have disappeared. In Vienna only 16 cases proved fatal during last week.

A CASE OF AGRAPHIA WITHOUT APHASIA.

It has been contended that agraphia without aphasia is possible, and the following case, which occurred on the 10th inst. in the clinique of Professor Rosenthal at the Vienna Allgemeines Krankenhaus, may contribute to the solution of the question. A widow, aged forty-five, who, as she stated, had never been ill before, was attacked about three weeks ago with hemiplegia of the right side, which slowly improved. Paraphasia seemed to have supervened, the patient confounding the less common words. Eight days ago the patient, who formerly maintained a lively correspondence, perceived that she was unable to read and to comprehend words, although she could, with some difficulty, spell the letters; nor was she able to write words, while she could quickly write as well as read figures and numbers. Without effort she can read special words—for instance, her name, Anna, and that of her late husband, Johann, even if these names are written badly and in small characters. Examination with the ophthalmoscope showed only a considerable hypermetropia and a right hemianopia.

ADDISON'S DISEASE.

The typical example of this disease is composed, as is well known, of three chief groups of symptoms:—(1) Anæmia and asthenia; (2) dark discolouration of the skin; and (3) disorder of the digestive apparatus. Professor Nothnagel considers the second symptom as the first in importance, the asthenia occupying the second place, while he regards the anæmia as of much less moment. According to numerous histological researches the discolouration is caused by an intense pigmentation of the deepest layers of the rete Malpighii. Several years ago

Dr. Ehrmann of Vienna proved that in the amphibia the pigment does not originate in the epidermis cells, but in those of the cutis; he and Dr. Riehl stated also that the hair derives its pigment from the cutis. Virchow, too, some years ago found in cases of Addison's disease pigment cells not only in the deepest layers of the rete Malpighii, but also in the uppermost layers of the cutis—namely, along the nerves and vessels. Nothnagel likewise observed numerous pigmented cells in the uppermost layers of the corium of the skin of negroes. From these facts he concludes that the pigment does not originate in the deepest layers of the rete Malpighii, but is carried into the epidermis by the pigment cells. According to his views the pigment owes its origin to the blood, from which it issues already dissolved, a process which resembles the pigmentation noticed by a French observer in connexion with the spawn of frogs. Like the majority of inquirers, Professor Nothnagel supposes that it is probably due to an affection of the large nervous apparatus of the sympathetic. Also in cases of other diseases a pathological pigmentation is caused by affections of the retro-peritoneal region. Contrary to the statements of Jürgensen, in the last observed case of Addison's disease the medullary, as well as the non-medullary, fibres of the splanchnics were unaltered. The patient died, as usual, comatose. In the urine much acetone was found. Nothnagel expressed an opinion that the coma is probably caused by acetonuria, and not exclusively by anæmia of the brain.

SWALLOWING ARTIFICIAL TEETH.

Two cases of the above nature have lately been treated in the wards of Professor Billroth. A woman, living near Vienna, swallowed during the night of January 28th an artificial set of teeth, which she omitted to remove from her mouth before retiring to rest. All endeavours to extract the plate from the œsophagus, where it lodged, failed until she came under the care of Professor Billroth, who removed the foreign body by œsophagotomy. Symptoms of commencing gangrene of the œsophagus appeared, and a fatal result was feared. A part of the operation wound had been left open for the insertion of a drainage-tube as far as the stomach, and the entire wound covered with iodoform gauze. After a lapse of eight days the drainage-tube was removed, and in another week the wound had closed. The patient is now perfectly well; stricture did not occur. The second case was that of a girl aged nineteen, who swallowed a set of teeth during the night of Feb. 14th. All endeavours to extract the plate were vain. On admission to hospital the foreign body could distinctly be felt in the œsophagus. On the following morning the largest sound could easily be introduced, and Prof. Billroth decided to perform gastrotomy about three centimetres below the edge of the ribs on the left side. Through an incision in the stomach he tried ineffectually to reach the foreign body with the finger; he then drew out almost the whole of the stomach, but without discovering the object of his search. Although it was improbable that the plate had passed the pylorus, he enlarged the wound in the abdomen and explored the abdomen with his hand, but again without success. Only that part of the stomach remained to be searched which is fixed to the spleen. Here Professor Billroth, introducing his other hand, found the body lying flat against the wall. The stomach was sewn up, put back, and the wound in the abdomen was likewise closed. The patient is already able to take liquid nourishment.

Vienna, March 19th.

MEDICAL NOTES IN PARLIAMENT.

The Poisons Bill.

IN the House of Lords on the 22nd inst., the Earl of Milltown gave notice that on the motion to go into Committee on the Poisons Bill he will move that it be referred to a Select Committee.

The Lunacy Bill.

On the 26th inst., the Lord Chancellor, in presenting a Bill to Amend the Lunacy Laws, said there were two classes of lunatics—Chancery lunatics and those confined in different places of care throughout the country. Chancery lunatics were comparatively few in number, not exceeding 3000 or 4000 cases, and it was not proposed to alter to any considerable degree this branch of the law, except that on one or two points some extension of the powers of the Court of Chancery was suggested. He might here point out that it would be a very desirable thing to consolidate the various Acts which deal with lunacy, and a Bill was actually prepared with that object, but it was deemed advisable to postpone its introduction until it was seen what change would be effected by the measure he was now bringing before their lordships. Premising that it was an honest and carefully considered attempt to deal with the subject, he admitted that there were points in it on which considerable differences of opinion existed, and on one very important provision he regretted that the proposition he had to recommend to the acceptance of the House was opposed by Lord Shaftesbury and his colleagues on the Lunacy Commission. The Bill did not deal with the administrative establishments, either of Chancery or the Lunacy Commissioners, which had worked well and proved satisfactory. He did not say that some change might not be necessary in them, but as they formed a collateral branch of the subject it was not necessary to encumber the measure with any clauses dealing with them. As the law at present stood with regard to the initial steps for a commitment in lunacy, it was possible that an opinion might be obtained, perfectly honestly, from two medical gentlemen, who had to sign the certificate, upon insufficient grounds and not of that absolutely impartial and disinterested character which was desirable. It might be that abuses had taken place in that way. In Scotland a person could not be confined as a lunatic on the authority of a private individual. The practice was to present a petition to the sheriff, accompanied by a statement of the particulars of the case, supported by the certificates of two medical practitioners, on the strength of which an order could be made for the reception of the lunatic into an asylum. If the sheriff was not satisfied with the certificates he could make independent inquiry. The Scotch law also provided means for dealing with cases of urgency without delay, and similar provisions existed in the legal system of most civilised countries. The committee of 1877 reported against the introduction of like powers into the law of England; but although Lord Shaftesbury was still adverse to the principle, those who were responsible for the present measure had been induced to recommend its adoption, attended by precautions to prevent its unguarded application. As to cases of the ordinary character, it was proposed that no person, not a pauper or found lunatic by inquisition, should be detained in an asylum, hospital, or licensed house without an order under the hand of a county court judge, a stipendiary magistrate, or a justice of the peace possessing the necessary jurisdiction. The petition was to be supported by the certificates of two medical men, one of whom must, if possible, be the ordinary medical attendant of the patient. No advantage would be gained by requiring a statutory declaration from the medical man, and there would be the disadvantage of multiplying the applications to magistrates; but if the certificate contained any material statement that was false to the knowledge of the medical man, he would be subject to the same penalties as in the case of a statutory declaration or statement on oath. If the magistrate was satisfied with the evidence of the lunacy contained in the medical certificate, he would be empowered to at once make the order; but if he was not satisfied, he could direct a further investigation. That inquiry would be conducted in private, and those necessarily present would be bound to secrecy, unless required by lawful authority to divulge what had transpired. If the magistrate thought it desirable to dismiss the petition, he must give his reasons in writing for doing so. It would thus be perceived that the framers of the measure had been most anxious to prevent the evils anticipated by those who objected to the introduction of a magistrate. Not only had better securities been provided with regard to initial steps in cases of lunacy, but it was proposed that every order should be limited in its duration to three years, unless at the end of that period the proper medical authorities certified that the patient ought to be detained, in which case the order might be renewed from year to year. Among the other provisions of the Bill, there was one giving to the Crown generally a power which it did not at present possess—to initiate prosecutions in all offences against the Lunacy Laws. Power, too, was given, where it should appear that a lunatic could manage his person but not his property, for the appointment of a committee to manage his estate and suspend interference with his person. The important part of the Bill was that relating to licensed houses or asylums. A great objection had been frequently made to such houses, on the ground that it was inexpedient that any person should have a pecuniary interest in the

continued detention of an insane person. The subject was undoubtedly one of great importance, and also of great difficulty. It was therefore proposed to give greater facilities for extending the asylums system, so that it might by degrees be adopted for the general reception of private and non-pauper patients. The county and borough justices would be given the power to provide separate treatment for particular classes of patients, and in addition it was proposed that the Home Secretary should have in respect of private patients the same powers he now enjoyed as to pauper lunatics. It was hoped, therefore, that the system of public asylums would become in a natural way a substitute for these licensed houses. At the present time, and looking to the great number of patients in licensed houses, their sudden absorption did not seem wise or desirable. There were provisions in the Bill for the compulsory purchase of licensed houses upon terms to be fixed by the Act, the amount to be ascertained by a jury or by arbitration; but to suppress these houses, on which a large outlay had been made, and to do it suddenly, without having in the meantime made adequate provision for the large number of lunatics to be dealt with, was a step which could not be recommended. No new licences, however, would be granted after the passing of the Act without the consent of the Secretary of State.

The Bill was then read a first time.

The Condition of the Thames.

In the House of Commons, on the 19th inst., in reply to Mr. Labouchere, who asked the Secretary of State for the Home Department whether any action was contemplated in view of the deputation from the Local Board of Twickenham, which recently waited upon him to call attention to the condition of the Thames between Richmond and Isleworth, Mr. Fowler stated that there was some conflict as to whom the authority for the work lay upon. Some contended it was the Metropolitan Board of Works who were responsible for sewage works, and others that it was the Thames Conservancy Board who had jurisdiction over the work of removing the mud. No time, however, would be lost to remedy the present state of things, which was a disgrace to the Thames.

The Reception of Insane Persons into Workhouses.

Mr. J. Talbot asked the Secretary of State for the Home Department whether his attention had been called to a report of a case at the Westminster Police-court, according to which an alleged lunatic was refused admission to the workhouse, "a course which was adopted, it was stated, in consequence of a recent legal decision." Sir W. Harcourt replied that in his opinion the man ought to have been admitted to the workhouse. Nothing could be more undesirable than that an alleged lunatic should be sent to prison. He was much surprised at the alleged decision, although there was doubtless some obscurity in the law. The fact was that the guardians would not admit, not that they could not.

On the 24th inst. Mr. G. Russell, replying to Lord Algernon Percy, said that the Guardians of the Westminster Union have called the attention of the Board to the decision of Mr. Justice Wills in the Marylebone case. It appears that in that case a woman, who was not a pauper, and who was alleged not to be under proper care and control, was by stratagem removed to the workhouse, and was detained there against her will for a period of fourteen days, and that the requirements of the statute were altogether ignored. The publicity which has been given to the decision in this case will be a warning to the officers of other unions if there should be any disposition to adopt a similar course. It does not at present appear to the Board to be necessary to issue a circular letter on the subject, neither would they be prepared to propose legislation for legalising action such as that in the case in question.

Small-pox in Egypt.

On the 23rd inst., the Marquis of Hartington, in reply to Mr. Hopwood, said that since the first arrival of the British Army in Egypt up to the latest returns, eighty-one cases of small-pox had occurred amongst the troops, including those on the Nile and at Suakim. Of that number seven had proved fatal. The regulations as to revaccination had been satisfactorily carried out.

Public Health Act.

On the 25th inst., a new Bill by Sir J. Kennaway to amend the Public Health Act, 1875, with respect to members and officers of local authorities was, by leave, brought in and read a first time.

Obituary.

CHARLES PALMERSTON TURNER.

THE announcement of the death of Surgeon Turner, which appeared in our issue of March 15th, will have been read with sorrow and regret by many members of the Medical Staff Corps, as well as by a large circle of friends.

Surgeon Turner entered the army in 1874, and had seen a great deal of service. Three years after he entered the service he took part in the expedition against the Gowaki Afreedees with the 51st Light Infantry; he was also employed in the Afghan war of 1878-79, and was present at the assault upon Ali Musjid, being mentioned in despatches. In the Egyptian war of 1882 he was at the battle of Tel-el-Kebir, and in 1884 he was present at the battles of El-Teb and Tamai, in the former of which he was slightly wounded. He received the various medals awarded for these expeditions, and, in addition, the Egyptian Bronze Star. Surgeon Turner was among the first who were ordered to Egypt on the outbreak of cholera. In the early autumn of last year he returned to England on six weeks' private leave; but before his leave had expired he was ordered back to take part in the Nile expedition for the relief of Gordon, when he was attached to the 19th Hussars. He was present at the battles of Abu Klea and El-Gubat, and was with General Buller's force in his retreat across the desert. He was brought into camp at Korti by a party of Hussars on March 5th, and died of enteric fever on the following day. His professional efficiency, his happy indifference to privation and hardship, his unselfish character, his frank and open countenance and mode of conversation caused him to be respected by all, and much beloved and esteemed by those who were more closely associated with him. Though much pressed for time when he was preparing for his departure to take part in the Nile expedition, one of his last acts before leaving was to visit one of the military hospitals to see a patient who had expressed an earnest wish to see him, and upon whom he had performed double amputation after the battle of El-Teb. He leaves behind him, besides many sorrowing friends, two sisters and an aged mother, his tender consideration for whom was only one among the many charming points in his character. Truly this unhappy struggle is costing England the lives of some of the best and bravest of her children.

Medical News.

COLLEGE OF PHYSICIANS IN IRELAND.—At the examinations held this month the following obtained the licences in Medicine and Midwifery of the College:—

MEDICINE.—George Brown, George Fletcher Collins, John Hobbs, George St. John Oldham, Robert John Langford Rowley.

MIDWIFERY.—Anthony Lawrence Blake, George Brown, Geo. Fletcher Collins, John Hobbs, George St. John Oldham, Robert John Langford Rowley.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At an examination held on March 9th and 10th the undermentioned Licentiate was admitted a Fellow of the College:—

David Edgar Flinn.

THE Library of the Royal Medical and Chirurgical Society will be closed from Good Friday to Easter Monday, both days inclusive.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 19th inst., the degree of Bachelor of Medicine was conferred on Charles Slater, St. John's.

MR. RICHARD BENYON, of Englefield House, near Reading, has just given £1000 to the funds of the Royal Berkshire Hospital, of which he is President.

A WELL-ATTENDED public meeting, called by the National Society for Securing Effective Legislation against River Pollution, was held on 25th inst. at the Mansion House.

ITALIAN UNIVERSITY DISTURBANCES.—The students of Rome, Bologna, Pavia, Pisa, and Naples have passed resolutions refusing to attend any lectures until amends have been made by the Ministry to the Turin students who were attacked by the police on the occasion of a recent demonstration, some bloodshed ensuing.

THE East Ham Local Board have represented to the Barking Sanitary Authority the desirability of having an infectious diseases hospital, suggesting a combination for the purpose.

THE Mary Fletcher Hospital of Burlington, Vermont, receives nearly $200,000 by bequest of Miss Mary A. Fletcher, who has just died in that city. The bequest comprises nearly her whole estate.

THE Royal Zoological Society of Ireland will, during the visit of H.R.H. the Prince of Wales, give a conversazione at the Royal College of Surgeons in Ireland, by permission of the Council of the latter institution.

HOSPITAL SUNDAY for Chatham and neighbourhood is fixed for April 19th. The ministers of more than sixty churches and chapels have promised to have collections. The Secretary is the Rev. D. Cooke, Vicar of Brompton.

THE "Sydney Morning Herald" states that the prize of £100, offered last year by the New South Wales Linnæan Society for the best essay on "The History of the Bacillus of Typhoid," is again announced as open to competition upon the same conditions as before.

TUNBRIDGE WORKHOUSE INFIRMARY.—The Local Government Board has authorised the Tunbridge guardians to erect a new infirmary at the workhouse, in accordance with the plans submitted, at a cost not exceeding £5000. Permission has been given to borrow the amount.

AT a meeting of the members of the Anthropological Institute held on the 24th inst., a paper was read by Mr. A. J. Duffield on "The Inhabitants of New Ireland and its Archipelago." Mr. R. Brudenell Carter and Mr. C. Roberts read papers on "Vision Testing."

THE sub-committee appointed to confer with the superintendent of the Aberdeen Infirmary respecting fresh regulations for the admission of visitors to that institution have reported in favour of the adoption of a system under which the friends of each patient would be supplied with a ticket to admit two, and which would be transferable. The recommendation was approved of.

ABERNETHIAN SOCIETY. — The annual general meeting of this Society for the election of officers took place on the 19th inst., the result of the ballot being as follows:—Presidents: Dr. E. W. Roughton and Mr. W. T. H. Spicer. Vice-Presidents: Mr. C. P. Crouch and Mr. A. Lyndon. Honorary Secretaries: Mr. F. W. Andrewes, and Mr. T. W. Gardner. Additional Committeemen: Mr. Colby and Mr. A. R. Farrar.

EXTENSION OF BOOTLE HOSPITAL.—A meeting of the working men of Bootle and neighbourhood was held on the 19th inst., to consider the best means of assisting in the effort being made for the extension of the borough hospital, by the founding and maintaining of a working men's ward. It was unanimously resolved, after some discussion, that funds should be raised sufficient to build and fit up such a ward.

ESSEX AND CHELMSFORD DISPENSARY AND INFIRMARY.—The committee of these institutions report that in the dispensary the cost of each patient has been about 6*s.*, including the gratuities to the medical officers (25 guineas to each of the three), rates, taxes, and all other expenses; while the cost for drugs, &c., has been about 3*s.* per head. In the infirmary in 1884, 104 patients were admitted, and the expense of each patient has been about £3 17*s.*

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—On Tuesday, the 10th inst., the thirty-sixth annual report of the Wolverhampton and Staffordshire Hospital was submitted to the governors and subscribers. The number of in-patients treated during the past year has been 1899, as against 1731 in the preceding year, of which 962, as accidents or urgent cases, were admitted without tickets. The excess number consists of 53 adults and 115 children; and the total number includes 138 cases of fever or other infectious disease treated in the fever wards, 34 cases in the ward for the treatment of diseases of women, and 358 children under ten years of age treated in the children's ward. The average daily number of in-patients has been 116, the cost per head £2 16*s.* 8*d.*, and the average stay in the hospital twenty-three days. The number of out-patients during the past year has been 11,597, showing an increase of 920 as compared with the preceding year, of whom 4155, as accidents or urgent cases, were treated without tickets. The cost per out-patient has been 1*s.* 8¾*d.* Forty-five patients have been sent to various convalescent institutions. The Hospital Saturday collections amounted to £2381 14*s.* 10*d.*, an increase over last year of £132 12*s.* 7*d.*, the largest amount collected in one year since the adoption of Hospital Saturday in 1874. The amount received from the Hospital Sunday collections was £697 18*s.* 9*d.*, being an increase of £39 8*s.* 7*d.* over the year before. During the year, to meet a deficiency in the accommodation for women suffering from diseases requiring surgical treatment, two houses were taken upon lease and converted into a special hospital, to contain five patients, each to have the comfort and privacy of a separate room. The necessary outlay has been met by donations from generous friends.

SAD DEATH OF A "LADY DOCTOR."—A sad story comes from Chicago of the death of an English baronet's widow, who had been striving to keep herself by medical practice. She was a graduate of the Rush Medical College, but seems to have been unable to earn sufficient to live upon, and when she died suddenly of apoplexy she was looked upon as a pauper; some papers were, however, found which gave an indication as to her history, and enabled funds to be obtained by which her funeral expenses were met.

PRESENTATION. — Dr. William Richardson, of Shepherd's-bush, who has for many years practised in the district, having retired from the active duties of his profession at the beginning of the present year, was presented on Thursday evening, the 12th inst., with a testimonial by his numerous patients. It consisted of a silver gilt dessert service of four pieces, one centre-piece and three fruit dishes, richly ornamented, with a suitable inscription engraved upon them. A travelling writing-case handsomely fitted, and an illuminated album containing the signatures of the subscribers, accompanied the testimonial.

HOSPITAL FOR SICK CHILDREN.—The thirty-third anniversary festival of the Hospital for Sick Children, Great Ormond-street, was held on Wednesday night last, when Earl Rosebery presided. Amongst those present were Viscount Gort, Lord Aberdare, Sir James Paget, Rev. Robert Milner, Dr. Dickinson, and Dr. Gee. The speeches of the noble lord and of Sir James Paget were frequently applauded. Dr. Cheadle, the senior physician to the hospital, replied to the toast of the medical officers of the institution. During the evening subscriptions and donations amounting in the aggregate to £1267 were announced.

SELLING AN INFECTED BED.—A dustman has been summoned at the Yarmouth Police-court, under the 126th Section of the Public Health Act, for selling a bed which had been in contact with infectious disease. The Town Clerk prosecuted. A typhoid patient had died on the bed, which was very much stained, and the doctor in attendance said that it must be destroyed. The defendant was given a shilling to destroy it, but instead of doing so he sold it for a shilling to another man, who afterwards found means of reselling it for £1. The magistrate said it was a bad case, and fined the dustman £1 and costs or a month's imprisonment, and the man who received it from him £2 and costs or a month's imprisonment.

BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, London.

The Prevention and Treatment of Lateral Curvature of the Spine. By Mathias Roth, M.D. pp. 178, with Illustrations.

BERGMANN, J. F., Wiesbaden.

Ueber den Shock. Von Dr. G. H. Groeningen. Mit einem Vorwort von Dr. A. Bardeleben. S. 254.

CASSELL & Co., London, Paris, and New York.

Insanity and Allied Neuroses, Practical and Clinical. By Geo. H. Savage, M.D. pp. 544, with 19 Illustrations.

CHURCHILL, J. & A., London.

The Principles and Practice of Dentistry. By Chapin A. Harris, M.D., D.D.S. Eleventh Edition, Revised and Edited by F. J. S. Gorgas, A.M., M.D., D.D.S. pp. 994, with 2 full-page Plates and 744 other Illustrations.

The Microtomist's Vade-Mecum: a Handbook of the Methods of Microscopic Anatomy. By Arthur Bolles Lee. pp. 424.

Injuries of the Spine and Spinal Cord without apparent Mechanical Lesion and Nervous Shock, in their Surgical and

Medico-legal Aspects. By Herbert Page, M.A., M.C. Cantab. Second Edition. pp. 397.

Harveian Lectures on Intestinal Obstruction. Delivered before the Harveian Society in 1884, by Thomas Bryant, F.R.C.S. pp. 52.

CONSTABLE, T. & A., Edinburgh.

Portraits of the High Officers and Professors of the University of Edinburgh at the Tercentenary. Drawn and Etched by Wm. Holl, A.R.S.A. pp. 283, with 49 Portraits.

FANNIN & Co., Dublin.

The Student's Botany. By E. M. Cosgrave, M.D. pp. 93.

HIRSCHWALD, A., Berlin.

Die Wanderleber und der Hängebauch der Frauen. Von Dr. Leopold Laudau. S. 170, mit 23 Holzschnitten.

KEGAN PAUL, TRENCH, & Co., London.

Bacillary Phthisis of the Lungs. By Prof. Germain Sée. Translated and Edited by W. H. Weddell, M.R.C.S. pp. 254, with Plates.

LAUPP'SCHEN, H., Tübingen.

Die Verlauungs krankheiten der Kinder. Von Dr. Adolf Baginsky. S. 232, mit 3 Tafeln.

Mittheilungen aus der Chirurgischen Klinik zu Tübingen. Herausgegeben von Dr. Paul Bruns. Drittes Heft.

LEA BROTHERS & Co., Philadelphia.

A System of Practical Medicine. By American Authors. Edited by William Pepper, M.D., LL.D.; assisted by Louis Starr, M.D. Vol. I.: Pathology and General Diseases. pp. 1094, With Illustrations.

Topographical Anatomy of the Brain. By J. C. Dalton, M.D. In 3 Vols., profusely Illustrated with Diagrams and Tinted Plates.

LEA'S SON & Co., Philadelphia.

Doctrines of the Circulation. By J. C. Dalton, M.D. pp. 295.

LEWIS, H. K., London.

A Handbook of the Theory and Practice of Medicine. By F. T. Roberts, M.D., B.Sc., F.R.C.P. Sixth Edition. pp. 1012, with Illustrations.

A Practical Treatise on the Diseases of the Ear. By D. B. St. John Roosa, M.D., LL.D. Sixth Edition, Revised and Enlarged. pp. 718, with Illustrations.

MASSON, G., Paris.

Traitement du Choléra. Par Prof. Georges Hayem. pp. 168.

PUTNAM'S SONS, New York & London.

Cocaine: its Use in Ophthalmic and General Surgery. By H. Knapp, M.D. pp. 87.

SHAW & SONS, London.

The Local Government and Public Health Orders. By R. Cunningham Glen, Barrister-at-Law. pp. 600, with Index.

SIMPKIN, MARSHALL, & Co., London.

The Ship Captain's Medical Guide. Compiled by Harry Leach, M.R.C.P. Ninth Edition, Revised by William Spooner, L.R.C.P.Lond., M.R.C.S. pp. 120. 1s. 3d.

SMITH, ELDER, & Co., London.

Manual of the Antiseptic Treatment of Wounds. By Watson Cheyne, M.B., F.R.C.S. pp. 151, with Illustrations.

SPON, E. & F. N., London.

Ten Years' Experience on Works of Intermittent Downward Filtration. With Notes on the Practice and Results of Sewage Farming. By J. Bailey-Denton. Second Edition, with Additions. pp. 105, with Charts.

VOGEL, F. C., Leipzig; WILLIAMS & NORGATE, London.

Ueber die Wirkung Moderner Gewehrprojectile insbesondere der Lorenz'schen Verlschmolzenen Panzer-geschosse auf den Thierischen Körper. Von Dr. B. von Beck. S. 88, mit 43 Tafeln in Lichtdruck.

Report of the Committee to Inquire into the Condition of the Bristol Poor.—Die Kindersterblichkeit en Budapest während der Jahre 1876–1881; von Josef Körösi.—Transactions of the American Ophthalmological Society.—The Metaphysical Aspect of Natural History; by Stephen Monckton, M.D.—Ueber den Einfluss der Wohlhabenkeit und der Wohnverhältnisse auf Sarblichkeit und Todesursachen; von Dr. Josef Körösi. (Enke, Stuttgart.)—L'Hydrothérapie aux Bains de Champel; par le Dr. P. Glatz.—Catalogo Ufficiale degli Oggetti Esposito nel Museo d'Igiene di Torino.—On the Operative Cure of Hernia; by W. Dunnett Spanton, F.R.C.S.Ed.—The Penny Postal Guide.—Ellis's Irish Education Directory and Scholastic Guide for 1885. (Ponsonby, Dublin.)—Shepherd's First Aid to the Injured, Revised and Rearranged by Robert Bruce. Illustrated.—A Short Address delivered at the Manchester Medical Society by Walter Whitehead, F.R.C.S.E., F.R.S.Ed.—Bulletin de la Société Générale des Prisons, No. 1.—Water-supplies to Irish Towns; by C. 'A. Cameron, M.D.—Vaccination; a Paper read before the Medical Society of University College, London; by J. W. Carr, M.R.C.S.—The Unity of Matter; by G. T. Carruthers, M.A.—Catalogue of Maps and other Geographical Publications published by Edward Stanford.—The Weather of 1884 as observed in the Neighbourhood of London; by Edw. Mawley, F.R.Met. Soc. &c.—What is Gas? by G. A. Rowell.—Good Words, Sunday Magazine, for April.—Leisure Hour, Sunday at Home, Boys' Own Paper, Girl's Own Paper, for April.—Ventilation, Sewers, and Drains; by C. E. Creswell.—Contributions to Physiology; by Isaac Ott, M.D. Part VI.—On the Coca of Peru and its Immediate Principles; by J. L. W. Thudichum, M.D.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BASSETT, H. THURSTAN, M.B.Lond., has been appointed Surgeon to the Birmingham and Midland Skin and Lock Hospital, vice J. W. Taylor, F.R.C.S.Eng., resigned.

BRAMWELL, ERNEST, M.D.Aber., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Workhouse of the Tynemouth Union, vice J. W. Bramwell, resigned.

BROWNE, GEORGE HENRY, L.R.C.P.Ed., L.F.P.S.Glas., has been appointed Medical Officer of Health for the Brynmawr Urban Sanitary District, vice Skrimshire.

CHURCHILL, JOHN FOOT, L.R.C.P.Lond., M.R.C.S., L.S.A.Lond., has been reappointed Medical Officer and Public Vaccinator for the Second District of the Amersham Union.

EDWARDS, FREDERICK SWINFORD, F.R.C.S.Eng., L.R.C.P.Lond., has been appointed Assistant-Surgeon to St. Mark's Hospital for Diseases of the Rectum.

EVANS, JOHN, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Ely Schools, Cardiff Union, vice Sheen.

HUGHES, Mr. THOMAS, has been appointed Public Analyst for the Borough of Newport, Monmouthshire.

IRWIN, JAMES ROSS, L.R.C.P., L.R.C.S.I., has been appointed Medical Officer to the Workhouse, and to the Whitehaven and Preston Quarter District of the Whitehaven Union, vice Wilson, resigned.

JACKSON, THOMAS, L.R.C.S.Ed., L.S.A.Lond., has been appointed Medical Officer for the Holbeach North District of the Holbeach Union, vice Harper.

KEYWORTH, JOHN WHITE, M.D.Lond., M.R.C.S. (of Wellington, New Zealand), has been appointed Surgeon-Superintendent of the Napier Hospital.

MATHESON, FARQUHAR, M.B., C.M., has been appointed Honorary Aurist to the Royal Caledonian Asylum, Holloway, N.

MCGEAGH, JAMES PAUL, M.D., M.Ch.Q.U.I., has been appointed Medical Superintendent to the Mill-road Infirmary, West Derby Union.

PENRICE, DAVID SIMPSON, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Fourth Norwich District and Boys' Home, vice T. W. Richardson.

PRIEST, J. DAMER, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer of Health for the Urban Sanitary District of Waltham Holy Cross.

WALLER, CHARLES B., M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon to the Rotherham Hospital and Dispensary, vice Garrard, resigned.

WILLIAMS, E. R., M.R.C.S., L.R.C.P.Lond., has been appointed Senior House-Surgeon to the General Infirmary, Macclesfield.

Births, Marriages, and Deaths.

BIRTHS.

LANGFORD.—On the 22nd inst., at Park House, East End, Finchley, the wife of Dr. Phineas Pitts Langford, of a daughter.

SILK.—On the 23rd inst., at Victoria House, Highgate-hill, N., the wife of J. Fredk. W. Silk, M.D.Lond., of a daughter.

WARWICK.—On the 18th inst., at Halesworth, Suffolk, the wife of Percy Warwick, L.R.C.P.Lond., M.R.C.S., of a daughter.

WIGMORE.—On the 15th inst., at Twerton-on-Avon, Bath, the wife of J. Wigmore, M.D., of a son.

MARRIAGES.

DIXON—AUSTEN.—On the 25th ult., at St. George's Church, Ramsgate, Walter Dixon, M.B., C.M., of Shepherd's Well, to Flora, daughter of the Rev. E. T. Austen, of Barfreston Rectory, Kent.

GOULD—LUSH.—On the 24th inst., at Regent's-park Chapel, by the Rev. W. Landels, D.D., of Edinburgh, and the Rev. G. P. Gould, M.A., of Bristol, Alfred Pearce Gould, M.S., F.R.C.S.Eng., of Queen Anne-street, W., to Florence, youngest daughter of the late Right Honourable Lord Justice Lush.

GUINNESS—MARKS.—On the 23rd inst., at St. Mark's, Hamilton-terrace, Thomas Archibald Guinness, M.R.C.S., of Bampton, North Devon, son of Arthur Hart Guinness, Esq., of Greville-place, Maida-vale, N.W., to Edith, younger daughter of H. Stacy Marks, Esq., R.A., of Hamilton-terrace, St. John's-wood.

DEATHS.

CAIRD.—On the 1st ult., at Hartwell House, Kiama, New South Wales, John Hay Caird, L.R.C.S.Ed., & J.P., second son of James Caird, Farskane, Cullen, Banffshire, aged 29.

COATES.—On the 25th inst., at Endless-street, Salisbury, William Martin Coates, F.R.C.S., aged 73.

FOULDS.—On the 12th inst., at Chesterfield, Samuel Foulds, M.R.C.S., L.R.C.P.Lond., Hon. Surgeon to the Chesterfield and North Derbyshire Hospital, aged 50.

JOHNSON.—On the 18th inst., William Henry Johnson, Surgeon, aged 66.

KINGSLEY.—On the 18th inst., at Church House, Stratford-on-Avon, Henry Kingsley, M.D., in his 67th year.

MASON.—On the 18th inst., Samuel Mason, Ext. F.R.C.P.L., M.R.C.S., F.R.G.S., of Lewisham High-road and Finsbury-circus.

MITCHELL.—On the 15th inst., at Rhynie, Aberdeenshire, Alex. Gordon Mitchell, M.B., C.M.Aber., aged 41.

TUCK.—On the 24th Jan., at Tambo, Queensland, Australia, John Tuck, M.R.C.S., aged 42.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, March 26th, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Mar. 20	29·82	W.	43	41	...	61	35	...	Cloudy
,, 21	29·88	N.W.	45	42	...	48	42	...	Overcast
,, 22	29·84	E.	37	35	...	44	33	...	Snowing
,, 23	30·35	N.E.	37	35	...	43	32	·71	Cloudy
,, 24	30·27	E.	37	34	...	45	34	...	Cloudy
,, 25	30·26	S.W.	40	36	...	47	36	...	Hazy
,, 26	30·14	W.	42	40	...	49	39	...	Overcast

Medical Diary for the ensuing Week.

Monday, March 30.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. each day, and at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Walsham: On the Treatment of Caries of the Spine in the Upper Dorsal and Lower Cervical Region by a Combined Jacket and Collar of Porous Felt.—Dr. Woakes: On Necrosing Ethmoiditis, and its Relation to the Development of Nasal Polypus.

Tuesday, March 31.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8 P.M. Adjourned Discussion on Cholera.

Wednesday, April 1.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department: 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.

OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. John Williams and others.—Dr. Murphy: Sequel to a case of Ovariotomy.—Dr. John Williams: On the Circulation in the Uterus, with some of its Physiological and Pathological Bearings.—Dr. Bousquet: Note sur un cas d'Absence Totale de l'Utérus et d'Occlusion du Vagin.—Dr. W. H. Day: Case of Uterine Fibroid complicating Labour treated by Enucleation.

Thursday, April 2.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Friday, April 3.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

Saturday, April 4.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

M.R.C.S.—1. We think B. though perhaps within his strict rights in refusing to meet our correspondent, would have acted more properly in agreeing to a consultation.—2. A practitioner has a right, perhaps, as we have said, to refuse to meet another in consultation; but for doing so he should have very good grounds indeed, of which the chief must be moral grounds. Fine questions of age are not sufficient, young men and older ones having each their advantages, and being able to render each other and the patient different kinds of service.—3. If one practitioner refuses to meet another, the other is at liberty, if requested to do so, to take the case.—4. It would be returning evil for evil to refuse to do so.—5. Yes.

Puzzled.—Mr. Upcott Gill, Strand, London, publishes a "Guide to the Medical Profession."

"CARBOLIC OIL A REMEDY AGAINST MOSQUITOES."

To the Editor of THE LANCET.

SIR,—*A propos* the letter on the above subject in your last issue, I may say I have been in India a number of times and have had some experience of these troublesome insects, and have tried several remedies (so-called) upon myself and other Europeans, and among them carbolic oil, 1 in 15, which I verily believe rendered them more troublesome. For the very annoying after-itching, which sometimes comes on every night for a week or more, or until one has been out at sea a day or two, I tried mango juice and also concentrated solution of acetate of ammonia, which was recommended by a Calcutta chemist, but with slight effect. What mosquitoes really do dislike is cocoa-nut oil, which is decidedly useful, but has an objectionable odour. Ladies in India suspend a small sponge, with a few drops of oil of lavender, above the heads of their sleeping infants with some good effect.

Believe me, Sir, yours truly,

JOHN C. UNDERWOOD,
Ashford, Kent, March 24th, 1885. Ex-Surgeon, P. & O. Service.

To the Editor of THE LANCET.

SIR,—A glance at Section 488:4 of the Medical Digest will show that carbolic oil (*vide* THE LANCET, p. 546) has long been a remedy against these annoying insects; and in the same section several other valuable hints are given. I am, Sir, yours obediently,

Boundary-road, N.W., March 21st, 1885. R. NEALE, M.D.Lond.

To the Editor of THE LANCET.

SIR,—May I add another suggestion to that of Dr. Hovell? A teaspoonful (or less) of paraffin oil or petroleum well shaken up with, say, a quart of water, and applied to the face, arms, and exposed parts, will prove a useful protective against mosquitoes, &c. It irritates some skins if used frequently. I am, Sir, yours truly,

Leeds, March 23rd, 1885. FRANCIS EDWARD CANE.

L.S.A.—The whole question of titles is in a somewhat vague state as regards the law. The use of the title of "Dr." is not warranted by the qualification L.S.A. "Surgeon-Accoucheur" is also unfitted to the qualification. But it is not likely to call forth any prosecution.

Cymro.—Dunglison's (Churchills). A smaller work is published by Kimpton, Holborn.

INSTRUMENT FOR REMOVING FALSE MEMBRANE.

To the Editor of THE LANCET.

SIR,—Perhaps you will kindly allow me to state that the instrument for removing false membrane after tracheotomy, described in your journal last week, was made for me, according to my directions, by Messrs. Ferguson and Co., 40 and 41, West Smithfield, E.C.

I am, Sir, yours faithfully,

Bernard-street, W.C., March 23rd, 1885. BERTRAND SHADWELL.

A FREAK OF NATURE.

MR. WILLIAM LAWLESS, H.B.M.'s Consul for Martinique, Guadeloupe, and its dependencies, has favoured us with a letter from Dr. Massias, describing a monstrosity which recently came under his notice. The post-mortem examination of the creature, which only lived ten minutes, demonstrated the existence of two brains, two cerebella, two hearts, two stomachs, two livers, four lungs, two bladders, two spleens, &c. The genital organs, also duplicated and well developed, were male. The urethral canals and the rectums were not obliterated. A great peculiarity of this being consisted in the presence of four ears, two of which were situated in, and attached to, the occipital suture. The features were regular, and the mouth, nose, and eyes normal. The parents presented no abnormality of conformation.

Student.—An unqualified assistant has no right to use the title of "Assistant-Surgeon." It is everybody's business to prosecute such a person—and therefore nobody's.

House Surgeon is not entitled to a fee if the patient died in the hospital.

AN UNUSUAL MISHAP IN THE TREATMENT OF CYSTIC GOITRE.

To the Editor of THE LANCET.

SIR,—During the treatment of a case of cystic goitre in this neighbourhood, an event occurred which has never happened to me before. It is an accident which may seriously hamper the successful issue of any case, and therefore I would report it.

The goitre was of moderate size, situated principally on the right side of the neck, but some portion of the swelling stretched across to the other side. On tapping the cyst, the interior proved to be composed, as was previously expected, for the most part of trabecular structure; but there certainly was not more than one cyst, for the cannula, after it had been passed in, could be freely moved to the limits of the enlargement. Rather more than three weeks after the cyst had been continuously discharging through the cannula, and had been evidently day by day becoming smaller, the diminution in its size ceased, although the discharge still passed freely. Now it was reported by the patient that some days the discharge almost entirely ceased, then suddenly commenced again, and was for some time very copious; that on those days on which the discharge lessened the swelling increased, and when the discharge reappeared the neck as quickly diminished to its former size. On particularly examining the patient's neck, I noticed that the cannula was on the opposite side of the trachea to that on which I had inserted it. Its passage across from the right to the left side had been so gradual that until I had a special reason for examining the patient's neck I had not noticed this change of position. After further examination it was evident that the greater bulk of the goitre was on the right side of the windpipe, and that its cyst cavity emptied itself by a channel which must pass across the trachea into the much smaller cavity which was on the left side, and into which the cannula passed. That this was so was distinctly proved by pressing with the fingers on the swelling which was on the right side, for immediately there was an increased flow through the cannula and a decrease in the size of the swelling. I had injected the cyst with tincture of perchloride of iron (℥ii ad ℥i). It is, I am sure from experience, immaterial whether the liquor or the tincture is used for the purpose of converting the cyst of a goitre into an abscess.

It may be remembered that an anonymous writer in your journal of Dec. 2nd, 1882, wrote as follows: "It may be useful to point out that the writer of the article on goitre in Dr. Quain's Dictionary of Medicine makes the same mistake in recommending the tincture." This writer, whom you so kindly stood sponsor for when he was in doubt whether he should put his real name or the pseudonym "Chirurgus" to his letter, sadly betrayed your journalistic trust in him by misleading your readers and the readers of the article on Goitre in Quain's Dictionary, by asserting positively that it was a gross mistake on the part of the writer of that article to recommend the use of tincture of iron as an injection in cases of cystic goitre instead of the liquor. I trust by this time, for it is now more than two years since "Chirurgus" wrote his letter, that he has found out the mistake he has made.

I am, Sir, yours faithfully,

Canterbury, March 18th, 1885. PUGIN THORNTON.

THE etters of *Mr. Weatherly* (Oxford), *M.B.Lond.*, and many other communications, are unavoidably held over till next week.

"CONSTANT TINCTURES."

To the Editor of THE LANCET.

SIR,—If the numerous alkaloids found in opium, for example (of which morphia, codeia, narceine, and narcotine are the principal), were relatively constant, then the addition of "crude drug or spirit" would be admissible for "standardising." As they are not so, I cannot see how the process which Messrs. Squire say they adopt can "standardise" the amount of these alkaloids; of course, this could be done, but not with the "crude drug." I have nothing more to say upon the matter, further than that I am surprised, and at the same time glad, to know that these tinctures, which are prepared with the *crême de la crême* of drugs, "are very little dearer than the common tinctures (only a few pence in the pound)."

I am, Sir, yours obediently,

Park-terrace, Regent's-park, March 23rd, 1885. E. WHITE, L.S.A.

MEDICAL ETHICS.

OUR opinion has been asked of the conduct of a member of a Medico Ethical Society in writing applications for the post of medical officer to clubs and provident societies held by other medical men. Our judgment is that the procedure is a very unusual one, and one that cannot be commended.

RESECTION OF THE KNEE-JOINT.

To the Editor of THE LANCET.

SIR,—The "Mirror of Hospital Practice" in your columns is of the greatest value, especially as a guide to what may be expected in the aftercourse of an operation. It should also be a guide to outsiders in private practice in methods of treatment. I am therefore surprised to see a careful account of an operation at St. Mary's Hospital, in your issue of March 14th, where resection was resorted to for the knee-joint of a girl only ten years of age. The account states that the child's limb was ankylosed firmly and in a useless position, and that after the operation the limb was two inches and a half shorter than the sound limb. We are also carefully told that the epiphysis of the femur was "almost entirely" removed, together with a slice of the head of the tibia. Now, we may suppose the child to be at present of average height for her age. If so, I leave it to you to judge how many inches off the ground the faulty limb will be when she has done growing. The result of the ankylosis will be atrophy of all the muscles. We are told, "there was wasting of the muscles of the limb," and what use such a limb will be to her as an adult I am at a loss to imagine. The foot will probably grow, and the patient will have a leg the length of that of a girl of ten (or, allowing for growth at the opposite ends of the femur and tibia, of about thirteen), with the foot of an adult. But, apart from such prognosis, what I should like to know is this: Are such operations to be held up as examples to general practitioners and those in charge of cottage hospitals?—I am, Sir, yours faithfully,

March 23rd, 1885. A. OGIER WARD.

*** Our correspondent will observe respecting the case about which he writes, that it was a question of restoring to usefulness a limb, the knee of which was ankylosed almost at a right angle and still presented signs of disease. Under the circumstances, we hold that the operation which was performed was the one best calculated to obtain such a result, by straightening the limb and at the same time removing lurking mischief. The whole of the epiphysis of neither bone was removed, so that growth can still go on at the line of junction with the diaphysis both above and below the line of section. The muscles of the limb were wasted, as a consequence of prolonged disease, and, as in other cases, will regain to a considerable extent their power. The shortening, two inches and a half, partly the result of atrophy of the bones, but chiefly the result of operation, will be found of very little inconvenience to the patient in the future, and was unavoidable. If our correspondent will turn to Holmes's System of Surgery, vol. iii., p. 764, he will find a case recorded where, in spite of seven inches' shortening after excision of the knee-joint, the patient was able to walk, with the aid of a high boot, thirty miles in the day.—ED. L.

Inquirer.—The qualifications L.R.C.P.E. and L.R.C.P.Lond. do not justify the use of the title "Dr." Whether a board of guardians can be "compelled" to be exact in its use of titles is another question. The gentleman whose title is so misstated should himself make the correction.

Messrs. Funk and Wagnalls.—We cannot extend our exchange list.

A MONSTROSITY.

To the Editor of THE LANCET.

SIR,—Two days ago, whilst driving out, my attention was directed to a notice posted outside a tent somewhat to the following effect:—"A boy with four arms and four legs, but one head." I immediately alighted to see this freak of nature, and this was briefly what I saw. A native lad twelve years old, bright and intelligent-looking, chewing betel, slim, but not wasted. From his abdominal parietes in front protruded a pendulous growth. There was no sulcus between it and the point of union to what I should describe as its carrier. On the left (relatively to the carrier), a shoulder presented, and from it two arms. A little lower down came the nates directed forwards with the anus. Turning the growth forwards there was a penis uncommonly like a piece of shrivelled parchment. The proprietor of the nondescript growth objected to my separating the nates, as the proceeding hurt him. The owner of this rare appendage said that both he and it micturated, but that he alone defecated. The boy would not consent to his genitals being examined. The entire mass was freely movable, and of the same temperature (normal) as the individual, and no bony connexion between the two could be made out.

As this case is unique, quite different from the Siamese Twins or the Double-headed Nightingale, I have thought it worth recording. As the abnormality purposes exhibiting in London, you will have an opportunity of testing more fully what I merely saw very cursorily.

I am, Sir, yours faithfully,

H. KIERNANDER.

Bombay, March 6th, 1885. Surgeon, P. & O. Service.

Mr. C. Harrington.—The examination in surgery of the Apothecaries' Society is held the week before that in medicine, and must be passed by those wishing to obtain the degree of Licentiate, unless the candidate can produce evidence of having passed an equivalent examination elsewhere, such as the Membership of the Royal College of Surgeons.

"SWEET SPIRITS OF NITRE."

To the Editor of THE LANCET.

SIR,—From a paragraph in THE LANCET of March 7th it seems that the Council of the Pharmaceutical Society has informed the Inland Revenue Office that the medicinal value of sweet spirit of nitre does not depend on the nitrite of ethyl it contains, and therefore the presence of a definite amount of this constituent is not essential to the purity of the drug. If this be the case the Council has, it seems to me, committed an error; it has given an opinion on a therapeutic subject, and this opinion is not in accordance with the medical knowledge of the present time. The compilers of the British Pharmacopœia indicated their views of the importance of nitrite of ethyl by introducing a purity test which shows, though imperfectly, the quantity of the constituent present in spirit of nitrous ether. The most recent investigations tend to show that the compilers of the Pharmacopœia were right in the view they took. Dr. Hay in 1883 proved that nitrite of ethyl is a powerful medicinal agent, and in the same year I showed that spiritus ætheris nitrosi has precisely the physiological influence which might be expected from the nitrite of ethyl it contains. Undoubtedly, spirit of nitrous ether contains other ingredients, such as aldehyde, paraldehyde, nitrate of ethyl, &c., but the value of spirit of nitrous ether can in no way be connected with the presence of small quantities of these materials.

It may be true that the public often, and medical men sometimes, prefer a spirit made after older formulæ and containing less nitrite of ethyl, because the flavour of such a spirit is more agreeable than that of the pharmacopœial preparation. It is absurd, however, to accept this as evidence that nitrite of ethyl is not an essential constituent in spirit of nitrous ether.

It may be contended that spiritus ætheris nitrosi and sweet spirit of nitre are not the same drugs and should not be tested in the same manner; but, as a fact, no distinction is drawn between them commercially. When a medical man orders a patient to take sweet spirit of nitre he means the spiritus ætheris nitrosi of the British Pharmacopœia, and when the public buy the drug for themselves they believe that they are obtaining the preparation ordered by medical men. If sweet spirit of nitre, which contains only a trace of nitrite of ethyl, is allowed to be genuine by the Board of Inland Revenue, it will come to pass that in future the medical profession will not be able to count on the efficacy of the spirit of nitrous ether which they order.

I am, Sir, yours truly,

Owens College, March 23rd, 1885. D. J. LEECH.

UNUSUAL CAUSE OF CONSTIPATION.

To the Editor of THE LANCET.

SIR,—Although rare in this country, such cases as the one described by Dr. A. H. Watkins are by no means infrequent in Australia and other fig-growing countries, where the fruit may be obtained cheaply. In England I was, on one occasion, called upon to treat a man, aged seventy-two, for diarrhœa, which had been preceded by constipation. He complained of much pain, and a sense of constant weight at the lower bowel, and frequent, but difficult, micturition. I explored the rectum, from which a large hard mass of fig-seeds, &c., was removed by the handle of a spoon and injections of warm water. The means of weighing it were not available, had I desired such accuracy, but the accumulation *in situ* could have weighed little short of a pound. The diarrhœa ceased without further treatment, but the rectum did not regain its usual power for several days. This case, and, doubtless, those recorded by British authors, arose from the free use of *preserved* figs, but I can discover no reason why the freshly gathered, *fully matured* fruit should not tend equally to the formation of such troublesome accretions, where the usual laxative effect is not produced.

I am, Sir, yours obediently,

March 24th, 1885. J. G. BRIDE.

CURIOUS HEREDITARY MALFORMATION OF THE FOOT.

To the Editor of THE LANCET.

SIR,—The following are cases showing an extraordinary tendency to hereditary malformation of the foot; and as I think an account of them will prove of interest to your readers, I send you a brief one.

William S——, labourer, aged seventy-seven, has six toes on the left foot; his son George S——, aged fifty, his grandchild, Jane B——, aged nine, and his two great-grandchildren, Henry and Edwin S——, aged respectively two years and six weeks, have each of them six toes on the left foot. It is not unusual to find a supernumerary toe, and it is rarely that operative interference is required in such cases; but in the case of the two children the father wished the toes removed so that their boots might fit better. I removed the toe of the child Edwin on the 15th inst., by amputation through the metatarso-phalangeal articulation, and found there was a perfect joint. The left foot was slightly broader than the right, and the toes were perfectly formed. It is curious that in all these cases the supernumerary toe has been on the left foot. All are now living near here.

I am, Sir, yours faithfully,

Bridgwater Infirmary, Somerset, March 23rd, 1885. CLIFTON STURT.

L.R.C.P. Lond.—It is a good principle not readily to believe a report concerning a brother medical man which is to his discredit. We should recommend our correspondent to call on the gentleman he names and ask exactly what he said, giving him meantime every credit for having acted honourably. If he really said what is attributed to him, our correspondent would be justified in asking that it should be either retracted or justified. It would certainly be very difficult to justify such language in regard to such treatment, and that after our correspondent's responsibility had ceased for a week.

Dr. G. B. Ferguson (Cheltenham).—The paper will appear very shortly.

"HOW TO CARRY, UNAIDED, AN INSENSIBLE MAN."

To the Editor of THE LANCET.

SIR,—In reply to your correspondent "R. N. R.," I beg to suggest the following method:—Turn the individual upon his face, with the arms extended in a line with the body. Raise the trunk until he be in a kneeling position. Place yourself under him, so that his stomach rests on your right shoulder. Pass your right arm between the thighs and behind his right thigh. With your left arm draw his left hand forwards under your left, and grasp the wrist with your right hand: then raise yourself to an erect position. If you can obtain assistance in this operation, so much the better; or if there be a bed or table upon which the subject may be placed, he will be the more easily raised, or, rather, you will more easily raise yourself and burden. By this method the weight falls directly on your shoulders. The person carried cannot slip forwards, as you have his hand grasped from behind; nor can he slip backwards or off the shoulder, as your arm is over the thigh. The left arm is disengaged. Or, by reversing the operation, he may be carried on the left shoulder, in which case the left arm is passed behind his left thigh and his right hand grasped from behind. Your right arm is then free. This is very advantageous; as, for example, going down a ladder from an upper storey of a burning building where the rescued one is overcome by smoke, or where the operator wishes to carry weapons, &c., off the field of battle. The situation of the subject as above described may not be devoid of its inconveniences; but that need not be considered in replying to "R. N. R.," nor in certain other cases, as apoplexy.

Here is another method which I have seen employed:—Seat the subject with the legs flexed on the thighs, and these flexed on the trunk; the head will then rest on the knees. Pass a broad continuous strap (a soldier's belt, for example) behind the thighs at the popliteal spaces and under his arms. Crouch down behind him, *dos à dos*, pass the strap over your forehead, and raise yourself. The strap should be short enough to allow the weight to fall upon the shoulders and upper part of your back while you are bent slightly forwards. The head may drop backwards; but, if so, it falls on the top of yours. The strap, being under his arms, prevents him from falling through. Both your arms are comparatively free. By means of this strap I have seen Indians carry 300 pounds in weight (a barrel of pork) farther than one probably would care to believe. I am, Sir, very respectfully yours,

March 23rd, 1885. BEAVER.

"HYDROCHLORATE OF COCAINE."

To the Editor of THE LANCET.

SIR,—Your correspondent, Mr. Symes, must have misunderstood my letter, which appeared in THE LANCET of March 14th. I merely suggested a tried remedy for cocaine solution when it became flocculent. Mr. Symes' statement refers more particularly to a preventive of flocculi; and he calls attention to Dr. Fenwick's suggestion in his letter which appeared in your issue of Jan. 31st—viz., the use of camphor-water. I have again read Dr. Fenwick's letter, to which Mr. Symes refers, but I fail to discover any mention of camphor-water or any other solvent for cocaine whatever. I therefore conclude Mr. Symes must either have read Dr. Fenwick's letter very imperfectly, or have not read it at all. I am, Sir, yours faithfully,

Sussex Eye Hospital, Brighton, March 28th, 1885. J. CHURCHYARD.

"ON SYNCOPE, AND A METHOD OF AVERTING IT."

To the Editor of THE LANCET.

SIR,—I very gladly acknowledge Mr. Benham's priority in pointing out the efficacy of applying heat to the head in cases of syncope. At the time of writing on the subject, I was not aware that the value of this method had been recognised by anyone. The fact is, I am almost completely cut off from the opportunity of consulting books of reference on medical subjects by the discourtesy of the Birmingham Medical Institute, a society which acts on the principle of hiding under a bushel whatever light it may have the good fortune to possess.

I am, Sir, yours obediently,

Birmingham, March 23rd, 1885. WILLIAM J. NOTLEY, M.D.

THE EXPLOSION AT SHOEBURYNESS.

To the Editor of THE LANCET.

SIR,—I notice in THE LANCET of March 21st an account of those fatally wounded at the Shoeburyness explosion. In that account you leave out the name of Capt. Goold-Adams, who ought to have been included to make the list correct. My father was one of those wounded, and perhaps that is the reason I take particular notice of the mistake.

I am, Sir, yours truly,

CHAS. W. LOW, L.R.C.P. Lond., &c.

Powis Lodge, Vicarage-park, Plumstead, March 23rd, 1885.

B.A.—To reproduce in our columns the announcements would be to play into the hands of the advertisers, and would, we fear, not have the effect desired by our correspondent.

Competitor.—Our correspondent should write to the secretary of the Society, who will give him the information he requires.

INSOMNIA A CAUSE OF CONSTIPATION.

To the Editor of THE LANCET.

SIR,—I have recently had under observation the case of a young man suffering from slight eczema and pruritus ani, in which insomnia appears to have been a cause of constipation. The occurrence of constipation as a feature of atonic states of the neuro-muscular system is, of course, well known to the profession; but it is at first sight a little surprising to find that it may be brought on by a sleepless night. This, however, was repeatedly the case with the young man above alluded to, and the explanation doubtless is that insomnia intensifies the neurasthenia, and with it the lack of tone in the intestinal and abdominal muscles. In this instance the constipation disappeared, without the exhibition of purgatives, on the removal of the causes which prevented sleep. As constipation is frequently answerable for irritation and ulceration in the neighbourhood of the anus, it would probably be advisable always to inquire into the state of the nervous system when such a combination of symptoms presents itself. I am, Sir, yours faithfully,

F. R. WALTERS, M.D., F.R.C.S.

Moorgate-street, E.C., March 14th, 1885.

Mr. S. O. Eades, L.R.C.P. & S. Ed.—We learn, upon inquiry, that the Schedule has been in the meantime withdrawn.

"APPLICATION OF MIDWIFERY FORCEPS."

To the Editor of THE LANCET.

SIR,—Before me are a pair of forceps invented, or introduced to the profession, by Professor Hamilton of Edinburgh. They are, I think, what Mr. James MacMunn recommends in THE LANCET of March 7th. I used them for twenty-five years, until I retired from midwifery practice, and liked them well, although forceps blades had much improved in form and lightness in the interval. I would not have cared to trouble you with this note, did I not wish to ask whether young surgeons are using forceps too frequently, and whether they have found in forceps cases that recovery is less satisfactory than might be looked for in ordinary tedious cases? As a rule, patience is not without its reward in obstetrical practice. I am, Sir, yours truly,

Newcastle-on-Tyne, March 9th, 1885. J. CARRICK MURRAY, M.D.

Lambeth—The sum is not worth a legal process of recovery; and we think our correspondent was wrong in advancing it after specific instructions not to do so.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Bristowe, London; Dr. S. Monckton, Maidstone; Surgeon-General Stewart, Lymington; Mr. Thomas Annandale, Edinburgh; Mr. Jas. Hall, Peel; Mr. J. G. Bride; Surgeon-Major Sargent, Bedford; Mr. A. E. Tanner, Tottenham; Mr. Churchyard, Brighton; Mr. T. Bond, London; Dr. Ferguson, Cheltenham; Mr. F. A. Lees; Dr. R. E. Dudgeon; Mr. H. Cartwright, London; Mr. F. W. Lowndes, Liverpool; Mr. Keay, Blairgowrie; Mr. C. Jones, London; Mr. T. W. V. Greene, Monte Video; Mr. Carslake, Clapham; Dr. Denison, Denver; Major-General Sir A. Clarke; Mr. R. J. Godlee, London; Mr. A. S. Kenny, London; Mr. Leverell, London; Messrs. Mathieson and Sons, London; Mr. Pugin Thornton, London; Mr. Bradshaw Smith, Burbage; Mr. Roger Williams, London; Mr. Elwood Lee, Philadelphia; Dr. Bruce Low, Helmsley; Mr. Jessett, London; Dr. T. F. Pearse, Haslemere; Dr. Notley, Birmingham; Dr. F. Semon, London; Dr. R. Neale, London; Mr. H. Peacock, Gloucester; Messrs. Street and Co., London; Mr. Ganning; Mr. Richards, London; Dr. Bramwell, Ealing; Messrs. Loeflund and Co., London; Mr. Russell, Liverpool; Messrs. Kröhne and Sesemann, London; Mr. Clark; Mr. Twyford, Hanley; Dr. Pernisch; Mr. Wilkes; Messrs. Cassell and Co., London; Dr. Courtin, Paris; Mr. Welch, Blackpool; Dr. Kiernander, Bombay; Dr. Johnstone, Portsmouth; Dr. Jas. Millar, Arbroath; Mr. Gem, London; Mr. F. E. Weatherly, Oxford; Dr. H. Snow, London; Dr. Fenton, Coventry; Mr. H. Campbell, London; Dr. Gairdner, Crieff; Dr. Aikman, Guernsey; Dr. Swift Walker, Hanley; Mr. Orchard, Kingussie; Dr. Illingworth, Clayton-le-Moors; Mr. F. E. Cane, Leeds; Dr. Bloom, Vienna; Mr. Puleston, London; Mr. E. A. King, London; Dr. Dudley Buxton, London; Mr. Adams Frost, London; Mr. Henry Lee, London; Mr. Wiffen, Brighton; Mr. C. W. Low; Mr. Underwood, Ashford; Dr. J. J. Ridge, Enfield; Mr. E. White, London; Messrs. Smith and Son, Manchester; Mr. Evans, London; Mr. Gauss, Hayton; Mr. Clarendon; Messrs. Funk and Co., New York; Dr. O'Connor, Allandale; Mr. Parnell, Camden-town; Mr. Pixe, Rajpootana; Mr. C. Sturt, Bridgwater; Professor Anderson, Glasgow; Dr. M. Thomson; Mr. Hand, Ben Rhydding; Mr. Branson, Rotherham; Messrs. Buchan, Glasgow; Mr. St. Dalmas, Leicester; Mrs. Selwood, Hursley; Mr. Lewright, Cullen; Mr. Burgess, Manchester; Messrs. Uhlich, London; Mr. Wood, Belvedere; Mr. Scott, Manchester; Mr. Foy, Aberdeen; Mr. Owen, Tipton; Mr. Robinson, Middlesbrough; Mr. Watt, Hovingham; Messrs. Kegan Paul and Co., London; Mrs. Tillest, Dudley; Mr. Kirkby, Leeds; Messrs. Mackay, Edinburgh; Mr. Hall, Greenwich; Mr. Mosse; Messrs. Hammond and Co., Birmingham; Mr. Newstead, London; Mr. James, St. John's-wood; Messrs. Reynolds and Branson, Leeds; Dr. J. A. Andrews, New York; Mr. Lee Cogan, Northampton; T.; Beaver; Physician, West Brighton; L.R.C.P. Lond.; A Layman; R. W. D., London; Northern Medicus; M.R.C.S.; M.B.Lond.; Rector, Eccleston; A.B.; Saxon; H. B.; Late Assistant; Student.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Crossland, Dr. Vernon, Southport; Dr. Kerr, Halesowen; Mr. Higgs, Henley-on-Thames; Dr. Joshua, Enderley; Mr. Baker, Liverpool; Mr. G. R. Jordon, London; Dr. Evans, Cardiff; Messrs. Smith and Son, Birmingham; Dr. Thomas, Glasgow; Dr. Eberle, Thirsk; Mr. Bowkett, Queensland; Mr. Thomas, Pontypridd; Mr. Kerwood, Chichester; Mr. Bullock, Stradbroke; Dr. Leeson, Brighton; Messrs. Boulton and Paul, Norwich; Mr. Hunt, Alexandria; Dr. Duff; Mr. Bevan, Mumbles; Mr. Dresser, Darlington; Mr. Tweddell, West Hartlepool; Mr. Powie, Pontymister; Mr. Foulds, Chesterfield; Dr. Silk, Highgate; Dr. Hilliard, Aylesbury; Mr. Robins, Chester; Dr. Robinson, Bolton; Mr. Love, Leeds; Miss Jones, Opengates; Mr. Marsh, Hindley; Mr. Gill, Wigan; Dr. Baddeley, Newport; Mr. Branson, Rotherham; Mr. Johnson, Hampstead; Dr. Goodson, Stratford; Mr. Williams, Talgarth; Mr. Austin, Faversham; Mr. Abbott, Huddersfield; Mr. Palmer, London; Mr. Jones, Baldock; Mr. Woodrow, Stratford; Clerk, Aberdeen; Medicus, Bristol; Delta; L. T., Burnley; L. M.; B. B., Skipton; J. S., Wigan; Matron, Newark-on-Trent; M. H., London; F.S.A., Wye; Medicus, London; Neurosis; W. D., Camberwell; Celsus, Camberwell; H. G.; C. B., Rhondda; M.D., Brixton; C. H., Highgate; Beta; M.B., Kensington; Medicus; H., Leeds; D., Ashby-de-la-Zouche; C. E.

Sheffield Daily Telegraph, Aberdeen Herald, Cambridge Independent Press, Church of England Temperance Chronicle, Halifax Courier, Hairdressers Chronicle, East Anglian Daily Times, Bedfordshire Express, Universal Benefactor, &c., have been received.

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CASE XI.

FIBROID PHTHISIS

ORIGINATING IN DRY PLEURISY

Lumleian Lectures

ON

SOME POINTS IN THE NATURAL HISTORY OF PRIMITIVE DRY PLEURISIES.

Delivered before the Royal College of Physicians,

BY SIR ANDREW CLARK, BART., M.D.,
FELLOW OF THE COLLEGE.

LECTURE II.

MR. PRESIDENT AND GENTLEMEN,—A careful study of the cases related with more or less completeness in my first lecture leads naturally and necessarily to the second stage of this inquiry. A full understanding of the clinical demands a solution of the pathological problem; they are inseparably connected, and find their common origin in dynamic disturbances, which, although sometimes intangible, invisible, and incalculable, constitute the ultimate nature or essence of disease. What, then, is the nature of the visible pathological changes originating, underlying, maintaining, and continuing the symptoms and signs characteristic of the course and issues of the cases set forth as the grounds of this inquiry?

But before describing those changes as I have observed them in the course of my examinations, I must clear the way to the better understanding of them by some remarks on the minute anatomy of the lung, and on the structural characters of a blood-clot formed in freshly drawn blood.

Setting aside the earlier and in sundry ways admirable accounts of the minute anatomy of the lung given by Addison, Rainey, Rindfleisch, Schultze, Charcot, Luppey Lefort, and Waters, and confining our examination to the accounts more recently published by such observers as Schäfer and Klein, we shall learn from them the views received and adopted at the present time. Here is what Schäfer says:[1] "After a certain stage of subdivision, each bronchial tube reduced to a small size is termed a lobular or respiratory bronchial tube, and its walls become beset with small hemispherical saccules termed air-cells or alveoli. They occur at first only here and there, and confined to one side of the tube only, but at length almost cover it, so that the tube in a great measure loses its cylindrical character. At length it ends in an enlarged completely sacculated passage, termed the alveolar passage, from which are given off blind ramifications, somewhat enlarged towards their extremities, and everywhere closely beset with the air cells. These enlarged terminations are named infundibula." In order to give as exact an expression as possible of these views, he illustrates them by a diagram given at page 516 of the work already cited. From Klein's Atlas and from his more recent masterly little Handbook of Histology I extract the following account, which on the whole is the simplest, clearest, and most accurate of any hitherto published concerning the minute anatomy of the pulmonary parenchyma: "The small or intra-lobular bronchi are cylindrical tubes; they divide dichotomously into smaller tubes, and ultimately pass into the alveolar ducts, which take up on all sides of their circumference the lateral alveoli; the ultimate parts of the alveolar ducts are the infundibula, which take up the terminal alveoli. The alveoli are spherical or polyhedral in shape; and those belonging to the same alveolar duct or infundibulum are separated by much less tissue than the alveoli of adjacent lobules." In the Handbook (p. 220), it is further said that "all ducts or infundibula are closely beset in their whole extent with spherical, or being pressed against one another with polygonal, vesicles—the air cells or alveoli—opening by a wide aperture into the alveolar duct or infundibulum, but not communicating with each other. The infundibula are much wider than the terminal bronchioles, and also wider than the alveoli."

To Rainey and to both these distinguished observers is due the merit of having cleared away much of the confusion in which this intricate subject was until recently buried, of having discarded a complex, misleading, and useless terminology, and of having made it possible for persons not investigators or experts to form a tolerably accurate and clear conception of the anatomy of the pulmonary parenchyma and of its relations to the larger air passages. But even yet the reform is incomplete. It is not enough to have swept away as mere subjective expressions such terms as primitive and secondary lobules, lobulettes, air sacs, and the like. Others supported by great authority remain; and, whilst either having no correlative facts, or conveying inaccurate representations of those really existing, they suffice to keep obscure that which is simple, and to render barren or fertile only in error the application of anatomical facts to pathological processes and practical work.

Schäfer, for example, speaks of bronchia, bronchioles, or respiratory bronchial tubes, of their endings in enlarged completely sacculated alveolar passages, and of the giving off from them of blind ramifications or infundibula enlarged towards their extremities and everywhere closely beset with air cells. Elsewhere he says: "At the end of the respiratory bronchioles, near the passage of the infundibula, all the cells which line the wall of the tube are of the non-ciliated pavement variety. But the air cells themselves, both those which are scattered over the respiratory bronchioles and those which cover the infundibula, as well as intermediate portions of the infundibula, which occur here and there between the air cells, possess an epithelium of a peculiar character."

Now, in this quotation, even with the help of the context, it seems to me impossible to find a clear, connected, and exact account of the terminal air passages and of their relations to the pulmonary alveoli. And this impossibility, as I view it, lies less in any error committed by this distinguished anatomist than it does in the multiplication of distinctions, forgetfulness of the archetypal idea of a respiratory organ and the use of terms which are at once confusing and useless. There are two necessary—and, as it happens, they are the only unerring—guides to the complete and accurate understanding of the structure of an adult organ. The first is the study of its comparative history throughout the animal series; and the second is the study, from beginning to end, of the course of its own development. Investigated after this manner, the difficulties encountered in understanding the minute anatomy of the lung disappear; and the relation of the air passages to the alveoli become so clear and easy of apprehension and expression, that the use of many and complex terms is neither necessary nor justifiable. The primitive type of a lung is a cylindrical tube, the sides and end of which are portioned out by delicate membranous septa into shallow cubical spaces, not communicating with each other, but only with the common lumen of the tube round which they are arranged. If one will imagine a corridor with open cubicles fully occupying not only each side, but the further end, the floor, and the roof; if one will also imagine that no free space is left between the cubicles, that they fully occupy the sides, roof, floor, and end of the corridor, that they do not communicate with each other, except through the corridor around which they are arranged; that the corridor imagined is surrounded without loss of space on every side by corridors and cubicles similarly arranged; that all these corridors lead outwards to the exterior of the house of which they form a part; that, as all these corridors run outwards, they are joined by others without enlarging through the junction; and that at first the corridors are so short as to have only a single or double row of cubicles, whilst further outwards they have three, four, or even more,—if you will imagine all these things, you will be able to frame a sufficiently clear and accurate conception of the simple way in which the pulmonary alveoli are connected with the pulmonary air passages, and these with one another.

To describe the relation of the air passages to the alveoli in a more formal and literal manner, we may take a lobule as the subject of description. Each lobule, more or less conoidal in shape, surrounded by areolar tissue with all its usual contents, and penetrated at its smaller end by the lobular bronchus and by bloodvessels, lymphatics, and nerves, constitutes, as we know, a miniature lung. As soon as the terminal bronchus enters the lobules, it divides and subdivides with increasing rapidity and but small diminution of size, until the dividing or branching process is brought to an end at the circumference of the lobule. At its entrance into the lobule the lobular bronchus is but scantily alveolated, and its direction is moderately straight;

[1] Quain's Anatomy, vol. ii., p. 514.

but in the second and third divisions, which diminish in size, the walls are alveolated throughout, and the direction is constantly changing. In the terminal portions of the air tubes or passages which do not diminish in size the division is extremely rapid, and the end of each passage is formed by its abrupt closure just beyond a final division. It is this fact which, when a section of lung, including the pleura, is examined from the deep surface, has led to the notion that the terminal passages or tubes form dilatations or sacs at their blind extremities. Fortunately, sections and dissections parallel to the long axis of a passage demonstrate this notion to be incorrect. If this view of the relation of the air passages to the alveoli be accurate, and long study of the subject makes me somewhat confident about it, there is no need for a complex and copious terminology. It will be enough to speak of the lobular bronchus, of the intra-lobular bronchi or bronchioles, of the inter-alveolar passages and of the alveoli.

The alveoli are almost always spoken of as being hemispherical or vesicular; and their relation to the air passages is often illustrated by reference to a racemose gland or to a bunch of grapes. Both the description and the illustration are alike erroneous and misleading. It is true that under forced inflation, and as a result of injection and of other manipulations, the alveoli do exhibit occasionally a distantly hemispherical shape. But this is abnormal. Lying on the walls of the terminal passages, varying a good deal in size and somewhat in shape, but fairly uniform in depth, they can best be described in the main as irregular cubical spaces. A single layer of a honeycomb rolled into a cylindrical tube and closed at one end by another single layer, the cells of both looking inwards, would illustrate better than anything else that I can remember the relation of the alveoli to the inter-alveolar passages. By carefully inflating and drying a portion of lung, and examining sections of it made at varying angles to the pleura under an inch objective attached to a binocular microscope, the statements now advanced with respect to the relation of the alveoli to the inter-alveolar passages may be easily corrected or confirmed by any competent observer. These remarks on certain points in the minute anatomy of the lung have led me from the main subject of inquiry further than I intended or desired. I excuse myself on the ground that an accurate and adequate knowledge of this subject is essential to a just understanding not only of pathological processes, but also of those respiratory sounds which we employ in the diagnosis of disease.

If a little freshly drawn blood is dropped upon a glass slide, permitted to clot, decolourised by gentle washing, and submitted to microscopic examination, three things and their mode of combination will arrest the attention of the observer: a basis substance arranged by wrinklings or foldings into varying sized areolæ, a faint and close network made up of minute molecular-looking fibres, and a small number of leucocytes. The fine fibrillar network will be seen to occupy the spaces enclosed by the areolæ of the basis substance. The leucocytes imprisoned in the basis substance, or in the fine fibrillar network, and undergoing some granular change, appear to be shooting out in all directions protoplasmic processes, and to be engaged in textural development. Examining such a specimen without any knowledge of its nature, it could be easily mistaken for a delicate glioma, and would be unhesitatingly received as a conclusive example of the development of fibrous tissue from leucocytes. But a further critical study of such a specimen will make it certain that no such development is taking place; that both the areolar basis substance and the fibrillar network are formed directly from the liquor sanguinis; that the leucocytes and their processes are in the way of degeneration; and that, whilst they and the fibrillar network will melt into a granular débris, the basis substance will remain unchanged.

I have related this experiment to show how easily one may be deceived by appearances when they run along the line of one's ideas, and how much care is needed in interpreting the changes which occur in recently exuded lymph. In this matter three structural elements are to be found: a fibroid basis substance, fibres, and cells. The latter are either migrated leucocytes or proliferating connective-tissue corpuscles; and it is held that from one or other, or both, the fibroid substance and the fibres are developed, and that the idea of the direct formation from an exudation of any sort of fibroid tissue must be definitively abandoned. In respect of the fibres formed in some kinds of lymph this contention is doubtless correct; but in respect of the fibres formed in at least one kind of lymph about to be mentioned no conclusive evidence has been adduced. In those exudations which consist of a fibroid basis substance and imperfectly formed white fibrous tissue, this theory cannot justly be maintained.

It is true that there are present in them leucocytes, and sometimes a few fusiform cells; but it is equally true that they do not exist in such numbers, nor show such changes of transition into fibroid materials as would warrant the inference of an exclusively causal relation between them. In such instances, as in the instance of the blood-clot, one may fairly hold that the fibroid elements have been directly formed out of the exudation, and that the cells present therein have taken at least no structural share in their development.

Leaving these collateral considerations, I proceed now to consider the chief forms of exudation produced in the course of primitive dry pleurisies. These exudations may be classed under three heads: the fibrinous, the croupous, and the proliferative.

The fibrinous exudation is characterised by the scarcity of its cell forms and its permanency; the croupous by the abundance of its cell forms and their rapid degeneration; and the proliferative by the abundance of its cell forms and the rapidity and variety of their structural developments. In no case does any one of these forms constitute the entire exudation; but in every case one variety predominates and determines the characters and the course of the changes which ensue. In its early stage the fibrinous exudation consists of membranes more or less extended and more or less thick, which can be detached from the pleura without apparent injury to its epithelial surface. This membrane is greyish, sometimes semi-transparent and elastic, but friable. It does not often adhere to the costal pleura, and it is more frequently found over the upper than over the under part of the lungs; indeed, its most frequent seat is around the summit of this organ. It is composed of a basis substance studded with moleculo-granular matter, shaped into rude areolæ or differentiated into bands of imperfectly formed fibrous tissue, and it contains embedded in it a few epithelial cells, some oat-shaped nuclei, and here and there a nucleated fusiform cell. Sometimes the exudation presents the appearance of an irregularly honeycombed or reticulated membrane, in the meshes of which there is found a yellowish, glutinous fluid, clotting on exposure to the air. In this fluid are found amorphous flakes, leucocytes, and red blood-discs. The structural constitution resembles that of the smooth membranous exudation; but it cannot be so easily removed from the pleura, and whereas the subpleural areolar tissue is in this instance congested, swollen, and infiltrated with a fluid containing many leucocytes, it is in the former instance apparently little if at all affected. At a later stage of its existence this fibrinous exudation becomes denser, harder, tougher, extends into the pleural matrix, and now, opaque and yellowish, cannot be detached without injury from the pleural surface. The subjacent pulmonary alveoli are for the most part little affected, but here and there their walls are thickened without apparent proliferation, and their cavities contain a fibroid substance, with epithelial cells and leucocytes embedded therein. At a later stage, however, when the fibrinous exudation invades the lung, further changes take place. This invasion, when it takes place, moves in the first instance along the lines of the interlobular fissures, and only at a later period steals along the bloodvessels into the alveoli. In well-marked cases, three striking naked-eye changes slowly appear in the wake of this invasion. The interlobular areolar tissue at the affected part is converted into thickened and indurated bands, which, in some instances, contracting and compressing the lobules, give rise to the appearance, rather rare, of a true pulmonary cirrhosis. In the second place, portions more or less extended of the pulmonary parenchyma become solid, hard, tough, dark, and creak under the knife, which cuts them with difficulty. And in the third place, along the course of the fibroid invasion, adjoining the consolidations, and at various parts of the summit and free margins of the lung, there are tracts or patches of vesicular emphysema. In the summit of a lung in which limited tubercular growths have undergone fibroid substitution, all these changes, the thickened pleura, the fibrous bands, the small consolidations and the emphysematous patches, will be found side by side. In addition to these changes, others less obvious will be found upon close examination. One of them is thickening of the adventitia and intima of the pulmonary arteries, and

the growth from the intima of minute fibroid nodules, which sometimes fill the cavity of the vessel. Another change is thickening of the alveolar walls, with the development therein of free nuclei, not apparently engaged in tissue development. A third change is the appearance in the fibrous bands, chiefly at their intersections, of small fibrous nodules, which resemble and are considered to be true grey granulations or tubercles. But neither the structural characters of the nodules nor the history of the patients in whom they are found justifies this interpretation. They are composed of a fibroid basis substance, having embedded in it numbers, never large, of small free ovoidal nuclei, a few nuclear fibres, and rarely a little elastic tissue. Each consists of one mass, and not of several masses; it does not, as far as I know, contain giant cells; and it never undergoes the cheesy change. Akin to these little nodules, there are sometimes found in cases of long standing, where there have been repeated exudations, larger lumps or flattened masses of like characters connecting the visceral with the parietal pleura, and looking like growths, from which it is not always easy to distinguish them.

The pleura, once the subject of fibrinous exudation, is liable to fresh attacks of inflammation, and to the formation of new membranes, superimposed upon the old. These new layers, although resembling each other in structure, are never completely fused into one, and on section can be easily distinguished. Between the layers there are left spaces, of various sizes, filled with a glutinous fluid, containing epithelial cells, leucocytes, and a few fusiform nuclei. These spaces are coated with an interrupted epithelium, and distantly resemble lymphatic sacs. This is the form eventually assumed by the reticulated fibrinous exudation when it is permanent. When only a single thin layer of this fibrinous exudation exists, vessels are not found in it. Even when there are several layers, vascularisation, as compared with the proliferative exudation, is exceedingly scanty; and it seems probable that the development of new vessels takes place rather by channelling and differentiation than by development through the medium of protoplastic cells. Lastly, this form of exudation is characterised by the scantiness of its cell constituents, by the slowness of the changes occurring in it, by its persistence, by its freedom from complication with caseous consolidations and bronchial dilatations, by the lines which it follows in invading the lung, by the rarity of its disintegration thereon, and by the insignificance of its effects upon the general health.

The croupous, or, as it was originally named by me, the corpuscular exudation occurring in primitive dry pleurisies, differs in many ways from the fibrinous on the one side and the proliferative on the other. It occurs for the most part at the middle and lower parts of the lung; it is yellow, soft, thready, unplastic, and full of fluid, containing multitudes of degenerating cells, hyaline globules, blood-discs, amorphous flakes, fragments of granular fibres, granular débris, and countless micrococci. Sometimes, without the occurrence of pneumothorax, these accumulations escape by means of minute openings in the pleura, through the lung, and the patient recovers. A single exudation, examined more closely may be divided into three parts. The first is an opaque, yellowish, and friable membrane of varying thickness, incapable of detachment from the subjacent pleura, with which it is apparently organically incorporated. The second is a loose, open, soft, areolated pseudo-texture, infiltrated with fluid. The third, occupying the free surface of the exudation, consists of incohesive, soft, fringe-like processes, which often break on handling. There is seldom any strong adhesion between the costal and the pulmonary pleura. When the exudation is very abundant, and occupies a considerable space between the visceræ and parietal pleura, circumscribed portions of it are sometimes found broken down and occupied by a fluid resembling pus. For the most part this fluid is not pus—not a fluid holding in suspension spherical globules of uniform size, structure, and mode of response to reagents; but a fluid holding in suspension disintegrating leucocytes and epithelial cells, granule cells, and hyaline spheres, oat-shaped nuclei, and broken fusiform cells, fragments of fibres, and granular débris.

The lung adjacent to the inflamed pleura is always affected to varying depths and in different ways. All the alveoli are congested, and contain desquamated epithelium and leucocytes. A few, but in my experience always a few, groups of alveoli are found in a state of hepatisation. Larger and much more numerous groups of alveoli are in a state of caseous consolidation. In the subpleural areolar tissue, in the interlobular fissures, and occasionally at the entrance of the vessels into the apex of the lobule, small yellowish nodules are seen, and may be commonly traced to lymphatics, from the proliferation of which, or of their contents, the nodules appear to arise. They are composed of an adenoid reticulum and of areolæ of common fibrous tissue, in the meshes of which are found masses of lymph-corpuscles, free, rounded, or oval nuclei, nucleated fibres, and numerous multi-nucleated cells in a state of active endogenous proliferation. Resembling in some ways tubercular nodules, they are often declared to be tubercles.

A close examination of the outer surface of one of the earliest formed layers of exudation will sometimes bring to light the existence of two sorts of minute openings. The one are stomata, chalice-shaped cavities, with epithelial lips and linings leading into lymphatic spaces. The other are minute openings, the mouths of burrowing and sometimes branching tunnels, which occasionally can be followed into the pulmonary alveoli. It is not improbable that when a croupous exudation melts, it sometimes makes its way through these tunnels into the lung, and is thence discharged. In a case which I recently attended with Dr. Barnes and Mr. Merriman, a puerperal pleuritic croupous exudation led, by melting, to the formation of three small encysted empyemas. Paracentesis having been considered inexpedient, the pyoid collections were left to nature. After a week, in the neighbourhood of one of the sacs there was heard a coarse moist crepitation; a few days later the crepitation became a bubbling rhonchus; and shortly afterwards some ounces of a pyoid fluid, quite different from genuine pus, were expectorated. The same procession of events attended the emptying of each sac. Meanwhile there was no single sign of pneumothorax; and although the thoracic walls corresponding to the empyemas were bulged, there was no displacement of the heart or of other organs. The patient is now completely convalescent. Sometimes this pleuritic croupous exudation has a constitutional origin, and then the affection may be bilateral. With a low capacity for organisation, this exudadation exerts at times a considerable influence for evil on the subjacent lung. The effect consists sometimes in disseminated caseous or lymphoid consolidations, sometimes in fibroid changes, and sometimes, although rarely, in small excavations or in bronchial dilatations. Basic lung disease akin to that described by Mitchell Bruce and others now and then arises in this manner. The tissues of this exudation are, in at least one respect, remarkable. When the case pursues a favourable course, the exudation is for the most part entirely absorbed, and I have once or twice learned from examination after death, that within a few months of an attack, every vestige of its presence has been removed. Now and then the fluid part of the exudation is absorbed, and the residue, becoming dry, undergoes caseation. In this condition calcareous plates and particles are occasionally deposited in it, and the patient becomes subject to obscure and often recurring attacks of pain.

The proliferatve pleuritic exudations which I now proceed to describe are of more frequent occurrence than the other two, more varied in their course, and more enduring in their larger issues and effects. They are still further distinguished in their origin from fibrinous and croupous exudations; for whilst the latter are preceded by the phenomena of inflammation, and accompanied by an abundant fluid exudation, the former sometimes arise, increase, invade the lung, and undergo textural changes unaccompanied by any other phenomena except those belonging to a slow and simple textural growth. Indeed, this variety of proliferative exudation often passes almost imperceptibly into pleural new growths, and further on I shall have to advert to several cases of this kind. Beginning in the subpleural connective tissue, and accompanied from the first by active cell proliferation, this exudation passes through the pleural matrix in two ways. Accompanied, as is usually the case, with an abundant fluid plasma, the exudation reaches the pleural surface without apparent breach of continuity. Unaccompanied by any such fluid, proliferating cells arranged in pointed groups push their way through the pleural matrix, and, making breaches of continuity therein, reach the epithelial surface, spread rapidly thereon, and unite to form a continuous proliferating neo-membrane, which at various parts differs in aspect, consistence, and thickness. The even membranous form, however is not always maintained. Sometimes, when the masses of cells and fibres are

loosely disposed and soaking in a glutinous fluid, the free surface assumes the honeycombed or alveolated appearance already described in connexion with fibrinous lymph. Sometimes, when unaccompanied by any fluid, the free surface becomes studded with clusters of granulations, nodules, or sessile warty-looking lumps; sometimes it is clothed with papillæ, or with fringe-like branching processes. In either case adhesions are speedily contracted with the costal pleura, and the intervening space becomes slowly filled by the connecting bridles, bands, or masses of actively proliferating lymph. The meshes of the exudation become filled with fluid; and when the meshes are large and the fluid abundant, the movements of breathing heard when listening to the chest with a stethoscope beget plural râles which are difficult to localise and understand. After a time the whole space between the pleural layers becomes filled with a solid exudation, and this, increasing in density and in hardness, becomes, with the visceral and costal pleura, fused into a tough, unyielding fibrous reticulated and laminated mass.

The structure of this exudation varies with its age. In the beginning, or at least as soon as it can be examined, it consists of an obscurely fibroid, and sometimes areolated basis substance, of a close network of fine molecular-looking fibrils, of leucocytes, nucleated cells, fusiform fibre cells, and desquamated epithelium. In addition to these elements, there are always present in varying amount, oval or oat-shaped free nuclei, red discs, and a few hyaline spheres. After a short time the network of molecular fibrils entirely disappears, the basis substance remaining becomes more distinctly fibroid, and constitutes a fundamental support for other changes in progress; leucocytes, or round cells resembling them, increase; fibre development from cells advances; new vessels shoot out in various directions; active cell proliferation subsides, and the bundles of freshly formed fibrous tissue become arranged either in lamina, when they sometimes exhibit a striking resemblance to unstriped muscular tissue, or in areolæ, through which communication with lymphatic spaces or channels is ultimately established. But whilst development has been thus proceeding towards the costal pleura, it has been also, in a certain number of cases, advancing into the substance of the lung. In the first instance it is only the subpleural alveoli which are affected, and their first mode of affection is a croupous, or more rarely a caseous, consolidation. Later on the proliferating exudation steals along the interlobular fissures, consolidating the peripheral alveoli of the lobules, seizes upon the peribronchial and perivascular connective tissues, enters the lobules of their roots, and travels along the terminal air passages, bloodvessels, and lymphatics into the alveoli. During this time the proliferating exudation consists essentially of two parts, constantly varying in their quantitative relations to each other, of the proliferating and fibre-growing cells, and of the fibroid basis substance already described. Sometimes, without obvious reason, the one predominates, sometimes the other; but they always concur; and when the alveoli are affected the cellular part always predominates in their walls and the fibroid in their contents. In the course of this progression of the exudation from the superficial to the deep parts of the lung, and from the root or from the circumference to the centre of a lobule, all the pulmonary tissues become affected; and the kind and degree of the affection determine the aspects which the lung shall afterwards assume, and the course which the malady will eventually pursue.

It may be said in a general way that the first effect upon the pulmonary textures consists in vascularity and swelling, the second in hardening and contraction, and the third in caseation and destruction, or more often in destruction without caseation. According to my own observations, they may, in abstract, be described in the following manner. The interlobular areolar tissue, increased in vascularity, swells, proliferates, hardens, and develops occasionally in its midst, either small, tough, fibrous-looking knots, or minute lumps and lines of cheesy stuff. Increasing in breadth, the interlobular septa encroach upon the lobules and compress them in various directions, and, at the root of a lobule where the bronchus enters and the vessels enter and emerge, the parts become so constricted by the fibroid invasion that their nutritive and functional activities are seriously depressed, and the integrity of the lobule as an organ is put in growing peril. The smaller branches of the pulmonary artery are greatly thickened by proliferative swelling of the outer and inner coats, and the latter coming to look like a richly nucleated laminar fibroma, develops on its free surface granules or nodules, sometimes large enough to obstruct the lumen of the vessels. Some of the capillaries are obliterated, some are dilated, some are aneurysmal, but all are thickened, and in many the centres of their endothelial plates are occupied by larger or smaller groups of proliferating free nuclei embedded in a fibroid substance. The terminal bronchi in the midst of the indurating exudation are affected in divers ways. Sometimes they are thick, hard, and compressed; sometimes they are soft, loose, thin, and generally or locally dilated. There is, however, almost always thickening of the adventitia, with the occasional deposit of minute caseous lumps therein; the muscular coat is in a state of degeneration or undergoing fibroid substitution; the elastic bands are still undisturbed; and the mucous membrane, congested, infiltrated with a fibroid basis substance, and studded with oval and oat-shaped nuclei, has for the most part lost its ciliated epithelium, which is replaced by a layer or layers of columnar, cuboidal, or flattened cells. The alveolar walls are irregularly thickened, the intercapillary spaces are occupied by a nucleated fibroid tissue, which at one part destroys a portion of the capillary network, and at another projects into granulations or nodules; the alveolar endothelium is replaced by layers of subspheroidal or flattened cells; and the alveolar cavities, already encroached upon by the thickened walls, are at some points occupied by masses of a fibroid substance, with a few round or oval nuclear particles therein. From the concurrence and co-operation of these and other structural changes the affected portion of lung is at length brought into a condition which practically, if not theoretically, must be regarded as a pathological autonomy or entity. In this state the affected portion of lung encapsuled by layers, more or less numerous and thick, of indurated pleural lymph, diminished in size and irregular in form, heavy, dense, tough, and uncrepitant, feels like a mass of indiarubber of unequal thickness throughout. The surface of a section made through such a lung, intersected by fibrous bands, springing from and returning to the thickened pleura, and broken by the patulous mouths of bronchi and bloodvessels drawn closely together, is of a dark-reddish-slate colour, veined between the septa with whitish branching lines, studded with fibrous knots or caseous granules, and closely spotted with muco-purulent points. Cut with difficulty and creaking under the knife, the affected lung when compressed yields from the smaller bronchi larger or smaller quantities of inspissated pus, and, from the parts between, a sometimes scanty, sometimes abundant serum, rich in blood-discs, leucocytes, pus-globules, nucleated cells and fibres, hyaline and granule spheres and free nuclei. Under various names, and ever since pathological anatomy has been cultivated, this condition of lung has been a subject of discussion among pathologists. It is the grey induration of Andral and Addison, the pulmonary cirrhosis of Corrigan, the fibroid of Sutton, Bastian, Moxon, and Wilks, and the chronic interstitial pneumonia of Charcot, Wilson Fox, and Hamilton. Furthermore, this fibroid induration represents in part an early stage of the condition of lung eventually developed by the habitual inhalation of irritating particles of coal dust, stone, or steel.

For an indefinite time, and even beyond the average duration of life, this condition of lung may in favourable circumstances remain stationary, and be found compatible with fair health and all the ordinary duties and enjoyments of life.

But circumstances are not always favourable. In failure from any cause of the general health, and especially under the influence of recurring irritations of the respiratory passages, the various changes constituting the fibroid lung advance, and out of them by metaplastic or by other methods new ones arise. For a time the new and advancing changes are still compatible with tolerable health. But sooner or later they assume a regressive character; the tide of action turns against the organism, and by slow degrees it succumbs. Examined at this stage, the lung exhibits, in addition to the alterations already described, sundry new ones. These are minute accumulations of fat, patches of vesicular emphysema, excavations of various forms and sizes, and, in an uncertain but not large number of cases,[2] cheesy masses and bronchial dilatations. To some of these alterations I shall

[2] I exclude from this statement minute alveolar caseations, almost always present in the immediate neighbourhood of lymphatic pleural exudations

devote a few remarks. Unquestionably some of the emphysemas present in the fibroid lung are the results of physical forces acting in well-defined conditions. But a certain number arise in a different manner, and for the most part they are to be found in the midst or on the borders of the fibroid indurations. It is probable that these emphysemas are produced by more or less complete obstructions of minute branches of the pulmonary artery. For in certain experiments which I performed some years ago I found that by injecting sand or finely powdered glass into the jugular vein, and so producing embolism of some of the intralobular branches of the pulmonary artery, fatty usure, and then emphysema, followed in the territory supplied by the blocked vessel.

Of the excavations or dilatations met with together or separately in the degenerating fibroid lung three deserve notice: the fibroid, the caseous, and the bronchiectatic. The simple or fibroid excavations are small, elongated, irregular, and contain a thin, and sometimes blood-stained, pus. When comparatively recent the surface of the cavity is soft, shaggy, and congested; it is composed of mere fibroid stuff in a state of dissolution, and of fragments of the elastic areolæ of the alveoli, seen by the help of a simple lens, hang from it like bits of tangled thread. When of ancient date, the interior of the cavity is smooth, vascular, and apparently formed by an organised membrane; it is, however, nothing more than an infiltration and induration of the lung substance immediately surrounding the cavity; and although the cavity in some sense secretes, its enlargement proceeds by disintegration of the free surface and a less proportionate "filling in" from behind. The contents of this form of cavity, never a true pus, is produced in some degree by metaplastic processes, but in the main by degenerative and necrotic changes. Unless when old and stationary, elastic areolæ and the débris of disintegrated bloodvessels are always to be found in the contents. The caseous excavations are small or large; the small excavations appear to be formed by a process of necrotic dissolution pure and simple. In the interlobular fissures they seldom extend, and almost always heal through secondary fibroid processes. The large caseous excavations are also, in the main, produced by the chemical changes which finally determine necrotic dissolution; but in a small degree proliferative and metaplastic processes concur, and hence the presence in such cavities of pus-globules, free nuclei, and nuclear fibre.

The caseous masses sometimes found in the interior of the fibroid lung vary much in size; sometimes about the size of a garden pea, they are occasionally larger than a walnut. They are composed principally of epithelioid cells, and in small part of leucocytes, of free nucleated bodies, and of much granular débris, pervaded occasionally by an obscurely fibrillated basis substance. They arise plainly enough in proliferation of the alveolar epithelium, and in the secondary textural changes which that proliferation after a time originates. Sometimes, when small, the masses are surrounded by fibroid tissue. The cause of their development is difficult to determine; but as far as my own personal observations go, the conditions of their genesis are brought about by the concurrence of gradual thickening or compression of a branch of the pulmonary artery, with obstruction, more or less complete, of the neighbouring lymph channels.

Concerning the bronchial dilatations and bronchiectatic cavities, it must be observed that, in the first place, contrary to what might be expected, in a greatly contracted lung they are present only in a small minority of cases. The dilatations are of three kinds: cylindrical, fusiform, and globular. No single hypothesis of their mode of origin hitherto advanced seems adequate to account satisfactorily for the whole facts accompanying their development. Sometimes they are present when there is little induration or contraction of lung; and sometimes when induration and contraction are extreme they are absent. To traction of the thoracic walls and of the interbronchial fibroid tissue as factors in the evolution must be added the active forces in certain conditions of inspiration and expiration and degenerative changes in the bronchial walls. In every dilated bronchus such changes are to be found, and they consist, for the most part, in fatty degeneration of the cartilages, necrotic coagulation of the muscular tissue, and fibroid invasion of the parts below the basement membrane of the mucosa.

Cavities in connexion with dilated bronchi arise at least in two ways: from necrotic solution of caseous lumps in the peribronchial areolar tissue or peribronchial alveoli, and from ulcerations of the bronchial mucosa penetrating the alveoli. When formed, these cavities become, of course, subject to the same dilating forces of the bronchi; and not only under the influence of the general respiratory forces, but also under the traction of neighbouring cicatricial bands, they assume the most varied and irregular forms.

Thus altered by the further invasion of the fibroid process and by its secondary effects, the lung with its consolidations and cavities, its fibrous nodules and caseous lumps, presents the characters of ordinary phthisical disease, and would be commonly regarded as a variety of the tubercular process. And if it be true that the nature of a disease is to be determined not by its completed history during life, but by the structural changes discovered after death, then it must be confessed that there is much to be said in support of the popular view of the tubercular unity of phthisical disease. And if, still further, we accept without reserve the experiments of Koch and the assertions of his followers, that in every such lung as I have just described certain bacilli will be found, and that the terms "tubercular" and "bacillary" are co-extensive and convertible, then it must be conceded that the debate is closed and the question settled.

But for my part, supported as these statements are by the most ingeniously devised and carefully executed experiments, I cannot accept them in the subject under consideration, with unconditional reserve. For in several cases of phthisical disease following upon fibroid invasion of the lung, I have failed to find the tubercular bacilli in the expectoration or in the lungs. To this it has been replied, that if the investigation had been properly conducted, the bacilli would certainly have been found. The only answer that I can make to such an assertion is this: that the process which fails to reveal veritable bacilli in fibroid perfectly succeeds in tubercular cases. But assuming, for the sake of argument, that tubercular bacilli are to be found in every ulcerative non-malignant disease of the lung, and that, unlike every other organ in the body, it is insusceptible of any other chronic inflammatory or ulcerative process but the tubercular, our difficulties are not at an end. It is not easy to see how mere differences of constitution and soil can reconcile, with the exclusive action of a single causal agent, the widely differing histories of the affections now grouped under a single species by the bacillary hypothesis. And the difficulty is not entirely met by the reply of "chronicity," when we remember how, into whatever texture or organ we pursue it, the structure of the tubercle in acute tuberculosis is always the same. It is quite true that in the lung a tubercle when it appears excites fibroid and pneumonic changes, and that one or the other, or both, may so increase as to completely hide the tubercular nodule; it is quite true that sometimes the fibroid, and sometimes the pneumonic change, predominates; and that, in the latter case, the progress of the pathological changes is speedy, and that in the former it is slow; it is quite true that in the tubercular nodule there is a fibrous element, and that sometimes its growth is so disproportionate to the other structural elements that it extinguishes them; and it is quite conceivable, although in over four thousand autopsies I have never seen such an occurrence, that in a veritable tubercular lung one could nowhere find, in its fibroid consolidations, conclusive evidence of the former existence of the tubercular neoplasm. All this is true, or conceivably true, but it does not refute the observations made by others as well as by me, that inflammatory and non-inflammatory fibroid products may invade, alter, and disintegrate the lung without the presence at any time of either the true tubercular nodule or of the veritable bacillus. To assert that a fibroid pulmonary induration is incapable of ulcerative excavation except through the medium of tubercular bacilli is, to say the least, an unproved assumption; and, for the present at least, has no greater claims to unconditional acceptance than the assertion, made with equal confidence a year or two ago, that the presence of giant cells in a given growth was conclusive as to its tubercular nature.

Finally, it must not be forgotten that in accepting the bacillary hypothesis as a dogma no longer to be questioned, we shall have to range under one name diseases which, with apparently nothing in common but the presence of bacilli, are yet not only in the same body but even in the same organ, widely different in their symptomatic characters, course, duration, effects, and issues; and that, unless we are to lose some of the most precious parts of our recently acquired knowledge, and to ignore distinctions justly

founded on concurrent clinical and pathological observations, we shall have to re-classify bacillary affections in such a manner that, whilst the bacillary supremacy remains acknowledged, the differentia giving them permanent and real, although subordinate, individualities shall be formulated and maintained.

The homoplastic are not, however, the only changes which occur in the exudations of primitive dry pleurisies. Metaplastic changes arise; and out of the simple structural elements of the proliferative exudation are developed such changes of form and of arrangement as constitute, within certain limits and conditions, fibrous, syphilitic, leprous, and other growths. But neither upon them nor upon the larger considerations which they suggest have I time at present to dwell. Reviewing the pathological changes brought about by primitive dry pleurisy, it becomes plain that they may be properly arranged as so many pathological entities in four divisions: the neoplastic pleuritic membranes, the fibroid lung, the bronchiectatic lung, and the fibroid phthisical lung. The complete and adequate understanding of these pathological changes is undoubtedly important, but it is not sufficient; for, although sometimes they are the direct results of injury coming from without, they are in the majority of instances the anatomical renderings or structural expressions of underlying states of system which are of the essence of the disease, and demand the first and chief attention. To these dynamic states we should now naturally turn in order to learn how, by their integrations and disintegrations, their ceaseless groupings and shifting equilibria, they originate, maintain, transfigure, and end the varying structural forms which are the only visible manifestations of their presence. Such an inquiry, however, would lead us into the realms of speculative pathology, and leave out of sight the clinical uses of our anatomical study. To this humbler task let me proceed; and in trying to show that the pathological entities have corresponding clinical autonomies, let me endeavour to turn the knowledge of this relationship into use for the daily business of our lives.

Before proceeding with this task it may be useful to state more formally than I have done the position which, at present, the bacillary hypothesis seems to held in the scientific mind. In the first place, it is held that there is nothing autogenetically distinctive in the structure or form of a tubercle; that what alone makes a growth tubercular is the presence in it of the tubercular bacillus; that tubercular bacilli are present in all tubercular and scrofulous products which are thus in nature essentially identical; and that their absence, at some given time from such growths, is not a proof that the bacilli have never been present, but merely that they have been destroyed by some curative change in the tissues invaded by the parasites. In the second place, it is held that the inoculation of certain healthy animals with the tubercular bacilli is followed invariably by an eruption of acute general tuberculosis, and that the tubercles thus begotten, as well as their successors for generations, remain inoculable and virulent. In the third place, it is held that the inoculation of healthy animals with substances not containing tubercular bacilli are invariably infructive, or fructive only in products which are either sterile or beget only local effects. In the last place, it is held that the true and sole causal agent of tubercular, scrofulous, and allied diseases is the tubercular bacillus; and that the various forms which they assume, and the different courses which they follow under the irritative action of the bacilli, are accidental results due to local peculiarities of structure, the influence of external circumstances, and the constitutional tendencies of the invaded organism.

But whilst some of these contentions are proved, and some are probable, they are neither universally nor unconditionally accepted. There is a minority of persons, and I place myself among them, who contend that the exclusively causal agency of the bacillus, although extremely plausible, is not conclusively proved; that a greater number and variety of experiments of control are yet needed to satisfy a just scepticism; and that, even now, in the affections discussed, there must be admitted the existence of bacillary and of non-bacillary consolidations; and therefore of a bacillary and non-bacillary phthisis.[3]

At the present time, when men are still in the fervour of their conversion to the brilliant experimental discoveries of Koch, such protestations of a sober judgment will be regarded as unpardonable sins, and punished with suitable severity. Well, the sufferers under chastisement must console themselves with the reflection that it is only those whose judgments have been disturbed by emotion, or who have never sounded the deepest depths of knowledge, or who have not passed through the perils of its subtlest casuistries, that are exempt from difficulties, or doubts, or fears; and that for the most part truth is won, not by those who rush impetuously forward in its pursuit, but by those who, with open and eager mind, are yet in patience content to "labour and to wait."

[3] De La Phthisie Bacillaire, par le Professeur G. Sée, 1884.

Croonian Lectures

ON THE

HYGIENIC AND CLIMATIC TREATMENT OF CHRONIC PULMONARY PHTHISIS.

Delivered at the Royal College of Physicians,

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LECTURE II.

Curative Treatment. — Relation of Doctor and Patient. — 1. Diet: Defective Digestion; Raulin's Researches on Mineral Substances; Milk; Times of Meals; Cures of Phthisis; Alcohol. — 2. Air and Ventilation; Open-air Treatment; Defective Arrangements for the Treatment of Phthisis in General Hospitals; Brompton and Ventnor Hospitals; Necessity for numerous Small Hospitals for Phthisis in the Country. — 3. Exercise. — 4. Management of the Skin; Clothing.

MR. PRESIDENT AND GENTLEMEN, — With regard to the curative treatment of phthisis, the main points which we ought to aim at are: improvement of the general nutrition of the body, or, to use Dr. Beale's expression, of the "bioplasm"; restoration of healthy respiration and circulation in the lungs; limitation of the existing disease; prevention of fresh outbreaks or fresh infection. The principal means to obtain these ends are: adequate supply of food; abundance of pure air by night and day; regulated exercise; strengthening of the skin; healthful occupation of the mind. We might perhaps say, in other words, that we must aim at improvement of the tissue change by increased supply of pure air and nutritive material to the cells and tissues, and by perfecting the elimination of used-up material; but we must, at the same time, keep off impure air from the diseased spots. I shall discuss the hygienic treatment under the following heads:—1. Food. 2. Air and ventilation. 3. Exercise and rest. 4. Bathing and management of the skin. 5. Climate.

Allow me, however, Sir, before I enter into these points to say a few words on the relation of the doctor to the consumptive patient. Shall the doctor frankly tell the latter that his disease is phthisis? It is still the opinion of many eminent medical men that we should, as a rule, not do so. As long as phthisis was considered an incurable disease, there may have been reason for such concealment, but now, as we know, and can tell our patients, that phthisis is a curable disease, I think the patient ought to be informed of his condition, more or less according to the individuality; and as far as my experience goes this has a salutary effect. The patient is more ready to co-operate with the doctor, and to bring the great and long-continued sacrifices, for he becomes aware of his own large share of responsibility. I have already alluded to the circumstance that intelligence on the part of the patient and his friends is a great help towards recovery in phthisis, and that want of judgment or insight into the nature of the illness, and of the manifold dangers, and into the means of cure, renders the prognosis less hopeful, unless we are able to place the patient under the strictest superintendence of a judicious doctor, or, still better, in a health establishment under the control of a resident medical man and his assistants, or into a well-arranged special hospital.

1. *Diet.*—All those who have been successful in the treatment of phthisis have paid much attention to the question of food. Sir Risdon Bennett and many other physicians have shown that by "feeding" alone great service can be done. If the popular idea were correct, that the appetite and digestion of consumptive patients are specially good, it would be more easy to cure phthisis; but the rule is rather the reverse. The poorer the blood and nutrition of the cells and tissues, the greater therefore the want—the less is often their desire for food. The appetite is not rarely capricious, and the digestion is apt to be disturbed. It happens also that patients object to the diet ordered, and it is therefore sometimes necessary to tell them plainly that without their cordial and constant assistance in this matter they have no chance of recovery. At the same time, however, the fancies of the patient ought not to be disregarded. The food which he desires, if it is in any way permissible, ought to be procured for him. It ought to be as varied as possible, and the cooking and serving of meals ought to be nice. The example of others is mostly very useful; and this is one point in favour of special establishments and health-resorts for phthisis, as at Goerbersdorf, under Dr. Brehmer and at Falkenstein under Dr. Dettweiter. I have also seen at Davos and St. Moritz patients in company with other patients eat and drink, with regard to quantity and quality, what they would never eat in their own rooms alone, or with members of their families. Though it is impossible to lay down fixed rules for all cases, one rule is almost general—namely, that those suffering from consumption ought to take the amount of food required by frequent small meals, and not by only two large meals, as in French, or three meals, as in German and Swiss hotels. This is one of the reasons why ordinary hotels are in general not adapted to the treatment of active phthisis. In addition to breakfast, lunch, and dinner, there ought to be four supplementary meals—namely, early in the morning, between breakfast and lunch, between lunch and dinner, and at bedtime. Before passing in review some of the principal articles of food, I wish to direct attention to the possibility that there may be important relations between the life of the tubercle bacillus and the quality of the food that we take, especially the saline materials which enter into the composition of the blood, the cells, and tissues. A short time ago I had the pleasure of listening to a suggestive lecture delivered by Dr. Vivian Poore at the Society of Arts, in which he related the results of most instructive researches by M. Raulin on the growth of the Aspergillus niger. A short account of these researches is given in Dr. Duclaux's "Handbook on Fermentation," prepared for the International Health Exhibition in 1884. After much trouble, Raulin found the following liquid the best nutritive medium of the aspergillus. It is known as Raulin's liquid:—Water, 1500 grammes; sugar candy, 70 grammes; tartaric acid, 4 grammes; nitrate of ammonia, 4 grammes; phosphate of ammonia, 0·6 gramme; carbonate potassium, 0·6 gramme; carbonate magnesia, 0·4 gramme; sulphate of ammonia, 0·25 gramme; sulphate of zinc, 0·07 gramme; sulphate of iron, 0·07 gramme; silicate of potassium, 0·07 gramme. By sowing the spores on this fluid, two crops of aspergillus can be grown, which weigh together 25 grammes; but if we prepare the fluid without the potassium, the gathering will dwindle to 1 gramme only; the crop has, therefore, fallen to $\frac{1}{25}$th of what it was. It will fall to $\frac{1}{2000}$th if the phosphoric acid, and to $\frac{1}{1000}$th if the ammonia, be withdrawn. The withdrawal of the zinc would reduce the crop to $\frac{1}{10}$th of what it was in the complete liquid—in other words, would bring it down from 25 grammes to $2\frac{1}{2}$th grammes. Duclaux points out that the zinc—in weight only $\frac{1}{3000000}$th of the fluid—increases the crop of the plant by 700 times its own weight; and he further states that, if $\frac{1}{1000000}$th of nitrate of silver be added to the nutritive fluid, the vegetation stops abruptly. We learn from this that microbes require mineral food in the same way as plants and animals do, and if we knew exactly which mineral substances the tubercle bacillus requires, and could, without harm to ourselves, deprive our blood and cells and tissues of these salts, by abstaining from food containing them we should deprive the bacillus of the means of existence. The investigation of these matters, however, is very difficult. It is not easy to construct the best nutritive fluid for each microbe. It can only be obtained by a series of methodical researches. When the best artificial medium has been created, it must be first ascertained that the result of the sowing of the spores is always uniform, otherwise the result of the withdrawing of certain elements cannot be calculated. It is further evident that a study of agents impeding or destroying the growth may also become very important. With regard to the different articles of food, Dr. Bidder, of Berlin, points out from several papers by Dr. Bunge, of Dorpat, that the food of carnivorous animals contains a larger quantity of soda and smaller of potash than that of herbivorous animals, and he reminds us that carnivorous animals are on the whole less subject to tuberculosis than herbivorous animals. If it could be proved that the potash salts are more conducive to the growth of tubercle bacillus than soda salts, articles of food containing excessive properties of potash ought to be taken only sparingly.

Milk is regarded by the majority of medical men as one of the best articles of food in the treatment of phthisis. It contains all that is required by the body, and the mineral matters in the best proportion. It is less irritating than other nourishing kinds of food, and is more easily digested. There are differences in the quality of the milk of different animals, and also of the same animal, according to the food consumed by it, and other influences; but when merely speaking of milk we mean cow's milk. The dangerous substances which can be introduced by it, as the fever poisons and the tubercle bacillus from cows affected by the disease, and principally those with diseased udders, are, so far as we know, destroyed by boiling. We ought therefore, unless we are perfectly sure about the milk-supply, always to recommend the milk to be boiled. Patients often say that milk disagrees with them, but I have only rarely been able to acknowledge this statement as correct. In some cases where there is a tendency to diarrhœa or sickness, or acidity of the stomach, it is necessary to dilute it with from one-third to one-sixth of lime-water, which often exercises a soothing influence on the mucous membrane of the intestinal canal, and may, besides, help to bring on the cretaceous change in caseous deposits. In other cases, especially where there is constipation, the addition of Apollinaris or natural Selters, or Bilin water, is useful; in others that of barley water; in others, a small quantity of coffee, tea, or cocoa renders the milk palatable to persons who have a dislike to the taste of pure milk. In many instances the addition of rum or cognac promotes the digestibility of the milk, especially in persons accustomed to stimulating food, including much alcohol, but this addition ought to be made only under the guidance of the doctor. The quantity of milk suitable to different invalids varies very much, indeed, in the same person at different periods of the disease, and also according to the amount and quality of other food consumed. I generally advise from one and a half to three pints in twenty-four hours, but in many cases, especially those complicated with albuminuria, I restrict, sometimes for weeks, almost entirely to milk and milk food.

I dare not discuss other articles of food in the same way as I have done with milk. Everyone interested in dietetics will find valuable information in the works of Playfair, Frankland, Pavy, and Bauer.

About diet in general I will confine myself to some general rules. 1. To induce the individual to take as much nourishing food as his digestion permits, and to endeavour to increase the appetite and digestive powers by air and exercise, and sometimes by medicinal substances. 2. To give as much choice and variety as can be obtained. 3. To avoid articles of food, or of relish, of inferior nourishing value, if by these the appetite for more necessary articles is diminished, or the digestion of the latter is disturbed. Such articles are, for instance, acids, salads, and especially uncooked acid fruits, sugar, and pastries, a list which might be largely increased. Potatoes ought to be taken only in very moderate quantities. They contain much potash in proportion to soda, and experience shows that the exclusive, or even preponderating, use of potatoes favours scrofula.

I have mentioned before that in the majority of ordinary cases of phthisis, except the very chronic and arrested forms, it is better to take the desirable amount of food in frequent small meals than in two or three large ones. I am in the habit of recommending a plan of the following kind, with many modifications according to circumstances:—At seven o'clock or earlier, while still in bed, a cup of milk by itself, or with a dessert- or tablespoonful of cognac, or with lime-water, or with a small quantity of tea or cocoa and a small piece of bread-and-butter. At half-past eight or nine, after dressing, breakfast of milk, with some slightly stimulating addition, as tea, coffee, or cocoa, bread-and-

butter, or bacon, ham, or fish. At eleven, a tumblerful of milk or koumiss, or sometimes a cup of broth or beef-tea, or a sandwich and a glass of wine. At one or half-past one, a substantial meal of meat, or poultry, or fish, or game, with fresh vegetables, some light pudding or cooked fruit, and a glass of wine. At four o'clock, a glass of milk or koumiss, or a cup of tea or coffee with much milk, and some bread-and-butter or plain biscuits. At seven another substantial meal similar to that in the middle of the day. At half-past nine or ten, on going to bed, a cup of milk, or bread-and-milk, or milk with some farinaceous food, as Hart's, Liebig's, Nestlé's, or Mellin's. At this time, if there are night sweats, the addition of a tablespoonful of brandy is very useful.

In cases of considerable pyrexia it would be injudicious and impossible to give as much solid food as in chronic non-febrile or nearly non-febrile cases, but it is necessary to give as much easily digestible food as the patient can digest. Our aim ought to be somewhat to check the waste, and to replace by food the increased waste. Here alcohol is of great use. Milk is often not digested in its natural state, but it must be tried peptonised and diluted with pure water, aerated water, or, still better, with barley-water or thin gruel. Chicken broth, veal broth, beef-tea, and gelatinous substances are in these conditions most useful; while in health, and in the non-febrile consumptive cases, they ought not to take the place of the more solid proteinaceous substances. In most cases of phthisis it is desirable to introduce into the system a fair amount of fat, and this can often be done better in the shape of bacon, fresh butter, and milk and suet, than in the form of cod-liver oil, though the latter, too, is most useful. There are some popular "cures" of phthisis into which milk or different kinds of fat, assisted by open air, enter largely. You all know the milk cure in the various mountain districts, from the time of the Romans to the present day; the koumiss cure in Tartary. I remember also the buttermilk cure in some German villages, and have often heard that in the American prairies consumptive patients are cured by consuming large quantities of the bone marrow of the buffalo. Many years ago, when assistant at a clinic at Bonn, two of my poor consumptive patients left me to be cured in a neighbouring village by taking three times a day or more frequently a large plateful of a kind of porridge prepared of dog's fat and rye meal, and certainly their improvement was most remarkable. But they had exchanged at the same time their in-door town work for out-door country work. All these cures have two points in common: first, food rich in fat and proteinaceous matter; and, secondly, out-door life.

I cannot close the chapter on food without entering into the debated question of alcohol. Much as I am convinced that in health alcohol is rarely necessary, in phthisis, especially in the febrile stages, experience has convinced me of its great usefulness in the majority of cases so long as the kidneys are sound. It acts as respiratory food (Binz) and limits the waste of tissue. Brehmer, Spengler, Unger, Rüdi, Volland, and Dettweiler use it largely; Austin Flint, too, is a strong advocate for its use. The quantity and quality required vary very much in different cases. In some cases as much as a bottle, and even three pints, of moderately strong wine, or ten to twelve ounces of cognac or whisky, are taken in twenty-four hours with advantage; in others scarcely one-sixth of this amount; and, again, in others alcohol must be altogether avoided. Alcoholic drinks seem to be specially useful in those cases where a pretty large quantity can be taken without unpleasant excitement or headache; but where, on the contrary, a sense of comfort and increased strength is produced by them, where appetite and digestion are improved, flatulence and indigestion removed, and pyrexia, where it exists, is diminished. Where, on the other hand, they cause throbbing in the arteries, headache, listlessness, flushing, or great excitement, or loss of appetite for ordinary food, they are either unsuitable or can only be taken in small quantities. The doctor must decide by careful examinations whether, and in what quantity, alcoholic drinks are to be given. The quality, too, cannot always be known without trial. In Germany and Austria the stronger Hungarian wines are much liked; in the Alps the red wines of the Valteline; but Madeira, Marsala sherry, Burgundy, good claret, and some pure Italian and Greek wines are likewise useful in many cases, and not rarely beer; cognac and whisky suitably diluted are of great value in cases of weakness. Very often Dr. Dettweiler's plan, to give the amount of alcohol required in very frequent and small doses, is of great practical value.

2. *Air and Ventilation.*—Although it is generally acknowledged that impure air is the foremost cause of phthisis, and although Dr. Henry Mac Cormac, Dr. B. W. Richardson, and others have preached not only this, but also that pure air is the most important means of cure, yet we must all confess that in practice the first principles of air treatment are, with rare exceptions, most imperfectly carried out. Wherever climate permits an entirely open air and tent life is the best help in the treatment of phthisis; but this is not easily practicable the whole year round in our climates, although much might be done in this direction. Fears of the inclemency of the weather are far too great amongst the public as well as the profession. Patients affected with chronic consumption, without or with only moderate and partial pyrexia, ought to spend the greater part of most days in the open air, and ought not to be deterred by a little rain, or mud, or low temperature, or by the fact that they begin to cough when they come out of the close house into the open air. Arrangements ought to be made by which invalids are enabled, warmly dressed, to sit in the open air, sheltered from wind and rain. It is here where the degree of intelligence of the patient forms an all-important element in the chances of success. It is necessary, as I have already stated, to give the patient and his friends an idea of the nature of the illness and the means of cure, and to obtain their intelligent, courageous, and persevering co-operation. The patient must see that though it is more difficult to carry out the open air principles in an inclement climate, that it is yet infinitely more injurious to him to shut himself up in close rooms than to use every possible moment of even an indifferent day to walk or sit in the open air. The improvement of the appetite, the digestion, and the strength, the diminution of night sweats, of restlessness, and mental depression, are in most instances so marked that the invalid after some time begins to have confidence, and to feel that his life is rendered more bearable even if no cure can be effected. We must always bear in mind that even in the midst of large towns the air in open places, and even in the streets, is very much purer than within the houses. The researches of Angus Smith, Pettenkofer, and others have shown this with regard to the proportion of oxygen and carbonic acid and other impurities; and those of Miguel with regard to the number of microbes in the air at Paris manifest this in a most striking manner. Their proportion within the wards of the Hôtel Dieu and of the Notre Dame de la Pitié being much larger than in the Rue Rivoli. As, however, the greater part of the twenty-four hours is spent in-doors the arrangements of the house and of the rooms are of the greatest importance. The invalid ought to have sunny rooms, sitting- as well as bed-room, for, though the sun does not shine at night, the vivifying influence which it exercises on the air of the bed-room during the day does not disappear at once with the cessation of the sunshine, but lasts through the night and longer; 2000 cubic feet per head is not too much space for each inmate, and by good ventilation the air ought to be frequently renewed by day and by night. The temperature ought, if possible, never to exceed 62° F.; and the open fire is by far the best producer of artificial warmth; gas ought to be entirely excluded. The bed ought to be open on all sides, and the ordinary consumptive invalid ought not to be longer than eight or nine hours in bed, even if the body temperature is somewhat raised during some hours of the day. It is a horrible custom to keep such invalids during the greater part of the day in bed unless the weakness be extreme. In all diseases it would be a useful subject of discussion when a patient is to be in bed and when not; when he is to take exercise and when to sit or lie still. But in phthisis the long stay in bed, and particularly in the bed-room, is certainly injurious; breathing, ventilation of the lungs, circulation, appetite, tissue change, almost everything is unfavourably influenced. In acute forms and stages of phthisis, when there is much fever, I do not advise the patient to take active exercise, or to fatigue himself by sitting up during any length of time; but it is certain that pure and fresh air is as necessary, and even more so, than during the non-febrile stages. The bed of the patient ought therefore to placed so that he receives as much open air as possible without exposure to actual wind or draught. In summer, and also in winter, weather permitting, a couch or bed ought to be placed on a balcony or terrace, or in an open field or garden; the patient ought to be carried to it and properly covered, lay there from morning to night, or as long as possible. Some

of my patients have spent during weeks, or even months, a great part of the day in hammocks slung up between trees, with great advantage. The change from the ordinary bed treatment in a close room to this open air couch or hammock treatment is an infinite gain to the patient who breathes more, eats better, is more cheerful, sleeps more soundly, and is less troubled with perspiration. The pyrexia, likewise, often rapidly decreases. I shrink at present from touching the open-air treatment of the poor at their homes, except so far as they likewise should be taught to be as much as possible in the open air, and to sleep with open windows; and I may add that I have seen many instances where a change to open-air occupation in all weathers, from indoor work in close workshops or bakehouses, has led to an arrest of disease and recovery. I must enter, however, a little more fully into the treatment of poor consumptive patients in our general hospitals situated in large towns. There they have usually only between 800 and 1200 cubic feet of air per head, with ventilation through open windows, which cannot be efficiently carried out without draught, and is in winter often sadly neglected. The majority of these patients, even if there is only moderate and partial pyrexia, spend the whole, or by far the greater, part of every day in bed, which, as I have already said, ought not to be, excepting in acute cases, or stages, or in excessive weakness; but if, after the subsidence of the pyrexia, they are out of bed standing, or sitting, or walking about in the wards, they are exposed to draughts, and frequently contract fresh attacks of bronchitis or pleurisy, or other illnesses due to chill, and thus take further steps in their downward course. Although I have always been fond of hospital work, these considerations have for a long time been a source of worry to me whenever I stood at the bedside of my consumptive patients, and in despair I have more than once said that they were in the worst place in the world; and yet the hospital to which I am attached stands on an open spot at Dalston, and has small plots of ground attached to it where convalescents can sit and walk, while the hospitals in the interior of London are mostly deprived of this advantage. This is, indeed, a subject, gentlemen, which deserves your serious thought, and I earnestly entreat you, if you agree with me, to enlighten the public and to use your influence to procure better accommodation for the treatment of the consumptive patients of the poorer classes. I know that many medical men, and perhaps some of those whom I have the honour of addressing, are not in favour of special hospitals. If the general hospitals are well arranged for the treatment of phthisis, and situated in good air, some of my objections fall to the ground, but these favourable conditions are rarely met with. Very much better are the arrangements in the Brompton Hospital for Consumption, especially in the new building, which I had the advantage of seeing quite recently with Dr. Theodore Williams. Each of the three floors devoted to in-patients consists of a corridor 10 ft. in width, a large central dining-room, ten wards 13½ ft. high, holding from one to eight beds—forty-six in all. The average floor space per bed is 115 ft., the cubic space being 1400 ft. The ventilation is maintained independently of the windows and fireplaces, and supplies 4000 cubic feet per hour to each patient. The air is admitted by numerous openings placed on a level with different floors—on the east and north into the galleries, on the west and south into the wards, the greater portion being heated by passing over coils of hot-water pipes; a part is admitted directly. The quantity of hot and cold air can be modified at will, and the temperature is capable of being evenly maintained. The foul air is drawn off from the corridors, wards, &c., through extracting flues built in the walls, and furnished with openings at floor and ceiling. These flues run into large air ducts beneath the roof, which communicate with four towers heated by steam coils, forming the exhausting chambers. With these arrangements it is possible for patients to walk about in the corridors, or to sit in the central hall and converse with one another without being exposed to draughts and chills. It was a great pleasure to see almost all the patients out of bed. The drawbacks unavoidable with the situation in London, especially with the east and north-east winds, are the ordinary contamination of the air and the occasional fogs, and the fair results obtained show how much good can be done by judicious treatment and arrangement in spite of such a grave natural defect.

Infinitely more advantageous is the situation of the National Hospital for Consumption at Ventnor, with which I have been acquainted for many years past, and which I have lately again visited, under the guidance of Drs. Coghill and Robertson. The Undercliff is so well known to you that I need not give a description of the delightful and healthy situation. The peculiarities of the arrangement are, you know, that the whole hospital is built in blocks for twelve patients each, that each patient has a separate sleeping room of from 1500 to 1750 cubic feet, and in the newest block 2000; that each six patients have a separate sitting-room, 3000 cubic feet space, and each block (twelve patients) has an additional room in which breakfast, tea, and supper are served, of 3000 cubic feet; that male and female patients dine separately in large rooms at the end of the blocks. There are various arrangements for the renewal of air, which, though they would be regarded as satisfactory in other hospitals, have not appeared so to the authorities of the institution, so that in the new block, on Dr. De Chaumont's recommendation, a supply of 5000 cubic feet of fresh air per head per hour has been adopted, and the fresh air is to be delivered at a temperature of 62° F. Dr. Hassall has rendered a great service to the public and the profession by originating the foundation of this hospital. Between the hospital and the sea there is a large piece of open ground for exercise and sitting in the open air. The diet of the patients is well arranged; the results of the treatment are satisfactory, and the patients are mostly very happy during their stay. What I should like to add are terraces and balconies, on which light beds or couches could be placed for febrile patients to lie on, and thus to enjoy the open air; and, further, large verandahs, glass covered, and with movable glass doors to be opened and closed at will, so that patients might sit and walk there during wet and windy weather. Further useful additions would be seats with shelter overhead and on three sides, turnable so that the shelter might be turned against the wind, and the patients sit there with the whole front open, even in rain and windy weather. I should also be inclined to erect in suitable places walls with reflecting surfaces, to serve as shelter from wind and as reflectors of the sun's warming rays. Hammocks would be at times likewise a comfort.

There are, also, small sanitaria for consumptive patients at Bournemouth and Torquay; but the number of beds added together is almost infinitesimal compared with the number of consumptive patients belonging to the poorer classes. If there were a hundred of such hospitals they would be a fair instalment of what is required to meet the most necessary wants. I should not recommend large hospitals, but small ones, for 80 or 100 beds, with from one to three or four patients in each room; with balconies to hold one bed, so that one febrile patient could be moved into the open air, and more than one such ought never to be in the room. There should be large verandahs for exercise and sitting in wet and windy weather, shady and sunny seats, seats such as roughly sketched above, with turnable shelter to be used in windy and wet weather; and in other respects arrangements similar to those at Ventnor and Brompton. Each hospital ought to have a resident medical officer, and there ought to be ample room for exercise on level as well as on rising ground; the neighbourhood of a pine forest would be a farther advantage. They ought to be in the country or at the seaside, on account of the greater purity of the air. Even in the suburbs the air is much purer than in the interior of towns; thus Miguel found in ten cubic inches of the air of Montsouri (a suburb of Paris) 7600 microbes; in the Rue Rivoli (in the centre of Paris) 55,000; and a still much larger number, as already stated, in the hospital wards, especially in the winter. It would not be difficult to find fairly suitable localities. Surrey, Kent, Berkshire, and Hampshire have good sites. On the southern slopes of their pine-clad hills—for instance, between Leith-hill and Ewhurst Windmill, between East Grinstead, Frant, Wadhurst, and Ticehurst; between Ripley and Cobham; on the Chobham ridges; between Farnborough, Minley, Bramshill Park and Eversley; near Haslemere, on the slopes of Black Down and Hind Head. The southern coast and also the south-eastern offer fair localities, if care is taken in the selection of the spot with regard to shelter, dryness of soil, and exercise ground. The Undercliff, for instance, and the neighbourhood of Bournemouth still possess some not yet overcrowded sites; also Torquay, Sidmouth, Lyme Regis, Dawlish, Hastings, and perhaps Sandgate; on the coast of North Devon and Cornwall and near Llandudno and in Bute good spots could be found. I know, gentlemen, that small hospitals for consumption such as I have suggested are expensive, and that it would be difficult to find the money, but if you are convinced of the advantage to the

patients, and will use your influence, donations and legacies will come in, and in the course of time we shall take a step in the right direction.

3. *Exercise.*—Exercise is one of the most powerful and essential means of cure. It is as necessary as air and food, because it enables the invalid to take both in a sufficient quantity to improve the nutrition by taking up fresh material and removing the waste, and thus to fight a battle with a fair chance of success. Without exercise I should not like to treat phthisis. To take exercise properly requires, however, the guiding hand of the physician; there are judicious persons who can be taught to become sufficiently acquainted with their entire condition and their surroundings to enable them to do neither too much nor too little, but such persons are rare amongst consumptive invalids. In many of them the nutrition of the brain has suffered as much as that of the stomach and lungs and other systems, and their judgment with regard to their own state and their wants is impaired. We ought, therefore, to bear in mind that by far the majority of those suffering from phthisis require constantly to be held by "leading reins," and must be told what kind of exercise to take, how much, and at what times; walking on level, climbing gently, and with measured increase as to duration and steepness. Riding on horseback, skating, and tobogganing are all useful exercises under guidance, but over-exertion ought to be carefully avoided, and one mistake often destroys the fruit of months and years of judicious management. Up to a certain point the sense of fatigue is a guide, but not always, for some persons feel fatigue at the beginning of a walk and improve while taking it, and others never acknowledge to themselves the sense of fatigue. The medical man alone can measure the amount of strength, and how it can be maintained and increased by gradually increasing exercise. Climbing is especially useful, as it brings the whole systems of circulation and respiration into play, and leads to expansion of the lungs and thorax and strengthening of the respiratory muscles. Regulated climbing for a course of weeks and months in suitable cases has a wonderful effect on every organ and function of the body; not only respiration and circulation, but the digestion, the action of the skin, sleep, mental power, resistance to changes of temperature, all show the beneficial effect, and we scarcely doubt that this is due to an improvement of Beale's bioplasm, or "living matter," in the cells. Riding on horseback is likewise excellent exercise, exhilarating and accelerating the circulation, and through this the respiration; and it has been the principal means of treatment in several cases of recovery under my observation (Sydenham). Riding on donkeys may, in some localities, be substituted for horse exercise. Tricycling is likewise useful to some invalids. Pulmonary gymnastics—i.e., a methodical deep inspiration, followed, after a pause, by full expiration, practised in pure air several times a day are very useful in chronic non-febrile cases. Well-arranged exercises of the upper extremities materially assist the expansion of the apices and the subclavicular regions. Where active exercise is impossible from great weakness, or forbidden from inflammatory complications, the movement in a Bath chair is especially to be recommended, and by turning the head against the wind it can be used in almost all weathers. Open carriage exercise is likewise good, but there ought to be very little wind, or some arrangement for sheltering from the wind, by having, for instance, the front hood up, and sitting with the back to the horses, which can be well arranged in landaus. Those who have the chance of being moved in a boat up and down a river, or on calm days on the sea, often derive great benefit from this mode of motion. In some cases under my observation well-arranged journeys, in agreeable company, in rowing-boats, or small yachts, or steamers up the Thames, the Rhine, the Main, the Neckar, the Danube, the Isar, the Seine, and Meuse, have had very beneficial effect on body as well as mind, and the latter ought never to be forgotten in phthisis. In some very chronic cases of nerve prostration, with inability to walk and to take food in sufficient quantity, massage can with advantage take the place of active exercise, being a powerful accelerator of tissue-change, and leading to increased breathing and improved circulation. I have as yet had only a few cases in which I have recommended a plan somewhat analogous to that of Weir Mitchell and Playfair, though very much less energetic, but with evident advantage on the nutrition, muscular and and mental energy. It appears to me, so far as my experience goes, that there should be no active lung symptoms. The open-air treatment has been combined in those cases with massage, the patients having been placed during a greater part of the day on couches in the balcony, or in the garden. Walking exercise was not allowed during the first part of the massage treatment, but was gradually substituted for it.

4. *Strengthening of the Skin.*—Weakness of the skin is one of the prominent features as well in the tendency to phthisis as also in the developed disease, and ought always to be taken into consideration and remedied if possible. A slight change of external temperature, or exposure to a slight draught or change of clothing is apt to produce chill, which by reflex action is thrown on the lungs; it is also a frequent source of bronchitis and catarrh of the lungs, and also of digestive derangements and a great obstacle to recovery in phthisis. Constant exposure to the open air and exercise are the best tonics for the skin, and often suffice by themselves; but in many cases these must be combined or preceded by the judicious use of hydro-therapeutics. The skin has never been altogether neglected in England either by medical men or the public, while on the Continent the neglect has been incredible, and is still so in many localities, hence systematic hydro-therapeutics have had their origin on the Continent; and in the treatment of phthisis too Brehmer was the first to introduce them with special modifications,—viz., powerful cold douches to the chest of very short duration. Unger, Spengler, Dettweiler and others have continued and modified this system; Jaccoud, Sée, and other French physicians are powerful advocates for hydro-therapeutics. Much benefit is no doubt obtained by well-adopted procedures, but they require most careful management by the medical man. Even the ordinary treatment of the skin in itself ought to be guided by the doctor, who will not only examine the state of the skin, but also the condition of the heart and circulation in all its bearings; the degree of reactive power must be cautiously appreciated and gradually raised. In great weakness dry rubbing by an attendant of one part of the body after another is all that can be done; then rubbing the chest with a moist towel, and dry rubbing afterwards. Later on a very rapid sponging with tepid, and again later with cold, water, followed by a short return to bed, and a light, warm breakfast. It requires a considerable degree of reactive force to bear with advantage on rising in the morning the sponging of the whole body by cool or cold water, followed by brisk friction as daily practised by the majority of us in health, and forcibly recommended by J. Henry Bennet, whose views on the hygiene of phthisis have exercised good influence. A rapid plunge into cold water is in many cases of fair reaction the best plan. In others a very short shower bath, and, again, in others a tepid bath for a couple of minutes, followed by a momentary cold shower or plunge into cold water. Many sound hints on bathing and on the management of the skin may be gathered from the editor of the "Book of Health," in his article on the skin. Although by this means the skin becomes strengthened, yet the invalid ought never to neglect woollen clothing from head to foot. He ought not to overload himself with heavy garments while walking or riding, but he ought to have plenty of warm wraps when he sits down or takes passive exercise. The influence of dress on health has been well discussed in a paper by Mr. F. Treves in the "Book of Health," and Pettenkofer's little book, translated into English by A. Hess, is full of useful information.

CASE OF ANEURYSM BY ANASTOMOSIS ON THE HEAD,

TREATED BY LIGATURE OF THE COMMON CAROTID ARTERY, AND SUBSEQUENT LOCAL LIGATION.

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ANNIE S——, aged nineteen, came first under the observation of Mr. Cardew at the Cheltenham Dispensary, in November, 1881. She then complained of a pulsating swelling at the back and right side of the head, involving also the right ear, which was greatly enlarged. She had had some swelling about that position throughout the whole of her life, the first stage having been a nævus, which had never been subjected to any treatment. During the twelve

months previous to her seeing Mr. Cardew the tumour had increased rapidly in size, and had frequently burst, severe hæmorrhage in each case ensuing. The patient was a strong-looking girl of short stature, who, with the exception of occasional headaches, had enjoyed excellent general health. On examination, a considerable tumour was visible, evidently a cirsoid aneurysm, otherwise styled aneurysm by anastomosis, extending from the back of the right ear to the occipital protuberance, and extending as high and descending as low as the upper and lower borders of the temporal bone, occupying, in fact, about twenty square inches. The tumour was of a pulpy consistence, and pulsated forcibly, as also did the ear. A loud thrill was audible over it. It was covered with small and thin-walled venous projections, which were the sites of the frequent hæmorrhages. After a specially severe and dangerous hæmorrhage about the middle of December, 1881—she was stated then to have lost about three pints,—her friends and herself became seriously alarmed, and requested the institution of some radical treatment. Accordingly she was shortly afterwards admitted into the Cheltenham Hospital, and came under the care of Dr. Ferguson. There, after due consultation, it was decided that the common carotid artery should be tied, and this was accordingly done in the ordinary manner and with the full Listerian precautions that have been employed by all the surgeons of the Cheltenham Hospital since the year 1876. The operation presented no difficulty, and calls for no remark save that, the omo-hyoid muscle passing apparently somewhat higher than is usually the case across the neck, it was easier to secure the artery below than above the muscle; in which former position it was accordingly reached and tied. The ligature was of chromic catgut of medium thickness, most obligingly sent to Dr. Ferguson by Sir Joseph Lister. And in order that his kindness should not be unnecessarily trespassed on hereafter, we would desire in this place to repeat Sir Joseph's information, that chromicised catgut of identical quality can be supplied by David Marr of Holborn. The patient's progress after the operation was typically satisfactory, there having been neither pain nor any (even the most trifling) elevation of temperature. In fact, the dressings were finally removed on the eleventh day after the operation, exposing then the firm cicatrix of a wound that had evidently healed by first intention. The immediate result of the operation was the shrinkage, almost to disappearance, of the tumour and the complete cessation of the pulsation. It was, therefore, no small disappointment to notice after the removal of the dressings that a slight pulsation was again perceptible over the site of the tumour. However, she was shortly afterwards dismissed from the hospital in good health and spirits and well pleased at the result of the operation. During the next six months her history presented no points of special interest, save that the tumour became still less noticeable, and that the pulsation remained obscure. But after this six months' period of quietude a collateral circulation succeeded in establishing itself to a somewhat considerable extent, and the tumour began again to increase and pulsate somewhat after its former fashion (though much less forcibly), and there was even some recurrence of hæmorrhage. This being the case, Mr. Cardew (to whose care she had returned) determined to ligature the tumour subcutaneously. One half of the tumour was accordingly ligatured with a silk thread in the usual manner, the latter being tightly tied. The result was the entire stoppage of the pulsation in the part tied. The silk was tightened every day for ten days, after which time, when it had almost cut its way out, it was removed. This process of ligation brought about a notable consolidation of one-half of the tumour, and this at the expense of but little pain or suppuration. Some few days afterwards the posterior auricular artery was ligatured on a pin, which had been first passed under it, this step being taken in consequence of its large size and evident connexion with much of the remaining pulsation. Two months later the other half of the tumour was similarly ligatured subcutaneously, and again, six weeks later, as an additional safeguard, the whole was once more subcutaneously re-ligatured. With this last ligation the treatment ended, almost complete obliteration of the tumour having been effected, with an entire removal of the hæmorrhagic tendency; and on inspection of the patient on March 7th, 1884, and eighteen months after the cessation of treatment, it was evident that a substantial cure had been effected. Some slight softness only was apparent at the position of the former growth, but there was no feeling of pulsation anywhere, save over an artery in the position of the occipital, and the ear, which was formerly so tumid, had returned to a moderate size. The hæmorrhagic tendency had not again manifested itself, and the patient's health and spirits were of the best.

Remarks.—The chief interest of this case lies in its close resemblance to the one treated by Mr. Storks and Sir William Fergusson, and narrated in the latter's System of Practical Surgery (p. 151), where much information respecting such cases will be found. Sir William Fergusson, however, trusted more to obliteration of the vessels in the growth by pins and ligatures, and Mr. Cardew to ligation *en masse*. In respect to all such cases it may be doubted if the treatment by pins or direct ligation could be safely applied without the preliminary tying of the chief nutrient artery, in reference to which question the following remarks of Sir William Fergusson are much to the point. "The practice above described was certainly attended with considerable hazard, both on account of the inflammation as well as the hæmorrhage, and it was not without misgivings that I adopted it. But the case seemed otherwise hopeless, and the previous obliteration of the common carotid led me to trust that such bleeding as might occur could be controlled. Without this preceding step it may be doubted if the result would have been equally successful; and I am therefore disposed to attribute the satisfactory issue to a combination of the two methods—viz., first, the obliteration of the main arterial current towards the disease, and then the destruction of the vessels in its substance." It is interesting, finally, to note the success of both these cases in the face of Billroth's direct condemnation of the treatment pursued (Surgical Pathology, vol. ii., p. 337), as interesting as it is to remember that the treatment which was written about so warningly by John Bell is that very one of extirpation most highly commended by Billroth.

Cheltenham.

THE BACILLUS OF SYPHILIS.[1]

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TRANSLATED BY Dr. J. N. BLOOM, B.A., M.D.

SINCE Hallier's time, a period of almost twenty-five years, the virus of syphilis has been the subject of frequent communication and of almost constant discussion; but, nevertheless, the conviction is universal that none of these researches have even partially solved the question, because of their countless contradictions, inefficient methods, and errors that are easily recognised. And further, as my effort is not the continuation of any preceding one, I will not tax your time and patience by a review of the literature of the subject, but will at once detail my own observations, referring for the literature and development of the subject to a publication of mine shortly to appear.[2]

My researches with syphilitic products have led to the discovery of micro-organisms which until now were unknown, which are constant in their appearance, and which are thoroughly characteristic. They approach nearest in their morphological appearance and staining reaction to the bacilli of leprosy and tuberculosis, and, like these, are to be found in granulomata. By means of the method about to be given they appear as straight or curved, and sometimes irregularly bent rods, which are on an average from three and a half to four and a half micro-millimetres long, and from one-fourth to three-tenths thick. With a low power they appear uniformly smooth, presenting here and there a bulbous swelling at their extremities. With a homogeneous immersion lens (one-twentieth of an inch, Reichert) their surface appears irregularly undulatory, and slightly notched, yet in a manner such as to leave no doubt as to their rod nature. Within them we recognise, at equal distances from one another, oval, colourless, bright spores, from two to four in every bacillus. I never saw the bacilli lying free, but always enclosed in cells. These cells are from a trifle larger than, to double the size of, white blood-

[1] A paper read before the Royal and Imperial Society of Physicians of Vienna, on March 27th, 1885.

[2] Die Syphilis Bacillen, Wiener Medizinische Jahrbucher, first quarter, 1885; also as a brochure about to be printed by Braumueller, Wien.

corpuscles. They are round, oval, or irregularly polygonal, and sometimes show a central or eccentric oval nucleus in the shape of a light spot. The bacilli are to be found in them singly or in groups of from two to nine or more, sometimes intertwined, or, again, in irregular confusion. The cells containing bacilli occur sparingly in the midst of the infiltration, more often on the borders of the same in the apparently normal tissue immediately adjacent. I have observed them in papules embedded between the prickle cells of the rete Malpighii, and also in the initial lesion in the lumen of a large lymphatic duct. It seems to me to be beyond doubt that they possess the power of active locomotion—migratory cells. To obtain these results I had to employ a new method. Starting with the idea that bleaching measures would be serviceable in microscopic work, as well as in the arts and trade, I succeeded, after numerous fruitless attempts, in finding what I sought in permanganate of potash and sulphurous acid. In brief the method is as follows. Sections, which have been hardened in alcohol, are coloured in a solution of gentian violet (Ehrlich-Weigert),[3] from twelve to twenty-four hours at the ordinary temperature, and then for two hours at a temperature of 104° F. The section, in order to be decolourised, is first washed in absolute alcohol for several minutes, and is then, by means of a glass or platinum needle, conveyed into a watch-glass containing about three cubic centimetres of a 1½ per cent. aqueous solution of permanganate of potash. In this it remains about ten seconds. As a result, a brown flocculent precipitate of the hyperoxide of manganese is formed in the fluid, and also covers the section. It is then placed in an aqueous solution of chemically pure sulphurous acid, in which it is deprived of the hyperoxide of manganese, either instantaneously or in a very short time, dependent upon the concentration of the acid; it now appears entirely rid of its colouring matter in some places, while in others it is still deeply coloured. It is next washed in distilled water, and is again placed in the solution of the permanganate of potash, in which, as in the succeeding repetitions, it remains three or four seconds, and from which it is again conveyed to the sulphurous acid. When it appears colourless, which as a rule occurs after this procedure has been gone through three or four times, it is dehydrated in alcohol, rendered transparent in clove oil, and mounted in Canada balsam. Xylol Canada balsam is best. This method of decolourisation, to which, besides those already mentioned, the bacilli of leprosy and tuberculosis do not yield, not only permits the micro-organisms of syphilis already described to be brought to view, but is a characteristic staining reaction of them. The bacilli of syphilis, leprosy, and tuberculosis are not decolourised by my method. All other bacteria are. The bacilli of syphilis, however, are differentiated from those of leprosy and tuberculosis in that the latter are not decolourised by nitric and hydrochloric acids, whereas the bacilli of syphilis are. My method failed in the examination of splenic fever, typhoid, equinia, endocarditis ulcerosa, croupous pneumonia, various secretions of wounds, the contents of acne and scabies pustules, and also in the examination of normal tissue. I wish also to mention that my attempts to prove the presence of these micro-organisms in two chancroids were futile.

By means of the method just given I have examined sixteen cases of syphilis, which I will simply enumerate without going into particulars. Sections of two initial lesions; a lymphatic gland; three papules and four products of the tertiary stage; and further, the secretions of three initial lesions, and of the same number of moist papules. The result was a positive one in every case. The number of bacilli found varied. In general they were not very numerous. As regards the number, the age of the infiltration, and perhaps also the length of time since infection, are of importance. Thus I found in every section of two initial lesions, and of a periosteal gumma in a new-born child, one or more groups of bacilli, and here and there quite large groups among them; whereas in other cases a series of sections had to be examined before the undoubted presence of bacilli could be confirmed. According to my experience, the proof of the presence of the bacillus in syphilitic products is of equal diagnostic importance to that of the tubercle bacillus in the sputum.

Inasmuch as I have found, as a constant factor in undoubted syphilitic products of various kinds, a special kind of bacillus which differentiates itself in form and staining reaction from all those known up to the present time, and which therefore is a specific bacillus, and as we believe ourselves justified as regards other infectious diseases in assuming the constant occurrence of peculiar micro-organisms to be the cause of the disease, I maintain, as regards syphilis, that it is very probable that the bacilli which I have discovered are the carriers of the syphilitic virus. In addition to this specially important result the above-mentioned researches present several other theoretically and practically important facts and deductions, which I will briefly mention. The occurrence of bacilli enclosed in lymphoid cells whose power of locomotion, according to my before-mentioned observation, is beyond dispute; further, the occurrence of bacilli in the apparently healthy tissue lying nearest the infiltration; and, finally, and most especially, their discovery in the initial lesion in a closed lymph-duct—support the theory that the poison of syphilis is conveyed from the place of infection, first by the lymphatic system, and later through it into the blood-vessels. The occurrence of bacilli in the rete Malpighii is of great theoretical interest, and accords with the clinical observation that in certain cases syphilitic infiltrations need only lose their covering of horny epidermis (moist papules) to be contagious.

As I have shown bacilli of the same nature as in primary and secondary products to exist in typical gummata, we must look upon the latter, as indeed do the greater number of syphilologists, as specific syphilitic affections. Only a few writers have evaded the difficulty, inasmuch as they consider gummata to be the result of a specific cachexia, and not of a syphilitic virus, basing their claim upon a number of negative inoculations, and pointing out that syphilitic patients in the tertiary stage, as a rule, produce healthy—i.e., non-syphilitic—children. Recall to mind how long Ricord and his followers maintained the non-infectiousness of the products of the secondary stage, where the circumstances were so much simpler, because of the much greater frequency, the situation, and the nature of the manifestations. Further, I cannot understand why because one has some local syphilitic deposit he should not have healthy generative cells, and as a result should not produce healthy children. In heredity we must not forget that there are affections of the generative glands which have, perhaps, no subjective or clinical symptoms, and yet are followed by the production of diseased generative cells, or, at least, of spermatic fluid containing the virus. I know from a personal communication of Armauer Hansen, and I have been in a position to convince myself of it, that the testes of leprosy sufferers contain numerous bacilli in and between the seminal ducts, whether symptoms of disease of the testicles exist during life or not. In the future the question as to whether a given case is syphilis can only be affirmatively answered if the presence of the specific bacillus can be demonstrated.

In conclusion, I venture to hope that by continuous research, particularly in the cultivation and inoculation of the bacillus which I have discovered, etiological relation between it and syphilis will be so decidedly proved that none will deny it, and that a means will thereby be attained for successfully combating one of the saddest diseases of the human race. The experiences of the last few years in the successful attenuation of the virus of splenic fever and other infectious diseases warrant the hope that this expectation is not over-sanguine.

[3] One hundred parts of a concentrated aqueous solution of aniline with eleven parts of a concentrated alcoholic solution of gentian violet.

CLINICAL MEMORANDA OF TWO CASES OF CHRONIC VAGINITIS.

WITH REMARKS.

BY J. BRAXTON HICKS, M.D. LOND., F.R.S., &c.

CASE 1. *Vagina throughout covered with granulations: freely bleeding; complete recovery.*—A widow, of about sixty years, applied to me in consequence of a constant bloody discharge from the vagina. To the finger it felt velvety and granular, from os to vulva, bleeding on examination. The passage of the speculum caused much distress, and also bleeding; and it revealed the fact that from one end to the other the vagina looked as if covered by granulations as of a healing wound. The bleeding being severe, it was necessary to swab the whole surface over with tincture of perchlo-

ride of iron diluted with three or four times its weight of water. This restrained the bleeding, but gave some pain. Astringent injections of tannin were used daily, and every third day the speculum was passed, and a sponge saturated with the dilute tincture of perchloride of iron left behind, and subsequently withdrawn. As this gave much distress, injections of the same solution were used alternately with tannin solution (two drachms to the half pint.) The vagina was very sensitive, and all manipulations were attended with distress. But at the end of a month she was free from the bleeding, and in a few weeks more the vagina had resumed its normal state.

CASE 2. *Severe chronic vaginitis, with constant and free secretion of pus for over a year; treatment by injections hitherto useless; cured.*—This case, though not raw and bleeding like that just described, was with this exception the most severe of any I have seen. Throughout the whole passage it was felt to be granular and velvety, and through the speculum the mucous membrane was observed pouring forth purulent secretion in large quantity. Her age was about thirty, married. The condition had come on gradually, and there was no information leading one to suspect it to have had its origin in gonorrhœa. She had been under treatment by injections for a year before I saw her. She was admitted under my care into Guy's Hospital, and the vagina treated by means of the speculum. Various applications were used in succession: nitrate of silver (twenty grains to the ounce) once; swabbing with the iron solution, as in the former case; plugging with cotton having powdered tannin diffused in it every day for some time—all of which gave gradual improvement. After a fortnight I applied a drachm of anhydrous sulphate of zinc to the upper half of the vagina, plugging it below with cotton well greased. This caused considerable pain and some exfoliation of the vagina; but when it had passed over, the vagina made a quick recovery, aided of course by continued though milder injections, till she left the hospital cured in about a month from admission.

It is not often that cases of like severity are seen; but many present themselves of long standing, with a granular state of the vagina and pus-like discharge, defying the former treatment. But these are obstinate only for the reason that they have not been thoroughly and perseveringly treated; either the syringing of the lotion has been inefficient, applied in vertical posture, or by a sponge only to the vulva, it having never properly reached the upper portion of the vagina. The mode of application is of more importance than the kind of drug employed. The material should be in contact with the diseased membrane for ten minutes at the very least, if possible for an hour, or, better still, for twelve hours; if used as an injection, the patient should be in the horizontal position. But it is best in all cases to commence treatment with a good swabbing of the upper half of the vagina with strong carbolic acid or iodised phenol through the speculum, which should be retained for five minutes, and then the superfluous portion removed by dry cotton. Care should be taken that a portion be not drawn down to the vulva; if it should be, pain will ensue; this, however, can be removed by washing the part with wet cotton. Care also must be taken lest the carbolic acid run down the speculum on to the thigh or drawers, for if it does, a blister will ensue, and much grumbling likewise. This carbolic application might be repeated in about six or seven days, whilst twice every day an astringent lotion can be employed as strong as can be borne without distress. Of these there are numerous kinds:—Chloralum solution (one ounce to the half pint), tannin (two drachms to the half pint), boroglyceride (one ounce to the half pint), the old sulphate of zinc and alum lotion, tannin and alum mixed, tannin with iodoform, bichloride of mercury (1 in 1000). Preceding the use of either of these, it is well to employ an antiseptic douche, in order to wash away the secretions which would impede the action of the astringents. But I prefer to apply every three or four days, through the speculum, a stronger astringent than can be employed by the syringe—such as the tincture of muriate of iron diluted three times, strong chloralum; or, as recommended by Dr. Oldham, the walls of the vagina can be kept apart by a plug of cotton. An excellent way of effecting this is by using pledgets of cotton with a string attached, diffusing through them dry powdered tannin and alum with a little iodoform, passing these through the speculum and leaving them behind, and removing them after twelve hours. This can be done every second or third day. But I think that although the healthy vagina tolerates anhydrous sulphate of zinc and the tincture of muriate of iron or the weaker solution, yet when it is abraded or spongy these agents are apt to cause exfoliation of too severe a kind. The ordinary sulphate of zinc or alum, however, it will readily bear. These and similar expedients will, if continued steadily, almost always cure the condition as far as the vagina is concerned; but inasmuch as the mucous membrane of the uterus is often involved, attention must be directed to this part, or the vaginitis will recur.

George-street, Hanover-square, W.

MALT AS FOOD.

BY J. MILNER FOTHERGILL, M.D.

MALT as food has a great future before it. In the process of malting (which is a rapid germination) a distinct change is brought about in the seed. By the action of the diastase the insoluble starch is converted into soluble dextrine, which goes sweet in the mouth, so near maltose is it. The malt-combings, which are too rich in albuminoids for the brewer's purposes, are useful when malt is looked at as a food. Malt contains dextrine (some diastase), soluble albuminoids and phosphates, and when ground is an admirable food, while it is not expensive. Its taste is pleasant. It can be made into a pudding with an egg and some milk, and as such is palatable. It can be made a constituent of a milk pudding with advantage. When the brewer mashes his malt with hot water the diastase remaining in the malt converts the dextrine into maltose, which the yeast (next added) breaks up into alcohol and carbonic acid gas. The best white malt is not heated to more than 190°, as the diastase is acted upon injuriously by a heat above that point. Maltose is a sugar which does not readily undergo the acetous fermentation, and, therefore, as Dr. Mitchell Bruce points out in his "Materia Medica and Therapeutics," "will not give rise to acidity and dyspepsia." This is a great matter, as the cane sugar the cook adds to stewed fruit and milk puddings readily undergoes the acetous fermentation in many stomachs. The lævulose sugar of fruit, like maltose, readily undergoes the alcoholic but not the acetous fermentation. Maltose being less powerfully sweet than cane sugar, a greater quantity is necessary to sweeten the pudding. If the raw starch, semolina, sago, or tapioca be first put in the dish by itself, and placed in the oven for an hour (taking care not to have it burnt by the oven being too hot), not only are the starch cells cracked, but a certain conversion of the starch into dextrine takes place. If to this be then added an equal quantity of ground malt and some hot milk poured on, and the dish be allowed to stand a few minutes before being put into the oven again, the diastase of the malt acts upon the farina and converts it into dextrine and maltose. Dextrine and maltose being soluble, the pudding is very thin. Such a pudding is admirably adapted for invalids and dyspeptics, as requiring scarcely any digestion in the body. For those with whom ordinary milk puddings produce acidity, such a pudding is specially suitable. Ground malt may be added to fresh milk, and forms an admirable food in cases of acute disease. Baked flour perhaps goes better with meat broths, to which it gives a high food value. (Well-baked flour requires but a touch of saliva to render it soluble, and, added to meat broths and gravy soups, renders them very nutritive.) Malt, being sweet, goes better with milk, or apple-water, or tamarind-water, or lemonade, and gives us a food which being all but independent of the digestive act, can be most usefully employed in the sick room. Beef-tea (which alone is scarcely a food) and milk-and-seltzerwater pall upon the palate of the sick person, who craves variety just as do healthy persons. The adoption of ground malt as a food will solve for us one or two knotty questions connected with feeding people when the digestive power is feeble. Drinks like lemonade, made with malt instead of cane-sugar, would not only not go sour in the mouth and stomach, but would contain some phosphates and soluble albuminoids, and so form admirable beverages in pyrexial states. The many malt extracts now in the market are well adapted for such end.

Park-street, W.

PATHOLOGICAL RELATIONS OF FIBROUS DISEASE.

BY CHARLES DAY, M.R.C.S., L.S.A.LOND.

IN asking permission to record in THE LANCET a case connected with a certain group of diseases presenting somewhat peculiar features, I am reminded of a passage in the preface of Mr. Abernethy's work on the "Constitutional Origin and Treatment of Local Diseases," where, supporting his opinion of the advantages resulting from the report of cases, he observes: "If diseases, like other objects which we mean to delineate, be placed in various points of view and illuminated at pleasure so as to show distinctly their various parts, one accurate representation would suffice; but we see them obscurely, and as knowledge increases it seems like light shining from different places to illuminate the various parts of our examination." Thus I think it may be allowed that although the mere account of any case of morbid growth may not be susceptible of practical deductions available in the treatment of such disease, yet it may bring to our knowledge some accompanying phenomena hitherto unobserved, some special characteristic attending the case under observation, or the absence of the special physiological effects usually observed as resulting from the interruption to or cessation of the functions of some particular organ; and I think in the case I have to narrate there will be found points of sufficient interest to merit attention.

A lady, aged forty-five, married, no family, no miscarriage, menstruation having ceased without constitutional disturbance, of good height, fine figure, excellent physique and health, the only interruption being occasional attacks of biliousness attended with "sick headache," having had some fatigue and anxiety from attendance on a sick relative during the month of January, 1882, necessitating her getting up perhaps more than once in the night to see to the invalid in the adjoining room, was attacked with catarrh. As this subsided she complained of pain in the lumbar region and shoulders, which was regarded as rheumatism resulting from the cold. But in March inconvenience was experienced from a frequent desire to pass water, with difficulty in micturition, which increasing, an examination was made on April 2nd. There was no fulness in the hypogastrium indicative of any accumulation of urine, neither was there any tenderness. On passing the catheter not more than half a pint of urine flowed out; but although the quantity was small it afforded some relief. It was of a natural colour, sp. gr. 1019, and healthy to ordinary tests; no sediment, merely mucous cloud. After a short use of the catheter, the quantity removed each time being very small, the irritability of the neck of the bladder gradually subsided, but returned in a fortnight, causing painful efforts of expulsion, with the result of passing only a few drops at a time. This condition suggested the necessity of a more thorough examination, for although there was no sign of uterine trouble save the pain in the back, now of diminished force, the rheumatic character of which appeared to be confirmed by its attacking the lower extremities, the knees, ankles, and feet becoming very painful and swollen, the joint of the great toe presenting the usual appearance of gout, the patient at the same time being exceedingly apprehensive of and sensitive to anything touching the foot, yet treatment affording no relief, and nothing to be detected amiss with the bladder, it was evident the mischief was deeper seated. On passing the finger into the vagina it encountered an obstruction which felt like the os uteri, patulous, thickened, and corrugated, the first impression being that it was a case of prolapsus, but proved to be a fibrous growth springing from the sides of and encircling the ostium vagina. Passing the finger through the centre of this growth, the upper part of the vagina felt as though roofed in with a firm, smooth body—the uterus retroverted,—the walls of which were infiltrated with fibrous deposit, the whole being firmly adherent to the brim of the pelvis, the result no doubt of perimetritis. In the left labium was a fibroid perfectly round and smooth the size of a large gall-nut. In the left labium was a similar growth of smaller size, and on examining the rectum patches of induration could be felt. From the commencement to the end of the case there was not the slightest tendency to hæmorrhage, neither was there any discharge beyond a slight moisture, having no unpleasant smell save a faint odour somewhat resembling blood halitus. The progress of the case became very rapid, the growth in the vagina increasing until the central orifice was not larger than a No. 12 bougie. For the first two months the appetite was fairly good, but gradually became more and more impaired; then came on nausea, pain after food, and at last rejection of food by vomiting, unaccompanied with coffee ground sediment, merely the food returned. The urine—dating from the time when the catheter was first used, April 2nd, when scarcely half a pint could be withdrawn—became less and less in quantity until none could be withdrawn by that instrument; and from June 2nd to June 16th, when the patient expired, the secretion entirely ceased. During this time no inconvenience or any desire to void urine was experienced; neither was there any accompanying ascites, anasarca, or delirium, no evidence of toxic action from retained urea, unless the sickness and rejection of food could be referred to that cause, and not to malignant disease. The mind remained undimmed until the last moment arrived. Only for a short time in May did she complain of being disturbed by dreams, generally of an absurd tendency. No pain was present to add to the suffering of the patient and the distress of friends. The restless tossing to and fro, the very weariness of weakness as strength went out with the ebb tide of life is painful enough to experience or to watch. The emaciation became extreme and the skin assumed such a remarkable whiteness that it might well be taken to represent the reflection of "pallida mors."

There are several interesting features in this case, which, I think, may be pointed to as deserving consideration. Thus, the urine, which from an early period of the illness was scanty, diminished in two months from the small quantity of half a pint secreted in twenty-four hours to *nil*, and for the long period of fourteen days not a drop was secreted, or if secreted did not find its way to the bladder. If formed without passing from the body, one would naturally look for some corresponding systemic disturbance, some fluid infiltration into cellular tissue or cavity, some disturbed mental functions; but no, we observed none of these things. The stomach alone exhibited disturbed action, which might have resulted from that cause, but which I think there is far greater reason to believe arose from the same organic change which had invaded so many other parts of the body. Then the bowels became equally dormant without any abdominal fulness, so that ingesta being refused, feeding per rectum of no avail, and the natural outlets for refuse material being closed, one might almost describe the wasting of the body as a process of natural cremation through the lungs. The general state of fibrosis is also remarkable. The vulva, vagina, uterus, rectum, and doubtless the kidneys and stomach, were all impregnated with the same morbid material. The suddenness of its development in an apparently healthy person, its rapid progress, the absence of pain, hæmorrhage or any discharge, the want of a probable cause of its inception, and other circumstances previously referred to, all tend to give additional interest to the examination of the subject, and make us pause, as we too frequently are obliged to do, when endeavouring to trace the why and the wherefore, the *fons et origo*, of those many mysterious and manifold changes which constitute the deviation from that happy state called health, the lot of so few of us, to that other state designated disease.

In formulating a history for the case one is somewhat at a loss. What shall we say? Was it a constitutional cachectic diathesis, such as one might affix to cancer attributable to heredity? or caused by local irritation acting through nervous conduction on an anxious and depressed condition of the mind, inducing by some unknown agency such a change in the blood and eliminating organs as to result in the formation and general deposit of this special morbid material? The pathological position of fibrous disease I think is at the present unsatisfactory, and remains one of interest and doubt. Whether it is a disease *sui generis* of independent origin, unassociated with any disease, acting, as one may say, *loco parentis*, or whether it is essentially cancerous in its nature, and therefore connected with heredity, as held by Dupuytren, Ashwell, and Hodgkin (an opinion which may yet find upholders), is a wide subject for discussion and beyond the scope of this communication. But a case in which scirrhus of the breast existed with fibroid in the vagina, similar to one reported in a recent number of THE LANCET, leads not illogically to the view that, if not identical, there is much to favour the opinion that diseases so associated may result from a similar

constitutional idiosyncrasy capable of developing the one or the other. Inquiring into the family history of the patient, I could not hear of any member who had suffered from cancer in any form, but there had been gout, an attack of which manifested itself during the progress of this case.

Since reading Mr. Hutchinson's admirable Bowman Lectures, in which he traces a very intimate connexion between gout and various diseased conditions of the eyes, I have been impressed with the thought whether a similar relation may not be found to exist between that disease and other maladies, such as the one in point and others of a more malignant character. Additional force has been lent to the thought by the following circumstance. A family with a *long* history of gout has in the last two generations suffered but little inconvenience from it. The grandfather of the present generation was the last who experienced any *violent* attack. He was a "martyr to it," and crippled by it. He had four children, two sons and two daughters. Of these one of the sons only had two sharp attacks in middle life, remaining free up to the time of his death, which occurred at the age of seventy from cancer of the pylorus. Not one of his six children had any positive attack of this complaint (gout), although two of the sons had enlargement of the great toe-joint, but one daughter died of cancer of the breast, two sons of cancer of the bowels, and one son of cancerous ulceration of the leg. Cancer was unknown in this family when gout was in the ascendant. I can relate another case of a lady having gouty ancestry who became the subject of scrofulous ulceration of the glands of the neck. Some time after these healed a fibrous tumour formed in the uterus attaining a large size, unattended with pain or hæmorrhage, the health remaining unaffected. Sir James Paget also in his Bradshawe Lecture, "On Some Rare and New Diseases," like Mr. Hutchinson, tracking certain of them, more perhaps by history than pathology, discovers gout to be the source whence they spring, suggesting that as the typical form becomes less common, others hitherto unknown, or but little recognised, assume a prominence and attract attention by their increasing number, and though presenting at the first glance scarcely any feature by which their relationship would be suspected, yet, as he observes, "types vary in diseases as in species," and "the certainty and probable extent of this variation must seem the greater if we consider the mingling of diathesis in transmission from and through both parents." Thus he says, "In phlebitis we very often trace a variation from the customary type or standard of the very old and heritable disease—gout; in short, all the evidence of being one of the many forms of what is called incomplete gout." Osteitis deformans, rickets, and mollities ossium appear to have some relation to gout, "for some of the cases have known inheritance of gout," and are sometimes seen in "typically gouty persons."

It must be allowed that in searching after an "unknown quantity" a certain amount of guessing is permissible, and I think, with Sir J. Paget, "that it is a legitimate use of the imagination which may happily discern a way towards the truth." Hence, when we find fibroids and cancer associated or separated, yet blastemal formations developed in individuals of a typically gouty descent, it can scarcely be called "using the imagination to the furthest bounds of propriety" to suggest that they both owe their existence to the same dyscrasia. As one swallow does not make a summer, so deductions made from one or two cases may perhaps be regarded as only hypothetical, yet they may serve as a basis on which co-operation may establish a substantial structure of facts confirmatory of the view here suggested.

St. Mark's-square, West Hackney, E.

THE BRITISH OPHTHALMIC HOSPITAL, JERUSALEM.—On the 27th ult. a meeting in furtherance of the interests of this hospital was held in the Jerusalem Chamber, Westminster. The chair was taken by Sir A. H. Layard, and amongst those present were Sir Edmund Lechmere, Bart., M.P., Hobart Pasha, Sir Richard Temple, and Mr. Mocatta. The hospital was founded in 1882 by the English branch of the Order of St. John, and is chiefly intended to provide proper treatment for the peculiar diseases of the eye prevalent amongst the population. At present the hospital contains only four beds, and is maintained at an annual cost of £900, but double the amount is needed to carry on the work effectually.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at mor borum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

CHARING-CROSS HOSPITAL.

CASE OF LATE CONGENITAL SYPHILIS OF THE THROAT; TREATMENT WITH MERCURY AND RECTAL ALIMENTATION; CURE; REMARKS.

(Under the care of Dr. BRUCE.)

THE diagnosis of the later manifestations of congenital syphilis is sometimes extremely difficult, especially when, as in the case which we publish, there are few, if any, signs in the patient himself of previous disease. In the absence of personal and family history in such cases it is sometimes necessary to wait until the effect of treatment has been tried. Although congenital syphilis at the age of this patient is not often fatal, still from the situation of the local lesion it may become so, and the treatment by nutritive enemata which Dr. Bruce adopted had without doubt very great influence in producing the cure of the case.

W. D——, aged thirteen, from Kent, was admitted into Charing-cross Hospital on Sept. 2nd, 1884, suffering from severe ulceration of the throat.

History.—He stated that his illness commenced about a month ago with inflammation of the lungs, followed within a week by the sore-throat, which has persisted ever since. From the first there was pain on swallowing and discharge from the mouth, and he immediately began to lose flesh. Previous to this illness the boy had been fairly healthy, but not robust. It was ascertained that as a baby (? aged two years) he suffered from rash and snuffles, and was treated at King's College Hospital. He has recently been living in an isolated house, in a healthy district, and the drains have been in good condition. He is the second of nine children; the eldest is alive and well, but all the others snuffled as babies, and several are dead. His father is alive and well. His mother miscarried five times.

Condition on admission.—The patient is a wasted, fair-complexioned boy, confined to bed. He lies with the mouth open, in obvious distress in the throat, and speaks with a very indistinct nasal voice. The skin is of an earthy tint and very dry, without rash or œdema. The uvula and posterior border of the soft palate have entirely disappeared, leaving an ulcerated margin; anterior to this the palate is red and shiny. The posterior wall of the pharynx is entirely occupied by a foul greyish-yellow slough, which extends upwards and downwards as far as the eye can reach. There is no swelling of the glands of the neck. The patient takes food indifferently, owing to dysphagia; part returns through the nose, and part is rejected by vomiting. The liver and spleen are not enlarged; bowels confined. A hacking cough ends in expectoration of mucus and sloughs detached from the pharynx, which contain no tubercle bacilli. The physical signs connected with the lungs, heart, and abdomen are normal. Pulse 74, regular, weak; urine scanty, sp. gr. 1033, without sugar or albumen. Sleep good.

Diagnosis.—Syphilitic ulceration of the throat, congenital.

Treatment.—Mercurial ointment (half strength), a portion as large as a hazel nut to be rubbed into the adductor region of the thigh daily. Pharynx to be rubbed with solution of nitrate of silver, twenty grains to the ounce. To be fed by nutrient enemata of beef-tea, yelk of egg, and brandy, four times a day, whilst allowed to take what food he cares to attempt by the mouth.

Progress of the case.—Sept. 12th: Very little but still decided improvement; rectum becoming irritable. Two minims of tincture of opium added to each enema. Little change in throat. Strength of silver solution increased to forty grains to the ounce. A little brandy taken by the mouth.

16th.—Marked improvement; the patient looks more lively and the throat is less foul, the soft palate looking more healthy, its posterior margin more raw, and the pharynx less thickly covered with sloughs. The enemata are better

retained; a little food, both solid and fluid, taken by the mouth. Urine very scanty and high-coloured.

19th.—Strength increases; but little change in throat since the 16th. Most of the enemata retained; very little food can be swallowed. Spirits improving; voice still thick and nasal. Throat to be swabbed out twice a day with silver solution, sixty grains to the ounce.

24th.—Marked improvement. He sits up for an hour, and is more active and cheerful. No dysphagia; no regurgitation of food; enemata all retained. Back of pharynx presents only a thin slough; posterior part of soft palate merely reddened.

26th.—Moves about the ward. Throat greatly improved, the red base being seen through the grey surface of the pharynx, and the edge of the soft palate looking healthy. Can take most of his food by the mouth, but has still four nutrient enemata daily. Strength of silver solution reduced. Gargle of chlorate of potash ordered. Urine more abundant.

30th.—The slough has entirely disappeared from the pharynx. Strength increased, but three pounds weight said to have been lost within three days.

Oct. 3rd.— Throat now clear. Further loss of two pounds, but strength increased. Slight salivation. Mercurial reduced to one half.

7th.—Weight has increased two pounds. Salivation continued. Mercurial inunction stopped.

10th.—Nutrient enemata stopped. Meat diet by the mouth.

14th.—Steady increase in body weight. Still salivation.

17th.—To take syrup of iodide of iron.

21st.—Has gained two pounds weight in three days. Great improvement in general appearance. Adhesions forming in pharynx, with small points of ulceration.

Nov. 19th.—Discharged cured.

Clinical remarks by Dr. BRUCE.—This case was of considerable interest from its nature, and from a certain degree of difficulty attending its diagnosis; chiefly, however, in connexion with the details of treatment. Active congenital syphilis at the age of thirteen is not so common but that it deserves record, and its diagnosis as a matter of fact may be very far from easy at first. In the present instance the previous personal history and the family history of infantile snuffles were not obtained for several days after admission, and during this time the true nature of the illness was the subject of some discussion. The question of tubercular ulceration was raised, but the absence of swelling of the neck alone went far to dispose of the suggestion. The best immediate evidence of the correctness of the diagnosis of late congenital syphilis was the result of the severe treatment to which the patient was subjected. He was at once put upon mercury. But here a great difficulty arose; the patient could not swallow. Dr. Bruce urged upon the students the absolute necessity of ensuring an abundant supply of nourishment to the tissues whilst a powerful alterative like mercury is being allowed to act upon them. It was contrary to all sound clinical rules to administer mercury to a starving child, and a patient unable to swallow was virtually starving; but just as certainly the patient would shortly die of syphilis. Feeding *per oram* was therefore given up definitely, and regular nutrient enemata ordered instead, whilst the patient was permitted to attempt to eat occasionally small portions of nutritious food. The method proved successful. A stronger solution of nitrate of silver might have been used from the first for swabbing out the throat, but the shock attending free cauterisation of the whole pharynx might have been too great in the prostrate condition of the patient. As occasionally happens, the rectum, which was irritable at first, came to retain the nutrient enemata very well. There was free salivation for a time, although the mercury was reduced, and soon omitted when the mouth became tender. Another curious fact was that the boy continued to lose weight, whilst his general appearance and strength and the local disease were all steadily improving.

DUNDEE ROYAL INFIRMARY.

ABDOMINAL SANGUINEOUS CYST; ASPIRATION; RECOVERY; REMARKS.

(Under the care of Dr. SINCLAIR.)

J. G——, aged fifty-one, flaxdresser, was admitted on May 14th, 1883, with the following history. About two months previously he observed a smooth round swelling just below the umbilicus, which rapidly increased in size; it caused no discomfort except that arising from its rapidly increasing bulk.

On admission, a rounded swelling, quite smooth to the touch, could be made out in the umbilical region of the abdomen, but extending slightly into the other regions. It was of firm consistence, and appeared to be adherent to the anterior wall of the abdomen (the umbilicus not being movable over it). No fluctuation or impulse could be elicited. There was no bruit on auscultation. The tumour occupied the umbilical part of the epigastric, hypochondriac, and right lumbar regions, and a very small portion of the hypogastric region. It was clearly separable from the hepatic dulness by a narrow resonant line, and it did not move with respiration. The hepatic and splenic dulness were of normal extent; no abnormal signs were discovered in the lungs; the cardiac dulness was normal, but the sounds were weak; tongue slightly furred but moist; appetite good; bowels constipated; temperature 99°; pulse 70, weak; respiration 28; urine pale, slightly acid, sp. gr. 1018, no albumen.

17th.—Hypodermic needle was inserted into tumour, and a syringeful of dark sherry-coloured fluid was readily withdrawn. The fluid contained nearly 50 per cent. of albumen, abundant red blood-corpuscles, and some amorphous masses. No echinococci or hooklets. Sp. gr. 1020.

21st.—The tumour was aspirated in its centre, and sixty ounces of fluid were withdrawn, of the same character as that removed by the hypodermic syringe.

22nd.—The patient complained of sickness yesterday after the operation. No trace of tumour.

June 2nd.—Patient got up.

6th.—He was dismissed in good general health, the tumour having entirely disappeared.

Remarks by Dr. SINCLAIR.—I can find no description of a similar cyst in Bright's classical memoirs. One, in some respects similar, is described by Bauer in Ziemssen's Cyclopædia.[1] It terminated fatally after two tappings. In THE LANCET of May 5th, 1883, Dr. Bristowe described two cases of abdominal cysts which resembled the one just described in the rapidity of growth and sanguineous contents. The first he concluded to be probably either a simple cyst of the spleen or a distended kidney, more probably the latter. The second had a much larger history, and was found on post-mortem examination to have been a sanguineous cyst resulting from a round-celled sarcoma. Dr. Clifford Allbutt has described a case[2] presenting some points of resemblance to mine as regards its contents; but it had a rather higher situation, required three aspirations, re-formed subsequently, and then disappeared after an attack of diarrhœa and colic. Dr. Oliver's case,[3] which occurred in a female, yielded 148 ounces of blood-red fluid on the first, and 84 ounces of similar fluid on the second, tapping, made a much slower recovery than mine, and was considered by him to be probably a hæmatocele of ovarian origin. The case described by my friend, Dr. Reid, and which was watched with great interest by us all, was clearly, I think, unconnected with any of the solid viscera of the abdomen. That it was not hydatid was evidenced by the absence of hooklets on careful microscopical examination. I can see no ground for considering its origin malignant. The impression is that it was a cyst of peritoneal origin, possibly owing to a traumatic cause, as the patient is a man of intemperate habits. I saw the man some time ago, a year after dismissal, and found him in good health, and quite capable of performing his usual work; but I thought I discovered some traces of reaccumulation. As cases of this kind are of great interest and rarity, I shall keep a watch on the patient, and report his further history should the disease return.

DOUBLE THORACIC ANEURYSM; DEATH; AUTOPSY.

(Under the care of Dr. SINCLAIR.)

For the following notes we are indebted to Mr. J. Mackie Whyte, M.A., M.B., house-surgeon.

J. W——, aged forty-nine, a tall well-built man, employed as a labourer in a jute works, was admitted on Feb. 14th, 1884, as an urgent case. His history was that he had been subject to pain in the chest since the middle of December, 1883, when he fell downstairs while drunk, and received a scalp wound, but no other external injury. The wound healed, but the pain in the chest became worse, catching his breath. For the past fortnight his voice had been hoarse, and he had had a troublesome cough, with inability to expectorate the mucus, which caused a disagreeable rattling noise. Had been in the army; while there he had acquired syphilis; otherwise previous health had been good.

[1] Vol. viii., pp. 338–39.
[2] THE LANCET, July 7th, 1883.
[3] Ibid., Oct. 11th, 1884.

On admission, he was in a state of great dyspnœa; he spoke in a hoarse whisper; cough of a ringing character; throat dry; no difficulty in swallowing; pupils equal; radial pulses equal, 54 per minute, regular; pain in region of heart apex on any exertion; a "gripping" pain, constant, in interscapular region; general præcordial heaving, and epigastric pulsation; apex-beat in fifth space, nipple line; systolic murmur in mitral and aortic areas, loudest in mitral; second sound accentuated, with a distinct pump-valve character, best marked in aortic area; dulness in upper part of thorax extending from one inch to right of manubrium across sternum for five inches. This dulness was continuous with the cardiac dulness. There was also dulness in the left interscapular region, opposite the spine of the scapula and a little below. The second sound was distinctly heard accentuated over this area. Physical signs of lungs normal, except for occasional bronchitic wheeze. Examination of larynx showed paralysis of left vocal cord. Urine normal. Great improvement followed the treatment, which consisted of rest in bed and administration of bromide and iodide of potassium internally. On May 19th the patient was sent to the Dundee Convalescent Home, but was refused admittance, as he had got drunk on the way.

He presented himself again at the infirmary on Oct. 29th, as bad as ever. Had been employed chiefly in carrying bales of jute; always felt a "gripping" pain in the chest when lifting. Physical signs much the same as when in the infirmary before. Left radial pulse smaller than right, 66 per minute. Improvement was slow, and relapses of dyspnœa occurred. Towards the end of November breathing was very noisy.

On Dec. 10th, about 10.15 A.M., the patient, who had been sleeping quietly, was seized with a paroxysm of dyspnœa. There was laryngeal stridor, like cock-crowing; the face became blue, and he sprang out of bed, saying he was dying. In about five minutes he expired. His face became pale after death.

Autopsy.—Right pleura adherent in whole extent; some tough adhesions also in left, especially near the upper part. Thoracic contents removed in mass with some difficulty, on account of close adhesions to the vertebræ. There had been no escape of blood from the vessels. Heart empty of blood; both auricles dilated, walls very thin; left ventricle considerably hypertrophied. Aortic valve incompetent; no vegetations but dilatation, circumference being three inches as measured when laid open. Mitral valve somewhat dilated. Ascending part of aorta showed fusiform dilatation, circumference four inches. Wall athoromatous, with calcareous deposits. The dilatation extended as far as the origin of the left common carotid; the vessels arising from the arch were not themselves involved. Thus the transverse portion towards its termination was of normal calibre, but at the bend it suddenly dilated into an aneurysm larger than a cricket-ball. This consisted of two parts, separated by a constriction; the anterior had the same lining as the aorta, with which it was obviously continuous, the posterior had a wall which was dark in colour and rough, and was largely filled by a laminated organised clot. The pressure of this part had caused deep erosion of the bodies of the third, fourth, and fifth dorsal vertebræ, in front and on the left. The left vagus was traced over the transverse part of the arch and its branch, the left recurrent laryngeal was followed round part of the aneurysm, where it was thickened and irregular, and up alongside the trachea. Neither trachea nor œsophagus showed any effects of pressure; the latter was close to the aneurysm. Lungs much congested; also the abdominal viscera. Fibrous adhesions from old peri-hepatitis all over the liver.

Remarks by Dr. SINCLAIR.—The history of this case clearly suggested aortic aneurysm; the symptoms on admission pointed most distinctly in the same direction; and the physical signs left no doubt that we had before us a case of aneurysm of the arch pressing on the left recurrent laryngeal nerve. In every respect, then, the record was singularly complete and satisfactory up till the moment of the patient's death, which occurred quite suddenly. The autopsy showed that it was not due to rupture of the sac, as might have been anticipated. In the absence of any other quite satisfactory explanation, I suppose paralysis of the heart may be suggested as the most likely cause. The case is interesting also from the fact that there were two distinct aneurysms, separated by a short interval of aorta of normal calibre. This circumstance alone seems to me to be of sufficient interest to justify its being placed on record.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Discussion on Cholera.

THE adjourned discussion on cholera was held, and the debate concluded, on Tuesday last, Dr. George Johnson, F.R.S., President, in the chair.

Dr. HENEAGE GIBBES said that he fully agreed with everything that Dr. Klein had said. In acute cases of cholera, instead of a pure cultivation of comma bacilli in the lower part of the ileum, comma bacilli were to be found few and far between. Cultivations of the small straight bacilli in a large number of test tubes proved that these bacilli were not young comma bacilli, but belonged to a distinct species, for they grew in a totally different manner, did not liquefy the gelatine, grew on the surface chiefly, and were not motile. That the comma bacilli were not discovered in the tissues was certainly not due to defective staining. He had used every possible staining fluid and combination of fluids, but had found no comma bacilli, in the intestinal walls. A case of infantile diarrhœa showed a more pronounced morbid change in the intestines than exists in cholera, and so the intestinal lesion could not account for the collapse of cholera. In one case in Lieberkühn's follicles many putrefactive bacilli were present, and this specimen was shown to the Society.

Sir GUYER HUNTER said that, as he understood, Koch had shown that the comma bacillus stood in the relation of cause and effect to cholera. He did not believe that cholera was dependent on the action of a germ. He referred to the characters of the last outbreak of cholera in Egypt and in France as proving his contention. The report on Egyptian cholera presented to Her Majesty's Government also maintained the same views. He considered that cholera had been proved to be non-contagious. A surgeon, writing in the *Practitioner* of July, 1875, advised the injection of chloral hydrate in doses of 10 grains in 100 minims; this treatment in his hands had been so disastrous that he was compelled to stop it. He did not agree that opiates increased the danger from collapse; any premonitory diarrhœa should be treated by opium and stimulants. He believed cholera to be due to a series or combination of conditions. If the germ is killed by decomposition, then cholera ought not to exist in localities where filth and garbage abound. Strict hygiene was the only way to prevent the occurrence of cholera. Any form of ill-health predisposed to cholera.

Dr. PYE SMITH spoke of the choleraic discharge, and agreed with Cohnheim that this was not of inflammatory origin. In cases of cholera sicca large quantities of detached epithelium were present in the intestines, but this was probably the result of post-mortem change. Moreau obtained a "paralytic secretion" by section of the mesenteric nerves, and the large quantity of effusion thus obtained coincided in many respects with the choleraic discharge. The nervous influence was conveyed, not through the splanchnics or vagus, but by way of the smaller mesenteric ganglia derived from the solar plexus; and excision of these ganglia led to the production of a large intestinal effusion. He was in accord with the generalisation made by Gaskell, to the effect that the exciting influences were conducted by means of grey nerve fibres, whilst inhibitory influences passed along the medullated nerve fibres.

Mr. MACNAMARA said that no epidemic was known to have arisen outside the confines of British India. The statements made by Klein with regard to infection were in absolute variance with the conclusions of all previous workers. It was remarkable that the comma bacillus should correspond to the characters of the contagium as described by Parkes—viz., that it was destroyed by acids, that its life in water was very brief, and that the conditions under which the water was placed must be of a certain kind. He referred to the case in which choleraic discharge polluted some water of which nineteen individuals drank, and within thirty-six hours five of these persons were dead of Asiatic cholera. He quoted many circumstances and incidents tending to prove that cholera was a contagious disease. From his observations made on individuals dead of cholera, he could not agree with the views expressed by the President on the existence of spasm of the pulmonary

arterioles, for he had not found distension of the right side of the heart. He was not successful in the treatment of cholera by castor oil; he had seen the best results by the use of opiates and astringents.

Dr. JOHN MURRAY thought that the habitat of the poison of cholera was the mucous membrane of the intestines: it first caused paralysis of the sympathetic, which prevented the excretion of effete material. The left ventricle was sometimes occupied by a coagulum, which was black at first, but tended to become decolourised. A feeble fluttering pulse was the sign of the formation of a clot in the heart. In his experience laxatives were most dangerous, and in this he was corroborated by the experience of observers in all parts of India. Any remedy which promoted the secretion of the bile and gastric juice was of value in the early stage of cholera. Transfusion of hot saline solutions caused the spasm of the pulmonary arterioles to pass away.

Dr. HERON reverted to the question of the bacteriology of cholera. From the beginning of the growth of the various comma bacilli, it was possible to distinguish Koch's bacillus from all the others. All the comma bacilli could be distinguished from one another. In cholera nostras the comma bacillus of Finkler would be found, and not the bacillus of Koch. He thought that cases of cholera might be distinguished from cases of cholera nostras by a cultivation of the comma bacillus; the mode of growth was so different. He said that Koch and Klein agreed that there was a comma bacillus peculiar to cholera, which was to be found nowhere else. The comma bacillus of Lewis was different from that of Koch. He had examined eight cases of tubercular diarrhœa without discovering the comma bacillus of Koch, and so could not agree with Klein's statement on this point. Koch and his staff of assistants held themselves in readiness to go to any part of Germany in order to determine by bacteriological research whether a case submitted to them was one of Asiatic cholera or not. We were indebted to Koch for this possibility of diagnosing true cholera, as we were for so many other discoveries in medical science.

Dr. THIN said that many people certainly believed that the comma bacillus of Koch could be found in other diseases and conditions besides cholera; he thought that Dr. Klein, or those who reported him, were responsible for this impression. He narrated circumstances which seemed to show that hygienic conditions, and kinds of food, such as lettuces manured with human excreta, did exercise an influence in the production of cholera.

Dr. J. JOHNSTON had had much experience of cholera at Shanghai. Cholera prevailed when the fruit season began. Cholera was predisposed to, if not caused by errors in diet, carelessness in the use of purgatives, and other forms of indiscretion. Drinking water was certainly active in the causation of cholera. Evacuant treatment in his hands was decidedly harmful.

Mr. SEDGWICK said that at the time he wrote his work on the Urinary Secretion in Cholera and Diarrhœa he was not aware that urea was a binamide of carbonic acid; knowing this he had less difficulty in understanding how the preformation of carbonic acid in the tissues and blood should continue and the preformation of binamide of urea should cease through the defective oxidation of the blood. M. Doyère had investigated the chemistry of respiration in cholera. In normal respiration there were 44 vols. of CO_2 discharged in every 1000 vols. of expired air to every 165 vols. of oxygen taken up. The relative diminution in the amount of carbonic acid in the expired air in cholera was accompanied by an increase in the proportion of the oxygen. In collapse about three-fifths of the normal quantity of CO_2 were discharged, and the oxygen absorbed was largely in excess of the carbonic acid eliminated. In cholera the mammary secretion and all other secretions having to do with the generative organs were not interfered with. Encysted dropsy of the ovaries suffered little or no diminution in amount. Anasarca might disappear completely, as Dr. Barlow had shown, in cases which recovered. Menstruation was not delayed or checked in cholera unless the period were about to commence. The liquor amnii and urinary secretion of the fœtus were not stopped. He did not agree with the view expressed by Mr. Simon, that cholera always proved fatal to the fœtus, and quoted some statistics of a French author in this regard.

Dr. MACLAGAN believed that the poison of cholera was a micro-organism, for nothing but a living thing could reproduce itself. It was a peculiarity of parasites that each had its own nidus. Cholera had its relationship with the acute specific fevers. The nidus in cholera was the epithelium of the internal viscera, and especially of the small intestine. He did not agree that the shedding of epithelium was a normal post-mortem change. The collapse of cholera might be likened unto the rigor of onset of the specific fevers.

Mr. SCRIVEN could not understand how the viscidity of the blood in cholera could not be due to a loss of water, for the blood had unlimited power of appropriating fluid from all the tissues. He could not agree with the views of the President in this respect. He dwelt at some length on the treatment of the various stages of cholera.

Dr. LOWNDES said that diffusible nutritive fluids, like Liebig's raw soup, in small doses every half-hour, were most valuable in the treatment of cholera.

Dr. JOHNSON, in reply, maintained that the distension of the right side of the heart was a fact testified to by Dr. Edmund Parkes before his own observations and experiments had been made. Dr. Sutton, in the fourth volume of the London Hospital Reports, confirmed the same observations. The right side of the heart was distended and the left nearly empty in cases of cholera. He said that chloral hydrate did not abolish arterial spasm. He contended that spasm of the pulmonary arterioles explained the greater number of the phenomena of collapse, and still maintained the accuracy of his views as to the evacuant treatment in the early stages of cholera. He fully recognised the existence of cholera so severe that no treatment could avail.

CLINICAL SOCIETY OF LONDON.

Treatment of Spina Bifida.—Choreiform Movements in Infantile Spasmodic Paralysis.—Carcinoma and Calculus of the Bladder.—Pistol-shot Wounds.

AN ordinary meeting of this Society was held on the 27th ult., Mr. Thomas Bryant, F.R.C.S., President, in the chair.

Mr. MAYO ROBSON (Leeds) read a paper on a Series of Cases of Spina Bifida treated by Plastic Operation. He described four cases on which he had operated:—Case 1. A. S——, aged six days, was the subject of a spina bifida the size of an orange; operated on Oct. 26th, 1882. The child lived and thrived for a year, when it died after a day's illness from teething convulsions. The site of the tumour presented only a linear scar. The interposed periosteum had not formed new bone. (The excised sac was shown to the Society.) Case 2. Mary A——, aged eighteen days, a puny, ill-developed child, with a large spina bifida in the lumbar region; the sac was thin and translucent quite to the margin of the tumour, and the skin around inflamed. It was all excised except two narrow portions, which were sufficient to form meningeal flaps, these being covered in by skin flaps obtained by separation and sliding from the lumbar regions. The wound healed by first intention, but the child died from a continuation of the marasmus present before operation. At the autopsy the whole lumbar spine and part of the sacrum were bifid. There was no meningitis. (Specimen was shown to the Society.) Case 3. L. J——, aged sixteen, the subject of spina bifida in the lumbar region, the size of a fœtal head, was admitted to the infirmary to have tenotomy performed for talipes. The sac of the spina bifida began to inflame the day after admission, before any operation had been done, and produced high fever and severe head symptoms, threatening life. It was aspirated eight times between November 13th and December 9th, the last three aspirations yielding pus. She was rapidly losing ground and apparently sinking, so on December 11th Mr. Robson excised the sac after reflecting the skin by crucial incision; the cavity was drained for a few days. The head symptoms were at once relieved, and she recovered rapidly, being discharged cured twenty-four days after operation, with the wound quite healed, and only a scar where the tumour had been. (Patient shown to the Society.) Case 4. D. C——, aged seven, had a spina bifida in the lumbar region, seven inches and a half in circumference; sac thin and inflamed at fundus; skin dissected from sac, and redundant sac and integument removed; suture of meninges by catgut, and of skin by wire. The wound healed by first intention, and the patient was discharged cured thirteen days after operation. The child was shown to the Society six weeks after with a linear scar where the tumour had been. All the operations were performed strictly antiseptically, the eucalyptus atmo-

sphere being used instead of the spray. The points to which he would draw attention are—1. The principle of closing the meninges by bringing together two serous surfaces, as in peritoneal surgery, and superimposing separate skin flaps, the meningeal and skin lines of the suture not being apposite. 2. The great importance of observing strict antiseptic precautions, as a septic condition would probably end in the same way as these cases usually do when they spontaneously ulcerate—viz., by meningitis and convulsions. 3. The success attending the plastic operation in cases which are absolutely not amenable to any other form of treatment—e.g., where the coverings are thin, or the opening into the spinal canal large. 4. The possibility of transplanting periosteum, and its capability of surviving, as in the case read first. One may hope that the use of human periosteum—"e.g., from a recently amputated limb"—will give better results. 5. The successful issue of Case 3, where, although the sac was acutely inflamed, its complete removal with efficient drainage effected a cure. This case presents several points of pathological importance—e.g., (*a*) The rise of temperature without septicity apparently due to tension of, or pressure on, the great nerve centres. (*b*) The great relief given by aspiration. (*c*) Suppuration in the sac, possibly due to simple tension, probably not due to septicity, as the fluid was quite sweet on every occasion. (*d*) The entire absence of brain symptoms after operation, although the pressure on the great nerve centres must have been considerably interfered with during the time of healing of the wound. Mr. Robson suggested the following as a practical classification of cases of spina bifida for purposes of treatment—(1) Where no operation can or should be done. (2) Where no operation need be done. (3) Where an operation should be done. Class 1 (*a*) Where the deformity is very extensive, as in fissure of the whole or a considerable portion of the vertebral canal. (*b*) Where there is complete paraplegia. (*c*) Where the sac is large, the fissure extensive, and the coverings excessively thin up to the edge of the tumour, and no skin can be obtained to cover the meninges. But that such extreme examples even may stand a chance of cure is proved by Case 2. Class 2. Where nothing need be done. Where the sac is small and the coverings are so dense and firm as to form a good pad over the opening in the spinal column. Class 3. Where some operation should be done. (*a*) Where the sac only communicates with the spinal canal by means of a small opening; here it is a simple matter to dissect off the skin, expose the neck of the sac, ligature it by means of one circular ligature, and cut off the redundant meninges, bringing the skin over so as to have the line of skin sutures quite at the side away from the pedicle. Such an operation was performed by Mr. Ed. Atkinson, one of Mr. Robson's colleagues at the Leeds Infirmary. (*b*) Where the sac has a good skin cover and communicates with the spinal canal by a large opening, it is quite easy to perform the operation described in Case 1, carefully closing the meninges, and, if possible, placing the line of skin sutures away from the meningeal line of union. Such cases have been operated on successfully, not only by Mr. Robson but by Prof. Jessop, U.S.A. Human periosteum might be placed between the meninges and skin, but Mr. Robson is not at all sure that a thin plate of bone, if formed, would be very serviceable. If the expanded neural arches be large, he thought it might be feasible to bend them towards the central line, and by uniting them with thin silver wire, obtain a truly physiological closure of the spinal canal. (*c*) Where the coverings are excessively thin up to the margin of the tumour, as in Case 2, the operation is more difficult and uncertain, as the skin can only be obtained by a process of sliding from contiguous parts, and the tension necessarily present is not conducive to healing. (*d*) Where the spinal cord or the nerves are blended with the sac, he advises excision of portions of the redundant meninges at one or more places between the nerves, replacing the nervous structures in the spinal canal, and bringing over the skin cover; free drainage should be kept up between the membranes and integuments, or if this could not be done, the membranes might be punctured, the collapsed sac, with the nerves intact, being placed in the canal, and the skin cover made as before. It is important to remember that a silver or a leather shield should be worn over the site of the operation in order to protect the parts from injury, and to prevent the cicatrix from stretching or giving way.—The PRESIDENT said that the surgical treatment adopted by Mr. Robson gave surgeons an additional means of dealing with cases of spina bifida. He considered that there was not sufficient evidence to show that the method of injection was one which could be regarded as a good surgical procedure. He congratulated Mr. Robson on having been so successful in the four cases which he had treated. It was remarkable that the nerves were not involved in a large number of cases of spina bifida. The last suggestion with regard to the treatment made by the author was a good one. No doubt the committee now sitting on spina bifida would carefully consider the method of treatment advocated by Mr. Robson.—Mr. R. W. PARKER joined with the President in congratulating Mr. Robson on the successful results of his plan of treatment, yet he could hardly think that it would lead to results very much superior to those obtained by treatment of a less operative kind, for the lesion was a very profound one in many cases, such as no operation could rectify. An examination of the specimens in the London museums showed that the cord and its nerves entered the sac in upwards of 95 per cent. of all cases, a fact which itself contra-indicated excision of the sac wall; but if the sac wall were simply tucked in after the normal skin around its base had been detached, and, after more or less evacuation of the fluid, a satisfactory result might be obtained. The Society's subcommittee were just about to present their report, and, as a member of that committee, he would refrain from anticipating the conclusions which would be expressed in the report. He was sure Mr. Robson's paper would receive every attention. He might add that cases of cure by injection had been reported in which, as was found on post-mortem examination years later, the cleft in the spinal column was found to be very extensive. In the infant shown, although the sac was absent, there appeared still to be a soft fluctuating swelling over its former site.—Mr. RICKMAN J. GODLEE said it was evident that in the plastic operation of Mr. Robson there was no great risk of producing meningitis, and in this respect it seemed almost a safer method than injection with Morton's fluid. Reference was made to two cases which he had recently observed in which the injection of Morton's fluid was followed by the development of meningitis. In one case the child had convulsions, hemiplegia, and vesical paralysis; cystitis set in later on; the patient ultimately died. The occurrence of severe symptoms after surgical treatment might in some way be related to the frequency, with which some part of the spinal cord was involved in the sac, though in many cases the filum terminale could be the only part involved, and this was comparatively an unimportant structure. He spoke of a post-mortem examination which he had recently witnessed on a case of spina bifida in which the three or four lower sacral nerves were involved, and arose from points slightly to one side of the middle line, which he supposed was occupied by the expanded filum terminale of the cord. He said that Mr. Robson's was a line of treatment that would have to be carefully considered.—Mr. R. W. PARKER said that the spinal cord extended the whole length of the spinal column in intra-uterine life, and there was practically no filum terminale. Moreover, he had never succeeded in detecting the filum terminale in any specimen that he had examined.—Mr. MAYO ROBSON, in reply, believed that there were many cases of spina bifida into the formation of which no part of the spinal cord or nerves entered. It was impossible for distension of the filum terminale to give rise to the kind of sac which he exhibited, and which he had removed from one of his cases. With regard to the injection of Morton's fluid, in all the cases in which he had seen it used the result was fatal.

Dr. W. B. HADDEN read notes of a case of Choreiform Movements Supervening in Infancy and of Congenital Origin. The patient was a female, aged twenty-two; there was nothing to note in the family history, except that a sister died of fits at the age of ten months. The mother had had no miscarriages, but was said to have suffered from albuminuria for two months before the patient was born. Labour came on at full time, lasted twelve hours, and no instruments were used. Very soon after birth the child's head used to fall back, and she did not sit up like other children. There were no fits and no head injury. She never walked better than she does now. Movements were first noticed when the child was aged seven months, but did not attract serious attention until the age of two years. They have persisted ever since. She began to talk between the age of two and three years. Catamenia appeared at the age of fifteen, have always been regular, but scanty and painful. Patient is a short, stout, well-developed girl; is quite intelli-

gent, reads fairly, but cannot write because of the condition of her hands. Her head is large and flat, but symmetrical; palate hard and a little arched; no deformity of spine. Movements very slight when lying down, and absent during sleep. They are at once noticeable on attempting movement, or if the patient be excited. The face and upper limbs are mainly affected. On trying to speak the face becomes contorted. The angles of the mouth are retracted, upper lip and alæ nasi raised, the forehead wrinkled, the eyelids partially closed. Hence, there are various and rapidly succeeding grimaces. An appearance of gaiety is followed by a frown, by a sniff of disdain, and by a momentarily lacrymose aspect. The speech is interrupted and the words brought out explosively. The muscles of the back and abdomen are unaffected. There are slight movements of the tongue. The fingers are flexed at the metacarpo-phalangeal joints, and extended at the phalangeal. But this position is not fixed. Fingers are often expanded, and there are simultaneous to-and-fro movements, suggesting athetosis, but more rapid and various. Some rigidity exists about the muscles of the arms and forearms. The muscles are well developed, and respond well to galvanism. Her grasp is feeble. Her legs are short, well developed, and as she lies in bed have very fair power. She cannot stand or walk without help. When supported she shuffles along, the legs overlapping, and the knees rubbing together, and the thighs being adducted. There is much resistance to passive movement of the legs; the tendon reflexes are probably exaggerated; there is occasional ankle-clonus; sensation, both common and special, is perfect; no loss of control over evacuations. The case belongs to a group which, though having individual differences, all possess one common feature, the spastic condition of the legs and the peculiar gait. The spastic paraplegia may exist alone, with or without affection of the arms, constituting Charcot's spasmodic tabes dorsalis, or infantile spasmodic paralysis. In two cases described by the author there were atrophic changes in the upper extremity. In addition to the present case he has seen two very similar instances. In connexion with the spasmodic paraplegia of infants other symptoms may be present, such as fits, mental defect, nystagmus, squint and inequality of pupils, deformity of chest, a symmetry of skull, delayed dentition, and defects of speech. The lesion in the case described was probably congenital, a porencephalous defect. Dr. Ross describes a very similar case, apparently due to injury in infancy. The author has never been able to satisfy himself that infantile spasmodic paralysis and congenital athetosis are dependent on injury either during or after birth. Treatment of various kinds was tried in the present case, but without benefit.—Dr. ANGEL MONRY thought that the case was interesting from many points of view. The presence of tonic and clonic spasms, with some impairment of the conduction of volitional impulses, in one and the same case, was instructive. It was suggested that tonic and clonic spasms were essentially due to differences in degree of innutrition of the nerve cells of the anterior horns, which energised the muscles. With regard to morbid anatomy, he considered that destructive lesions of any sort in any part of the pyramidal tracts could induce the symptoms of such cases.—Dr. HADDEN, in reply, said that some cases were of congenital origin, and some might be due to arrest of development of the fibres of the pyramidal tract which grew downwards from the large motor nerve cells in the cerebral cortex. In some cases the course of the cortico-medullary fibres appeared to be arrested high up in the brain; in other instances the paths were interrupted lower down. Cases had been put on record in which the spastic conditions appeared to be dependent on atrophy of the pyramidal tracts without any sclerotic change. That injury during or at birth may give rise to spasmodic paralysis seemed to have been placed beyond doubt by a case recorded by Ross. A case in which fits beginning in the paralysed arm were the first symptom was referred to; the legs were in a condition of spastic paraplegia.

Mr. JOHN R. LUNN read notes of a case of Calculus and Tumour of the Bladder. J. C——, aged thirty-five, married, a stoker by trade, was admitted into the St. Marylebone Infirmary on Sept. 8th, 1884. Four weeks before admission he noticed his water run away involuntarily, and had attended as out-patient at a hospital, where he was sounded. Two weeks before admission he was obliged to give up work and his urine became very offensive and thick. On admission, No. 10 catheter was passed, which gave the patient a good deal of pain; the urine was loaded with albumen and pus. The prostate was apparently enlarged. The patient was again sounded on Sept. 17th, when a stone was struck. Lateral lithotomy was performed on the 18th, and a large calculus removed from the bladder, weighing 1½ oz., composed of oxalates, phosphates, and a little uric acid. In addition to the calculus a new growth was felt, which was too extensive to remove. The day after the operation the patient expressed himself much better and free from pain. Vomiting set in on the third day. He passed claret-coloured urine through the wound. The left kidney was noted to be enlarged two days before he died, on Sept. 26th. At the autopsy the wound in the perineum looked very unhealthy and showed no signs of healing. The bladder weighed 8 oz., was devoid of urine, and almost the entire surface was occupied by a new growth. No secondary growths were found. Both kidneys and ureters were distended with purulent matter. The right kidney weighed 8 oz., the left 14 oz. Mr. Lunn said that he was indebted to Mr. Eve for the microscopical account of the growth. The structure of the tumour had the character of a soft cancer, the cells were rather small and spheroidal, with large nuclei, and were in no part observed to be arranged in nests. In the softer parts of the tumour they were aggregated in large diffuse, small and rounded masses in spaces formed by a scanty stroma, while in the firmer parts the stroma was abundant and fibrous, and the cells formed elongated rods and masses.—The PRESIDENT remarked on the insidious nature of disease of the bladder. The connexion between growth and calculus was not very common. He referred to a case which had been under his care of papillomata covering every part of the mucous membrane of the viscus, and to another of extensive cancerous disease. He asked if there was much bleeding during the operation in Mr. Lunn's case.—Mr. LUNN answered in the negative.

Mr. RICHARD BARWELL read a paper on three cases of Pistol Shot Wound. The first case was that of a wound self-inflicted with a Derringer of $\frac{4}{10}$th-inch bore. The bullet passed through the seventh costal cartilage, the diaphragm, the stomach, and just notching the kidney, passed out of the abdomen between the first and second lumbar transverse process. The young man survived twenty-two hours. The case was introduced partly to show the power of these small pistols, but chiefly as evidence of the very little bruising which small conical projectiles fired at short ranges produce, there being no ecchymoses round any of the openings into the viscera, &c., save a very little at the kidney. The second case was that of a gentleman who shot himself with a pistol of under ¼-in. bore. The wound was within the areola of the left nipple; but the weapon must have been held obliquely, for the bullet, missing the heart, passed through about eight inches of the left lung and lay outside the chest near the lower angle of the scapula. There was very considerable hæmorrhage from the wound, and coughing caused the blood to be driven out several feet. There was also a good deal of hæmoptysis. Strict quietude, ice, acetate of lead, and opium subdued in about fifteen hours the external hæmorrhage, but the hæmoptysis continued for six days. Pneumothorax and hæmothorax, together with surgical emphysema, were very marked. Pneumonia supervened on the seventh day. After the lapse of three weeks, during which he had been in a very precarious condition, improvement set in, which steadily progressed. On the thirty-fifth day Mr. Barwell removed the bullet, which he had hitherto avoided doing, wishing the wound of exit from the chest to become closed previously. Seven weeks after the injury the man was discharged. The third case was that of a man who shot himself in the mouth and in the ear with a revolver, ¼-inch bore. The wound first named was on the left side of the soft palate, and, penetrating that part, inflicted another in the posterior wall of the pharynx. That bullet has never been found and has given no trouble, it is probably encapsuled among the deep muscles on the left of the spine. The other bullet passed for three-quarters of an inch down the auditory meatus without injuring it on either side, then continuing its transverse course, left that channel by a small wound at its posterior part. A probe passed in here touched a substance which Mr. Barwell believed to be metallic, exactly two inches from the margin of the meatus. The depth and direction of the wound delayed any attempt at extraction, because it appeared to Mr. Barwell that the projectile must lie in very dangerous proximity to the lateral sinus. After forty-eight hours, abundance of clear serum,

which was either cerebro-spinal fluid or liquor cotunnii, became mixed with the blood discharged; the admixture of blood, then of pus, prevented any testing for sugar. The man, who was singularly apathetic, progressed favourably with the exception that a week after the infliction of the wound the parts about the angle and ascending ramus of the jaw swelled, and shortly after suppurated. On Dec. 4th there was in those parts sufficient disturbance to indicate that the projectile was producing considerable irritation, and ought, if possible, to be removed. Moreover, if, as seemed possible, the lateral sinus had been injured, the wound would in the five weeks have healed. With some difficulty, Mr. Barwell passed a Nélaton's probe sufficiently far to obtain the lead mark. Making a curved incision behind the pinna, he trephined the mastoid process to the depth of three-quarters of an inch; finding a small tract leading still deeper, he again got on Nélaton's probe the lead stain, but at a distance from the trephine hole of more than an inch. The track was cautiously enlarged with a gouge, a pair of sinus forceps passed down to the bullet, which, although very firmly fixed in the bone, was successfully removed. After this operation the man had no bad symptoms, the abscess in the jaw was opened, and the hole made by the trephine rapidly filled. All these men shot themselves, the pistols were therefore held very close, and they all used weapons the projectile of which is driven by the fulminate alone. In the last case the muzzle was on the skin, and in a medico-legal point of view it is important to note that there was no mark of burn nor of powder-tattoo. This, Mr. Barwell says, in his experience is the usual condition with weapons of that description. The other lessons from these cases are that small conical bullets discharged at short range bruise soft parts but very little, and though the projectile possesses very considerable velocity, the immediate result of such wounds, unless some peculiarly vital part be hit, is small.

Mr. MAYO ROBSON showed living specimens of two cases of Spina Bifida, which he had treated by plastic operation. Mr. J. R. LUNN showed microscopical sections of Tumour of the Bladder.

MEDICAL SOCIETY OF LONDON.

Treatment of Cervical Caries.—Necrosing Ethmoiditis and Mucous Polypi.—The Larynx in Tabes Dorsalis.

AN ordinary meeting of this Society was held last Monday, Dr. W. Miller Ord, President, in the chair. The meeting was prolonged for half an hour.

Mr. WALSHAM read a paper on the Treatment of Angular Curvature of the Spine in the Upper Dorsal and Lower Cervical Regions by a combination of jacket and collar of poroplastic felt. The apparatus was made at Mr. Walsham's suggestion by Mr. Cocking. The apparatus, which is made of one piece of felt, consists of an ordinary poroplastic felt jacket, together with accurately fitting collar and helmet piece. The jacket and collar are continuous posteriorly, the collar portion being carried upwards over the occiput, and, after encircling the neck, is bent downwards over the shoulder and upper part of the front of the chest, where it overlaps the jacket portion, and is there secured in position by straps and buckles. The cases for which it is especially adapted are those where the caries is situated too high in the spine to be benefited by a common felt or plaster jacket, and too low to be treated by the various collars in use for cervical caries; in short, for cases in which the jury mast is now so frequently used. Mr. Walsham has not been satisfied with the results of the jury mast apparatus. The plaster-of-Paris jacket has no basis of support in the small pelvis of young children, and thus the jacket did not remove pressure from the diseased vertebræ. By means of the poroplastic apparatus the pressure is removed from the bodies of the vertebræ, though the weight might be transmitted through the posterior parts of the spine—i.e., through the articular processes and their supports. The results have been very encouraging. Several of the children who could not stand before the apparatus was applied were able to walk a few weeks later. The gravest objection to which it appeared open is that it is likely to embarrass thoracic breathing; but this is an evil incidental to all forms of jacket. The further advantages of this jacket over the jury mast apparatus were that, besides that it did not slip down in young children and males, the parts are held more steady, the rotatory and lateral movements of the neck in cervical caries are controlled, there are no straps to stretch or to be in different states of tension, according to the varying positions of the head, and the patient can lie down in greater comfort. Mr. Walsham advocated long daily periods of recumbency in the treatment of this form of caries. In conclusion, he urged the advantages of felt as a material for jackets generally, as against plaster-of-Paris. Sweat did not soften the felt unless the temperature reached 150° F. The shape could be well made and maintained. He proved that felt was porous by filling a hollow ball made of felt with smoke. The smoke slowly escaped through the interstices of the felt.—Mr. W. ADAMS thought nothing could be better than the apparatus shown by Mr. Walsham, though Dr. Sayre's improved plaster-of-Paris jacket was sufficient for the treatment of all ordinary cases. The recumbent posture maintained for a long period was of the utmost value; where paralysis supervened, he advised the recumbent posture with extension of the spinal column by means of a special apparatus. Reference was made to a case under his care in which complete motor and sensory paralysis supervened somewhat suddenly. Rest on an inclined plane with extension was followed by considerable and rapid improvement of the nervous disease.—Mr. NOBLE SMITH said that the surgeon should attend to the application of the apparatus. Mr. Walsham relied not on extension, but merely on straightening the spine; in this way a sufficient amount of pressure was taken off. Paralysis might be relieved by this method of treatment. Recumbency in the prone position was most important; in a severe case in a child the prone position was spontaneously adopted.—Mr. CLUTTON referred to a form of apparatus, made of leather and iron of the same pattern as the poroplastic jacket of Mr. Walsham, which was in use at St. Thomas's Hospital. He considered that the apparatus with the jury mast was of no value. Recumbency was a most important point.—Mr. BERNARD ROTH spoke of treatment by passive extension of the spine. He asked how often ablution was performed in Mr. Walsham's patients, and what was done when caries existed high up in the neck. He had seen Fletcher's bags used with advantage.—Mr. WALSHAM said that no doubt recumbency was an invaluable mode of treatment; in disease of the first cervical vertebræ it was imperative.

Dr. WOAKES read a lengthy paper on Necrosing Ethmoiditis and Mucous Polypi. He discussed the question of the relation of the diseased bone to polypi. The disease was extensive, and began as a chronic inflammation of the muco-periosteum lining the turbinate bones as well as the cells of the ethmoid bone; this inflammation of the soft tissues was associated with necrosis of the dissepiments of bones. The catarrh spreads from without inwards. His account of the disease was drawn from a record of eighty cases which he had collected in his experience at the Throat Hospital. As to the etiology, cold in the head, an exanthem (measles or scarlet fever), and blows were the usually assigned exciting causes. Sex showed but little difference. The disease was generally bilateral, the left side was more frequently attacked than the right; it occurred at all ages after puberty, and especially in young adults of either sex. A broadening of the bridge of the nose was sometimes produced. In the first stage the thickened muco-periosteum was rather pale, and could be seen to be hypertrophied, especially over the front of the middle turbinate bone. In the proliferating stage soft reddish fleshy growths were to be seen. Necrosis was always to be detected after the first stage of the disease had been passed. In some cases the hiatus semilunaris was a good deal enlarged. A probe might be passed in many directions, and dead bone struck in the anterior and posterior ethmoidal cells. The necrosis antedates the appearance of the mucous polypi. The myxomatous tissue proliferated near the surface of the muco-periosteum, no matter whether on the free surface of the turbinate bones or within the ethmoidal cells. There was no attempt at a new formation of bone. The characters of the polypi depend partly on their situation. The bones around the nose may be implicated, and so the base of the skull may be perforated, or the orbital wall destroyed at parts, and vision may be lost. The superior maxilla may become affected, and abscess of the antrum, or polypoid degeneration of its lining membrane, take place. In the third stage of the disease thin plates of atrophied bone may be found in the midst of an exuberant polypoid excrescence. The disease, as a rule, tends steadily to progress. Mr. Edgar

Thurston had prepared many microscopical sections illustrative of the pathology of the disease. These specimens and many drawings were shown to the Fellows of the Society.—Mr. SPENCER WATSON asked whether the conclusions were taken by Dr. Woakes as applying universally to mucous polypi. It was difficult to understand that necrosis could have preceded the appearance of all polypi. He said that Professor Silvercandle had shown that one in eight individuals suffered from nasal polypi. He believed that obstruction in the nostril due to posterior rhinitis, or to deviation of the nasal septum, or to chronic hypertrophic rhinitis of the middle turbinate bone, was a frequent cause of nasal polypi.—Mr. CRESSWELL BABER thought that nasal polypi were not always preceded by necrosis or even accompanied by it. The turbinate bones vary in size in different individuals, and it might be difficult to say whether a turbinate bone was of normal size or not.—Mr. STOKER concurred with the views of Dr. Woakes.—Mr. W. PYE said that on examining the nose with a probe in cases of nasal polypi in children, he had nearly always struck dead bone.—Dr. WOAKES said, in reply, that he could not say that necrosis was invariably the precursor of nasal polypi; all he could say was that he had never examined cases of polypi without detecting necrosis. The necrotic spicules are formed *pari passu* with the development of mucous tissue. A normal middle turbinate bone was a rare structure.

The PRESIDENT and Dr. SEMON showed a case of Locomotor Ataxy, with bilateral incomplete paralysis of the abductors of the glottis openers, which they believed was more frequent than was ordinarily supposed. This stenosis of the glottis had gone on under observation, and was unaccompanied by any obvious symptoms. The larynx ought to be examined in all cases of tabes dorsalis. Charcot, McBride, and Ernest Jacob of Leeds had described similar cases of abductor paralysis. A primary rigidity of the glottis muscles was believed in by some German authorities, who said they had never seen a progressive development of the stenosis; these views were refuted by the present case. Tracheotomy might have to be resorted to ere long, and the patient had had several attacks of laryngeal obstruction, which at times threatened tracheotomy.

HARVEIAN SOCIETY OF LONDON.

Early Treatment of Concomitant Squint.—Resection of the Intestine.

A MEETING of this Society was held on the 19th ult., the President, Dr. T. Morton, in the chair.

Mr. W. ADAMS FROST read a paper on the Early Treatment of Concomitant Squint. The author submitted that in practice the truth and importance of the following propositions were not sufficiently recognised:—1. This form of squint seldom recovers spontaneously. 2. It leads, in a few months, to very great impairment of the vision of the squinting eye. 3. The majority of the cases can, in the early stages, be cured by correcting the hypermetropia with glasses. The binocular character of this form of strabismus, and the distinction between a "fixed" squint and an alternating one, were briefly illustrated by means of Mr. Priestley Smith's model. The popular notion that children squint from imitation or caprice, and that they grow out of it, was entirely erroneous. Among the cases treated at St. George's Hospital during the last four years, 60·5 per cent. presented amblyopia of the squinting eye. Amblyopia never appears while the squint is alternating. Of the cases in which there was no amblyopia in the above series, 41·6 per cent. were alternating. It commenced directly the squint became fixed. Hundreds of eyes were lost every year from neglected squint. If, when all accommodation was rendered impossible by the application of atropine, the squint disappeared, it would almost certainly cease by correcting the hypermetropia. Spectacles could be given at a very early age; Mr. Frost had often ordered them for children under four years, and had never found reason to regret having done so. When a child was too young to wear glasses, treatment might be postponed if the squint was really alternating; if it was fixed, either an operation was necessary, or the other eye must be covered to save the squinting eye from amblyopia.

Mr. FREDERICK TREVES then read a paper on Resection of the Intestine. The operation in question dated from about the year 1878, although many isolated instances had been recorded much earlier. Some 150 cases were now on record. The operation was applicable to both the small and the large intestine, and had been performed for the following conditions:—(1) Single and epitheliomatous strictures; (2) neoplasms other than cancer; (3) extensive matting of the bowels, involving obstruction; (4) irreducible intussusceptions; (5) gunshot and allied injuries of the bowel; (6) gangrenous gut in hernia; (7) fæcal fistulæ. It might also be applied to certain perforating ulcers of the intestine. The operation implied merely the application to the intestine of a simple and recognised plan of treatment which was adopted in corresponding conditions to other parts of the body. In most of the affections named, enterotomy and colotomy offered the only other means of treatment; they gave temporary relief only, leaving the cause of the disturbance untouched. In another series of cases the removal from the body as early as possible of gangrenous and putrid parts was obviously indicated. Lastly, the mortality in gunshot wounds of the bowel was so exceedingly high that the operation had in these cases great claims to consideration. The *modus operandi* was illustrated by enterectomy. There were two procedures. In one, the divided ends were united by sutures immediately after the resection; in the other the part was excised and an artificial anus established, which was closed after a time by a second operation. The abdomen having been opened, the loop to be excised was drawn out and placed upon a sponge. The gut above and below was severed either by the fingers of an assistant or by special clamps introduced by Rydygier, Bishop, Makins, and Treves. The gut was excised, and with it a triangular piece of the mesentery, the cut edges of the latter being united by a few points of suture. If the bowel was to be united, the best material was Chinese twist applied by Hagedorn's needle and needleholder. Of the various sutures, the Czerny-Lembert was the best. A row of sutures was introduced involving only the mucous membrane, and a second row involving only the peritoneum. Some fifteen points of suture were needed for the first row, and about twenty-five for the second. Of the two methods, the second was by far the better. Most of the patients were not in a condition to bear a protracted operation. Moreover, the first method did not give complete relief to the obstruction, did not ensure emptying the bowel above the obstruction, and involved great risk from fæcal extravasation owing to the distended state of the gut and to the great risk of gangrene along the suture line. Besides, there was great difficulty in uniting the much dilated upper segment to the shrunken segment below. The mortality of the operation was discussed, its simplicity urged, and a hope was expressed that its application would be cautiously and more widely extended.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

Prevention of Heat Apoplexy.

AT a meeting of this Society, held on the 11th ult., Dr. Norman Chevers, President, in the chair,

Surgeon-General A. C. C. DE RENZY, C.B., read a paper entitled the Prevention of Heat Apoplexy, of which the following is an abstract:—The object of this paper was to apply Indian experience in the prevention of heat apoplexy among the troops in the Soudan. The writer resided for many years at the Multan in the Punjab, one of the hottest places in the world, and saw a great deal of heat apoplexy amongst the British troops and railway *employés*. In the month of June the temperature in the shade rises to 120° F., and a black bulb thermometer registers 176°. An ordinary thermometer, exposed in the sun's rays, registers 157°. The dryness of the air is extraordinary. The mean humidity of May is only 26°, and the maximum humidity is as low as 17°; saturation equal to 100°. Dust storms occur at very short intervals all through the hot weather. The nights are comparatively cool. In June, the hottest month, the minimum thermometer goes down to 71°. About 10 o'clock the sky becomes perfectly cloudless, and the earth radiates the heat stored up during the daytime rapidly. But there are usually three or four intensely hot nights in the year when the clouds do not disperse, and so radiation is obstructed. On such occasions the writer has found his bed so intensely hot that he had to have it sprinkled with water to make it tolerably cool. The mean daily range of May is 34·43°. The climate of the Soudan is several degrees cooler than that of Multan, and not at all so trying, and, as experience shows that a very fair standard of health can with suitable arrangements be secured for British troops at Multan, it is

reasonable to hope that, so far as high temperature is concerned, a similar result may be attained in the Soudan. Contrary to what might have been expected, Multan has long been one of the healthiest stations in Northern India. Taking the returns of the last eighteen years, it stands fifth in the order of healthiness. Bareilly stands first, with a death-rate of 12·01 per 1000. Fort William second, with a death-rate of 12·33 per 1000, while the death-rate of Multan was 15·15 per 1000, or actually lower than the death-rate of the troops stationed in England was thirty years ago. If the mortality from heat apoplexy were reduced, as it might be, Multan, notwithstanding the intense heat of its summer, would be one of the healthiest stations for British troops in the world. All through the summer of 1848 the fort of Multan was invested by British troops, who had little sickness and few casualties from heat apoplexy. Lord Gough, who was Commander-in-Chief in India at that time, was altogether opposed to the operations being carried on in the summer, as he thought it impossible that the troops could withstand the heat. The result proved that his apprehensions were unfounded. With good tents, a good commissariat, and arrangements well adapted in other respects for the protection of the health of the troops, the campaign was brought to a brilliant close by the capture of the fortress, one of the strongest in India. Heat apoplexy causes a large number of deaths among the troops; taking one year with another about 100. Heat apoplexy occurs through very different circumstances—(1) under exposure to the direct rays of the sun; (2) under exposure to great heat in the shade. The deaths under the second head are far more numerous than those under the first. For the prevention of heat apoplexy, especially under exposure to the direct rays of sun, two things are indispensable—(1) that the clothes be loose and light, so as not to interfere with the free movements of the chest and evaporation of the skin, and so as not to obstruct the cervical circulation, and (2) that a supply of drink should always be at hand to relieve the first signs of thirst. The importance of these precautions was illustrated by several striking cases that fell under the writer's notice. At the capture of Rangoon in 1852, of two sets of men who were alike in all other respects, one fought in shirt sleeves under an intensely hot sun, the other in blue cloth tightly fitting coats; many of the latter began to drop down insensible shortly after coming into action, their commanding officer being among the number. The want of water causes great loss of life from heat apoplexy on first service in India. The arrangements for the supply of water are most defective. Natives use immense quantities of water under exposure to the sun, and to this practice was attributed their immunity from heat apoplexy. While the deaths from this disease among the British troops were 20 per 10,000 of strength, they were only 2 per 10,000 among native troops. Heat apoplexy is very rare among officers, who are careful about their dress, and also to have something at hand to relieve thirst. Sportsmen who go out shooting in the hottest weather suffer very rarely. And the disease is unknown among Assam tea-planters, whose business requires them to expose themselves in the sun in the hottest season and at the hottest time of the day. The great majority of the cases of heat apoplexy among soldiers, due to exposures to great heat in the shade, occur between sunset and midnight. This was attributed to the peculiar meteorological conditions of that period of the day in conjunction with the crowding of the men in the canteen. The breeze dies away; clouds form, obstructing radiation; and while this lasts the men crowd in dense masses into the canteen, the ventilation of which is altogether inadequate for the number of men who temporarily occupy it. Crowding, even though it is only for a short period, is most dangerous when the air is very hot. The danger is much increased when, to the crowding, excess in the use of alcohol is superadded. The barracks in the evenings become as hot as ovens. As a means of cooling the barracks it was proposed that they should be douched every evening after sunset. With the present barbarous system of water-supply this suggestion would be impracticable, but if the troops are to be protected against the ravages of cholera and typhoid fever, water must be provided under pressure, as it is in more civilised countries. This proposal when made some years ago had the approval of Mr. Edwin Chadwick, but it was found impossible to give it a trial. In conclusion, it was contended that experience in the hottest parts of India warrants the hope that under good arrangements the losses from heat apoplexy among the troops in the Soudan may be kept within very moderate limits. With good tents of the Indian pattern, attention to clothing, good arrangements for the supply of water, avoidance of overcrowding, especially in tents or huts, and extreme moderation in the use of alcohol, for which tea should be substituted, the losses from apoplexy would be very small.—In the discussion which followed Sir William Smart, Drs. Murray, Scriven, Lloyd, White, Lawson, Cullimore, Comyn, and Squire, and Mr. Shirley Murphy took part.

MEDICAL OFFICERS OF HEALTH SOCIETY.

A MEETING of the above Society was held on Friday, March 20th, Dr. J. Orme Dudfield, President, in the chair.

Mr. A. WYNTER BLYTH read a paper on the Action of Disinfectants on Microzooids. The author enumerated the diseases of animals and men which may be considered beyond a doubt to have an intimate connexion with microzooids—viz., mouse and rabbit septicæmia, a fatal disease of the guinea-pig produced by the micrococcus tetragenus, the anthrax of animals and men, fowl cholera, glanders, malignant œdema, bovine and human tuberculosis, erysipelas, some forms of pneumonia, and acute osteo-myelitis. On the other hand, it had not been proved satisfactorily that diphtheria, scarlatina, relapsing fever, cholera, typhoid fever, and some others were due to microzooids, though the balance of evidence seemed to be in favour of such a view; probably zymotic diseases would come to be recognised as consisting essentially of the invasion of the tissues of individual megazooids by legions of microzooids. The term "disinfectant" the author used throughout as synonymous with "germicide." A colony of microzooids submitted to a solution of a true disinfectant, and then having been freed from the disinfectant and put into the best possible conditions for development and growth, showed no signs of life; the colony had been disinfected—that is, killed. Hence, according to this view, disinfection is either a destruction of pathogenic microzooids or a poisoning of them; the end effected being for practical purposes the same. The author then briefly detailed his own experiments on spore anthrax published in the Royal Society of Edinburgh's Transactions, and summarised the experiments of Schiff and Fischer on phthisical sputum, and those of Fischer and Proskauer on the action of chlorine and bromine. The author had made some observations on mouse septicæmia; threads were infected with mouse septicæmia and soaked for half an hour in Tuson's disinfectant, a saturated solution of sulphate of iron, a 10 per cent. alcoholic solution of cresylic acid, a 10 per cent. solution of sulphenic acid, a 10 per cent. solution of chlorozone, and a strong solution of chloride of zinc. The sulphenic acid and the alcoholic solution of cresylic acid disinfected perfectly the thread; but of the other agents some had no effect, others superficially disinfected. His most recent researches were on the pyridine bases. He had raised a pure cultivation (from the last stages of nasal catarrh) of a yellow bacillus which liquefied gelatine; the liquid gelatine then becoming yellow and fluorescent. This bacillus produced spores of moderate resistance, was not pathogenic, and grew with rapidity at ordinary temperatures. Threads infected with this yellow bacillus were soaked in a 1 per cent. solution of pyridine, collidin, lutidine, and acridine, and then, having been freed from the disinfectant, they were brought up on nutrient gelatine; the threads were found to show no signs of growth around them, whereas the "control" threads grew rapidly. The antiseptic power of pyridine was tested on the organisms found in sour milk, and pyridine was shown to inhibit growth. Since the pyridine bases are present in tobacco smoke, the smoke from an ordinary pipe of tobacco was passed through water, and the resulting solution was found to be, so far as the yellow bacillus is concerned, strongly disinfectant. The results of experiments with the yellow bacillus, when treated with solution of morphine, strychnine, atropine, and other alkaloids, were also given, from which it would seem that strong solutions will kill the bacillus. Turning to the practical aspect of the question, the author summarised the general conclusion to be drawn from these researches. Disinfectants, when they are not destructive agents, act as poisons; they poison the microzooid in a manner not essentially different from the lethal poisoning of a higher life form, and this is the reason why such

poisonous substances as corrosive sublimate, carbolic acid, and chlorine are most to be relied upon. It was evident that to perfectly disinfect, the element of lime must not be disregarded; to receive the specific excreta in a strong solution of sulphate of iron or of carbolic acid, and then within a few minutes cast the excreta into a drain, could only superficially disinfect, and such excreta might in many obvious ways again become dangerous. He considered that the best and most efficient way to disinfect a room after disease was:—First, to make it as much as possible like an hermetically sealed box, and in this box to evolve chlorine; 3 lb. of chloride of lime and 3 lb. of hydrochloric acid for every 1000 cubic feet of space. The chloride of lime was to be divided into several distinct parts in deep vessels, and to be placed as high in the room as possible; the hydrochloric acid was to be mixed with the chloride of lime gradually in the manner described by Fischer and Proskauer. The room was to be kept closed for twenty-four hours. Secondly, all things in the room capable of being submitted to a moist heat were to be taken away to a suitable apparatus. Thirdly, the floor was to be washed with a solution of corrosive sublimate (1 in 1000). The principles of this process had been carried out in the parish of Marylebone for more than a year, and the author considered the method the best at present known.—In the discussion which followed, the President, Dr. Iliff, Dr. C. E. Saunders, Mr. Kingzett, and Drs. Moore, Corner, and Willoughby took part. Mr. Wynter Blyth replied, and the meeting was adjourned.

ACADEMY OF MEDICINE IN IRELAND.

THE opening meeting of the Sub-section of Public Health was held on Feb. 5th.

The PRESIDENT (Dr. J. W. Moore) delivered an inaugural address on the Relations of the Medical Profession to the Sanitary Organisation of Ireland. He contended that the medical aspect of that organisation has signally failed, mainly from two causes—want of supervision and inadequate remuneration. The Public Health Act, 1878, gives only a permissive power (Sec. 2) to the Local Government Board to provide supervision, and naturally this power in consequence has not been exercised. Again, the remuneration allowed to medical officers of health by the various sanitary authorities under the sanction of the Local Government Board is, except in a very few instances, so shamefully inadequate that the only possible result is practically to render the Act a dead letter so far as medical inspection or advice is concerned. Accordingly, he recommended (1) that the Local Government Board, acting as the supreme sanitary authority, should divide Ireland into a suitable number of districts for purposes of sanitary inspection; (2) that each of these districts should be subject to the supervision of an inspecting medical officer of health, or, as such an officer is called in Sec. 11 of the Public Health Act, a medical superintendent officer of health; (3) that the dispensary medical officer should still act as district medical officer of health, reporting as occasion may arise, not directly to the local sanitary authority, but to the inspecting medical officer of health for his district; (4) that the Local Government Board, and not the local sanitary authorities, should appoint the inspecting medical officers of health; and (5) that these officials should be sanitary experts, independent of the local authorities, and reporting from time to time to the Local Government Board. As to remuneration, the inspecting medical officers of health should be paid, by the Treasury alone, a salary which would enable them to forego private practice, in order to devote their whole time and talents to the discharge of their very responsible and very onerous duties. The district medical officers of health should be paid, in equal shares by the Treasury and by the local authorities, a suitable salary, not a nominal one, subject to a minimal but not to a maximal scale—i.e., a salary which should not be less than a fixed amount, say one-half their salary as dispensary medical officers.—On the motion of Dr. CAMERON, seconded by the REGISTRAR-GENERAL, thanks were voted to the President for his address.

Dr. E. MACDOWEL COSGRAVE read a paper on Sewer Gas and Disease. He pointed out that in spite of the Dublin-street sewers being well ventilated, it is certain that if imperfections exist in the house-drain, sewer gas will enter, as the outer air is generally denser than that in houses and as the updraught of fires causes a strong suction. At present many houses have rubble drains, which are always imperfect, and of the pipe-drains many are defective, and hardly any houses are properly disconnected from the street sewers, dependence being placed upon water-traps, which are untrustworthy as excluders of sewer gas. The remedy is to have a properly set pipe-drain cut off from the sewer by an intercepting trap, and ventilated by openings at each end at different levels, to cause a constant current of air. Occasional flushing with a sudden forcible rush of water will render such an arrangement almost perfect. Sewer gas seems to affect health in two ways: (1) As a direct poison, causing sore-throat, diarrhœa, &c.; and (2) by devitalising the oxygen of the air, and so leading to anæmia, lassitude, depression of spirits, &c. The symptoms often show first in servants who sleep in the basement. Surgical operations and confinements are specially liable to be followed by mischief if sewer gas can find entry. The Sanitary Protection Department of the Dublin Sanitary Association affords a reliable means of examining into house drainage, and the engineer to the department (Mr. W. Kaye Parry, M.A., C.E.) states that the following grave sanitary defects were found in some of the houses he examined:—Rubble drains under house, 26 per cent.; defective pipe drains, 61 per cent.; drains not intercepted from sewers, 65 per cent.; unventilated drains, 75 per cent.; waterclosets objectionable, 83 per cent.; soil-pipe leaking, 44 per cent.; scullery dangerously trapped, 50 per cent. In many cases disease accompanied the foregoing defects, especially enteric fever, diphtheria, and illness after confinements. Medical men ought, in the interests of preventive medicine, to have drains, &c., put right before outbreaks of illness, and not wait for illness to call their attention to defective drainage.—Dr. CAMERON gave several instances of defective drainage, and said in reference to exhalations from ventilators, experiments proved there was an influx of air into drains in the morning when fires were lighted.—Dr. GRIMSHAW, registrar-general, remarked that instances came under his notice of the defective line and falls in some of the public sewers in Dublin, and the consequent difficulty in obtaining sufficient falls in house drains in some localities. There was a case where the engineer of the Sanitary Association was unable to provide a complete and efficient system of house drainage in a particular place, because the level of the street sewer was not sufficiently below the level of the floor of the basement storey of the house. In this case it was impossible to put in an intercepting trap.—Surgeon-Major HAMILTON mentioned the steps he took for the ventilation of the barrack sewers of Dublin garrison.—Dr. Doyle, Dr. Henry Kennedy, and the Chairman having taken part in the discussion, Dr. Cosgrave replied, and the Sub-section adjourned.

Reviews and Notices of Books.

Conferences on Education: International Health Exhibition. Vols. XIII., XIV., XV., and XVI.; Sections A, B, C, and D.

THE main value of the educational section of the Health Exhibition consisted in the conferences between British and foreign educationists. Much interesting information was given, and some novel views and theories were discussed. It may appear strange, however, that there should have been such a dearth of medical opinion. We think only four members of the profession spoke at all, none of them frequently.

Although most of the speakers on female education appeared to understand the importance of due attention to the physical welfare of the scholars, some of the suggestions strike us as ill-considered—e.g., the Rev. Canon Holland, who spoke of the importance of ventilation of school-rooms by raised sash frames and Tobin's tubes, had apparently become oblivious of sanitary considerations when he went on to remark: "A glass house, just large enough to hold a piano and a chair, and erected in the corner of a class-room, makes it quite feasible to have two instruments in one room. In our Baker-street school we have two glass houses in one room, and three pianos, which are all played at the same time without any collision of sound." It would be interesting to know whether the air in this school has become scientific enough to pass through the glass houses which effectually keep out sound, or whether there is some

provision for ventilating these chambers from the outside, and if so of what nature, as from their small size—about 100 cubic feet, we gather from the description—they must require a peculiarly efficient apparatus for the purpose.

We could have wished for further information from Miss Freeman as to the exact duties and powers of the female physicians whom she says all the colleges for women in America employ, and who are "salaried to keep the students well." She significantly adds that they lose their appointments if they do not do so. Can these advanced institutions have taken a leaf out of the social customs book of the "Heathen Chinee"?

The German gymnastic system was referred to by Mr. J. Holm, F.R.C.S.E., as having been productive of great good in developing "manliness." He also remarked on Ling's system, which recognises the necessity of a knowledge of anatomy in the teacher of gymnastics in order that some muscles should not receive an undue development to the detriment of other parts of the body; but that all parts should be brought equally into play, and thus equal circulation, distribution of nerve power, and nutrition should be set up. The Royal Gymnastic Institute at Stockholm requires from persons desirous of obtaining appointments (to teach gymnastics) at public schools a course of study, including lectures on anatomy, physiology, pathology, and hygiene, together with instruction in the theory and practice of gymnastics, educational, military, and medical. Physicians by a modified course can obtain a diploma enabling them to practise medical gymnastics.

Many striking instances were given of the advance in intelligence of young children under the Kindergarten system, but we should scarcely desire one of our own children to exhibit such precocity as the little boy, aged five, whose mother wrote to Mr. Fitch that he "told a builder that his mother would not take his house, and on being asked why, he replied, 'You have not disconnected your drain-pipe.' He then explained that the drain-pipe ought to be cut off with an open gully underneath."

Notwithstanding many divergencies of opinion about minor matters, it is gratifying to note the substantial agreement of most of the speakers with the views expressed by the "Lancet Commission," published in 1875, which we believe paved the way for the many reforms in school hygiene which have been established since that time.

OUR LIBRARY TABLE.

St. Thomas's Hospital Reports. New Series. Edited by Dr. S. J. SHARKEY and Mr. FRANCIS MASON. Vol. XIII. London: J. and A. Churchill. 1885.—The contents of this volume are varied, and contain many original articles, of which the following must be noticed:—Vegetable Growths as Purifiers of Sewage, by A. W. Bennett, M.A.; A Case of Osteitis Deformans, by John R. Lunn; Two Cases of General Atrophy treated by the "Weir Mitchell" Method, by Seymour J. Sharkey, M.B.; Case of Gastro-Colic Fistula, by W. Edmunds, M.D., F.R.C.S.; Cases of Tubercular Meningitis, by J. S. Bristowe, M.D.; Mediastino-Pericarditis, by H. R. Hutton, M.B.; Four Cases of Symmetrical Development of Fat, by Sir William Mac Cormac; Cases of Ulcerative Endocarditis, by R. Percy Smith, M.D. The Medical Report for 1883 has been drawn up by Dr. Hadden, and the Surgical Report by W. H. Battle, F.R.C.S.

Lewis's Practical Series: Dental Surgery for General Practitioners and Students of Medicine. By ASHLEY W. BARRETT, M.B. Lond., M.R.C.S., L.D.S. London: H. K. Lewis. 1885.—A book of this kind has long been wanted, but it can scarcely be said that this one fully supplies the want. It seems chiefly to fail in its lack of illustrations. Though the description of operations is fairly good, yet Mr. Barrett too often forgets he is addressing medical practitioners, and writes as though his readers quite understood all about excavators, chisels, and the various instruments familiar to the dental surgeon. Perhaps in future editions this defect may be remedied, but even in its present form this book will be of distinct use to those for whom it is intended, as it contains in brief and readable form, though in rather long-winded sentences, much useful and practical instruction. Mr. Barrett's views on caries are crude, but his directions as to the treatment of it are very plain, though, as already intimated, they would be much helped by a few good illustrations. One sentence in the chapter on anæsthetics cannot be too highly commended; it reads: "The undesirability of employing any anæsthetic, be it 'gas,' ether, or chloroform, without the presence and assistance of a companion, who should be a qualified medical practitioner, needs hardly to be indicated." Of course this means in addition to the operator, be he surgeon or dentist.

The Ship Captain's Medical Guide. Compiled by the late HARRY LEACH, M.R.C.P., and revised by WILLIAM SPOONER, L.R.C.P., M.R.C.S. Ninth Edition. London: Simpkin, Marshall, & Co. 1885.—This edition has been revised throughout, and whilst the general plan of the work has been maintained, extensive additions and alterations have been made. The chapter on the Prevention of Disease has been entirely rewritten, an account of some diseases not previously mentioned has been inserted, and an endeavour made to bring the treatment up to the standard of the present day. The work, which is written solely for the use of masters and mates of vessels at sea, is confined strictly to a plain and brief description of accidents and diseases that occur on board ship; and much care has been taken to show, as clearly as possible, how these accidents and diseases can be best treated by a non-professional man.

Medical Reports of the Chinese Customs Service. Compiled and arranged by Surgeon-General C. A. GORDON, M.D. London: Baillière, Tindall, and Cox. 1884.—The publication of the medical reports, an epitome of which is contained in the laborious work which we now briefly notice, was first suggested by Dr. Jamieson of Shanghai. Surgeon-General Gordon has compiled a summary of the reports. A perusal of the list of contents of the volume before us is sufficient to show how varied and extensive the subjects treated by the medical officers connected with the Imperial Maritime Service of China have been. The information relating to the state of health of foreign residents at the several treaty ports is very valuable, and will be of service to those who contemplate proceeding to that vast country. The section of the volume dealing with materia medica is a valuable collection of information regarding the general use of medicines in China. The appendix contains a vast amount of information on many subjects, and notably on the prevalence of epidemics from the earliest times; a sort of medical diary dating back from B.C. 224 has been compiled at the cost of immense labour and patience, giving a chronological record of prevailing pestilences in China, as well as of epidemics and natural phenomena, such as earthquakes, inundations, and famines, in other parts of the world.

Seasonal Map.—We have received a copy of a seasonal climatic map of the United States, graphically illustrating combined humidity statistics with isotherms, wind statistics, and seasonal tables, compiled from data of the Signal Service Bureau by Charles Denison, A.M., M.D., Professor of Diseases of the Chest and of Climatology in the Medical Department of the University of Denver. Tables for computing the comparative dryness and moisture of localities are also given. By the colour shades in which the map is printed are represented even divisions of the climate of the United States, starting from the mean for the whole country, as determined by the combined humidity statistics. The map represents a marvellous amount of labour, and cannot fail to be of great

value to meteorologists as well as to officers engaged in sanitary administrative work in the United States.

Ellis's Irish Education Directory and Scholastic Guide for 1885. Dublin: E. Ponsonby. London: Simpkin, Marshall, and Co.—This book, which is now in the fourth year of its issue, contains full information as to the Irish universities and professional schools, and the institutions in Ireland for promoting intermediate, technical, and primary education, with complete alphabetical lists of Irish colleges and schools, and copious alphabetical and classified indexes. The part of the book relating to national education has been entirely remodelled, so as to make it a complete guide to the national system. It will prove useful to all who are in need of the information it is specially designed to afford.

WE have received the second volume of the *Dictionary of National Biography*, edited by LESLIE STEPHEN. It extends from Annesley to Baird, and from every point of view is fully equal to its predecessor, which we noticed favourably in a recent issue.

Analytical Records.

THE PURE WATER COMPANY.

IN spite of modern sanitary reform, the water-supply of country places, and even of many towns, is still so unsatisfactory that the production of aerated beverages absolutely above suspicion is a matter of some difficulty as well as of great importance. In the strictest sense of the term pure water is as yet unknown to us. Even Stas, who, after chemical treatment, rectified the water used in his celebrated stoichiometrical determinations, twelve times from a platinum still, did not attain perfection. But a visit to the works of the Pure Water Company at Battersea will convince anyone that practical purity can be attained with the appliances which modern chemical and engineering science have provided. In these works water is first distilled by the powerful apparatus invented by the late Dr. Normandy, and greatly improved of late. It is extensively used in ships, and is, we understand, doing good service in the present Egyptian campaign. Nine thousand gallons a day can be obtained from the engine in the works. We analysed a sample of this water, and obtained less than half a grain per gallon of solid matter, which, as every chemist will understand, is practically nothing. This extremely pure water has, however, like all distilled water, a peculiar smoky taste. To remove this taste it is passed through an animal charcoal filter. How the animal charcoal acts is not very clear. The filtered water proved on analysis to contain about four grains and a half per gallon of solid matter, chiefly phosphate of lime. It was free from the flat and smoky taste of the distilled water, and we need not say that, dietetically, it was perfectly pure. No other water is used in the works.

Carbonic acid is prepared by a continuous process in a very large pair of Mondollot generators, made by Mr. H. Favarger of London. In this apparatus, which possesses considerable advantages over all others, the sulphuric acid is introduced by a leaden syphon, which ensures regular action and avoids all waste. The gas passes through two washers, the second of which is a glass globe in which the transmission can be watched, the aeration being afterwards effected in the usual manner. Every care has been taken to avoid the possibility of mineral or other contamination, and it is certain that no purer or more trustworthy beverage could be produced.

Considerable variety is, of course, introduced into the articles sent into the market. First, we must notice Puralis, which may be described as filtered and aerated distilled table water. Then there are the usual soda and potash waters, each of which was found by analysis to contain the proper quantity of the alkaline carbonate. More novel are the aerated quinine water, which contains in each bottle a definite quantity of the soluble sulphate, and the ginger ale, ginger punch, and ginger gin. These last are excellent preparations, which will be valuable to the army of temperance advocates, inasmuch as they are not only pleasant in themselves, but they suggest alcoholic flavour without containing alcohol.

"THE METAPHYSICS OF NATURAL HISTORY."

To the Editor of THE LANCET.

SIR,—Accept my thanks for your comments in your last issue on my lately published lecture on the above subject. That lecture is there regarded almost exclusively as an endeavour to reconcile religion and science. That such may be its tendency, I earnestly desire. But to readers of your journal, and to students generally, there is a preliminary and more immediate question. How far are we entitled to declare that there must be a certain form of energy, directivity, or determinism existing in the field of nature, which can be so tracked, step by step, from the commonest physical changes, through elementary biologic provinces into the territories of reflex action, instinct and deliberate intelligent volition, that its unity of nature is beyond dispute? That however humbly or highly developed, or differently conditioned in its modes of expression, it may be, this energy of governance is one and the same? How far must the doctrine of correlated forces be modified so as to embrace what would now be called metaphysical causation? An influence, quite outside any will of its own, determines the sex of a child before its birth. At ten years old that same biologic influence is impressing modifications upon the characters of the child through its bodily constitution; it is a boy in mind and will, because it is a boy in body; at thirty years old intelligent volition has assumed predominance; but we know well enough how deeply all is still dependent on purely biologic antecedents. Here, then, is change simply biologic eventuating in intelligent will-force without a discoverable break. And more, the original life-movement may itself be traced backwards and found rooted in physico-chemical conversion of food; and in an upward direction we go on step by step to emotions, affections, and moral cerebration. This continuity may be inexplicable, but is it not certain? Again, in my tiny book I have dared, *rubesco referens*, to assume that there may be some truth in electro-biology, absurdly so-called, and in spiritualism, equally misnamed. Where more hopefully than among the mass of your readers may one seek for assistance on this point? Can any of them produce evidence that will-force can, or will, accomplish physical results? Your friendly criticism, and that of others, has shown that these views of the subject have been inadequately brought forward in the lecture. A page or two of appendix may somewhat remedy this in a new series now preparing by Messrs. Lewis.

I am, Sir, yours obediently,

March, 1885. STEPHEN MONCKTON.

ROYAL INSTITUTION.—The following are the lecture arrangements after Easter:—Professor Gamgee: Eight lectures on Digestion and Nutrition, on Tuesdays, April 14th to June 2nd. Professor Tyndall: Five lectures on Natural Forces and Energies, on Thursdays, April 16th to May 14th. Professor Meymott Tidy: Three lectures on Poisons in relation to their Chemical Constitution and to Vital Functions, on Thursdays, May 21st, 28th, and June 4th. Mr. W. Carruthers: Four lectures on Fir Trees and their Allies in the Present and in the Past, on Saturdays, April 18th to May 9th. Professor Odling: Two lectures on Organic Septics and Antiseptics, on Saturdays, May 16th and 23rd. Rev. C. Taylor: Two lectures on a lately discovered Document, possibly of the First Century, entitled "The Teaching of the Twelve Apostles," with illustrations from the Talmud. The Friday evening meetings will be resumed on April 17th, when Professor S. P. Langley, of the Alleghany Observatory, Pennsylvania, will give a discourse on Sunlight and the Earth's Atmosphere.

THE LANCET.

LONDON: SATURDAY, APRIL 4, 1885.

THE action which has been taken by the vestry of St. Pancras, and which has led to the resignation of Mr. SHIRLEY MURPHY, brings into special prominence the unsatisfactory position in which medical officers of health are placed with regard to the sanitary authorities whom they serve. It is a fact too well known to require any further proof that in a great many instances sanitary authorities intimate to medical officers of health, either directly or indirectly, that the less they do towards the improvement of their districts, the more secure will be the posts and the emoluments they hold. And, on the other hand, the officer of health who honestly performs his duty, and makes it his first consideration to deal with all matters affecting the health of the public, quite irrespective of the private interests which are involved, often finds that his position is made so disagreeable that he is bound to resign it; or else, when the time of re-election arrives, he is thrown over and a new officer takes his place. Nothing could be more unsatisfactory than such a condition of affairs, and the time has come when all who are interested in the future sanitary welfare of the country should make it known in an unmistakable way that a change is necessary in the direction of placing the medical officer of health on a more secure footing.

When the appointment of medical officers of health became compulsory throughout the country, the Local Government Board issued certain regulations with regard to such of them as held office under their Orders; and it is quite clear, from the wording of the clauses relating to the tenure of office, that the intention of the central authority was that after a certain period of probation the election should be permanent, unless removal from office was sanctioned by the Local Government Board on the application of the authority. Indeed, the only limit to the length of appointment had reference to the first election, which was to be for a period not exceeding five years. But even as regards appointments which are made under the Board's Order, the number in which permanency has been sanctioned is very small; and, as a matter of habit, even those sanitary authorities who desire to make permanent appointments are not allowed to do so. As to those districts in which the authorities do not claim any repayment of the officer's salary from the Parliamentary grant, no guarantee whatever is required as to tenure of office, and officers of health may be appointed and dismissed as often as the authorities choose. The metropolis, owing to its exceptional legislation, is on the same footing, and any officer can be got rid of, either directly or by persecution, as soon as the authority finds that in the proper performance of his duties he is touching individual interests.

For the purposes of the Poor-law Medical Service, it was found necessary to give to the medical practitioners holding office in that service some security that they should not be dismissed without adequate reason; and though it may be that this provision has not always worked satisfactorily, yet it has enabled many officers to perform their duties fearlessly, and with the conviction that there was at least some court to which there was appeal. In the interests of public health, it is necessary that medical officers of health should be placed on a footing, to say the least, not inferior to that of Poor-law medical officers; and strong representations should be made to the Government and to individual members of Parliament with a view of securing some such end. The loss to a sanitary district of a medical officer of health who is fully acquainted with its various needs, who has shown his ability to indicate those needs and to secure their remedy, and who is sacrificed because of his very efficiency, is well-nigh irreparable; for even if his successor be as competent as he, much time must elapse before an in-coming officer can have acquired the local information necessary to the proper performance of his duties. In Mr. SHIRLEY MURPHY'S resignation St. Pancras is the principal sufferer; and the mere fact that certain members of the vestry have been allowed so to behave towards that gentleman as to compel his resignation will, it is certain, most seriously affect the future sanitary status of any man who cares hereafter to take upon himself the duties of medical officer of health in that parish. The Parliamentary Secretary to the Local Government Board has borne testimony in the House of Commons to Mr. SHIRLEY MURPHY'S conscientious and capable performance of duty; the Mansion House Council on the Dwellings of the People have publicly protested against the treatment he has received; and it is to be hoped that the publicity which has been given to this case, one out of many similar instances, will in the end lead to a change in the relations of medical officers of health to the local authorities, both in the metropolis and elsewhere. If this result be attained, those who have suffered will not have done so in vain.

THE debate on Cholera was resumed at the Royal Medical and Chirurgical Society last Tuesday, and brought to a conclusion, although an attempt was made to have it further adjourned, in order, as one speaker stated, to secure opportunity for Dr. KLEIN to reply. The rules of debate do not, however, admit of a reply except to the opener, and in the opinion of the majority the subject has for the present been sufficiently discussed. Dr. HENEAGE GIBBES denied categorically the interpretation placed by Mr. WATSON CHEYNE upon KOCH'S statement that the ileum in acute cases contains comma bacilli in pure culture; for, according to Dr. GIBBES, the small straight bacilli which he finds to predominate in such cases are specifically distinct from the curved microbe. Neither could he confirm the statement that the number of comma bacilli was in proportion to the severity of the case. Dr. HERON, who spoke later in the evening, reverted to the bacillar question, and maintained that no difference of opinion had been elicited as to the fact that KOCH'S bacillus had occurred in any other disease but Asiatic cholera; although, as Dr. THIN remarked, an impression had been conveyed that Dr. KLEIN still maintains the contrary. Dr. THEODORE ACLAND asked for information on this point, but, as Dr. GIBBES had left the room and Dr. KLEIN

was not present, no reply was forthcoming. But, assuming the truth of his interpretation, Dr. HERON pointed out the great importance of this fact as a means of diagnosis between Asiatic cholera and allied diseases, following in this the opinion long since expressed by KOCH, at whose instigation so many sanitary officers and others have been instructed at Berlin in the methods of discriminating the choleraic microbe. Sir GUYER HUNTER took occasion to reiterate his conclusion that in the Egypt epidemic the disease was not imported from India, nor did he believe that the Toulon outbreak was imported. In fact, he declared stoutly in favour of the non-contagionist doctrine, which Dr. CUNINGHAM has so persistently upheld. Yet, in the face of such facts as those furnished by Mr. MACNAMARA in his able speech, and those included in the trenchant criticism lately bestowed on Dr. CUNINGHAM'S own reports by the writer of a pamphlet entitled "On the Communicability of Cholera by Human Intercourse"—an author who is in a position to speak with authority,—it does seem astonishing that the non-contagionist doctrine should still receive so much support. Surely there is abundant evidence for regarding cholera as on the same etiological footing as typhoid fever. Mr. MACNAMARA appears in practice to have found that the most appropriate treatment is just that which KOCH finds obnoxious to the bacillus, and is therefore all the more inclined to accept the interpretation of KOCH in its most extended significance. Other speakers were less assured that the bacillus stands in causal relation to the disease. Dr. PYE-SMITH contributed some weighty remarks upon the nature of the choleraic discharge, which, from experiments made in conjunction with Dr. BRUNTON, he believes to be due to an outpouring of intestinal secretion by paralysis of mesenteric nerves in connexion with ganglia derived from the solar plexus. As might have been expected, much was said about treatment; and Dr. JOHNSON'S advocacy of elimination by means of mild purgation was attacked by many, including Sir GUYER HUNTER, Dr. JOHN MURRAY, Mr. MACNAMARA, and Dr. SCRIVEN; although the latter declared that he had found calomel most useful in the early stages. Other statements of Dr. JOHNSON were combated; but he defended his position with vigour in the short time left to him at the close of the protracted meeting.

DR. GEORGE PEABODY, Physician and Pathologist of the New York Hospital, read a paper to the Practitioners' Society on the 6th of March on toxic enteritis caused by corrosive sublimate as a surgical and obstetric application. He adduces from the records of the New York Hospital accounts of eleven cases in which the use of the perchloride as an antiseptic dressing or application was followed by obstinate diarrhœa, which did not yield to the usual remedies, which sometimes ceased on the drug being discontinued, but which in seven instances was followed by frequent bloody discharges, griping, tenesmus, prostration, and death. He was led to search out the facts by reading an article by Dr. EUGEN FRAENKEL in the February number of VIRCHOW'S *Archiv*, whose attention had been drawn to the subject by reading a short communication in the *Centralblatt f. Gynäkologie* by STADFELT of Copenhagen, in which is reported a fatal case of poisoning in a woman who was treated, after retained placenta had been removed with the hand, by the washing out of the uterus with a solution of corrosive sublimate of the strength of 1 in 1500. Four hundred cubic centimetres of this solution had been injected into the uterus, when sudden collapse occurred, from which she rallied. On the evening of the same day she had diarrhœa and tenesmus, and later, bloody stools, which continued until her death, ten days after. The autopsy showed numerous ulcers of an irregular or circular shape in the large intestine. The mucous membrane generally was congested and the ulcers frequent in the rectum. These appearances of the intestine corresponded closely with what was noticed by Dr. PEABODY in several of the autopsies he made of surgical cases where the bichloride had been used, as for irrigating abscess cavities, irrigating wound after amputation of the breast, irrigating a suprahydatid cyst; wiping the peritoneum after laparotomy for fibro-myomata with sponges wet with bichloride solution, 1 to 2000 parts. FRAENKEL says he has made autopsies of fourteen cases treated by SCHEDE with bichloride during the last two years and a half, in which toxic enteritis was produced by it. Of these fourteen cases, two, he thinks, were killed by the poison directly. In the others the drug did not seem wholly responsible for the fatal issue. Salivation is exceptional in these cases. Inflammation is always present in the large intestine, but only exceptionally in the smaller. In the large intestine FRAENKEL found very extensive superficial ulcerations, sometimes covered with loose masses of epithelium and sometimes by a torn diphtheritic membrane. The lesions of pyæmia in other organs are uniformly absent. Dr. PEABODY refers to a publication by SCHEDE of Hamburg on this subject in *Volkmann's Sammlung Klin. Vorträge*, No. 251, and also to one in the same work, No. 250, by W. THORN, assistant at the Female Clinic in Halle, which is an urgent plea for the total abolition of the corrosive from midwifery and gynæcology, alleging its great inferiority to carbolic acid, and the dangers attending its use. We think it incumbent upon us to give publicity to these publications, as we have lately recorded with much satisfaction the remarkable absence of mortality in the General Lying-in Hospital of York-road, Lambeth, where the patients are douched with solutions of the bichloride twice a day. These, of course, are only vaginal douches. We have been informed that there was, except possibly in one case, an entire absence of any indication of the constitutional action of the poison. It is clear, however, from surgical experience that this solution will have to be used very cautiously, and not less so in obstetric practice. We should be disposed to say that its intra-uterine use is not warranted. There is a growing disposition, except in extreme cases, to trust to vaginal cleansings.

THE Government Lunacy Bill is not yet printed, so that it is not possible for us to discuss its provisions in detail. So far as we can judge from the statement made by the Lord Chancellor when introducing it, the measure would seem to be one of those well meant but feeble endeavours to do right which reflect more credit on the hearts than on the heads of their projectors. Of course, it may be that in this instance the head has had more to do with the matter than the heart, and that, in point of fact, it is a concession, with ingenious reservations, made to the urgent cry for reform. We do not attempt to determine in which light the new

Lunacy Bill is to be regarded. One thing, however, is certain; an attempt must be made to improve it by amendments. In some respects this should be easy. For example, the provision by which a person consigned to an asylum is to be visited by a delegate of the Commission within a *month* (!) of his admission must obviously be so modified that the official visit shall be paid within a week as the utmost limit. If the examination and report thus made are to be of any value they must be completed at the earliest practicable date. Imprisonment of a weak-minded though not insane person for a month in an asylum would more than suffice to drive him into madness. Even three or four days of wrongful incarceration would do the utmost mischief in a great majority of instances. If the official representing the Commission, and therefore *supposed* to be impartial, does not visit within one week, it is needless to trouble to send him at all; the alleged lunatic will be quite mad before he comes! We do not complain that the Government has hesitated to abolish the private asylum system altogether with one sweep of the pen; but the Bill, as represented, trusts largely and implicitly to the energy of local reformers for its efficiency, and everything will depend on the way its provisions are carried into effect. We suspend our judgment on the details of the measure until we see it in print.

WE drew attention in our issue of March 7th last to the proceedings of the Metropolitan Asylums Board in connexion with the excessive expenditure at the Homerton Fever Hospital, and especially to the resolution which was passed by that Board to the effect that the result of the inquiry of the subcommittee showed the unfitness of the present medical superintendent for the office he holds. Dr. COLLIE has raised a protest against this resolution, and he naturally expresses surprise that it should have been passed without his having an opportunity of offering to the Board of Managers the explanations which he now tenders. The charges which, in the opinion of the managers, have reference to Dr. COLLIE arrange themselves under four heads. In the first place the general expenditure of the establishment is regarded as excessive. As to this Dr. COLLIE shows clearly that, except in so far as he has advised the carrying out of certain important and necessary improvements, such as alterations in the system of drainage, he is in no way responsible for such expenditure. The general expenditure, he declares, is controlled and directed solely by the hospital committee; and, except on rare occasions, when some special medical questions arise, the estimates are dealt with without so much as his being consulted. Another and a very important charge relates to the amount of stimulants given to patients. On no subject has there probably been a greater divergence of opinion in medical circles than on this question of the administration of alcohol in the case of the acute specific fevers, and therefore the mere citing of the amounts of wine, &c., administered per patient at different hospitals is altogether beside the mark when the point under consideration is the fitness of this or that practitioner efficiently to supervise a large fever hospital. The matter is one for medical judgment, and we are bound to say that Dr. COLLIE who has often expressed his views upon what has by some been regarded as his lavish use of alcohol, bases his practice upon what he rightly believes to be the only proper ground—namely, the welfare of the patient. Indeed, in support of his method of treatment he gives the mortality per cent. of admissions during the last twelve years in the Stockwell Fever Hospital, in the London Fever Hospital, and in the Homerton Hospital, and the result is that on a total of patients varying from 1797 in one to 3604 in another of the hospitals, the death-rates have been at Stockwell 21·54, in the London Fever Hospital 16·14, and at Homerton 15·15 per cent.

We are not now, however, concerning ourselves in any way with the question whether Dr. COLLIE's method of treatment is right, or whether sources of error may not have to be eliminated before the figures he quotes can be accepted as proving all he alleges. The point is that he honestly believes he saves life by his alcoholic treatment, and that he is able to quote statistics which he holds are in favour of his confirmed opinion. So long as this is the case it is only right that his medical judgment should be unhindered, and it is clear that on this, as also on the first head, he entirely absolves himself from the charge brought against him. A third point relates to the supply of stimulants to the staff. Some of this has been granted without any order from Dr. COLLIE, and some of it he has "years ago" declined to hold himself responsible for. There has also been some exceptional use of beer on account of the works of drainage which have been carried out. It was naturally desired to keep the men working in an infectious hospital from the neighbouring public-houses, and hence beer, as also lemonade, were provided for them. But even here Dr. COLLIE declares that he never ordered an ounce of the beverages, neither was he concerned with the quantities issued. The remaining item under this heading Dr. COLLIE regards as one coming properly within his jurisdiction. It has relation solely to the sick members of the staff, and, having regard to the heavy nature of the duties they had been called upon to perform, Dr. COLLIE declares that under similar circumstances it would be his duty to act in the same way again. Here again the matter is one essentially for the judgment of the responsible medical head. The last charge is of a different character. Excessive amounts of Beaune wine were delivered to a certain ward early in July last year. Dr. COLLIE admits that it was his duty to have checked this, and that he is properly to be held responsible for what was unquestionably a grave irregularity. But he submits that at the time in question he was engaged on many other matters for the board of managers, that the diet sheet was made up by the superintendent nurse owing to the illness of one of the medical officers, and that he is in consequence unable to offer any satisfactory explanation of the circumstance. Clearly Dr. COLLIE has erred here. But surely the past history of his services should afford ample proof that the matter is one of error alone. For a long time past the expenditure of Homerton Hospital has at intervals been considered, the cost of the establishment has been submitted to the managers fortnight by fortnight, and never during the past fourteen years has Dr. COLLIE received a hint, a caution, or a warning that his medical administration was too costly. During his long service he has received numerous proofs of the confidence of the managers in his ability as an administrator. Apart from his general work, he has been called upon to prepare land and floating hospitals against epidemics

of small-pox, special recognition of his exceptional services has been made to him, and he has all along been regarded as one of the highest authorities on the subject which he has made his particular study. Should Dr. COLLIE feel that, in the present attitude of the Managers, he can no longer hold his present post, the metropolis would lose the services of one of the most able physicians who ever set himself to cope with the control of epidemic disease by isolation; and we cannot but express a confident hope that his explanation will be accepted as sufficient, and that he will continue to hold the post for which he is so exceptionally well fitted. A Local Government Board inquiry has been ordered as regards the whole subject, and this will probably clear up all doubt as to where the fault lies.

Annotations.

"Ne quid nimis."

ROYAL COLLEGE OF PHYSICIANS.

THE Comitia on the 30th ult. was very largely attended, Sir W. Jenner presiding. The Certificate of Hygiene was awarded to Messrs. Charles Bullock, Charles W. Low, William F. Taylor, and Francis J. Tuohy, this being the first occasion of the newly established examination. A communication was read from the Treasury undertaking to comply with the request of the College to distribute free of cost amongst the medical practitioners of the United Kingdom copies of the revised "Nomenclature of Disease." A vote of thanks to the Treasury for its courtesy and liberality was proposed by Sir Risdon Bennett, seconded by the Senior Censor, Dr. Ogle, and unanimously carried. The President intimated that at the next meeting he should propose that an honorarium be voted to Dr. Ord, the Secretary of the Nomenclature Committee, for his invaluable services. The scale of payment of examiners was submitted and approved. Dr. George Johnson drew attention to the proposed publication in facsimile of the MS. notes of Harvey in the British Museum, and a committee consisting of Drs. Johnson, Sieveking, Stone, Payne, and N. Moore was appointed to report thereon to the College. Sir W. Jenner then delivered an address, in which he reviewed the various subjects that had occurred in connexion with the College during the past year. Amongst these he referred to the Medical Bill, and its withdrawal owing to the determined opposition of the Scotch universities, and stated that the measure had received the support of the College, which was more mindful of the interests of the profession and the public than of its own corporate interest. Since the Bill had not become law, the College had, in conjunction with the College of Surgeons, formed an Examining Board, which had received the sanction of the Medical Council. Objection had been taken to the fees charged for these examinations; but until the scheme was well established, it would not be possible to lower them. The question of a London medical degree was one which might well be entertained in connexion with the new board, and he thought the College might institute an inquiry into the best means for obtaining the power to grant degrees. Many other topics were dealt with, and the address concluded with a review of the careers of those Fellows who had died during the past year—an eloquent tribute, characterised by much discrimination and high-toned feeling. A cordial vote of thanks for his address was passed to Sir William Jenner, who was then re-elected President by a large majority, a certain number of votes being also recorded for Sir W. Gull, Sir H. Pitman, Dr. Owen Rees, Sir A. Clark, Dr. Quain, Dr. Wilks, and Sir Joseph Fayrer.

ENGLISH VITAL STATISTICS IN 1884.

THE Registrar-General's Abstract of Marriages, Births, and Deaths, registered in England and Wales during 1884, has just been issued as a Parliamentary Return. The marriages were fewer than those recorded either in 1882 or 1883, and were equal to a rate of 15·1 persons married per 1000 of the estimated population. This marriage-rate was as low as that in 1881, and very slightly above the low rates in 1879 and 1880, when the present depression in the marriage-rate was most marked. In sympathy with the long continued depression of the marriage-rate, the birth-rate is also much depressed, and did not exceed 33·5 per 1000 last year and showed but a slight recovery from the exceptionally low rate in 1883; it was 1·4 below the mean rate in the ten years 1874-83. The deaths registered last year were equal to a rate of 19·6 per 1000, and was almost identical with the rates in the preceding two years, 1882 and 1883, which were 19·6 and 19·5. The mean annual death-rate in the first four years of the current decennium was but 19·4 per 1000, and was no less than 2·0 below the mean rate in the ten years 1871-80, in the latter half of which period a considerable decline in the national death-rate had already set in. The marked decline in the death-rate of the last four years signifies that nearly 213,000 persons in England and Wales survived those four years whose deaths would have been recorded had the death-rate equalled the mean rate that prevailed during the preceding ten years. The natural increase of the population of England and Wales last year by excess of births over deaths was 376,623, and was higher than in any previous year on record, except 1881, when the death-rate was unprecedentedly low. On the other hand, 150,652 English emigrants left the United Kingdom during the year (fewer by 19 per cent. than those in the previous year), whereas the number of immigrants and of returned emigrants is unknown. The net increase to the population of the country cannot therefore be ascertained. From a health point of view the vital statistics of 1884 were eminently satisfactory, and the continued depression in the low marriage-rate, viewed as the reflex of the commercial depression, was to some extent counterbalanced by the decline both of emigration and of pauperism.

ALLEGED DEATH FROM VACCINATION.

ON Saturday, March 28th, Dr. Danford Thomas, the coroner for Central Middlesex, held an inquiry into the cause of death of a child named Walker, aged three months. From the evidence it appears that deceased was vaccinated by Mr. Claremont, public vaccinator to the St. Pancras district, on March 5th. At that time it seemed quite healthy. On the 12th—the day being very cold—it was taken for inspection. Two days afterwards the mother called in Mr. Whitefoord of Albany-street, and that gentleman diagnosed "congestion of the lungs and brain." Death took place from convulsions on the 22nd ult. Mr. Whitefoord signed a certificate to the effect that the fatal issue was due to vaccination, blood poisoning, and convulsions. Upon the information laid before him the coroner very wisely determined to hold an inquest. The post-mortem examination was performed by Mr. Pepper, in the presence of the gentleman named above, Mr. Sweeting of the Local Government Board, and other members of the profession. The vaccination marks were perfectly normal, there being not the least trace of ulceration beyond the adherent scabs. The surrounding areolar tissue and the axillary lymphatics showed no trace of suppuration. The internal organs, with the exception of the lungs and brain, were free from disease. There was no sign of acute fatty softening or other result of septic intoxication or infection, no thrombosis or hæmorrhagic infarction. There was no effusion into the joints. The lungs showed

acute capillary bronchitis, and patches of collapse consequent on the obstruction to the passage of air from the blocking of the tubes. There was no pneumonic consolidation. The pia mater was infiltrated with puro-lymph; the middle ear was healthy; no evidence of tuberculosis was discovered in any part of the body. On being questioned by the coroner and jury, Mr. Pepper stated that in his opinion vaccination had no other part in causing the death than that for the time being it somewhat depressed the vital powers, and so rendered the tissues more vulnerable; and, further, that the capillary bronchitis and pia-meningitis were in all probability directly due to exposure to cold. With regard to the latter lesion, he deposed that inflammation of the cerebral meninges was not uncommon in young children apart from vaccination or any other discoverable source of local irritation. Mr. Sweeting testified to his having examined the vaccinifer—a perfectly healthy child exhibited in court,—its vaccinifer, and about thirty other children vaccinated from them, and that in only one case had the arm assumed unhealthy action, and that as the result of an attack of measles contracted four days after vaccination. By Mr. Whitefoord's certificate, it would seem that he intended to convey that vaccination had in some way led to septic poisoning, and so to the death of the deceased; but when submitted to interrogation, Mr. Whitefoord had no hesitation in saying that by "blood poisoning" he meant only the ordinary effects of arm-to-arm vaccination, which he considered an undesirable method of procedure. To our minds the public and the profession generally would be led to draw a very different conclusion from the terms of that certificate, and the jury by their verdict recorded their sense of disapproval of Mr. Whitefoord's nomenclature when they found his certificate "misleading and incorrect." We do not think that Mr. Whitefoord can claim to represent the opinion of his professional brethren in considering that the "congestion of the lungs" was due to blood poisoning, and not to exposure to cold, on the grounds that the appetite of the patient was not completely lost, and that there was no difficulty in breathing. The latter statement of fact, however, was directly traversed by the mother of deceased, for she avowed that one reason why she sought medical advice was on account of the difficulty of breathing which Mr. Whitefoord failed to recognise. As regards arm-to-arm vaccination, it is only necessary to add that the Local Government Board have issued instructions that it is preferable to vaccination by ivory points. The wisdom of such instruction seems plain enough. The virus when exposed has a chance of undergoing decomposition, which, although it may attenuate the specific principle, opens up the possibility of introduction of septic matter. Besides, it has been proved by experiment that it is impossible to remove the whole of the virus from the points, as some of it passes into the pores of the ivory. We cannot help expressing our conviction that Mr. Whitefoord should have more carefully weighed the probabilities as to the construction likely to be placed on the wording of his certificate. The cause of vaccination has enough to contend against without its opponents being furnished with phraseology which does not convey a complete representation of facts, and, as in this case it seems, not even a correct statement of opinion.

ATHETOSIS BEFORE AND AFTER HEMIPLEGIA.

THE relations of convulsion to paralysis form one of the most interesting chapters in the pathology of the nervous system. The popular mind sees a wonderful contrast between convulsion and paralysis, and with good reason. Yet there are many considerations which tend to diminish the contrast. The causes which give rise to involuntary movements need only to be intensified in order that paralysis may result. A moderate defect in the nutrition of nervous tissues subserving motor functions may be outwardly expressed as epilepsy, chorea, or some other form of involuntary movement; whilst a more marked defect in the nutrition would be followed by paralysis. It is true that in many instances genuine irritation calls forth some form of tonic or clonic spasm, which may end in paralysis from exhaustion consequent on the excessive irritation. Perhaps the majority of cases of Jacksonian epilepsy which are followed by paresis may be thus explained, though it is highly probable that a condition equivalent to irritation may be set up as the result of a mere loss of nutrition. Paralysis which is not caused too rapidly is generally preceded by some form of spontaneous movement. At a recent meeting of the Société de Médecine et de Chirurgie of Bordeaux, M. Durand related the case of a man aged sixty-nine who was one day seized with severe epistaxis. The next day a tremor exactly similar to that seen in cases of post-hemiplegic athetosis was observed in the left arm and leg; at least so states the report from which we gather this account. There was no loss of consciousness. A day later the convulsions were replaced by hemiplegia. On the following day the movements had returned, and hemianæsthesia was detected in the convulsed members. The further history of the case was not related, and the description given of the movements is inadequate for a proper recognition of their nature; nevertheless the case is an interesting one.

THE MORTALITY OF PIT VILLAGES.

THE report of Dr. Brown, the medical officer of health of the Winlaton Rural District and of the Blaydon and Pyton Union Districts, has been kindly forwarded to us. It should be widely circulated in the district of Newcastle, as throwing much light on the causes of death that obtain still in villages and small communities in the very heart of the district which is associated with all that is effective in engineering and mechanics. If a little of the genius that has been so lavishly spent on the means of locomotion could only be spared for increasing the means of life, or rather abating the causes of death, what great results would accrue. How much healthier the children would be, and how much happier the parents. Life itself would be ever so much more worth living if the diseases by which it is blighted and impoverished from infancy upwards could be curtailed or abolished. If untainted water could be supplied and the house space increased, infantile diarrhœa and typhoid would largely disappear, and the insidiously introduced infection might have some chance of isolation. If the Blaydon Sanitary Authority is disposed to effect these beneficent changes, it need do no more than read Dr. Brown's report and act upon its suggestions. The significance of much of the disease of which he speaks is unmistakable. Twenty-one deaths in a population of 11,800 from summer diarrhœa; 45 deaths, *in the third quarter of the year*, under five years of age, in a total of 77 deaths; 14 deaths from enteric fever at Blackhall Mill; 68 victims to lung disease, being nearly one-fourth of the whole number of deaths, and 60 deaths of infants: from thrush, 8; tabes, 10; meningitis, 12; convulsions, 18; and premature birth, 12—convey to the medical mind conditions of existence which not only kill, but which debilitate and impoverish those who survive. The mortality of the whole district is that of a crowded city rather than that of rural villages. We will not here reproduce Dr. Brown's account of the water-supply and its intimate relation with wells and ashpits and privies. His language is not that of a sensational alarmist, but of an earnest and kindly physician; and we cannot but hope that it will have the attention of his sanitary authority; and let us hope, also, of beneficent ladies of the district, who, with

a little pains, might diffuse among the people intelligent ideas of food, fresh air, housekeeping, &c., pending the arrival of that period described by Dr. Brown when the School Board authorities will think it a fundamental part of their duty to instil into the juvenile minds under their care elementary ideas of health and its conditions.

SUCCESSFUL NEPHRECTOMY AND NEPHROTOMY.

A MAN, aged twenty-seven, has just left the Queen's Hospital, Birmingham, in capital health after removal of his greatly enlarged right kidney by Mr. Jordan Lloyd. The patient had suffered periodically from attacks of right nephralgia for nineteen years, and several experienced practitioners had diagnosed renal calculus. On Nov. 18th, 1884, the kidney was exposed through the loin, its substance incised, and its cavity explored with the finger. The kidney was found enlarged, dilated, and pouched, but without stone. Twelve days later the patient had an attack of nephralgia, followed by a kind of pyæmia. The wound at this time had nearly healed. The general health had so far improved that on Feb. 8th Mr. Jordan Lloyd excised the kidney, through a wound made in the old cicatrix. The gland proved to be greatly enlarged, but its substance was thinned and dilated, without stone. The kidney measured eight inches in length, and the pelvis twelve inches in circumference. The patient rallied quickly, made a rapid recovery, and was discharged on March 19th, with a small discharging sinus in his loin, but otherwise, to all appearance, in perfect health. *La Gazzetta degli Ospitali* reports that on March 8th Professor Vincenzo Daffilo performed nephrotomy at the Ospedale degli Incurabili at Naples for suppurative nephrosis. The walls of the cyst, about three-quarters of an inch in thickness, were closely adherent to the lumbar muscles, the peritoneum, and the diaphragm. The edges of the wound in the skin and cyst were united by points of interrupted suture. The cyst, which had previously been evacuated eight times with Potin's aspirator (yielding a pint and three-quarters of purulent liquid each time), was again emptied in the same way on March 8th. The free extremity of the twelfth rib was resected at the same time. The operation was completed under ether in forty minutes, with the strictest Listerian antiseptic precautions. The temperature has not exceeded 38° C., and the patient is making excellent progress towards recovery.

MALE NURSES FOR MEN.

THERE is some reason in a suggestion which has lately come under our notice, that greater facilities than exist at present should be afforded to steady and intelligent men who are willing to devote themselves to nursing the sick of their own sex. That some such nurses are to be found is not denied. Among others, we may mention the male attendants on lunatic patients—men skilled in the management of a special and very trying form of disease; then there are the "watchers," who belong to the Jewish community, and combine the office of a nurse with certain religious functions. Still, the suggestion we have referred to indicates a want in our system of treatment. It would be easy to enumerate cases in which the services of men would be preferable to those of women in a sick room. In old age, for example, when prostatic and vesical troubles are apt to show themselves in men, or at any age for the after-care of operations in the same region, one may, without excessive refinement of feeling, choose that the necessary manipulations should be performed by the male hand when that has by training become endowed with feminine tenderness. It must, of course, be admitted that true delicacy of feeling is quite compatible with every necessary work, and particularly with one so humane as that of attendance on illness; but there seems no reason why an invalid should not be able to satisfy his own wish in the matter. Another and more pressing argument in favour of male nursing is founded on the greater physical strength and endurance of men as compared with women. Many non-professional persons have witnessed the real advantage conferred by muscular strength—in dealing, for example, with paralysed patients. To lift a heavy man bodily is no trifling task even for the strong. In some cases it is frequently necessary; and it seems somewhat unfair to expect that women of exceptional strength should always be available for such an emergency, or that the aid of another woman or a male relative of the invalid should be conveniently near to make up any deficiency, when many men, if trained, could satisfy every requirement single-handed. Some of the general hospitals would, therefore, we think, do well to assist the formation of a nursing staff of men by using for this purpose the means of teaching which their wards so amply afford. Recent experience has proved that if the course of education could be made to include ambulance work, a reserve force of assistants might be formed whose services would be of great value to the military authorities in case of war.

HORSEFLESH AS FOOD IN MANCHESTER.

THE question as to how far the consumption of the flesh of diseased animals may be carried without injury is one which cannot yet be answered with exactness. Probably it never will be. It is obvious notwithstanding that such meat can never be relied upon to furnish the same nutriment as that of a sound and well-fed animal; and again, that so long as the muscular tissues are traversed by the same organic fluids as the seats of disease, especially if the latter be contagious, they cannot be eaten without risk. A partial security is afforded no doubt by bleeding the carcase efficiently, by using as food only the muscular tissues, and by thorough cooking. None of these, however, can do more than mitigate the probable ill-effects of such haphazard feeding, and the danger thus incurred is proportionately enhanced by the fact that many of the poor upon whom such fare is apt to be foisted content themselves with eating the liver and other viscera, which are particularly apt to suffer from infectious processes within the body. These considerations will help us to understand what is, or at least may be, implied in a statement recently published that horseflesh is being sold in large quantities to the poorer inhabitants of Manchester, under the name of beefsteak, and, further, that many of the slaughtered horses were believed to be diseased. The Local Government Board have properly taken the matter in hand, and will, we hope, succeed in excluding from the market of a prosperous English city a form of food which even in its healthy state is not looked upon with favour as a staple of our national produce.

ALBUMINURIA IN CATS.

THERE frequently exists in the kidney of the cat an enormous accumulation of fat in the cells of the parenchyma. The question has been debated whether this fatty degeneration is pathological or physiological. M. Mathis believes the condition to be abnormal, though of frequent occurrence in cats. The disease is of a different order from that of ordinary Bright's disease; it is not the result of an inflammation, but is due to excessive storing up of the fat—a function which appears to be normal for the kidney of the cat, just as the subcutaneous and subperitoneal tissues are the usual magazines for the storage of fat in other animals. Excessive accumulation in the kidney leads to interference with the function of secreting or excreting urea, and it diminishes the power of taking up the albumen thrown out from the blood in Bowman's capsule. The result appears to be the same as in ordinary Bright's disease, "if we except," says M. Mathis,

"the disorders due to increased blood-pressure." A want of docility, with capricious temper, is believed to be the chief clinical symptoms of the disease in cats, and, according to our author, albuminuria is always found under these circumstances. An account of this steatosis of the kidney may be read in the *Lyon Médical* of March 15th.

THE ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, VENTNOR.

THE Sixteenth Annual Report of this Hospital shows that it is what its name implies, a National one. Of the 6163 patients who have been received into the hospital, about half have come from London and Middlesex. The other half have come from nearly all the counties of England, from Wales, from Ireland Scotland, and the Channel Islands. During the last year no less than 608 patients have been under treatment. But new blocks of buildings, chiefly at the expense of an anonymous friend, are to be opened in the present year, and another block of buildings, to commemorate the generosity of the late Mr. John Jones, is in course of erection. In view of the great importance of the work of the hospital and its imminent extension, it is highly important that the staff of local physicians should be increased. We made this suggestion in a former year, and we make it still more urgently now. It cannot be better carried out than by appointing Dr. Whitehead and Dr. James M. Williamson, who are already Honorary Surgeons, to Physicianships. It is no secret that Dr. Williamson has applied to the board of management to be transferred from the surgical to the medical staff. He states that surgically there is no demand for his services in the hospital, while medically there is a large field for them. His connexion with the hospital, first as resident physician, and then as surgeon, dates as far back as 1873. We should regard his appointment and that of Dr. Whitehead to the Physicianship as not only just to them, but as likely to be advantageous to the hospital. The case of phthisical patients is one demanding much care and time, and these cannot be given with the present staff.

SANITATION AT LEEDS.

THE sanitary supervision of so vast a town as Leeds presents unusual difficulties. A rapidly increasing population, estimated at 327,324, is spread over 22,974 acres of hilly ground, which it has been found necessary to divide into thirteen sanitary districts. A special sanitary inspector watches over each district, and these thirteen inspectors contrived in the course of twelve months to visit 17,011 houses. Considering that 6746 of these houses required sanitary improvement, it will be seen that the inspectors have been greatly overworked. Some of the cases were particularly instructive and significant. Thus, of 3943 houses with defective drainage, zymotic disease occurred in 323 before the evil could be remedied. In one house, to all appearance perfectly drained, there had been case after case of scarlet fever; ultimately it was found that the soil-pipe leaked. In another house, where diphtheria had occurred, a hole was discovered just below the trap of a drain; and this was especially remarkable, as the tenant had recently removed into this house on account of having lost her husband from blood-poisoning due to the defective drainage of her previous dwelling. In the northern district, the family of a small provision shop keeper were attacked by diphtheria. There were four cases in all; the mother and a child died, and the business was almost ruined. Dr. G. Goldie, the medical officer of the borough, has very properly published a coloured illustration of the drains of this house. In four different places the earthenware pipes passing under the house had been chipped; but in order that a two-foot run of piping might not be lost the broken side had been turned upwards. In this way leakage of water might be avoided, but sewer gas could freely escape into the house. Fortunately such trifling with human life could not now be repeated in Leeds. In June, 1878, the present building bye-laws came into force. According to these regulations, all drains must if practicable be carried outside the houses. When this is not possible, they must be laid in concrete and cemented. These works must further be tested and examined by the municipal officers, who insist on their being truly and properly laid, trapped, and ventilated. But if the bye-laws offer some guarantee for new houses, the old houses can only be remedied by the energy of the sanitary inspectors who, we reiterate, are much overworked.

TABETIC LARYNGEAL CRISES.

AT the last meeting of the Medical Society, Dr. W. M. Ord showed a patient the subject of tabes dorsalis, and Dr. F. Semon demonstrated the presence of incomplete bilateral paralysis of the abductors of the vocal cords in this patient. It appears that the stenosis of the glottis has developed and steadily increased during the past three months, whilst the patient has been under observation. The patient at first did not admit that he had suffered in any way from symptoms referable to the larynx; but later on, however, he experienced severe attacks of choking, which at times seemed to call for tracheotomy. Some authorities regard the laryngeal disturbance as being due to a primary contracture of the muscles of the glottis, but the case in question would seem to lend support to Dr. Semon's view of a slowly advancing paralysis of the openers of the glottis. Dr. Ord is in the habit of examining laryngoscopically all cases of nervous disease, and especially of tabes dorsalis, and there can be no doubt of the value of a systematic examination of such cases. For a history of laryngeal trouble may not be obtained, indeed no laryngeal disturbance need ever have occurred, and yet the laryngeal muscles may be obviously affected.

VEGETABLE FOOD FOR CHILDREN.

MR. SAMUEL MORLEY, with his usual public spirit, has been trying to help the cause of temperance and of thrift by a side-stroke in the direction of dietetics. At a vegetarian dinner given by him on Saturday to the villagers of Leigh, he advanced several reasons why this form of food should be more generally appreciated than it is. He referred to a statement that thorough-going vegetarians are usually total abstainers, advised that children should be largely fed on vegetable fare, and advocated the more extensive cultivation of herbs and fruits as being an industry available for very many of the labouring classes, and less tried by competition than that of cereals. Much might be said on each of these heads. Probably the strictest vegetarians are non-drinkers; but this rule is of course not absolute, and temperance, where it prevails, is no doubt partly a virtue of necessity or of inclination, or a principle, and does not arise out of abstinence from meat. In illustration, one might profitably compare the sober and herbivorous peoples of the tropics and subtropic zone with the largely, though not wholly, grain-eating inhabitants of Northern Scotland, whose sobriety is certainly not above question. The most valuable suggestion, however, in this well-timed address is, it seems to us, that which applies to the food of children. The body of the child consists in great measure of fluid and fatty components, and in a comparatively moderate degree of the active muscular tissues. Its income of nourishment, again, goes rather more to the building up of its constituents than to the supply of their functional

expenditure. The more inert materials, such as those of bread, are consequently in request for the laying on of substance; the more energising, as those of meat, find proportionally less occupation. We are not vegetarians, and we think Mr. Morley is not strictly such; but we probably agree in this, that for some persons, and especially children, much can be done in feeding with little meat. It is to be noted, also, that a child's food must be abundant in order to fulfil its purpose. How much more easily he may have plenty to eat of vegetable than of mixed or meat diet in the poorer ranks of our countrymen is too obvious to need remark.

THE HEALTH OF OUR TROOPS IN THE SOUDAN.

So far as we have information on the subject, the health of the troops employed in the Soudan has been remarkably good, and the arrangements made by the medical staff for the prevention, so far as possible, of disease, for its treatment when it occurs, and for affording aid to the wounded, have been most successful; indeed, they are described by the special correspondents as "admirable." But we must not lose sight of the fact that a period is now coming on when the resources of the medical service will be very severely tested. The enforced inaction of the troops during the hot season must undoubtedly prove very injurious; and the effects of solar influence on the men who must necessarily be exposed to it cannot fail to tell on the sick-list. This is indeed already beginning to be manifest at Suakim, where during the late operations several cases of sunstroke occurred. We may look for a somewhat heavy list of such cases, and of heat-fever, dysentery, and possibly cholera. A number of cases of enteric fever are already stated to have been admitted to hospital, and there seems too good reason to believe that they will increase as the season advances. It is satisfactory to know that every provision has been made which foresight could dictate; that there is abundance of medical comforts at hand; that adequate arrangements have been made for the careful nursing of the sick; that an ample supply of ice is to be had as required, and that the means of transport in hospital ships fitted up with every appliance for the treatment of the patients and the efficiency of the medical service have been provided on a very liberal scale. We have not the least doubt that everything will be done by the heads of the medical service which practical experience and scientific knowledge can suggest, but we cannot help feeling anxious about the health of the troops during the coming hot season.

SALIVARY CALCULUS IN A MEDICAL MAN.

DR. DE RATO Y ROCES describes in the *Revista Asturiana de Ciencias Médicas* his own case of salivary calculus. When a child the sublingual glands were indurated and painful; afterwards that on the right side disappeared, but the left gland continued to cause trouble, the pain being felt in Wharton's duct, and there being increased secretion of viscid saliva. These symptoms, however, disappeared for a time. For several years, especially during the later months, pain and inflammation have returned, sometimes extending to the right side. After the acute symptoms have subsided a permanent induration has always remained. Last December Dr. de Rato suffered from a more severe attack of this kind than usual, accompanied by repeated rigors, followed by severe pain and febrile disturbance. Afterwards the inflammation extended, and glossitis and amygdalitis prevented speech and the ingestion of food; then came a copious secretion of viscid saliva. By the fifth day, when the inflammation had to some extent subsided, a probe passed into Wharton's duct detected a calculus, which was extracted by forceps the following day. It was of the shape of a date stone, weighed 540 milligrammes (8·37 gr.), and of the hardness of chalk. Externally it was of a dirty white colour with reddish spots, and internally it was white. Since the extraction of the calculus the induration remains, and Dr. de Rato believes there are also small calculi in the duct.

BIRMINGHAM MEDICAL INSTITUTE.

DR. THOMAS UNDERHILL, J.P., presided at the annual meeting of the Birmingham Medical Institute on the 26th ult. The number of members is now 204, and during the past year no less than 597 books have been added to the library, which now consists of 9274 volumes. The annual income is not yet quite equal to the expenditure, but as the building and library are free from debt, the endowment unencumbered, and the number of members steadily on the increase, a growing feeling of confidence pervaded the meeting. Special votes of thanks were passed to the president, the honorary librarians and secretaries, and very important additions made to the committee by the election upon it of Mr. T. F. Chavasse, Mr. Jordan Lloyd, and Mr. Bennett May. One special feature of the Birmingham Medical Institute is that no ballot or other form of election is required to place a registered medical practitioner on the roll of members. The only requisite condition is that he undertake to observe the regulations, and be recommended by six members of the institute, of whom three shall be members of the managing committee. When this very open method was substituted for the ballot previously in force, it was feared by some that undesirable results might ensue; but in practice it has been found that the six signatures required to constitute membership afford all requisite guarantees. For the ensuing year, Mr. Sampson Gamgee was elected president of the institute, and Dr. Rickards and Mr. John Greene vice-presidents. The honorary librarians, Mr. Lloyd Owen and Dr. Saundby, and the honorary secretaries, Mr. W. G. Archer and Mr. Joseph Hunt, were re-elected.

PHARMACY IN BUENOS AYRES.

A REPORT has been made by Señor Puiggari to the National Department of Hygiene of the Argentine Republic concerning the state of pharmacy in Buenos Ayres. By means of a legalised system of granting royalties for pharmacies to non-resident proprietors, and by the permission given to medical students of whatever standing to take the title of pharmacist, a number of those establishments at present in the city are practically in the hands of very incompetent persons. In many of them Señor Puiggari found no measures, and in some where such articles existed the person in charge was incompetent to make use of them. The same remarks also apply to reagents. The examination of the drugs, too, pointed to lamentable ignorance or carelessness on the part of many of the compounders. Taking a simple and cheap substance, acid. sulph. dil., which, according to the Codex, should contain 10 per cent. of sulphuric acid, the proportions in a number of samples taken varied between 5 and 23 per cent. Again, liquor arsenicalis, which should contain 1 per cent. of arsenious acid, was found to vary from ·06 to 1·57 per cent. Coming now to an expensive drug, opium, samples which ought to have contained 10, or at most to have varied from 8 to 12, centigrammes of morphia, actually varied from 8 milligrammes to 18 centigrammes, those containing a serious deficiency being much the most numerous. In order to remedy this condition of things Señor Puiggari recommends the abolition of the royalty system, the separation of the faculties of medicine and pharmacy, and that no one should be granted a licence for a pharmacy without the production of his diplomas and other certificates. He points out, also, the extreme facility with which the pharma-

ceutical diploma is granted in the Medical Faculty of Cordova. The President, having considered this report, states that it is impossible to veto the royalty system, but orders that the names of all pharmacies of that kind be published twice a year, so that the public may have the means of judging whether an establishment is or is not under competent management.

A COUNTY COURT JUDGE ON THE REMUNERATION OF MEDICAL MEN.

AT the Framlingham County Court lately, before his Honour, Judge Sir Francis Roxburgh, Q.C., Mr. Alexander Harkness, Surgeon, Debenham, sued Mr. Oscar W. Roberts, of the Club, Malvern, for attendance on Mrs. Roberts. The charges were, roughly, at the rate of 7*s.* 6*d.* per visit and 2*s.* 6*d.* for medicine. The visits often occupied from three quarters of an hour to an hour. The distance from the patient's house was two miles, and the defendant was in good circumstances. In spite of some medical evidence on the defendant's side, alleging the excessiveness of the fees, the judge allowed them, and remarked that he did not know a class of men who were paid worse than doctors in the country. He considered the charges were quite reasonable. We refer to this judgment with the more pleasure that it is only one of several recent decisions by county court judges in which the charges of medical men have been upheld. Medical men are, perhaps, a little too slow to assert their legal claims against ungrateful patients.

HOSPITAL SATURDAY FUND WEEKLY CONTRIBUTIONS.

AMONGST various papers sent us by the Hospital Saturday Fund is a sheet which may be used for *weekly* contributions in every week from March 21st to September 5th, the day of the collection. We have always felt that this was the direction in which the Fund can, and ought to, be developed; and we heartily rejoice to commend it to the favourable notice of foremen and others in a position to promote the Saturday collection, which has certainly never reached a figure worthy of the working classes of the metropolis.

THE AMERICAN MISSION IN SYRIA.

WE have been favoured with the statistics of the American Presbyterian Mission in Syria, including the medical work at St. John's Hospital. The physicians of the Medical Department of the Syrian Protestant College are appointed by the Order of St. John in Berlin as the medical attendants of the "Johanniter Hospital" in Beirut. This charity is supported by the Order of St. John, and served also by the Deaconesses of Kaiserswerth. In 1884 there were 571 in-door patients and 7489 treated in the Polyclinique. No part of the work of the mission does more to justify the eulogy of Lord Beaconsfield—"those sublime men, the American missionaries"—than the medical and surgical part.

THE POISONS BILL.

THE new Poisons Bill, recently introduced into the House of Lords, appears to have excited general dissatisfaction. At a special meeting of the Chemists and Druggists' Association, held at Birmingham last week, and attended by representatives of 4000 chemists, the measure was strongly opposed, as being inimical to the interests of those most intimately concerned. A strongly-worded resolution was carried by acclamation pledging the meeting and the Association to oppose the Bill by all constitutional means, and a special fund was opened for the furtherance of this object. It is stated officially that the Privy Council Office have had the Bill under discussion for some considerable time, and that the schedule has been the subject of prolonged deliberation. It is to be regretted that greater success has not attended these efforts.

THE ROYAL NATIONAL LIFEBOAT INSTITUTION.

IF medicine in its ancient and more homely sphere restrains and seeks to foil the efforts of disease, it cannot in its wider and public application remain unsympathetic towards all other motives and means by which its charge of human life is profited or saved. There are certain points in which the spirit of the National Lifeboat Association is in striking concord with the genius of our own profession. Each has to recognise and contend with an unseen extra-human influence of storm or illness, to read and forecast its peculiar symbolism, to guide a system of preventive skill designed to save life, and to heal or to rescue that life in accordance with laws of a written science. Both meet on common ground when measures of resuscitation must be used in order to complete the work of deliverance from the power of the sea. As medical men, therefore, we are gratified to learn that the sister service of recovery continues her work with unabated vigour, and we do not doubt that every member of our faculty will render her that help which need and opportunity may direct.

THE SICK AND WOUNDED AT SUAKIM.

OUR special correspondent at Suakim, in a telegram dated March 27th, states that the wounded have been removed to the hospital ship *Ganges;* the beds are all occupied but three; no deaths had occurred on board. Captain Dalrymple received a gunshot wound over the clavicle, through the spine of the scapula. The splinters of bone and the ball were removed, and he is doing well. Lieutenant the Hon. A. D. Charteris received a spear wound of the palm of the hand. The hæmorrhage was stopped without difficulty, and his condition is favourable. Surgeon Duigan, R.N., had a bullet wound through the scapula and forearm. He is progressing very satisfactorily towards recovery.

POISONING BY ILLUMINATING GAS.

DR. BIEFEL and Dr. Poleck have recently discussed in the *Zeitschrift für Biologie* the question of the relative fatal effects of charcoal fumes and of illuminating gas, it being asserted that in the former case ·19 per cent. in the air of CO destroys human life in thirty-five minutes, while a limit of 1 per cent. is exceeded in the latter case before a similar result ensues. This is attributed to the presence of oxygen in the gas; but Dr. Wagner has disputed these conclusions on the ground that the experiments were not conducted in a satisfactory manner. He agrees, however, with the statement that a mixture of gas and air possessing fatal properties is necessarily in an explosive condition.

THE PARASITIC NATURE OF MELANOSIS.

A CONCLUSION which will generally be regarded as somewhat extraordinary has recently been arrived at by M. Bard, who believes that a clinical and pathological study of melanosis and certain melanotic tumours is sufficient to prove that these morbid processes and conditions are the result of the action of a parasitic organism. This organism he believes to be no other than the black granules themselves. True, he argues, these granules (and may we add crystalline forms?) do not approximate in character to the majority of known micro-organisms, though he considers that they somewhat resemble the micrococci of actinomycosis.

COCAINE FOR THE SOUDAN.

WE are glad to hear that the National Aid Society has arranged to send a supply of cocaine for the soldiers and sailors in Egypt and the Soudan. This is a thoughtful and commendable step, the costly nature of this drug rendering it otherwise only too likely to be conspicuous by its absence. The Society, to the Princess of Wales's Branch of which the Queen has forwarded a donation of £50 and a case of tobacco, is also sending out nurses, cooking sisters, and a variety of comforts and amusements for the troops.

FROM the report of the examination made by Colonel Sir Francis Bolton of the water supplied by the several metropolitan water companies during the month of February, it appears that the Thames water sent out by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies exhibited, on the whole, a slight increase in the amount of organic matter, the proportion being greater in the water of the Southwark and Grand Junction, and least in that of the Lambeth and Chelsea Companies. The water supplied from the Lea by the New River and East London Companies contained slightly less organic matter than the previous month's samples, the New River Company's supply being in this respect far superior to any of the Thames waters, whilst the East London Company's supply ranked with the best of the Thames waters. All the samples were clear and bright.

FROM the reply of the Local Government Board to a memorial recently forwarded by the North-Western Association of Medical Officers of Health on the subject of revaccination, it appears that the Board are not prepared to propose for the sanction of Parliament an increase in the rate of payment for revaccination relatively to the rate which boards of guardians may appoint for primary vaccination; nor are they prepared to furnish to all medical practitioners lymph for the revaccination of the several persons whom these practitioners may think proper to vaccinate. With regard to this latter point, the Board are satisfied that such revaccinations as are performed in any locality with lymph supplied at the public expense ought to be done as part of the system of public vaccination appointed for the locality.

THE Local Government Board have transmitted to the Isle of Thanet Sanitary Authority the report of Dr. Davies, their medical inspector, on the sanitary condition of that extensive district. It appears from this report that the water-supplies of the villages of Minster, Monkton, and Sarre are derived from shallow wells, many of which the inspector says are liable to pollution. The Local Government Board therefore urge upon the authority the necessity of providing a public water-supply for the villages mentioned under the powers of the Public Health Act.

MR. ADAM SEDGWICK has in preparation a new book, to be entitled "The Elements of Animal Biology," which is intended to serve as an introduction to the study of Animal Morphology and Physiology. Messrs. Swan, Sonnenschein, and Co. are to be the publishers.

SURGEON-MAJOR OLIVER CODRINGTON has been temporarily appointed Assistant Professor of Military Surgery at Netley, in the vacancy occasioned by the departure of Surgeon-Major Tobin for Suakim.

THE *Przeglond* of Lemberg announces that cholera has broken out in the Crimea, and states that the Russian authorities are endeavouring to suppress all publication of details.

THE Eastbourne Board of Guardians have resolved to adopt the suggestion which we mentioned some weeks ago as being advocated by Lady John Manners, and intend providing a mincing machine at the union, for the benefit of the inmates who are old and toothless.

THE International Conference on the Prevention of Cholera in Europe has again been postponed. Signor Mancini has now telegraphed to the various European Governments requesting that the several delegates may be instructed to assemble at Rome on May 1st.

THE American medical journals announce the death, on March 10th, of Dr. Ellerslie Wallace, Emeritus Professor of Obstetrics and Diseases of Women and Children in Jefferson Medical College, Philadelphia—the chair previously occupied by Dr. C. D. Meigs.

PHOTOGRAPHY AND MEDICAL JURISPRUDENCE.

THE DETERMINATION OF PERSONAL IDENTITY.

BY WILLIAM MATTHEWS, BRISTOL.

IN all books dealing methodically with the topic of medical jurisprudence, attention is directed to that division of the subject which treats of legal identification and its related particulars. The rules and usages by which the procedure is governed are primitive, but of long antiquity. Whether before the accredited officer of the Crown, the county coroner, or before the courts of criminal law, the corporal presence of the individual touching whom the inquiry is on foot is an indispensable preliminary. "If the body be not found, the coroner cannot sit," says Blackstone. "An inspection of the body is the essence of the inquiry," observes Dr. Taylor in the "Principles of Medical Jurisprudence." Upon occasion in the courts of civil procedure also the question of identity becomes the essential feature of the investigation. It is the real issue submitted to the adjudicators. "In such instances," says Dr. Beck, "the whole evidence turns on the question of identity." Stature, temperament, marks upon the person, colour of the hair, colour of the eyes, general resemblances, these have, heretofore, been the ordinary elements of the physiological sort upon which a conclusion has been based.

When and where photographic portraiture was first introduced to the notice of the courts does not clearly appear. Certainly, it has not been received with undeviating reliance; for the photographic presentment in many instances differs very materially to the eye from the personal reality. Witnesses, upon their oath, have sometimes been requested to pronounce upon resemblances from which, under ordinary conditions, they would have shrunk in bewildered uncertainty. Yet when considered from the stand-points (1) of their perfect accuracy of delineation, (2) of their minutely-true reproduction of the proportionate areas occupied by the several features, and (3) of the apparent permanence, in adult life, of those proportionate areas, there would certainly appear to be no inscrutable reason why photographs might not be subjected to tests of a severely scientific nature.

There are three or four indispensable conditions to be accepted by scientists, preliminary to such a consummation. 1. A due recognition of the permanence of the essential particulars of a given face. 2. Of the greater or less divergence of all other faces whatsoever from the permanent particulars of the face in question. 3. The requisite reliability of a unit of admeasurement that shall, similarly, be (*a*) permanent in a given face; (*b*) discrepant, more or less, in all other faces. 4. The accredited presence of a sufficiently undeviating horizontal plane, to afford an available zero or datum line.

Now, in order to sustain the proposition that a given adult face is permanent in its chief particulars, it needs but the obvious reflection—(1) that when a man stops growing the bones of his face stop growing at the same time

as all the rest; and (2) that when the bones of the face cease growing, the several features thenceforward retain in permanence their original *locus in quo*. It should go without saying that the requisite unit of the admeasurement must necessarily be sought in the face itself; for by this expedient the varying magnitudes of photographic portraits are effectually provided for. Hence the adaptability of the coloured circle of the eye for the desired purpose—(1) It is well-defined at its exterior circumference; (2) it is a permanent quantity in a given individual; and (3) its dimensions so materially differ in different persons, that of itself it is an important factor of diversity between photographs that are inherently discrepant. Granted, then, the requisite permanence of the facial perpendicular, and the requisite permanence of the unit of the admeasurement (the diameter of the iris at its exterior rim), it remains but to consider the limitless amplification of the facial diversity. It has been long an accepted hypothesis that the dimensions of an ideally perfect face should consist of certain duplicate and triplicate repetitions of its own elements; yet, nevertheless, that all actual faces are, to a greater or less extent, departures from the given ideal. In strict conformity with this hypothesis it may be pointed out that the endlessly numerous permutations which are everywhere consequent upon the presence of even a few factors of diversity is a matter quite amenable to arithmetic proof. This principle of permutation finds its always familiar illustrations in the "ringing of changes" upon an octave of bells, in the casting of dice, and in the myriads of differing verbal forms that a few vocal articulations have afforded to all the nations of the earth.

In conclusion, the general and special data which have been here set forth appeal in the first instance to the common apprehension of men of intelligence; and, secondarily, to the tests and investigations of experts. As the result of such tests and investigations, it is now confidently maintained that the data and conditions enumerated are trustworthy, and open to proof. The photographic portraits of various public personages, taken after intervals of twenty or more years, and suitably enlarged, have been found to correspond very minutely in admeasurement, whilst in the meanwhile great external change has been going forward in their countenance. On the other hand, a comparison of the portraits of any two distinct individuals, tested under the same rigid conditions, fully justifies the statement that, in such cases, varied and palpable discrepancies will inevitably become manifest.

The physiological facts having been accepted, the formularies of procedure may suitably engage attention. To those to whom the topic is new, an explicit statement of details might prove the more convenient; but summarily and technically, those particulars may be dealt with as follows:—1. Upon a photograph of enlarged magnitude let a right line be drawn from centre to centre of each pupil. 2. From the given centres describe arcs intersecting each other, above and below the right line, of a radius as the distance between the centres. 3. From the points where the arcs cut each other produce the perpendicular. This will, necessarily, be the true facial perpendicular, whatever may be the pose of the sitter. 4. Lay off a parallel on either side of the perpendicular at the distance of the given centres. 5. Lay off a series of parallels, above and below the line of the pupils, and let their measured distance apart be that of *precisely the diameter of the iris*. 6. Let each parallel extend over the right-hand margin of the portrait, and be numbered consecutively. The given line of the pupils being a naught or zero, let the other numbers proceed from it, upward and downward. 7. Reproduce these details upon the second portrait, and thereupon proceed to make the necessary comparison of particulars.

With the aid of the appliance known as the "identiscope," the required comparison can be effected under conditions the most favourable for careful inspection. Reproduced upon lantern-slides, conjoined by the agency of the zero-points, the compared portraits may be projected in combination, upon a scale of magnitude that would cause the most minute discrepancies to stand revealed, in any reputed instance of spurious or assumed identity.

UNIVERSITY OF ABERDEEN.—The Keith medal, instituted in commemoration of the late Dr. Keith, has been awarded to Mr. George Findlay. Clinical and general surgery form the subjects of examination.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

The Sanitary State of Alnwick, by Mr. JOHN SPEAR.[1]—The attention of the Local Government Board has for some years past been conspicuously directed to the sanitary condition of the Alnwick and Canongate urban district, both on account of its excessive mortality and by reason of reports of successive officers of health, who have resigned with exceptional frequency. And finally, the depositions taken at an inquest went to show that the conditions attaching to certain common lodging-houses indicated a state of grave sanitary neglect. The population was 6691 in 1881, and it consists to an unusually large extent of labourers, navvies, tramps, hawkers, and the like, who find accommodation in lodging-houses maintained largely by keepers of Irish nationality. Alnwick has a somewhat important sanitary history. It was inspected in 1849 on behalf of the General Board of Health, and was found to be marked for its wet surface, damp subsoil, and absence of artificial drainage, besides conditions as to arrangement of houses on areas which prevented even the most ordinary circulation of air about them. But in 1850 certain important improvements, including the sewerage of the town, were carried into effect. In 1866 Dr. Buchanan visited the town in connexion with the important report which he subsequently wrote on the relation of phthisis mortality to conditions of soil-wetness, and he found, in addition to the improvements already referred to, that others of importance, including the provision of a public water service, had been effected. But the actual results of these improvements were found to be in the main disappointing in so far as the mortality had been influenced. The general mortality rate had only fallen from 26·2 to 24·7 per 1000; there had been a reduction as to typhoid fever and diarrhœa from 1·35 to 0·87, and from 0·70 to 0·47 per 1000 respectively. But on the other hand, the rate from consumption had risen from 2·83 to 3·30, and that from other lung diseases from 2·80 to 4·05. Mr. Spear now tabulates the mortality returns from a number of specified diseases down to the end of 1883, and it is found that phthisis has made a still further increase in the magnitude of its rate, whereas the rate for other lung diseases remains practically where it was. The fact is, in the first instance, that the works of drainage effected in Alnwick did not, as elsewhere, succeed in reducing the level of the subsoil water beneath the town, and it has been just in proportion to such lowering that the reduction of the phthisis mortality has taken place elsewhere. But although Alnwick effected improvements some thirty years ago, the place has stood still since, if indeed it has not actually deteriorated as regards its sanitary state, and the lamentable account given by Mr. Spear of the crowded courts and alleys; of the absence of control exercised by the authority over the increasing amount of overcrowding; of the mingling together of houses, stables, middens, pigstyes, and the like; of dwellings built right into the damp earth; and of the disgraceful conditions existing in common and other lodging-houses, amply suffice to explain why a disease such as phthisis, which is so favoured by the conditions of crowding and want of fresh air referred to, has increased rather than diminished. The report embodies a long description of places such as have been referred to; and although it also contains an account of some excellent dwellings erected for the poor and of baths and washhouses, all provided by the Duke of Northumberland, yet such improvements are all but ineffectual in the face of the long-standing sanitary neglect in other matters. The secret of the neglect as regards house accommodation is, however, apparent from the report itself. Individual interests among members of the Town Council have paralysed the sanitary administration. This is why, according to Mr. Spear, so many dwellings entirely unfit for habitation are not dealt with; why building and rebuilding in crowded yards cannot be effectively stopped; why

[1] To be purhased of Knight and Co., 90, Fleet-street; Shaw and Sons, Fetter-lane; Haddon, Best, and Co., West Harding-street; and P. S. King and Son, King-street, S.W.

stables, middens, piggeries, and a hundred other nuisances remain undealt with. And even where nothing but a trivial alteration is needed the authority appears to stand idle. Thus, notwithstanding the immense danger now known to attach to a system by which there is a direct connexion between the interior of watercloset pans and the interior of the water mains, the sanitary authority have failed to take the necessary remedial action. And why? Because, says Mr. Spear, it would have required owners of property to provide so small a thing as the necessary flushing boxes for closets, and, "shrinking from this duty," they have "staked the health of the whole town on a mere chance." It is lamentable in these days, when so much importance is attached to the extension of the principle of local self-government, to read a report like this, in which, notwithstanding recurring elections to the Town Council, such a town as Alnwick can so long have had an authority tolerating such neglect as is now recorded, and all because those whose duty it is to act for the public benefit have "failed to hold the balance justly between individual interests and the interests of the town." In so far as the housing of the poor is concerned, it is to be hoped that Sir Charles Dilke has brought this report under the notice of his fellow-commissioners, and there are other respects in which the case merits the attention of the central government.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

King's Norton Rural District.—Exclusive of deaths of non-residents in public institutions, this district had in 1884 a death-rate of 14 per 1000, the zymotic rate being 0·8 per 1000. Although there was much small-pox in Birmingham during the year, no spread occurred in this rural district. Occasional importations were isolated in hospital, and, for the rest, the district has been protected, as the result of the efficient labours of the vaccination officer. Scarlet fever was also isolated in hospital, and, although twenty-four cases came under observation, no death occurred. The need for such construction of ashpit privies as will be free from nuisance is evidently very great, and Mr. Hollinshead is looking for the remedy in the new bye-laws which are under preparation. These will, of course, only affect new structures; but where sanitary authorities issue new diagrams and plans showing the form of closet permissible under bye-laws, it is astonishing to find how many of the older closets are in time altered according to the pattern indicated. It must, however, be remembered that a proper closet implies a small receptacle for filth, and the latter necessitates frequent removal of contents. Where an adequate system of scavenging is not in operation, people will never put a proper limit on the capacity of their privies, and before the new closets are constructed we advise the authority themselves to arrange a scheme which shall give every house at least a weekly visit, wherever the population is considerable.

Huddersfield Urban District.—During the fifty-three weeks included in the statistical year 1884, the death-rate for Huddersfield was 19·5 per 1000, and it is evident that on a long series of years there has been steady improvement in this respect. The rate from the seven principal zymotic diseases was 3·15 for the previous six years; in 1884 it was 2·38. The diarrhœa death-rate for the third quarter of the year, although not absolutely high, was nearly a tenth of the total mortality for that quarter, and it is to the high temperature and scanty rainfall that the result is in the main attributed by Dr. Cameron. But diarrhœa was more prevalent in 1882 than it was in 1884, and possibly this was due to the precautionary measures now adopted. Wherever a fatal case of diarrhœa was heard of, hose and pipes were at once sent to flush out the local drains, and all accumulations were at the same time removed. Thus, in an important sense the drawback attendant upon scanty rainfall was made good by the authority's officers. Enteric fever also became prevalent in the fourth quarter of the year; but the system of notification worked well and smoothly, and the great improvement effected in the hospital provision came in useful. Of 67 cases reported, no less than 47 were admitted into the Birkby Hospital, and following on this came a system of disinfection for the local drains. Under the compulsory Act, 234 cases were reported. Of these, 118 were cases of scarlet fever, and 94 of them were removed to hospital. The Act is again reported to have worked smoothly. The system of house-to-house inspection which has been in operation, and which is so deservedly regarded as one of the most important duties which sanitary officers can carry out, was temporarily suspended owing to changes in the staff. Much valuable work of a very similar sort was, however, effected as the result of the information acquired by the system of notification.

Brentford Urban District.—Sewers have now been laid throughout the district, and during the past year the work of making the house connexions has been in progress. At the same time sanitary defects which these works disclose are remedied, cesspools are filled in, and other sources of danger to health are abated. Some nuisance having been experienced from the sewer manholes, ventilating shafts have been erected, and during the warm weather hand flushing was resorted to. A first step has been taken to provide means of isolation by the erection of a Doecker hospital hut, but the present site is not regarded as permanently decided on. The annual death-rate was low—namely, 12·28 per 1000; that from the principal zymotic diseases was 1·2 per 1000. The estimated population is 12,307.

Holsworthy Rural District.—On a population of some 9000 the birth-rate for 1884 was 30·8, and the death-rate 16·5 per 1000. The only deaths coming within the group of the principal zymotic diseases were 4 from diarrhœa and 6 from whooping-cough. During the spring and early summer a smart epidemic of sore-throat, which Mr. Linnington Ash did not regard as diphtheritic, occurred in Holsworthy town. It was attributed to emanations from the sewers, the gully traps having become unsealed in the streets, owing to the combined effect of drought and strong north-east wind. In Ashwater much the same sort of disease occurred during the third quarter of the year. The affection was distinctly infectious, but it was not regarded as either diphtheria or scarlet fever. It caused no deaths. Improvements as to the water-supply of the district are steadily in progress, but much remains to be done in this respect, especially in Holsworthy town, which is dependent on surface wells liable to become dry during drought, and is also subject to the risk of pollution. This matter has been referred to before in the annual reports, and the time has come when the authority should take it in hand with a view of providing the inhabitants with a proper supply of one of the first necessaries of life.

Llanelly Rural District.—Dr. Raglan Thomas reports a diminution in the amount of epidemic prevalences, and in part he regards this as due to the system of paying a small fee to medical practitioners who have voluntarily reported fresh outbreaks. When such reports come in a searching inquiry is at once made, as is indeed indicated by a lengthened tabulated *résumé* of the conditions discovered. It would be still more interesting if, on future occasions, a column were to indicate the action which had been taken as the result of the discoveries made. Bye-laws now provide for the removal of all privy accumulations twice a week, but, as is often the case, people who are without sufficient garden ground are unable to comply with the regulation. Where this is the case the authority should regard it as its own duty to effect the scavenging with the needed regularity and frequency, instead of imposing the obligation on occupiers. A curious instance of water poisoning by zinc came under notice in connexion with the use of the Cwmfelin water. A very pure water had, by virtue of the dissolved oxygen and carbonic acid naturally present in it, taken up 6·4 grains of carbonate of zinc per gallon. This result, which is described by the analytical chemist as unique in his experience, was brought about by the use of so-called "galvanised" water pipes. Boiling causes precipitation of the zinc. Dr. Thomas still deplores the absence of an infectious hospital in his district. The death-rate for 1884 was 15·6 per 1000 living.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5872 births and 3967 deaths were registered during the week ending the 28th ult. The births exceeded by 58, and the deaths by 340, the average weekly numbers during 1884. The annual death-rate in these towns, which had been equal to 20·6, 22·1, and 23·5 per 1000 in the preceding three weeks, declined again last week to 23·2. During the first twelve weeks of this year the death-rate in these towns averaged 22·6 per 1000, against 24·6, the mean rate in the corresponding periods of the nine years 1876-84. The lowest death-rates in these towns last week were 17·8 in Portsmouth,

18·0 in Derby, 18·5 in Bradford, and 18·7 in Brighton. The rates in the other towns ranged upwards to 31·2 in Manchester, 31·7 in Newcastle-upon-Tyne, 33·9 in Oldham, 40·4 in Sunderland, and 41·9 in Cardiff. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had increased from 377 to 443 in the previous four weeks, further rose to 451 last week; they included 176 from measles, 124 from whooping-cough, 37 from "fever" (principally enteric), 37 from diarrhœa, 31 from scarlet fever, 25 from small-pox, and 21 from diphtheria. No death from any of these zymotic diseases was recorded last week in Brighton, whereas they caused the highest death-rates in Newcastle-upon-Tyne, Cardiff, and Sunderland. The highest death-rates from measles occurred in Huddersfield, Newcastle-upon-Tyne, Cardiff, and Sunderland; from whooping-cough in Preston, Cardiff, and Oldham; and from "fever" in Newcastle-upon-Tyne, Preston, and Norwich. The 21 deaths from diphtheria in the twenty-eight towns included 11 in London, 3 in Cardiff, and 2 in Portsmouth. Small-pox caused 47 deaths in London and its outer ring of suburban districts, 2 in Sunderland, 1 in Manchester, and 1 in Newcastle-upon-Tyne. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had declined in the preceding five weeks from 1223 to 830, had increased again to 865 on Saturday last; and the admissions, which had been 94, 104, and 137 in the previous three weeks, further rose to 179 last week. The Highgate Small-pox Hospital contained 94 patients on Saturday last, the admissions in the week having been 31, a higher number than in any previous week of this year. The deaths referred to diseases of the respiratory organs in London, which had been 374, 455, and 487 in the preceding three weeks, declined again to 448 last week, and were 69 below the corrected weekly average. The causes of 121, or 3·1 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Norwich, and in three smaller towns. The largest proportions of uncertified deaths were registered in Halifax, Preston, Hull, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 24·4 and 24·2 per 1000 in the preceding two weeks, further declined to 23·3 in the week ending the 28th ult., and was almost identical with the rate (23·2) during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 10·6 and 14·1 in Leith and Greenock, to 22·0 in Paisley and 29·9 in Glasgow. The 568 deaths in the eight towns included 32 which were referred to whooping-cough, 18 to measles, 12 to diarrhœa, 6 to "fever," 4 to scarlet fever, 1 to diphtheria, and not one to small-pox; in all, 73 deaths resulted from these principal zymotic diseases, against 88 and 85 in the preceding two weeks. These 73 deaths were equal to an annual rate of 3·0 per 1000, which was 0·4 above the mean rate from the same diseases in the twenty-eight English towns. The deaths from whooping-cough, which had been 22 and 35 in the preceding two weeks, were 32 last week, and included 17 in Glasgow, 5 in Dundee, and 3 in Greenock. The 18 fatal cases of measles showed a decline of 10 from the number in the previous week; they all occurred in Glasgow. The 12 deaths attributed to diarrhœa showed an increase of 6 upon the number in the previous week, and exceeded by 3 the number in the corresponding week of last year. The 6 deaths referred to "fever" included 3 in Edinburgh and 2 in Glasgow; while all the 4 fatal cases of scarlet fever occurred in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 122 and 124 in the previous two weeks, were 122 last week, and exceeded the number in the corresponding week of last year by 5. The causes of 71, or more than 12 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 32·7, 39·5, and 34·6 per 1000 in the preceding three weeks, further rose to 40·4 in the week ending the 28th ult. This is a higher rate than has prevailed in any previous week of this year. During the first twelve weeks of this year the death-rate in the city averaged no less than 34·1 per 1000; the mean rate during the same period did not exceed 21·6 in London and 20·3 in Edinburgh. The 273 deaths in Dublin last week showed an increase of 39 upon the number in the previous week, and included 32 which were referred to the principal zymotic diseases, against 30 in each of the preceding two weeks. Of these 32 deaths, 12 resulted from measles, 7 from scarlet fever, 6 from "fever" (typhus, enteric, or simple), 3 from diphtheria, 2 from whooping-cough, and 2 from diarrhœa. The annual death-rate from these principal zymotic diseases was equal to 4·7 per 1000; whereas the rate from these diseases last week did not exceed 2·5 in London and 1·7 in Edinburgh. The fatal cases of measles in Dublin, which had been 11 and 16 in the previous two weeks, declined again to 12 last week. The deaths from scarlet fever and diphtheria, on the other hand, exceeded those returned in any recent week. The 6 deaths from "fever" showed an increase of 3 upon the low number in the previous week. Seven inquest cases and 8 deaths from violence were registered within the city; and 85, or nearly a third, of the deaths were recorded in public institutions. The 51 deaths of infants exceeded the number in any previous week of this year, and those of elderly persons were also numerous. The causes of 38, or 14 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

We understand that in view of the necessity for an increase in the Army Medical Staff, the Secretary of State for War has decided to grant appointments to all the candidates who, at the late competitive examination, obtained the necessary qualifying marks, but were excluded in consequence of being beyond the number required to fill vacancies. This will provide an addition of about thirty-eight officers to the Department.

We note that a telegram having been received recently by Her Majesty's Secretary of State for India from the Government of India, requesting that all officers in military employ on furlough may be directed to rejoin their regiments or appointments, instructions to this effect were issued on the 25th ult. to all medical officers, as also to combatant officers, of the Indian army to proceed to Brindisi in time to join the Peninsular and Oriental Company's mail steamer there on the 6th inst.

INDIA OFFICE.—The Queen has approved of the following admissions to her Majesty's Indian Medical Service:—John Tasman Waddell Leslie, David Prain, Arthur Thomas Bown, Upendra Nath Mukerji, and William Locking Price, to be Surgeons in the Bengal Army.

ADMIRALTY. — The following appointments have been made: Staff-Surgeon James Dunlop, M.D., to the *Ruby;* Surgeon Herbert Canton, to the *Ruby;* Staff-Surgeon Albert C. Traceby, to the *Mercury;* Surgeon Edward R. T. Fasker, to the *Shannon*, additional; Surgeon Edward H. Williams, to the *Cockatrice;* Surgeon Penrose J. Barcroft, to the *Imogene;* Herbert M. Sweetman to be Surgeon and Agent at Schull; and Francis Rennie, M.B., to be Surgeon and Agent at North Shields; Staff-Surgeon Albert C. Queely, to the *Mercury;* Thomas W. Fryer to be Surgeon and Agent at Gerran's Bay; George W. Hill to be Surgeon and Agent at St. Mawes and St. Anthony.

ARTILLERY VOLUNTEERS.—1st Lancashire: Thomas Moore Dawson, Gent., to be Acting Surgeon.

ENGINEER VOLUNTEERS.—1st Newcastle-on-Tyne and Durham: Surgeon John Wilson resigns his commission.

RIFLE VOLUNTEERS. — 1st Clackmannan and Kinross: Feter Rough, Gent., M.A., M.B., to be Acting Surgeon.— 2nd Volunteer Battalion, the Lincolnshire Regiment: Surgeon and Honorary Surgeon-Major Edwin Morris, M.D., resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the battalion on his retirement.

THE LATE GENERAL GORDON.—We understand that the *Boy's Own Paper*, of the Religious Tract Society, whose readers have already subscribed over £1200 for two lifeboats, besides £400 for a hospital cot, is promoting a Boys' Gordon Memorial on the lines known to be dear to Gordon himself—viz., to help the poorer working and suffering lads.

Correspondence.

"Audi alteram partem."

THE NEW EDITION OF THE NOMENCLATURE OF DISEASES.

To the Editor of THE LANCET.

SIR,—The second edition, being the first revision of "The Nomenclature of Diseases," is now in the hands of the profession. A memorandum of the Subcommittee on Classification inserted therein quotes the first line of the preface of the first edition, which declares "the perfecting the statistical registration of diseases" to be the object of the undertaking, and then significantly adds, "this object has certainly not been as yet attained." I think the bulk of the profession will so far agree with the subcommittee in this expression of opinion, for it will doubtless assume that the prefatorial memorandum was written, as is customary, after the rest of the work was in type.

"To-morrow the critics will commence—men who have failed in literature and art," some members of the subcommittee may possibly say, quoting Lord Beaconsfield. To them the painstaking registrar will reply, in the words of a still greater authority, "I am nothing, if not critical."

May it not be possible, for instance, for cases of "frost-bite" to occur in this variable climate of ours? One such accident comes under the notice of our conscientious statistician, who wishes to notify the same in an orderly manner. He turns to his copy of "The Nomenclature," which a parental Government has just forwarded him, and looks out "frost-bite" in the index. He is referred to pp. 193, 215, 217, 223. He opens the volume at p. 193, and finds the ailment in question placed under diseases of the skin. He turns to page 215, and perceives it inserted under general injuries with a note as to its limitations. At page 217 it is placed amongst the local injuries, and at page 223 along with injuries to the skin. If this arrangement (?) is insufficient to produce the bewilderment necessary for statistical purposes in the brain of our conscientious statistician, I may yet add a further section, wherein "frostbite" can have a place, and that will be found at page 12—"Effects of cold." Somewhat similar results would be the outcome of attempts to classify the other "effects of climate, &c." recorded in the nomenclature. I shall not, however, encroach on your valuable space by recapitulating them.

A casual perusal of the volume in question has, however, brought to light the following further peculiarities—e.g.: Alcoholism (p. 12) is a disease of diet; alcohol (chronic poisoning by) (p. 203) is included among the poisons; mercurial tremor may be either a disease of the nervous system (p. 27), or the result of a poison (p. 199); syncope is both a disease of the nervous system (p. 29) and one of the circulatory system (p. 71); ranula occurs twice (pp. 89—99); chromium is the only metal whose salts are given in the section (p. 199); phosphorous acid is a poison; nitrous and sulphurous acids are not given (p. 201); sulphate of indigo is named (to use a parliamentary expression) in the short list of poisonous acid salts (p. 201); picric acid is called by the discarded name carbazotic acid (p. 203); elephantiasis (p. 123) is classified as a proliferation tumour, whether it is evidently caused by the presence of the parasite filaria sanguinis or not; we also learn that this disease is a variety of "diffuse fibroma" (p. 309); tubercle is a variety of granulation tumour (p. 313); gonorrhœa is a disease of the whole body (p. 11); gleet (gonorrhœa mucosa) is a disease of the male organs of generation, unless it is caused by gonorrhœa (p. 135). In the first edition, gonorrhœa was placed amongst diseases of the urinary system. "Amyloid," the synonym of the rarely-used term "lardaceous," is frequently omitted—e.g., pp. 3, 105. The following diseases and synonyms are omitted: Comedones, area Celsi, Duchenne's paralysis, Jacksonian epilepsy, amyotrophic lateral sclerosis, and many other well-known nervous diseases. Fetid bronchitis, malignant endocarditis, peritonitis due to gonorrhœa, perimetritis and parametritis are not inserted in the index, although they occur on page 147.

Many fairly common poisons are also omitted—e.g., croton chloral hydrate, paraldehyde, &c. Finally, "morula" (O tempora! O morula!) is the Latin equivalent for "yaws." One would almost imagine that our classic must have been pleading with the printer's devil for a "brief respite" from the latter's too persistent visits for "copy" when he substituted "morula" for the time-honoured "framboesia," although the latter's derivation from the French (alluded to by Bateman) is scarcely classical.

I am, Sir, yours obediently,

Brighton, March 30th, 1885. W. AINSLIE HOLLIS.

FORENSIC MEDICINE.

To the Editor of THE LANCET.

SIR,—I have waited in the hope of seeing letters from more experienced writers and abler pens than mine confirming the remarks of your able leader of March 7th. There are, according to the Medical Directory, fifty-one medical coroners in England and Wales out of a total of 281. The subjects of forensic medicine and coroners' inquests penetrate every nook and cranny of medical practice in England, Wales, and Ireland; and, though there is no coroner's inquest in Scotland, the subject of forensic medicine has received more practical attention there than in any other part of the United Kingdom. I am surprised, therefore, that no notice has as yet been taken of your leading article by some of the many who are so capable of dealing with it. Having in the course of the last twenty years made many post-mortem examinations for different coroners, and taking great interest in all medico-legal cases, I am in a position to confirm the remarks in the second part of your article.

There is a very forcible reason why two examiners should always be employed in cases involving a criminal charge, which you have omitted to notice. One may be ill or even dead when the trial comes on, and if he has been unassisted there is no one to give evidence or to be cross-examined. It is true that the depositions before the coroner and magistrate are in court and can be read, but anyone who has attended trials must know what a very unsatisfactory substitute for a witness are his depositions.

Another point which can hardly be ignored is the importance of a division of time and labour. I know nothing more fatiguing than making a post-mortem examination of an adult corpse, completely and satisfactorily, by oneself. Even in a hospital dead-house, with every convenience, it means time and work; but in the dwellings of the poor, without any convenience whatever, and with the body lying on the floor, it becomes as hard a task as can well be undertaken.

The importance of expert evidence in criminal cases will be seen by a reference to recent trials. In the Penge case the question was simply, Did the deceased die from starvation or natural causes? and had there been present at the autopsy one of the many experienced pathologists attached to the metropolitan medical schools, most of the difficulties of the case would have vanished. In two cases which occurred recently in Manchester, the evidence of Dr. Cullingworth, the lecturer on Forensic Medicine at Owens College, was most important; strengthening the case for the prosecution in one and disproving a groundless charge in the other. And in all cases which are likely to proceed to a higher court it is obviously desirable that the coroner and medical witness should have the benefit of a second opinion—i.e., of an expert, well experienced in post-mortem examinations, and with a competent knowledge of forensic medicine.

Another matter which you have not noticed is that the coroner in a certain proportion of the cases which come before him has absolute discretionary power in the selection of a medical witness, none having been called in either before or after death. Hence, in all these, he is at liberty to employ an expert without any encroachment upon the rights of general practitioners. And it is these unappropriated cases, as they may be called, which might be utilised for the study and practice of forensic medicine. In 1861 the chair being then vacant, the late Dr. Ayrton, who was generally chosen by the coroner at that time to make all post-mortem examinations for him, was appointed the lecturer on medical jurisprudence at our local medical school, and it was hoped that the appointment would enhance the interest of the lectures. Dr. Ayrton only lectured, however, for one session, and the experiment was abortive. In a paper read before our medical institution in 1876 on the "Coroner's Court," I attempted to show how it

might be rendered more effectual in providing "the more efficient performance of all medico-legal autopsies and a field for the practical study of forensic medicine in our medical schools." Referring to the latter, I observed, "In a word, every department of medicine should be taught and learned 'practically.' Why should forensic medicine be any exception to the rule? Within a distance of very little over a mile from the Royal Infirmary is a place which affords a field for the practical study of forensic medicine little inferior to the Morgue of Paris, where world-renowned medical jurists, Orfila, Devergie, and others, acquire their reputation. I refer to the dead-house, Prince's Dock, where cases of death from drowning, burning, suffocation, exposure to cold, and infanticide, may be seen in almost every variety. ..... Now, without encroaching upon other gentlemen's province, the students of the Royal Infirmary School of Medicine (now the Medical Faculty, Liverpool University College) might have many opportunities afforded which they do not now possess. During the summer session the lecturer on forensic medicine might, I am sure, easily obtain permission of the authorities to visit this place and show the external appearances of death from the various causes I have indicated as to be met with there." The suggestion was favourably received by those present at the meeting, which included Dr. Ewing Whittle, then, and until very recently, lecturer on medical jurisprudence. But changes are not easily made, and so far nothing has been done. Mr. F. T. Paul, a most experienced pathologist, has just been elected to the vacancy, and I trust that he will be afforded every reasonable opportunity of both practising and teaching forensic medicine.

With regard to toxicology, it seems to me to be very important that students should be taught the detection of poisons in urine, vomited matters, &c., although the more elaborate examination of these, as of viscera, must be left to the analytical chemist. But the medical practitioner is the first on the spot, and it is his accurate observation of facts and symptoms which leads to detection. In the Edinburgh opium poisoning case, which occurred some years ago, it was reported that some spots on the nightdress of the deceased were detected by the chief medical witness as caused by laudanum having been spilled. This single fact proved a most important piece of evidence, as the case presented all the usual difficulties of opium poisoning. In the Lamson case the careful preservation and analysis of the matters first vomited were the most important links in the chain of evidence against the prisoner. Much, if not all, the mystery of the Bravo case would have been dispelled by a careful analysis of the urine, fæces, and vomited matters while the unfortunate deceased was still living. More important than analysis is the careful observation of symptoms, and comparing them with those of poisoning. In the recent cases of murder by arsenic in this city it was shown by the confession of one of the prisoners that eleven deaths were due to arsenic administered by one or both of the accused persons. All these persons had been attended by medical practitioners, and the deaths had been duly certified. How many more victims might have fallen had not the death of Thomas Higgins excited Dr. Whitford's suspicion, it would be hazardous to guess; but the case shows the importance of careful observation. It was the sudden nature of the death which excited Dr. Whitford's suspicion, though in the miserable surroundings of the case he failed to see any motive for foul play until he heard that the life of the deceased, a poor bricklayer's labourer, was insured to the extent of £100.

I could have added more were this letter not already too long. I conclude with the hope that the defects you have indicated will be remedied, and that forensic medicine will become, as so interesting a subject deserves to, a thoroughly practical and attractive branch of medical study.

I am, Sir, yours faithfully,

Liverpool, March 25th, 1885. FRED. W. LOWNDES.

PHYSIOLOGY IN OXFORD.

To the Editor of THE LANCET.

SIR,—You have thought fit to accuse those who recently opposed the grant to the Physiological Laboratory at Oxford of misrepresentation, recklessness, injustice, and an unwarrantable use of personal allusion. As all the circulars and notices issued by the opponents of the grant passed through my hands, I ask you to allow me to repudiate your accusation as emphatically as possible, and in enclosing you the documents in question I challenge you to point out one single sentence containing a misrepresentation, a reckless or unjust statement, or any personal allusion which an official position does not warrant. Two concessions only were asked of Professor Sanderson—viz., that he would not hold a certificate to dispense with anæsthetics, nor one to free him from the necessity of killing the animal.

Now, if the promoters of the grant had said openly, "Away with such restrictions and concessions; they are an insult!" the opponents of the grant, however much they might have regretted such a declaration, would have respected it as the bold challenge of a candid antagonist. But in the circular issued in advocacy of the grant, and in the debate in Convocation, the arguments used were, "There are to be no painful experiments on living animals, either with or without anæsthetics. The grant is only for coal, gas, and water." You, Sir, know well that there may and will be painful experiments on living animals without anæsthetics within that laboratory *for purposes of research*, and to say, as was said, "There will be none for purposes of demonstration and instruction," and at the same time to suppress all allusion to experiments for research, is an act of "aggressive concealment" unworthy of those who believe they have a good case.

I am, Sir, your obedient servant,

FREDERIC E. WEATHERLY, M.A.

Brasenose College, March 28th, 1885.

*** Mr. Weatherly cannot be ignorant of the fact that the cause he advocated received some of its most powerful support from others than those immediately concerned in the voting at Oxford. Our remarks did not apply to the phraseology of the circulars with which he has favoured us.—ED. L.

INSANITY AFTER OVARIOTOMY.

To the Editor of THE LANCET.

SIR,—It would seem desirable that every case in which ovariotomy has been followed by insanity should be recorded.

Some years ago, in Sydney, I removed a large ovarian cystoma from a widow aged about forty. I have not brought the notes of the case with me, and cannot therefore give her exact age. Three days after the operation she became insane, and, unlike most of the cases related by the speakers upon this subject at the last meeting of the Clinical Society, the disease became chronic, and it was found necessary to confine the patient in the asylum at Gladesville. The disturbance of the mental balance in this case, I thought, was due to the sudden and violent change from extreme mental depression to excessive joy. The patient had quite made up her mind that she should die under the operation, and had given directions as to the conduct of her funeral. Her extreme astonishment when she recovered from the effects of the anæsthetic at finding that she was not only living, but rid of her burden, I shall not soon forget. I should state that there was no family history of insanity.

I am, Sir, yours obediently,

Sydenham-hill, March 30th, 1885. P. SYDNEY JONES.

HICKS *v.* BEDFORD AND OTHERS.

To the Editor of THE LANCET.

SIR,—Dr. Rogers, in his interesting letter published by you on March 21st relating to this case, draws attention to a very important passage in Mr. Justice Wills' charge to the jury. The quotation given is that "there is no statutory power whereby anyone, lunatic or otherwise, can be detained in a workhouse against his will." As Dr. Rogers points out, this ruling must cause a very great surprise to those concerned in workhouse administration, as it declares illegal a practice which has gone unchallenged for upwards of forty years at least. But this particular paragraph, at any rate, is not in accordance with the Poor-law Amendment Act of 1867, 30 & 31 Vict., sec. 22 of which states: "When there shall be in any workhouse a poor person suffering from mental disease, or from bodily diseases of an infectious or contagious character, and the medical officer of such workhouse shall, upon examination, report in writing that such person is not in a proper state to leave the workhouse with-

out danger to himself or others, the guardians may direct the master to detain such person therein, or, if the guardians be not sitting, the master of the workhouse may, until the next meeting of the guardians, detain him therein, and *such person shall not be discharged from such workhouse until the medical officer shall in writing certify that such discharge may take place;* provided, however, that this enactment shall not prevent the removal of a lunatic to a lunatic asylum when such removal is otherwise required by law, nor the removal of any poor person after the parent or next of kin of such person shall have given to the guardians such an undertaking as they shall deem satisfactory to provide for the removal, charge, and maintenance of such person with due care and attention while the malady continues."

It is the practice at the Stoke-on-Trent Union Workhouse, where I am medical officer, for certificates to be signed by myself, the master, and the clerk to the guardians, when it is thought necessary to detain any person suffering from mental or infectious disease, and I have on more than one occasion thus detained patients convalescing from scarlet fever and cases of delirium tremens. I enclose our form of certificate, which is drawn up in strict accordance with the Act of Parliament.

I am, Sir, yours obediently,

Stoke-on-Trent, March 30th, 1885. J. G. UVEDALE WEST.

THE HISTORY OF THE USE OF IPECACUANHA IN DYSENTERY.

To the Editor of THE LANCET.

SIR,—Dr. Macpherson's paper on the above subject, read at the meeting of the Medical Society on March 9th, was one of great interest. It would appear, however, that it was left to Sir Joseph Fayrer to recall the fact that it was to Mr. Docker we owed the introduction of the remedy into the practice of the British army and the reduction of its employment to a system. Sir Joseph Fayrer was right in thus giving honour to whom honour is due; for, although something may be credited to improved sanitation, &c., there is no doubt that the great decrease in the mortality from dysentery in India in late years is due to the employment of the system of treatment introduced by Surgeon-Major Docker.

Having treated a large number of cases of dysentery with ipecacuanha, in large doses, during my service in Ceylon, India, and British Burmah, I can bear testimony to its great efficacy in acute cases, a few twenty-grain doses bringing the disease promptly to a termination, when treated at an early period, as stated by Sir Joseph Fayrer. I can also bear out Dr. Cullimore's belief that "in dysentery associated with hepatic disease ipecacuanha, in large doses, is not well borne." Dysentery is frequently found associated with, or dependent on, hepatic congestion. My latest experience of the treatment of such cases was given in a paper in the *Indian Medical Gazette* of July 1st, 1881; and as the passage bearing on the treatment of this complication is short, and the subject one of much interest, I beg leave to quote it:—"When dysentery is present, complicating the hepatic congestion, I have found the treatment suggested at page 52 of my book successful—viz., a mixed treatment of alternately giving ipecacuanha (twenty to thirty grains) and chloride of ammonium until the relief of the dysentery, or a full midday dose of ipecacuanha, or the latter in enemata should there be fear of vomiting, with morning and evening doses of the chloride, or in some cases a midday dose of the chloride may be preferable, and morning and evening doses of the ipecacuanha, until the dysentery is checked. In such cases the patient, if asked, will express himself as receiving great relief from pain by the exhibition of the chloride; and, if so, it may be well to give it more frequently than here recommended."—I am, Sir, yours, &c.,

WM. STEWART, M.D.,
Surgeon-General, A.M.D. (retired).

Mount Pleasant, Lymington, March 23rd, 1885.

AN anonymous donor has intimated to the Committee of the Sheffield Hospital and Dispensary his desire to endow a bed in the institution, in memory of the late General Gordon, on condition that it shall be known for ever as the "Gordon Bed." The endowment is thirty guineas a year, which the donor will pay for some time, and then invest capital with trustees sufficient to raise the amount annually required in perpetuity.

THE GORDON MEMORIAL HOSPITAL.

(From a Correspondent.)

THE choice of Port Said for the proposed establishment of a Gordon Memorial Hospital appears to be adversely commented on by professional and public opinion in Egypt. It is strongly urged that by far the most suitable place is Alexandria. It is the seaport of Egypt, the centre of commerce, and has a population of nearly 200,000.

Port Said is an outlandish insanitary little town, with only 12,000 people, of whom about six families are English. There is no highway to it from any part of Egypt except from Suez by the Canal, and ships passing through the Canal do not stop at Port Said. Nor is there any railway communication with it, so that a hospital there could benefit only an odd seaman landed from a passing vessel, or, perchance, a stray traveller.

In Alexandria, on the other hand, with its extensive shipping, as the import and the export city of Egypt, a large number of British seamen every year are landed for resident treatment in a hospital. For this they have to depend on foreign institutions, and are attended by nurses that do not always speak their language. English residents, also, in the towns and villages of Egypt, that have no real home where they can be attended to during sickness, go to hospital in Alexandria as the commercial centre, and could not go to Port Said for want of railway communication.

In Alexandria the English residents contribute most liberally to a foreign hospital. In it hundreds of merchant seamen, many officers and men of the British Army and Navy, and Englishmen without home comforts, are treated by the English doctor, who is one of the visiting surgeons. In the same hospital, and by the same doctor, 200 or 300 Egyptians are treated annually as in-patients, besides some 20,000 out-patients. This success is almost entirely due to the ability and energy of the English doctor. Natives (Egyptians, Bedouins, and Soudanese) flock from far and near, attracted by the reputation that English surgery has won in his hands; and while they gravitate to a centre like Alexandria, with a surgical fame already declared, they never would go to Port Said, where the essentials of success do not exist, and where a fine institution, after an ineffectual flicker, would soon dwindle down into a fourth- or fifth-rate cottage hospital.

The success in attracting natives is a most important point, for it must be remembered that Gordon, to whose beloved and honoured memory a hospital is to be erected in Egypt, was, above all things, catholic, and gave his life for Mussulmans.

It is to be hoped that this matter will receive the anxious consideration of the Memorial Committee, if they desire an institution that will really honour the blameless and heroic life of General Gordon, and that will be a credit to its founders.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

DR. DALLINGER IN NEWCASTLE.

DR. DALLINGER delivered a lecture last week in our Literary Philosophical Institute which will not be soon forgotten. The subject, I need scarcely say, was treated in a most masterly and advanced manner by the reverend lecturer. The title of his subject was "On a New Putrefactive Organism, with some Deductions concerning the Group," but the mere title gives but a faint idea of the extent of ground covered by the reverend and learned lecturer's discourse, which was of a deeply interesting character, and well illustrated by the oxyhydrogen lantern. He showed certain nomads that he had discovered by a powerful microscopic lens, rectified by the modern employment of various essential oils as corrective media of refractive errors. He dwelt principally on septic organisms, and went fully into the source and life of these nomads, how they were produced in water where animal matter was

decomposed, and by such decomposed animal matter became reproduced into a new form of life. He urged upon biologists of the district the study of the bacteria, so that the various forms might be followed out, and the fullest information on the subject obtained, which, he said, was of the greatest importance to the human race.

THE FLEUSS APPARATUS.

The local papers are much taken up with letters and inquiries about the Fleuss apparatus. It is felt that if such had been in readiness after the explosion at Usworth the lamentable loss of life by the intrepid explorers might have been avoided, and possibly lives in the future rescued by its adoption. It has been sufficiently shown that the Fleuss apparatus enables its wearer to remain under water or in an unrespirable atmosphere for as long as an hour and twenty minutes. The Fleuss apparatus may be in its essentials thus described. It consists of a mask or mouth-piece, a knapsack, and an elastic bag or air reservoir. The mask fits tightly over the eyes, mouth, and nose, and is held in position by means of straps fastened at the back of the head. The knapsack comprises the gas chamber and the alkali chamber. The gas chamber is a strong cylinder made of sheet copper, 12 in. long and 8 in. diameter, and will contain four cubic feet of oxygen gas at a pressure of 58 lb. per square inch. The alkali chamber is contained in a tin plate case, and is made of vulcanite 12 in. high, 12 in. wide, and 6 in. deep, divided vertically by diaphrams so disposed as to cause the exhaled air to pass through the caustic alkali twice before it is delivered into the fresh air reservoir deprived of all the carbonic acid gas, and the greater part of the moisture or aqueous vapour of the breath. The fresh air reservoir is made of vulcanised indiarubber, which admits of a pulsating movement corresponding to the breathing of the wearer. It is worn on the front of the body extending over the chest and stomach. A flexible inhaling tube is carried over one shoulder and connected to the air reservoir, and the flexible exhaling tube is carried over the other shoulder, and connected to the decarbonating or alkali chamber. The exhaled air, after passing through the alkali chamber, flows into the air reservoir, on the point of entering which it receives the required supply of oxygen, which is regulated by a small valve under the control of the wearer. The apparatus is easily carried, and has the great advantage, besides its efficiency, of leaving the limbs of the wearer free. In an able article in the *Newcastle Daily Chronicle* the moral effect of having the apparatus in readiness is pointed out, and it is believed "that a couple of the apparatus would be of more value than a score of willing explorers—in the event of a colliery explosion—with the courage, but without the means, to successfully combat the insidious effect of the after-damp."

Dr. O'Hanlon, the medical officer of the Spennymoor Local Board District, in his report, points out with regret that the use of opium is increasing in the district, and especially amongst the female population. This is much to be regretted, as the habit could not—up to late years at all events—be considered as established among our northern mining population.

Newcastle-upon-Tyne, March 24th.

EDINBURGH.

(*From our own Correspondent.*)

CLOSE OF THE WINTER SESSION.

THE winter session of the Edinburgh Medical School came to a close on Friday, the 27th ult. There was the usual interest displayed in the summing up of the work of the session by the various lecturers, and the distribution of medals and prizes to successful competitors; although, judging by the small attendance at one or two of the classes, it appeared that many students had already made their escape from college trammels to the enjoyment of a well-earned holiday. This did not interfere, however, with the lively interest displayed in the closing lecture of the class of Clinical Medicine, delivered by Professor Maclagan; for it was widely known that this was to be a valedictory address on his retirement from the chair. Long before the appointed hour the lecture theatre was crowded with students; there was also a large representation of the teachers in the Edinburgh Medical School, many of whom, now occupying important posts of responsibility, had studied under the veteran and genial professor, whom they were now assembled to honour. Professor Maclagan's entrance, supported by his colleagues of the clinical chair, was greeted with a most enthusiastic demonstration of esteem, which was warmly reiterated from time to time as some telling point, some apt illustration or classical quotation, marked the phases of his most interesting address. In a few comprehensive sentences Professor Maclagan reviewed the work done during the session, so far at least as the lectures were concerned, dealing shortly with each system of the bodily mechanism and its disorders, and pointing out the significance of each in the economy of general medicine. In the branch to which he had drawn attention specially—that of diseases of the skin—there had been no lack of interesting cases, and he congratulated the students upon the opportunity which had been afforded them of studying some of the rarer forms—as, for instance, true leprosy. Passing then to the subject of his retirement, Professor Maclagan explained that it had been for some time in contemplation, owing to the completion of the new Public Health Laboratories, to the development of which he was anxious to devote his time and energies, but that at the request of his colleagues it had been postponed until the present time. Speaking of the charm of hospital work both to the scientific physician and to the well-wisher of his fellows, he alluded feelingly to the regret which he experienced in parting from surroundings that had afforded him so many opportunities of pleasurable interest and of usefulness to others, and testified to the warm feeling of personal gratification with which he looked back upon the cordial relations which had always existed between himself and his fellow-workers, be they teachers or students. In dealing with the many phases of hospital work, he drew attention specially to the importance of children's diseases, and of the fevers, for the study of both of which increased facilities are to be provided; and, in meeting the objections which have been urged against the study of the latter, he held strongly that those whose natural bent had led them to encounter the dangers of a medical career should not flinch before an additional risk, by avoiding which they could not enter fully equipped upon the practice of their profession, and that, even here, that Providence under whose care they had prospered so far would still be their protection. Professor Maclagan then took leave of the class over which he has presided so long, his adieux receiving the most enthusiastic response from the students; and there was not one amongst them, as they rose *en masse* and waved a last farewell, but would carry away with him a kindly feeling towards the "old man eloquent," whose well-weighed words had taught him many a useful lesson, and whose gentleness and courtesy had inspired him with feelings of the deepest respect.

A WISE SCHOOL BOARD ELECTION.

The city of Edinburgh is to be congratulated upon the return of an able representative of the medical profession as a member of its newly-elected School Board. The subject of Over-pressure in Board Schools is such a burning question at the present juncture that a School Board which counts a medical man upon its roll will be viewed with much less suspicion by the parents of the oppressed infants than where this is not the case. Although returned as a "ratepayer's candidate," Dr. Russell will doubtless not feel bound to advocate that most fertile source of over-pressure, a minimising of the teachers' emoluments, that makes the straining after large grants essential to their bare existence.

DINNER TO DR. ARTHUR THOMSON.

Dr. Arthur Thomson, the newly chosen lecturer on Human Anatomy in the University of Oxford, was entertained at a congratulatory dinner by the University Assistants' Club, at the Waterloo Hotel on March 27th. Dr. Murdoch Brown occupied the chair, and amongst the guests present were Dr. Thomson, senior, Professor Turner, and Professor T. R. Fraser, Dean of the Faculty of Medicine. After the loyal and patriotic toasts had been given, the chairman proposed "The Health and Prosperity of Dr. Thomson," and paid a warm tribute to the talents as well as to the *bonhomie* which had placed him so high in the esteem of his colleagues. Dr. Thomson responded in an amusing speech. In proposing "The Assistants' Club," Professor Fraser alluded to the importance of a University being distinguished by achievements which extend the area of science as well as by the

completeness of its didactic functions, and whilst deprecating the employment of large sums for the endowment of bursaries, which reward their holders for merely doing their duty, he strongly urged that such sums should rather be devoted to defraying the expenses of scientific research, which has been largely crippled through lack of funds amongst those who might otherwise have undertaken such work with the very best results.

Dr. Arthur Thomson is succeeded in his post of Senior Demonstrator of Anatomy by Mr. David Hepburn, M.B., C.M., who has been for three years upon the staff of demonstrators.

PARIS.

(From our Paris Correspondent.)

THE DIVULGENCE OF PROFESSIONAL SECRETS.

DR. WATELET, who was fined 100 francs for having divulged a "professional secret" under circumstances referred to in my letter of March 21st, has protested by a letter in a morning paper against the judgment of the Court by refusing to sign a bulletin, a printed form which every medical man receives from the Prefecture of the Seine, and which he is required to fill up on the death of a patient. The bulletin contains as headings: name of the principal disease, final accidents, cause of death, duration of the malady, &c. Dr. Watelet appears to find this demand inconsistent with the charge brought against him, and consequently returned the bulletin unfilled to the Prefect. I am afraid, however, that he will again render himself amenable, as the name and address of the patient are written on a slip of paper which is detached from the body of the bulletin before the latter is sent back to the office of the Prefecture. As I have already observed, the position of a medical man in his relations to society is peculiarly difficult and delicate, for the construction that may be put on the article in question (378 of the French Penal Code) is so elastic that a medical man is never safe, as he may at any moment unwittingly commit himself, as in the case of Dr. Watelet. A striking example of this has just happened to another medical man in Paris. A physician, who was also a pharmacien, but who practised only in the latter capacity, lately died. Dr. Constantin Paul, in announcing the event at a meeting of the Société de Thérapeutique, of which the deceased gentleman was a member, stated that death was caused by tubercular meningitis, of which he had an attack ten years previously. The Insurance Company in which the deceased had insured his life for 200,000 francs, or £8000, having taken note of this circumstance, has refused to pay the widow, on the grounds that her husband's life was insured subsequent to the attack he had ten years before, he being at the time the subject of a fatal malady which eventually carried him off. The case, which is interesting from more than one point of view, is pending, and it is said that if the Insurance Company should persist in their refusal, Dr. Constantin Paul will be prosecuted for divulging a professional secret. Examples of this kind are daily to be met with, for we see in the medical and lay papers full descriptions of maladies of persons of note ante mortem and post mortem. At this very moment the nature of the malady from which General Grant is suffering is being publicly discussed on both sides of the Atlantic, and so was that of General Garfield and M. Gambetta, and yet no one ever dreamt of prosecuting the authors of the published articles.

THE GODARD PRIZE.

The Société de Biologie of Paris has awarded the Prix Godard (1884) to Dr. E. Leblond, for his work on the physiological and therapeutic action of caffeine.

Another election of a corresponding member of the section for Medicine and Surgery of the Paris Academy of Science, took place last week. Sir James Paget, who was elected, received thirty-eight votes, against two for Sir Joseph Lister, and one for Dr. Leudet, of Rouen. Dr. Panum, of Copenhagen, was also a candidate.

Paris, March 31st.

THE ASSOCIATION OF PUBLIC SANITARY INSPECTORS.—At the next monthly meeting of this Association, to be held April 4th (this day), at 1, Adam-street, Adelphi, at 6 P.M., an address on "Sanitation" will be delivered by Dr. B. W Richardson.

VIENNA.

(From our own Correspondent.)

GASTRO-ENTEROSTOMY.

IN removing a carcinoma of the pylorus, if too much of the stomach have to be included in the excision, the sutures—especially if of catgut—between the thick gastric wall and the thin duodenum usually relax in consequence of the great tension; for cases in which the stomach cannot be united with the duodenum, Dr. Woelfler has employed gastro-enterostomy in order to prolong the life of the patient. The stomach is united with the coils of the small intestine above the carcinoma, so that the food proceeds direct into the small intestine, eluding the pylorus and the duodenum. The method is only a palliative one, its object being to avert stenosis, as the carcinomatous masses remain behind. Professor Billroth has modified the method in the following manner. He operates like Woelfler, then he excises the stomach, lifts up the carcinoma, unites the viscus with the small intestine, loosens the carcinoma, and finally cuts it off, so that the food proceeds direct into the small intestine, and the duodenum is, so to say, an enormously lengthened ductus choledochus. A few weeks ago Professor Billroth operated in this way on a decrepit patient, who recovered satisfactorily.

DIAGNOSIS OF CARCINOMA.

Mr. E. Freund, a medical student, has described a method of diagnosing carcinoma with very few chemical aids in every stage of its development. He says there is in the blood of carcinomatous individuals a reducible substance, which he supposes to be sugar; and the blood of sarcomatous individuals contains an unusual amount of peptone. In cases of carcinoma diabetes was excluded, as was leukæmia in cases of sarcoma. In both diseases only a very small quantity of blood should be examined. In sixty-two cases of carcinoma, after the albuminous products had been removed with sesquichloride of iron and nitric acid, there was found in 0·3 cubic centimetre of blood a substance which distinctly reduced Fehling's solution. In eight cases the blood had to be heated for a few minutes with dilute muriatic acid, and glycogen, as such, could then be proved. After extirpation the sugar in the blood disappeared; in one case only it persisted, in which relapse took place. In fifteen cases of sarcoma, after the removal of the albuminous contents, peptone could distinctly be found.

TRANSFORMATION OF PUTREFACTIVE BACTERIA.

Professor Stricker recently communicated to the I. a. K. Society of Physicians the information that Professor Spina had succeeded in transforming putrefactive bacteria in the course of two days, and that they show the same behaviour towards methyl-violet as tubercle bacilli. Professor Stricker and Dr. Amrus have repeated these experiments, which corroborate Professor Spina's statements.

THE GENERAL EFFECT OF COCAINE.

In a lecture delivered recently Dr. S. Frend described some experiments he had made to illustrate the stimulating and restorative power exerted by the muriate of cocaine. The exhilarating effect of the ingestion of from 0·05 to 0·10 gramme of the drug lasts four or five hours, and disappears by degrees without being followed by depression. This effect of cocaine can be tested by the dynamometer. Under the influence of 0·10 gramme of cocaine an increase of power of pressure of the right hand of 2 to 4 kilogrammes, and of that of both hands of 3 to 6 kilogrammes, has been registered. This effect ensues shortly after the taking of the drug, and is best shown if it is taken while the system is in a condition of great depression. The daily fluctuation of the muscular strength which takes place in correspondence with the daily fluctuation of the bodily temperature, as shown by Dr. Max Bruch, is also to be taken into account in studying the effect of cocaine on the motor power.

Vienna, March 19th.

MEDICAL NOTES IN PARLIAMENT.

The Insane Poor.

IN the House of Commons on the 26th ult., Sir Charles Dilke, in reply to Mr. W. Corbet, stated that the return of poor rates and pauperism just issued does not give the total number of insane persons maintained at the public

expense. The numbers given in that return are of the pauper lunatics maintained by the guardians at the cost of the poor rates, and do not include the insane who are maintained by the counties and boroughs at the cost of the county and borough rates. The return which was prepared by the Commissioners in Lunacy and presented to the House in June, 1883, contains, so far as the Board are aware, the fullest information available on this subject.

Lunatic Asylums in Ireland.

On the 30th ult., in reply to Mr. A. O'Connor, Mr. Campbell-Bannerman said that there has not been time to ascertain the exact present condition of affairs in each lunatic asylum in Ireland, but he believed there is no doubt that in some asylums the number of patients is in excess of the nominal accommodation, although, taking the country as a whole, there is more accommodation than is actually required. The Lord Lieutenant gives immediate and full attention to any representations made to him on this subject. Several asylums have already been extended, and extensions are being or are about to be effected in others.

Sixpenny Telegrams.

Mr. Shaw-Lefevre stated that it has been decided that the new tariff shall come into force on Aug. 1st next.

Small-pox and Vaccination.

On the 31st ult., Mr. G. Russell stated, in reply to Mr. Hopwood, that the Local Government Board have no reason to doubt that the statement in the pamphlet entitled "Facts concerning Vaccination," sanctioned by his department, that "none of the nurses at any of the London small-pox hospitals who have been duly revaccinated before entering on their duties have ever caught small-pox" is substantially correct, although it might have been more guardedly expressed. From the report of the medical superintendent of the Fulham Hospital in March, 1882, it appeared that at Fulham 42 out of a staff of 295 had had small-pox, at Stockwell 16 out of 340, and at Deptford 20 out of 265.

Obituary.

REES HOPKINS, L.R.C.P., M.R.C.S.

MR. HOPKINS of Pontypridd, whose death occurred, in the forty-first year of his age, on the 1st ult., was born near Llantrissant. He commenced life as a veterinary surgeon at Pontypridd, and this vocation he pursued for some years with marked success. He afterwards commenced a course of professional study at the London Hospital, and in 1872 obtained the diplomas of Member of the Royal College of Surgeons and Licentiate of the Royal College of Physicians. He was medical officer to the Pontypridd Board of Health and the Rural Sanitary Authority, and held several other public appointments.

Medical News.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At examinations held on March 23rd and following days, the undermentioned passed in Anatomy, Physiology, and Materia Medica:—

J. A. Coen, A. R. S. Craig, J. Duncan, J. D. O'D. Egan, R. Elliott, R. W. Hamilton, J. C. Hines, A. M. Hunt, E. B. Kennedy, A. D. Macleod, A. R. Murphy, V. Nash, H. F. C. Pilcher, J. A. Scully, A. F. Smith, P. Stephenson, W. Stritch, W. Swan, W. E. Waters, J. A. Whitty, D. T. Wylie.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 19th ult.:—

Mumford, Alfred Alexander, Manchester School of Medicine.

The following passed on the 26th ult.:—

Caskey, John Shaw, London Hospital.
Rhys, Watkin Llewellyn, Guy's Hospital.
Sutherland, John Russell, Glasgow University.
Walker, Thomas Greaves, London Hospital.

DR. SMYTH is a candidate for the vacant coronership of North Kildare, and it is generally expected that he will be returned.

A SUGGESTION has been offered that the "Great Eastern" steamship should be utilised as a floating hospital at Suakim.

THE salary of Dr. Cowen, medical officer of the Shadwell-road Workhouse, Islington Union, has been increased from £50 to £80 per annum.

DR. G. P. O'FARRELL of Boyle, and Dr. John Todd of Newtown Stewart, have been appointed medical inspectors under the Local Government Board, Ireland.

SPANISH UNIVERSITIES.—The number of students who graduated in the Spanish Universities last year was 3598, including 94 doctors, in various faculties, 535 licentiates in law, and 703 licentiates in medicine and pharmacy.

THE MANCHESTER HOSPITAL SUNDAY AND SATURDAY FUNDS.—The amount paid into the bank up to the present time to the credit of Hospital Sunday Fund is £4745, and on account of Hospital Saturday, £3063, making a total of £7808.

ROYAL COLLEGE OF SURGEONS.—Owing to the unprecedentedly large number of candidates for the "primary," or anatomical and physiological examination for the diploma of membership, amounting to upwards of 400, the library and museum of the College will be closed on Tuesday and Wednesday, the 7th and 8th inst.

ON Tuesday last, Mr. Alderman Walmsley, M.R.C.S., of Salford, presided at a meeting of medical practitioners of Manchester, held at the old town hall, for the purpose of taking steps to found a new Medical Society in the city. A resolution was carried pledging the meeting to promote the object in view, if possible in harmony with the existing Medical Society.

ELECTRIC LIGHT FOR HOSPITAL SHIPS.—The Metropolitan Asylums Board has contracted with a Manchester firm for lighting by means of electricity the hospital ships and buildings at Long Reach. The plant will be in duplicate throughout, and a considerable saving will be effected in the annual cost of lighting by the substitution of electricity for oil.

INFECTIOUS DISEASE HOSPITAL AT BIRKENHEAD.—On the afternoon of the 31st ult., the new ward which has been added to the hospital for the treatment of infectious diseases at the back of the Borough Hospital, Birkenhead, was formally opened by Mr. Frederick Smith, chairman of the Health Committee of the Corporation. The new ward has cost about £600.

UNIVERSITY COLLEGE HOSPITAL.—The annual general meeting of the donors, governors, and subscribers of this institution was held on the 31st ult. The number of in-patients treated during the past year was 3152, as against 2849 in 1883, and of out-patients 33,743, as compared with 24,187. The annual subscriptions amounted to £2047, and the total reliable income to a little over £6000, whilst the necessary annual expenditure reaches £19,000.

THE ROYAL COMMISSION ON THE HOUSING OF THE POOR.—It is stated that arrangements have now been completed for the visit of the Royal Commission on the Housing of the Poor to Scotland. The visit is not one of inspection, but simply for the taking of evidence. The Commission will sit this day (Saturday), Monday, Tuesday, and Wednesday, and possibly for a few days longer. The Commission will probably visit Dublin during the Whitsuntide recess.

LOWER THAMES VALLEY DRAINAGE.—The Local Government Board have addressed to the clerks of several constituent authorities comprised in the Lower Thames Valley Main Sewerage Board a letter, dated March 26th, stating the decision of the Local Government Board, after careful consideration of the report of their inspector (Mr. J. Thornhill Harrison, C.E.), on the recent inquiry held by him as to the proposal that certain of the districts now included in the Lower Thames Valley Main Sewerage Board should be separated from that district. The letter deals first with the application of the Heston and Isleworth Local Board, and states that the Board have determined, if the Local Board, after further consideration of the matter desire it, to issue a provisional order separating the districts of Heston and Isleworth from the main sewerage district. With regard to the separation of other districts as to which opposition was made, the Board are not prepared to issue a pro-

visional order for the dissolution of the main sewerage district, or the separation of any constituent portion, with the exception of the two above-named districts. The letter also states that the Local Government Board are of opinion that before the Joint Board arrive at a final decision with regard to Sir J. Bazalgette's scheme (which, in the event of its adoption, should be carefully revised and perfected before it is submitted to the Board) they should fully consider whether it might not be practicable to adopt some other scheme which would provide for the disposal of the sewage outside the district of the Joint Board, and which would entail less cost.

PRIZE SUBJECTS IN BARCELONA.—The following subjects have been chosen by the Royal Academy of Medicine and Surgery of Barcelona, for the annual prize dissertations this year:—1. Description of an Epidemic in Spain. 2. Best Method of preparing Cocaine. 3. Medical Topography of some District in Spain. 4. History and Present State of Hygienic Education in Spain.

PRESENTATION.—On January 17th last a testimonial of 1000 rupees, which had been subscribed by the tea-planters and other residents of Kursung and the Terai (Bengal), with an address, was presented to Dr. A. B. Morris, who for the last ten years has practised as "planters' doctor" in that place, but the state of whose health is such that a change to a colder climate is considered necessary. Dr. Morris has gone to Auckland, New Zealand, where he hopes to found a practice.

OXFORD WATER-SUPPLY.—The informal committee appointed in June last to investigate this subject has submitted several samples to the analysis of Dr. Frankland and Dr. Tidy. Their reports were on the whole not unfavourable, but the water company has made the proposal to draw its supply from the Thames at King's Weir, some three miles above Oxford; and this plan, according to Professor Prestwich, seems to offer, apart from the question of cost, the best and most abundant supply of river water. He thinks "that with water drawn from this source, with proper settling reservoirs, and with the efficient filtering reservoirs now in course of construction, the water-supply of Oxford would in the future be as good and as abundant as could be ordinarily obtained from a river source, and that there would be little risk of a recurrence of those conditions to which there has been at times so much reason to object."

ROYAL COLLEGE OF SURGEONS IN IRELAND.—MEDICAL SCHOOL.—The following prizes have been awarded at the termination of the winter session 1884-85:—Descriptive Anatomy: Senior Medal, Mr. Powell; First Class Certificates, Messrs. Bewley, Cummings, Strangman, and Nelson; Second Class Certificates, Messrs. Barter, Beamish, Ferguson, and Gourley. Practical Anatomy: Senior Medal, J. Lagan; First Class Certificates, Messrs. Matthews, Fenton, Hickey, O'Donohoe, Reid, Rossiter, Strangman, C. Woodwright, W. Woodwright, and Cook. Descriptive Anatomy: Junior Medals, Messrs. Gore and Johnston; First Class Certificates, Messrs. Banks, Ewing, Summers, and Jennings; Second Class Certificates, Messrs. Bruland, Lyons, Green, Molloy, McMunn, Clarke, Stewart, Harding, Finnegan, and Lee. Practical Anatomy: Junior Medals, Messrs. Byrne and Gourley; First Class Certificates, Messrs. Gore, Johnston, Marwood, Beamish, Cummings, O'Rafferty, Nelson, Lyons, Hanks, Barter, and Cremin.

SOCIETY FOR THE STUDY AND CURE OF INEBRIETY.—The annual meeting of this Society will be held on Tuesday afternoon, the 7th inst., in the rooms of the Medical Society, Chandos-street, W., at four o'clock, when, after an address by the President, Dr. Norman Kerr, a paper will be read by Dr. T. D. Crother, Hartford, on "The Incipient Stages of Inebriety." The following have been elected officers for the year:—President: Dr. Norman Kerr. Vice-presidents: Sirs G. Burrows, W. Miller, G. H. Porter, E. Saunders, and Spencer Wells; Professors B. Foster, Macalister, McKendrick, and Maclagan; Surgeon-General Logie; Drs. J. S. Bristowe, Cameron, M.P., W. B. Carpenter, Farquharson, M.P., C. J. Hare, Geo. Harley, Wm. Ogle, B. W. Richardson, W. H. Walshe, and C. J. Wheelhouse. Treasurer: Dr. Drysdale. Hon. Secretary: Dr. Sturrock. Council: Surgeon-General C. R. Francis; Surgeons-Major Evatt and G. K. Roole; Drs. Balding, Barnes, Beverley, Bridgewater, Alfred Carpenter, J. Eastwood, Fitch, Gibson, Haynes, Hicks, Hurry, Lindsay, Reddie, Robertson, and Thomas.

THE PREMONITORY SYMPTOMS OF INSANITY.—Dr. Henry Sutherland read a paper on the above subject at Brighton on March 24th, at the meeting of the South-Eastern Branch of the British Medical Association. In this paper it was shown by cases which had been for a long time under observation, that various eccentric acts sometimes occur many (seven, twelve, fourteen) years before the actual outbreak of insanity takes place. Hence the necessity for early prophylactic treatment in cases where the insane temperament is strongly marked. The mental and bodily symptoms usually noticed in the early stages, and the indications for various drugs, were also enumerated. The importance of appropriate moral and hygienic treatment was also insisted on. By attention to these details a second attack was often averted, and if insanity had actually seized the patient, the duration of the disorder was shorter and the outlook more hopeful than would have been the case had treatment been neglected.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

DAVIES, SIDNEY, M.A., M.B.Oxon., M.R.C.S. (of Cairo), has been appointed Médecin en Chef de la Police et de la Gendarmerie Egyptienne.

DENDY, WALTER C., F.R.C.S.Eng., L.R.C.P., has been appointed Assistant Medical Officer to the Workhouse of Birmingham Parish, vice Williams, resigned.

FRASER, JAMES A., L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer to the Workhouse of the Romford Union, vice Davey, resigned.

GARNER, JOHN EDWARD, M.D., C.M.Aber., has been reappointed Medical Officer for the First District of the Preston Union.

MCCRACKEN, JOHN, M.B., C.M.Glas., has been appointed Medical Officer for the Coxwold District of the Easingwold Union, vice Steven, resigned.

MATHESON, FARQUHAR, M.B., C.M.Aber., has been appointed Honorary Aurist to the Royal Caledonian Asylum.

MURRAY, H. MONTAGUE, M.D., M.R.C.P., has been elected Honorary Physician to the Foundling Hospital, vice Dr. A. Tweedie, deceased.

SMITH, HENRY LIONEL, L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer for the Overburg District of the Tewkesbury Union, vice Heslop, resigned.

Births, Marriages, and Deaths.

BIRTHS.

BUZZARD.—On the 26th ult., at Grosvenor-street, W., the wife of Thomas Buzzard, M.D., of a daughter.

FLECK.—On the 27th ult., at Frogmoor Lodge, High Wycombe, Bucks, the wife of William Fleck, M.D., of a daughter.

HETT.—On the 27th ult., at Inverness-terrace, the wife of Geoffry Hett, M.D., of a son.

HOYSTED.—On the 31st ult., at 17, The Avenue, Colchester, the wife of John Hoysted, Surgeon, Medical Staff, of a daughter.

PEDLEY.—On the 22nd ult., at 25, Burnley-road, Stockwell, S.W., the wife of R. Denison Pedley, L.D.S., M.R.C.S.Eng., of a daughter.

STAMPER.—On the 28th ult., at Pembroke Dock, the wife of J. Fenton Stamper, M.D., of a son.

MARRIAGES.

HARRISSON—FREEBORN.—On the 25th ult., at St. Mark's, Kennington, John W. Harrisson, M.B., of The Friars, Sandwich, to Charlotte E. Freeborn, second daughter of the late Dr. R. Fernandez Freeborn of Oxford.

WHITELEGGE—HORSLEY.—On the 23rd ult., at St. Margaret's, Westminster, Benjamin Arthur Whitelegge, M.D., to Fanny Marian, elder daughter of J. C. Horsley, Esq., R.A., of High-row, Kensington.

DEATHS.

BRIDGMAN.—On the 19th ult., at Berkeley, Gloucestershire, suddenly, Isaac Thomas Bridgman, Surgeon, aged 43.

HASTINGS.—On the 25th ult., at Mansfield-street, Portland-place, Cecil William Hastings, M.D., in his 56th year.

PEARSE.—On the 28th ult., at Godfrey House, Cheltenham, George Pearse, M.D., late Director-General, Madras Medical Department, and Honorary Physician to Her Majesty, aged 88.

STEIL.—On the 25th ult., suddenly, at 110, Shepherd's-bush-road, West Kensington-park, W., George Robert Steil, L.R.C.P., M.R.C.S., youngest son of James Steil, Esq., R.N., in his 35th year.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

Medical Diary for the ensuing Week.

Monday, April 6.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.

Tuesday, April 7.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Dickinson: Violet Pigment discharged from the Mouth.—Dr. Carrington: Atrophy of the Liver.—Dr. Charlewood Turner: (1) Rupture of the Aorta; (2) Ulceration of Aortic Valves and Aorta (card); (3) Aneurysm of Splenic Artery (card).—Dr. Parry Price: Deposit of Bone in Testis and Epididymis.—Dr. Colcott Fox: Thrombosis of the Vena Cava, &c.—Dr. Norman Moore: (1) Cavity in the Lung of an Infant; (2) Renal Disease in an Ox (card).—Dr. Silcock: Congenital Sarcoma of Testis.—Mr. R. W. Parker: Congenital Sarcoma of Testis (card).—Dr. Chaffey: (1) Early Sarcoma of Testis (card); (2) Congenital Malformation of the Pulmonary Veins (card); (3) Congenital Malformation of the Heart (card).—Dr. Ernest Clarke: Congenital Malformation of the Heart (card).

Wednesday, April 8.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department: 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.

ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Dr. C. T. Hudson: New Floscules.—Dr. J. D. Cox: Structure of the Diatom Shell; Siliceous Films too thin to show a Broken Edge.—Mr. H. Mills: Filamentous Projections of Diatoms.—Exhibition of Nobert's Diamonds.

BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens will be shown by Dr. Fancourt Barnes, Mr. Lawson Tait, Mr. Reeves, and others.—Dr. Aveling: A Case of Double Pyo-salpinx.—Mr. Lawson Tait: A Case of Pyo-salpinx.—Dr. Bantock: A Case of Hydro-salpinx.—Dr. Lamprey: A Case of Double Monstrosity.

Thursday, April 9.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Friday, April 10.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—8 P.M. Mr. Percy Dunn will show Calvarium from Hernia Cerebri after Trephining, in a Child; Splenic Infarct from Pyæmia; Secondary Scirrhus of Posterior Wall of Left Auricle.—Mr. C. B. Keetley: Two Cases of Osteotomy of the Hip; Radical Cure of Umbilical Hernia.—Mr. S. Benton: A Successful Case of Colotomy.—Mr. C. W. Chapman: A Case of Suppurating Cyst of the Liver (probably hydatid); recovery.—Mr. E. Noble Smith: Illustrations of some Orthopædic Cases.—Mr. T. Pickering Pick: Subcutaneous Division of Sphincter Ani.

CLINICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Lewis Marshall (Nottingham): Cases of Amputation at the Hip-joint by Furneaux Jordan's Method.—Mr. Jonathan Hutchinson: Amputation at the Hip-joint in certain Desperate Cases.—Dr. Colcott Fox: Pityriasis Circinè (Hovand) and Pityriasis Circinè Marginé (Vidal).—Dr. Sidney Phillips: A Case of Sporadic Cretinism (living specimen).—Mr. Strugnell: A Case of Complete Paralysis of the Right Fifth Nerve.

Saturday, April 11.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, April 1st, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Mar. 27	29·86	N.W.	46	42	...	52	42	·08	Cloudy
,, 28	30·37	N.	42	37	...	50	36	...	Hazy
,, 29	30·14	S.E.	47	41	...	51	37	...	Fine
,, 30	30·18	S.E.	46	42	...	56	41	...	Hazy
,, 31	30·31	E.	43	37	...	57	36	...	Hazy
Apl. 1	29·90	W.	45	42	...	58	40	...	Fine

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

SPONTANEOUS EVOLUTION.

To the Editor of THE LANCET.

SIR,—The following case, which occurred at Guy's Hospital, is, I think, worth recording, as there are several points of interest in connexion with it.

C. H——, aged forty-three years, eleventh confinement. Labour commenced at 11 P.M. on the 8th. The extern was sent for, and on arrival found that the breech was presenting in the first position. Labour progressed rapidly, and the child was born alive at 11.40 P.M. It was then found that there was a second child in utero, but the presentation was not made out. At 12 P.M. (twenty minutes after the birth of the first child), the pains being absent, a drachm of the liquid extract of ergot was administered. The pains came on rapidly, and the right hand of the child was extended through the os. On this the extern sent for me. On arrival, I found that the child was born, the hand having descended still further, until both it and part of the forearm were outside the vulva. The pains now increased in severity. The right side and buttock of the child were born next, the right hand and forearm remaining outside the vulva; the head followed shortly afterwards, the left hand being extended over it. Artificial respiration was employed for about twelve minutes before the child breathed. Both were female children, the last born being exceedingly small.

In cases of spontaneous evolution like the foregoing it is extremely rare to find the child born alive. In this case several circumstances were favourable. (1) The first child had already enlarged the passages; (2) the woman had had ten children before; (3) the small size of the child. I weighed the child a month later, when it turned the scale at 3 lb. 12 oz.—Believe me, Sir, your obedient servant,

C. Y. SHUTER, M.B.,
March 16th, 1885. Resident Obstetric, Guy's Hospital.

Dr. A. Harkin (Belfast).—Our correspondent will find a full account of the subject in the Comptes Rendus de la Société de Biologie, published by M. G. Masson, 120, Boulevard St. Germain, Paris.

Kentigern will no doubt obtain the information he desires from the registrar of the College.

EFFECTS OF HANDLING DYNAMITE.

To the Editor of THE LANCET.

SIR,—I shall be glad if any information can be given how to avoid the unpleasant consequences of handling dynamite. Two officers of the Royal Engineers employed on the fortifications here have both complained of a bad headache lasting for about twenty-four hours after handling this substance, and also sore eyes. One of them made use of gloves, but a headache still resulted, apparently from the smell. I was not aware that nitro-glycerine acted through the medium of the skin or atmosphere, and no mention of this is made in Ringer's Therapeutics. I am, Sir, yours truly,

Aden, March 18th, 1885. E. COLSON, Surgeon-Major.

DR. CHANDELON'S PROCESS FOR DETECTING STRYCHNINE.

By this method the objects to be tested are chopped up very fine, and are mixed with an equal weight of gypsum entirely freed from water. After drying, the whole is pulverised, and thoroughly boiled with 90 per cent. alcohol, to which a little tartaric acid has been added. The alcohol is removed by distillation after filtration, the residue being taken up with boiling water, filtered so as to remove all fat, compressed to 1½ to 1¾ cubic inch, and mixed with gypsum. After stiffening and pulverising, the mass is treated with chloroform in Soxhlet's apparatus. The chloroform extract is brought to ½ or 1 cubic inch, and there is added an equal volume of a saturated solution of oxalic acid in ether. The oxalate of strychnine becomes crystallised in needle-shaped forms, from which the strychnine can be isolated by ammonia. This method is said to have been successful in detecting minute quantities of strychnine, and to be likewise applicable to tests for brucine, narceine, papaverine, thebaine, aconitine, atropine, hyoscyamine, veratrine, nicotine, and coniine.

Mr. T. A. Buck, M.B.—We must refer our correspondent to some remarks on the subject in our issue of Sept. 27th, 1884.

"THE PHARMACY OF COCAINE."

To the Editor of THE LANCET.

SIR,—In an annotation on this subject in your issue of March 14th attention is drawn to a method for the preservation of solutions of cocaine by means of filtration through animal charcoal and subsequent addition of salicylic acid. I would point out to those who adopt this method the fact that animal charcoal removes alkaloid as well as impurities, and that filtration through this medium is calculated to seriously weaken the strength of cocaine solutions, especially those containing the smaller percentages of the salt. The preservation of these solutions is well effected by the use of salicylic acid alone, as recommended by Dr. Squibb of Brooklyn, employing a saturated solution of the acid in distilled water, to the extent of 50 per cent., or one-half, of the finished solution of cocaine—i.e., one-half water, and the other half solution of salicylic acid. The proportion of salicylic acid contained in the whole is then about 1 in 600, a quantity quite unobjectionable in use, but sufficient for the purposes of preservation. The alleged objection to its use on account of its extreme sensitiveness to traces of iron, and consequent difficulty in obtaining colourless solutions, we have not found realised in practice. We find no difficulty in sending out colourless solutions thus protected. The cocaine salts of our manufacture are not allowed to come in contact with iron at any stage of the process, glass and porcelain being alone employed. It was well pointed out by Mr. Symes in your issue of March 21st that an excess of acid destroys or renders latent the anæsthetic power of cocaine salts, as, so far as we are aware, this important fact had escaped record, although probably not observation. The addition of an acid to effect solution of the cocaine salt is entirely unnecessary if the neutral hydrochlorate be used. The alkaloid itself would be the most powerful, but its slight solubility (1 in about 700) almost precludes its use, although even in this high state of dilution it still has the characteristic benumbing effect on the tongue. The most important impurity in cocaine salts observed up to the present is the supposed inert alkaloid hygrine which exists in the leaves in variable proportion, and which, being considerably more soluble in water than cocaine, can be readily separated by prolonged washing and repeated reprecipitation of the cocaine, a process which also causes considerable diminution in the field of the latter, if means are not adopted for its subsequent recovery from the washings. Tests for the identification and purity of cocaine salts are greatly needed at the present time. For the first we know of no chemical tests available for the purpose. Its reactions are similar to those of other alkaloids; its anæsthetic effect on the tongue and other mucous surfaces is, however, sufficient for its identification. But this test is no guarantee of its purity; a small admixture of cocaine with other substances would produce its characteristic effect. Perhaps the most satisfactory test of purity is the amount of alkaloid precipitated by means of a solution of sodic carbonate from a weighed quantity of the cocaine salt. In the case of the neutral hydrochlorate this should amount, when moderately washed and dried until the weight is constant, to at least 89 per cent.

We are, Sir, yours faithfully,

High Cross, Tottenham, March 25th, 1885. TANNER & Co.

Mr. Hamilton Cartwright.—Would it not be better to bring the matter under the notice of the College of Surgeons?

Mr. Gem.—The report will appear in an early number.

"APPLICATION OF MIDWIFERY FORCEPS."

To the Editor of THE LANCET.

SIR,—As many letters have appeared in your journal on this subject, there is yet another method—namely, "with the patient directly on the back." This position obviates the necessity for drawing the patient over the edge of the bed, and can be more easily employed where the bedding is on the floor, as may occasionally be the case. In a manual on midwifery which has recently reached its fourth edition there is no allusion to this position. The manipulation of the superior blade is similar to the manner described by Mr. Lucas. As everybody appears to be conversant with Mr. Lucas's easy method, I would give him the satisfaction of knowing that it is new to me. I am, Sir, yours truly,

March 14th, 1885. BRAVER.

DISCOUNT IN DRUG BILLS.

A PETITION has been presented to the College of Pharmacists of Madrid praying that any members who may be guilty of selling drugs to corporations, societies, or charitable establishments at any considerable reduction from the recognised price may be expelled. The Madrid medical journal which reports this thinks that if it is carried into effect the College will have to expel a large number of its members—in fact, nearly all those who happen to supply public institutions.

A Country Doctor.—Our correspondent seems entirely right. But we still think his case would be more complete with some personal remonstrance, preferably an interview.

M.B.Lond.—The letter has been already published in a contemporary.

FLOATING DISPENSARIES FOR FISHERMEN.

To the Editor of THE LANCET.

SIR,—Through the kindness of a gentleman much interested in the North Sea Fishing Fleets, I had an opportunity last August of spending a fortnight on board one of the mission ships belonging to the Mission to Deep Sea Fishermen. What I then witnessed has induced me to bring the subject before the medical profession, in the hope that they will lend their aid towards alleviating the sufferings which smacksmen have to undergo, owing to the inefficient supply of medicines and medical appliances available in cases of illness. During the entire year a floating population of over 12,000 men and boys are at work in the North Sea, trawling for the fish with which Billingsgate and other markets are supplied. This great fleet is divided into eight minor fleets, each under the command of an "admiral," a sailor selected for his long experience and thorough technical knowledge, who, by means of day signals by day and rockets at night, indicates the direction in which the boats should sail, and the times for lowering and hauling up the trawls. The nature of the occupation in which these sailors are engaged is both some, harassing, and dangerous in the extreme. For eight weeks continuously each trawler is at work, a period of nine days being then allowed the crew to return home to recruit themselves and refit their smacks. Sailing with this fleet are some vessels which, besides engaging in trawling as the other vessels, are used as mission ships, and which also act as floating dispensaries. Being only four in number, they attach themselves to four of the minor fleets. A medicine chest (which has been pronounced by one of the sailors to be "one of the greatest blessings in the fleet") is kept on board each of these ships; but the natural want of knowledge on the part of the skippers, combined with the extreme difficulty of dispensing small doses of powerful medicines on board a small craft in heavy seas, greatly diminishes the advantage to be derived from such a provision. Under these circumstances, I propose to furnish one of the fleets with a supply of concentrated medicines, such as are found most generally useful in dispensary practice, directions being given on each bottle as to the complaints for which such medicine is to be employed. Further, to supply a number of empty graduated eight-ounce bottles, so that, the doses being marked, the use of spoons (which for obvious reasons would be useless) can be dispensed with. The concentration of the medicine being uniform (one drachm to the ounce), the only dispensing necessary would be to take one of these empty bottles and a sufficiency of the concentrated mixture to fill a graduated ounce space, and then fill the bottle with water, directing the patient to take a marked dose three or four times a day, according to the urgency of the case, thus obviating the use of measure glasses, table- or dessert-spoon, or other superfluities unknown on board a trawler. After thus providing for one fleet, seven others remain in need of some such provision. I would therefore earnestly appeal to the members of the profession, in the hope that they will contribute towards this object by either becoming responsible for the supply of medicines to some of the fleets, or by sending to the Secretary of the Mission to Deep Sea Fishermen—E. J. Mather, Esq., 31, New Bridge-street, Ludgate-circus, E.C.—contributions towards providing for the expenses of such.

May I express a hope that through the columns of your journal you will aid the project by giving to it that publicity which it merits, and thus eliciting aid, as well as suggestions, as to the best manner of working the system. An early expression of the views of the profession would much oblige, as I am making arrangements for again visiting the fleet at an early date.—I am, Sir, yours faithfully,

HENRY J. PENNY, L.R.C.S., L.K. & Q.C.P.I.

Shenley, Barnet, Herts.

A TITLE FOR APOTHECARIES.

To the Editor of THE LANCET.

SIR,—Having observed your reply to "L.S.A." in last week's LANCET, in which you stated that the titles of "Doctor" and "Surgeon-Accoucheur" were, though not illegal, not "warranted" by the holders of the licence of the Apothecaries' Society, might I ask the favour of an opinion from you upon the following:—I am in the habit of describing myself, with the same qualification, as "Licentiate in Medicine." I cannot call myself "Apothecary," as I practise with the full sanction of the law as a physician, and I think it to a certain extent immoral to describe myself as "Doctor" and "Surgeon-Accoucheur." It appears to me and my friends an excellent and honourable way out of the difficulty.

I am, Sir, your obedient servant,

March 28th, 1885. LICENSED IN MEDICINE.

*** We see no objection to the description our correspondent gives of his qualification.—ED. L.

D. writes: "I shall be grateful if any of my professional brethren will advise me what is best to do (educationally) with a youth, aged thirteen, not idiotic, but yet of such defective mental capacity that it would be out of the question to send him to any ordinary school. He is not more difficult to control than such cases usually are. He is the only child of a widow with very limited means."

RAPID SPONTANEOUS RESOLUTION OF A DEPRESSED FRACTURE OF THE PARIETAL BONE.

To the Editor of THE LANCET.

SIR,—The following case may prove interesting to some of your readers.

At 3 P.M. on the 4th inst. A. P——, a child one year old, was brought to me, having fallen from its nurse's arms. The mother told me that at the time of the accident the child became semi-convulsed, and livid for a few minutes, but did not lose consciousness. When I first saw it, fifty minutes after the accident, it was perfectly sensible, and apparently in its usual condition. On examination, the skin was normal; there was no bruising or swelling, but an indentation, an inch long, two-thirds of an inch broad, and one-third of an inch at its deepest part, occupied the position of the left parietal eminence. With the exception of a little tenderness on manipulation of the part, the child was in no way inconvenienced, and so little was the disturbance, that I remarked the depression, that I at once put it down to a malformation previously existing, but only now discovered and attributed to the accident. The mother, however, assured me that such was not the case, and she was duly dismissed with the necessary instructions as to the treatment of the child. On the next morning I saw the child; it was doing well, and without a trace of the accident of the previous day. The mother informed me that she had noticed that by 7 P.M. on the day of the mishap the skull had resumed its normal appearance. The case seems to me to be remarkable in the following points:—1. The slightness of the shock and the rapid recovery from it, and the immunity from symptoms co-existing with such a state of affairs. 2. The situation and character of the depression; its taking place at the strongest and most thoroughly ossified part of the bone, this being completely inverted, to apparently greater extent than it was formerly convex, and this without any evidence of detachment or crepitation. 3. The rapidity of duration—i.e., four hours—showing the pliant nature of the bone, more especially of the inner table of it, at this age, and the force exerted by the blood pressure, and the rhythmical pulsation of the brain.

I am, Sir, yours truly,

Kettering, March 16th, 1885. JOHN GRANT, M.B., C.M. Edin.

PERMANGANATE OF POTASH IN AMENORRHŒA.

To the Editor of THE LANCET.

SIR,—I reported a case of amenorrhœa successfully treated with permanganate of potash pills in THE LANCET of Jan. 24th, 1885. Since then another case has been brought to a successful issue by the same treatment. M. C——, aged eighteen years, came under my care on Feb. 1st. The patient was by occupation a dressmaker in Dublin, where she had been under medical care for some time; but her health did not improve, and she returned home and consulted me for the following:—Short cough; pain in the cardiac region and in the small of the back; pulse 100 and weak; tongue and gums anæmic; appetite bad; blowing, systolic murmur; and amenorrhœa, that had lasted for two months. I at once ordered her a tonic of iron, strychnine, and quinine, with plenty of nourishment, and at the end of a week, when her general health was greatly improved, I ordered permanganate of potash pills, one grain each, one pill to be taken with each meal. Six of these pills produced the desired effect, and the catamenia appeared in a similar manner four weeks afterwards. She is now taking a course of iron pills. The murmur has vanished, and she is going on in a most satisfactory way. I remain, Sir, faithfully yours,

CHARLES F. MURRAY, M.D.

Ashfield, Beau Pare, co. Meath, March 28th, 1885.

Cumbriensis.—The Local Government Board may, upon the application of the sanitary authority, dispense with so much of the regulation required in its circular as requires that the medical officer of health, being duly registered, shall be qualified to practise both medicine and surgery.

"HYDROCHLORATE OF COCAINE."

To the Editor of THE LANCET.

SIR,—It matters little to your readers whether Mr. Fenwick or Mr. Tebbett suggested camphor water as a menstruum in which to preserve the hydrochlorate of cocaine as a solution. The credit, however, belongs to the latter (THE LANCET, Feb. 14th, p. 315). My object in writing was to offer testimony to the value of such a solution, and to caution the profession against trusting to Mr. Churchyard's assumption that a solution in distilled water which had become flocculent could be rendered as active as when freshly prepared by the treatment he mentioned. It is well known that a solution of cocaine hydrochlorate is rendered weaker by being passed through animal charcoal, and, as I have stated, the addition of acid further reduces its activity. A 4 per cent. solution which has become flocculent may still possess some activity, and this is best obtained by passing it through a small piece of good filtering paper and adding a fragment of camphor to the filtrate.

I am, Sir, yours faithfully,

Liverpool, March 28th, 1885. CHARLES SYMES.

MEASLES IN GUERNSEY.

A CORRESPONDENT informs us that an epidemic of measles in Guernsey has been made the subject of a paper in the *Glasgow Medical Journal* by one of the medical men there. This paper, it is alleged, has been printed separately, and sent by its author to one of the patients of another medical man holding a high official position in the island. It is an essential part of our correspondent's communication that the epidemic was of an ordinary kind, characterised by no unusual complications calling for comment, and that the mortality was small. Our opinion is asked as to the action of the author in distributing his paper to the patients of other medical men. We think that such a use of professional writing is better avoided.

PALATABLE PREDIGESTED FOOD.

To the Editor of THE LANCET.

SIR,—In the leader upon Diet in the Febrile State in your issue of March 21st, alluding to the use of "already partially digested foods" for the purpose of avoiding the "fermentative changes from delayed intestinal digestion," you say that "unfortunately the preparations hitherto proposed for this purpose do not combine palatableness with efficiency," further expressing the opinion that an improvement in the former of the conditions named is much to be desired. Seeing what weight of authority every utterance of yours has, it were to be wished you had qualified the statement by the words "some" or "most of"; since I can bear testimony (unsolicited, I need not say, and without interest) that one firm of chemists at least has solved the problem of making an efficient article agreeable in smell and taste as well. Everyone knows how seldom in our homes and sick-rooms, at the hands of our cooks or nurses, we ever get a really good cup of coffee or cocoa; and I am quite sure that, the prejudice of a first trial once over, the almost instantly prepared cup of peptonised cocoa and milk or coffee and milk would be preferred as richer and more delicate in flavour to what we usually have placed before us. And if a preparation is really nicer to a healthy palate, efficiency being ensured, how much fitter must it be for the fastidious or perverted taste of the sick? I have for some time made use of the above preparations in typhoid fever, in tubercular affections of the abdominal organs, in acute and chronic albuminuria, and in diabetes mellitus, as well as in varying degrees of gastric irritation—in brief, in a wide range of cases where impaired digestion was only a secondary or even hardly appreciable factor, and in all with more or less benefit. In one case of diabetes, carefully watched for a month, and the urine daily examined, somewhat (I admit) to my surprise, the administration morning and evening of one breakfast-cup of the peptonised cocoa and milk did not increase the excretion of sugar; all the other conditions being as nearly as possible alike during that period, the gluten loaf not being used, and the only drugs administered being salicylic acid with a quarter of a grain of codeia.

I am, Sir, yours truly,

March 25th, 1885. F. ARNOLD LEES, M.R.C.S. &c.

*** Both cocoa and coffee undoubtedly disguise the peculiar flavour of peptonised food better than anything else; still, even thus prepared, peptonised preparations have, to our taste, in a slight degree the peculiar flavour, which to some persons is extremely unpleasant, of peptones, though in this respect they are superior to most dietetic articles of this kind.—ED. L.

M.R.C.S.—We do not think it advisable to extend to such cases further publicity. The attention of the bodies whose qualifications the offenders hold should be called to the way in which their diplomas are disparaged.

"CARBOLIC OIL A REMEDY AGAINST MOSQUITOES."

To the Editor of THE LANCET.

SIR,—The unfortunately too frequent differences amongst doctors when they do ventilate their opinions may, so far as the above matter is concerned, be very easily explained. The application of carbolic acid and oil, in the proportion of 1 to 10 or 15, is for a time perfectly successful in keeping off mosquitoes; but the carbolic acid evaporates so rapidly that a renewal has to be made every half-hour or thereabouts. So far as my experience goes, there is no place where the sting of the mosquito is so venomous as on the banks of rivers and lakes, and after exposure in such places I have known men to be laid up and disfigured for weeks. By using the oil, and repeating its use every half hour or so, I have fished where all other fishers were half smothered with mosquito muslin wrapped round them—and in the tropics this is very heat-producing, even if effectual in keeping out the "wily mosquito"—with perfect impunity, and the only difficulty I had was to keep it out of my eyes, as it produces smart pain if it touches the conjunctiva. Put a bottle of freshly mixed acid and oil in your pocket, and apply it at frequent intervals on hands, neck, and face, and you may defy mosquitoes, gnats, *et hoc genus omne*. My experience includes the East and West coasts of Africa, the East and West Indies, North America, and the Arctic. The Arctic black gnat in summer is as annoying as any "punkah mosquito." Before I used carbolic oil I employed creasote and oil, and a mixture of it used to be sold at least a quarter of a century ago by the fishing tackle folk in the land of the "Blue Noses;" indeed, it was my experience there which led me to substitute the carbolic acid for the creasote. I am, Sir, yours faithfully,

March 28th, 1885. AN OLD SALT.

HOMES FOR MENTAL CONVALESCENTS.

To the Editor of THE LANCET.

SIR,—Amongst the many valuable institutions of the day is there not one greatly needed—convalescent homes for our pauper lunatic asylums? All medical men who superintend these asylums would, I believe, agree on the value of such convalescent homes, not only as preparing patients for return home when rallying, but as more likely to lead to recovery than at present is the case. And what a boon the change would be to those whose nervous system has been shattered!

"The very air, the sun, the skies,
Would seem like opening paradise."

And for those preparing for return to cottage homes, &c., would not a large farmhouse or some such home, with simplest furniture, but with possibly garden and poultry, be sufficient, and better than grander buildings? Such convalescent homes might be attainable without great outlay, as the patients would still be paid for, as at the asylums?

I am, Sir, yours faithfully,

March 30th, 1885. H. B.

*** Our correspondent will find, on referring to our issue of May 17th, 1884, a letter from the Rev. H. Hawkins, Chaplain of Colney Hatch Asylum, calling attention to the want of convalescent homes "to supplement the recovery of patients discharged from asylums for the insane." As we then pointed out, the need of such institutions has long been recognised.—ED. L.

TWIN BIRTH IN WHICH ONE CHILD WAS AN ANENCEPHALUS.

To the Editor of THE LANCET.

SIR,—On March 15th I delivered Mrs. B——, in her sixth confinement, of a living female child, and on perceiving two cords I examined, expecting to find a normal vertex presenting, as in the first case, instead of which I felt the cranial bones loosely covered with skin. Uterine action setting in, a fœtus was expelled, smaller than the first, perfectly developed as regards bodily conformation apparently. On section of the scalp not a vestige of brain tissue was to be seen, merely the membranes thickened and congested. The husband informed me that his wife received a severe shock seven months since at the sea-side, when she saw a hideous-looking man, and he states that the physiognomy of the encephalon corresponded exactly with the individual she then saw, it having the same depressed bridge of nose, &c. I should add that there was only one placenta. I am, Sir, yours faithfully,

Hollywood-road, S.W., March 24th, 1885. WM. J. HEDDY, M.R.C.S.

Mr. C. C. Burman (Belford, Northumberland).—The inquiries addressed to us are matters requiring careful investigation. We have found the paroxysms to be almost always more frequent at night, whether the patient sleep or not. In the early part of the course of the complaint the paroxysms frequently occur when the child is put to bed and at about 2 or 3 A.M. Profound or light sleep, in our experience, exercises but little influence; when sound sleep is possible, the attack is generally slight. Any striking alterations in the patient's environment may induce an attack.

PAIN IN THE FOOT AFTER HEMIPLEGIA.

To the Editor of THE LANCET.

SIR,—Will you allow me to ask some of your readers if they can help me to relieve severe pain occurring paroxysmally in the foot after hemiplegia, accompanied with tingling and numbness. Ointments of aconite and belladonna have exasperated it. The patient objects to hypodermic injections. Would it be wise to try the constant current? I have failed so often that I do not wish to resort to this without previously having the benefit of other experience than my own.—Yours faithfully,

March 30th, 1885. H. G. D.

TRANSMISSION AND TRANSMUTATION OF DISEASE.

To the Editor of THE LANCET.

SIR,—I shall be greatly obliged if any members of the profession will furnish me from their own experience any of the following:—1. A family tree showing the transmission of phthisis, gout, or rheumatism, through (if possible) three generations and one or more collateral branches of the family. 2. Any instances of the transmutation by heredity of nervous diseases—e.g., epilepsy, hysteria, alcoholism, &c., into insanity, or *vice versâ*. 3. Any good instances of the hereditary transmission of skin diseases. I am, Sir, yours faithfully,

Belfast, March 28th, 1885. JAMES A. LINDSAY, M.A., M.D.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Henry Thompson, Dr. Wilks, London; Dr. Saunders, London; Dr. Braxton Hicks; Dr. Maglioni, Monte Video; Surgeon-Major Colson, Aden; Mr. Aylmer Lewis, Oswestry; Dr. Charles Day, London; Dr. P. Sydney Jones, Sydenham; Mr. Sturrock; Mr. T. L. K. Davies, Llandudno; Mr. Haggard, London; Dr. Lindsay, Belfast; Dr. A. Swann, Batley; Mr. J. P. Wilton, Gloucester; Lady Cowper, Hertford; Mr. A. Davies, London; Mr. Arthur Neve; Mr. Thos. Lovatt, Sheerness; Mr. J. West, London; Mr. Pegler, Kurseing; Mr. Cliftoff Swagger, Melbourne; Dr. Orchard, Manchester; Mr. H. W. Allingham, London; Dr. Boerner, Berlin; Mr. T. A. Buck; Mr. Hides, London; Dr. De H. Hall, London; Dr. Ferguson, Cheltenham; Mr. C. C. Burman, Belford; Deputy Surgeon-General Jackson; Mr. Uvedale West, Stoke-on-Trent; Mr. J. E. Blomfield, Paris; Dr. C. F. Murray, Ashfield; Mr. W. A. Thomson, Ampthill; Messrs. W. V. Wright and Co., London; Mr. Horton, Ben Rhydding; Messrs. Street and Co., Cornhill; Mr. Twyford, Hanley; Dr. Pope; Messrs. Macmillan and Co., Cambridge; Mr. Flinder, Islington; Messrs. Smith, Elder and Co., London; Messrs. Whitehead and Co., Manchester; Mr. Robertson, Parkstone; Messrs. Fletcher and Co., Holloway; Professor Struthers, Aberdeen; Miss Tudney, Leicester; Mr. Crozier; Mr. Gallagher, Bishop Auckland; Mr. Burcombe, Lincoln; Messrs. Beal and Son, Brighton; Mr. McDougall, Torosay; Mr. Russell, Liverpool; Messrs. Hewlett and Co., London; Mr. Webster; Mr. Ruddell, Barn; Mr. Grant, Birmingham; Mr. Watt, Hovingham; Mr. Lindfield, London; Dr. Croke, Hull; Dr. McKenzie; Dr. Sweeting, Kensington; Mr. Fleck, High Wickham. Licensed in Medicine; H. G. D.; Medicus, Croydon; Percy; Secretary, Royal Infirmary, Manchester; Matron; G. A.; Northumbriensis.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Horsfield; Mr. Parnell, Camden-town; Mr. Dresser, Darlington; Dr. Symons, Tutbury; Dr. Horton, Leominster; Dr. Potter, Bombay; Mr. Owen, Huddersfield; Mr. Medwill, Christchurch, New Zealand; Mr. Lateman, Narracoorte; Mr. Bannasconi, Plymouth; Mr. Walker, Middlesbro'; Dr. Pernisch; Miss Hunt, Dublin; Mr. Heywood, Manchester; Dr. Heelas, Isle of Wight; Mr. Robinson, Sheffield; Mrs. Cairns, Glasgow; Dr. Mumby, Suakim; Mr. Maywood, London; The Dean, Victoria University; R. P., Brecon; A. E., Wellington; H. B., Newtown; W. B., Burnley; W. S., Aberdeen; Matron, Bedford Infirmary; P. L., Gravesend; Surgeon, Tunbridge Wells; Secretary, Stafford Infirmary; Kennel Man, Ramsgate; Medicus, Mitchelhampton; G. J., Cardiff.

Church of England Temperance Chronicle, Barnsley Chronicle, Preston Herald, Merborough Times, Sheffield Independent, Amateur Photographer, South Wales Echo, South Wales Daily News, &c., have been received.

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Lumleian Lectures

ON

SOME POINTS IN THE NATURAL HISTORY OF PRIMITIVE DRY PLEURISIES.

Delivered before the Royal College of Physicians,

BY SIR ANDREW CLARK, BART., M.D.,
FELLOW OF THE COLLEGE.

LECTURE III.

MR. PRESIDENT AND GENTLEMEN,—In the last lecture I arranged, for the sake of convenience, the pathological changes in the lung resulting from primitive dry pleurisies under four heads, and I intimated that for each of these there was to be found a corresponding clinical state or autonomy. I proceed now to consider these clinical states, to describe their chief characteristic signs, and to show in what manner they may be distinguished from other states resembling them, but having a different meaning and importance. The former, for descriptive purposes, I shall name the neoplastic pleural membrane state, the fibroid lung state, the bronchiectatic state, and the phthisical fibroid lung state.

And first of all, concerning the neogenetic pleural membrane state. The patient may have the aspect of health, and experience no subjective indications of the presence of disease. If any exist, they will be limited to uneasiness or pain in the affected side, an occasional dry cough, feverishness, and general malaise. On rare occasions the patient may be conscious of the existence of pleural friction. The physical signs are a slight decrease, with some irregularity, of the thoracic movements of the affected side, some diminution of the tactile vocal fremitus,[1] just notable but unequal dulness on percussion, a shifting, rubbing or grating friction, enfeebled breath sounds, and an altered vocal resonance. In some cases, instead of pleural friction there may be heard crepitation, crackling, or clicking; and we shall know from the superficial characters of these sounds, from their resistance to respiratory efforts, and from their association with gratings or rubbings that they are of pleural origin. Having thus before us a dry pleurisy, we have to determine if it is a primitive or secondary affection. If there are signs of disease in the corresponding or in the opposite lung, it is probable that the pleurisy is secondary; and if without such signs there is grave constitutional disorder, it is equally probable that the pleural inflammation has arisen out of some pre-existing malady; and this pre-existing malady may exercise its causal influence either through some local growth, such as tubercle, lying beyond the range of physical detection, or through some constitutional state, such as adenoma or syphilis. On the other hand, if there exist no signs of local disease, and no serious symptoms of constitutional disturbance, it is presumable that the case is one of primitive dry pleurisy. This affection may arise from mechanical injury, or from cold, and it may be a local expression of such non-malignant constitutional disorders as rheumatism and gout.

The future course of a case of primitive dry pleurisy depends upon causes seldom visible or calculable, and is therefore absolutely uncertain. The signs of the malady may subside in a few weeks, or they may continue for months, or they may come and go for two or three years, and then either entirely disappear or invade the lung. Sometimes after a variable duration the dry stage issues in serous effusion, which pursues its ordinary course, and ends eventually in a thickened pleura and a contracted lung. In one case seen with Dr. Sedgwick, and in another seen with Dr. Warrington, it appeared as if the structural elements of an old adventitious pleural membrane developed through metaplastic processes into malignant fibrous growths. This result, however, must be infinitely rare; and when the health of the patient is good, and he can be placed under the conditions most favourable to the organism, clinical experience will warrant the expectation of complete recovery. Nevertheless, it occasionally happens, in spite of apparent good health and skilful care, that the inflammatory process invades the lung and brings about therein a more or less extended fibroid induration. This fibroid lung state is of frequent occurrence, and from the mistakes liable to be made concerning it, and the course which it commonly follows, it is a subject of great importance as well as of great interest. It certainly demands, and will certainly repay, an extended and a critical study. We have, in the first place, to make sure that we are dealing with a fibroid lung state. What seems to be a simple fibroid induration[2] may be something quite different; or it may be that and something more. It may be essentially a tubercular consolidation with an unusually large amount of secondary fibroid growth; it may be a chronic caseous pneumonia; it may be a pleuritic effusion; it may be a malignant growth; and it might be several other things which for practical purposes need not now be considered. If the case has been followed from the beginning, no serious difficulties of diagnosis will be encountered; but if, as usually happens, the patient is not seen until the pulmonary consolidation is advanced, the greatest care will be required to avoid falling into serious error, and to succeed in framing a correct judgment. If there are no serious symptoms of constitutional distress; if there is no elevation of temperature and no hurry of circulation; if flesh, colour, and strength are little, if at all, affected; if in the consolidated lung there are no signs of disintegration, and in its fellow lung no indications of advancing and spreading disease,—the question of tuberculosis may be settled in the negative. And it may be so settled conclusively if after repeated examination of any sputum which may be ejected no tubercular bacilli are found therein.

With respect to caseous consolidations, they are of two sorts: one which is tubercular, and one which is not. From simple fibroid induration, the former may be distinguished by the presence of tubercular bacilli in the sputum. And as to the latter, if there is no history of a feverish illness; if there is no elevation of temperature, or quickness of the pulse, or cough, or expectoration; if there is material retraction of chest, with diminution of tactile vocal fremitus; if no râles are heard within or around the consolidated lung; and if the vocal resonance is either diminished or not increased,—then the hypothesis of any sort of caseous consolidation must be abandoned. Furthermore, if the patient has no cachectic appearance; if there are no irregular retractions of chest, no depression of shoulder and nipple, no pushing outwards of the lower part of the scapula; if, with extensive consolidation, there are no pains or signs of pressure, no extension of dulness beyond the normal limits of the lung, no displacement of heart, no distress of breathing with blood-stained expectoration, no rapidity of pulse without notable elevation of temperature,—it may be said with all but absolute certainty that a malignant growth is not the cause of the consolidation.

But in fibroid lung the condition which by far the most frequently gives rise to mistakes in diagnosis and errors in practice is pleural effusion. To mistake an ordinary and considerable serous effusion for a fibroid lung can happen only from want of competence or want of care. The fixed and rounded side; the tumid or even bulging intercostal spaces; the dulness, varying with position; the feeble breath sounds, except near the spine, where they are bronchial; the diminished resonances; the displaced organs,—if duly examined and considered forbid peremptorily every interpretation but one. Happily, however, the danger of mistake does not lie in this, but in an opposite direction; it lies in supposing that a solid fibroid lung is a fluid effusion. And here it must be confessed that, when the effusion is moderate in quantity and of long-standing, when the dulness does not vary with position and there is no displacement of organs, when the signs of local disease have descended from an acute pleurisy and there is no account of pulmonary disease, the difficulties of diagnosis are great and not always, without exploratory operations, overcome. For in both conditions, in the moderate fluid effusion and in the indurated lung, there are to be found diminished respiratory movements of the affected side, toneless dulness on percussion, decreased tactile vocal fremitus, feeble, hollow, or suppressed respiratory murmurs, and lowered as well as

[1] I do not forget that Dr. Walshe has spoken otherwise; and it is only after careful investigations, often repeated, that I venture to differ from one of the most accomplished auscultators of our time.

[2] Or, to use another terminology, an interstitial pneumonic consolidation, cirrhosis, sclerosis, or iron-grey induration.

altered vocal resonances. Nor, indeed, do exploratory operations always overcome these difficulties. Fluid may be present, and none be withdrawn by the needle. It may not penetrate the thick and hard pleura; it may carry the membrane before it, or it may become blocked by débris. But, notwithstanding this close similarity of physical signs between affections so widely different, grounds of distinction between them, if narrowly sought for, may be in most cases discovered. In the first place, the continuous history of an illness beginning with an unmistakable pleurisy, and passing straight into a basic dulness of doubtful nature, points strongly, but not necessarily, to fluid effusion; not necessarily because a fibroid induration, although it sometimes originates and advances unattended by inflammatory or other local or general symptoms, occasionally arises in, or immediately follows, a pleural inflammation; or is begotten by substitution out of an unabsorbed pneumonic exudation. In the second place, if we are dealing with a fluid, and especially if that fluid be purulent, there will probably be present some degree of fever, and almost certainly some acceleration of pulse; in a fibroid consolidation there need be neither the one nor the other. In the third place, if fluid be present and confined to a portion of the pleural sac, the side, although generally flattened or retracted, will be swollen over the part where the fluid is collected; the intercostal spaces will be effaced or more or less bulged; the diminution of the tactile vocal fremitus will be uniform; the dulness on percussion will be more diminished in volume, raised in pitch, shortened in duration, and lessened in resistance than when dealing with a fibroid induration; the breath sounds will be feeble or suppressed; there will be no râles; and the vocal resonance lowered and altered may be ægophonic. In the fourth place, we may conclude that we are dealing with a solid lung if, with the signs already described, we find that the affected side is everywhere, and especially irregularly, contracted, that the intercostal spaces are deepened, that the dulness is accompanied by great hardening and resistance, that the tactile vocal fremitus, much diminished, is unequal throughout the dull region; that there is rubbing or creaking; that there are râles of any description, superficial or deep; that the vocal resonance, increased or diminished, and varying at different parts, has a metallic quality; and that there is some, however slight, displacement of organs to the affected side. Having thus cleared away the various sources of error in diagnosis, and having made sure that we are dealing with a fibroid lung, I proceed to set forth its clinical characters and course.

I shall, in the first place, consider the local physical signs, and in the second, the constitutional state. Among many descriptions drawn from life of the physical signs of fibroid lung I possess in particular two, one of which was written in conjunction with Dr. Pollock in 1868, and one with Dr. Douglas Powell in 1885. As concrete examples will strengthen the general description, and as the authority of those justly distinguished physicians will stamp with accuracy the relation of the physical signs in the cases examined, I herewith reproduce them

Dr. Pollock's case, examined with Dr. Andrew Clark, October 21st, 1868.—A farm labourer, well nourished, rosy, and of healthy aspect, fifty-seven years of age, and of regular and temperate habits, complains of occasional cough, slight morning expectoration, and breathlessness on exertion. His father died at sixty from renal disease; his mother, aged eighty-six, is alive and well; two sisters are living and in good health; two brothers and sisters died from causes unknown. In 1860 the patient had trouble, presumed to be pleuritic, in his left side, and after some weeks got well. In February, 1868, eight months before this examination, the patient caught cold, shivered, felt sharp pain in the left side, became feverish, had a little cough, and was confined to bed; had night sweats some time in March; in April or May was well. The digestive organs are in fair condition; the urine is abundant, sedimentary, of low density, and contains a considerable amount of albumen. The left side of the chest is flattened from the clavicle to near the nipple, in the lower part of the axillary region, and about the posterior base. The impulse of the heart is felt immediately under the left nipple, and its action, unaccompanied by murmurs, is normal; the pulse is about 80.

Examination of left side.—Above the clavicle the percussion note is normal; from second rib to anterior base, except near the sternum, there is absolute dulness, which nowhere passes the median line. In the lower half of the axillary region, and posteriorly from the spine of the scapula to the base of the lung, there is marked and increasing dulness; in front, from summit to nipple, in the upper half of the axillary region, and posteriorly in the supra-spinous fossa, and for a little way below the spine of the scapula, the tactile vocal fremitus is increased; elsewhere it is in different degrees at different parts demolished. Upon auscultation the following signs are elicited. In the supra-clavicular region there is normal vesicular breathing, but an occasional wheeze is heard at the close of inspiration, and the expiration is prolonged. From the clavicle to the second rib the inspiration is rustling; the expiration prolonged and blowing. Between the second rib and the nipple the respiration is bronchial and the vocal resonance is altered and increased. From the nipple to the anterior base the respiratory sounds and the vocal resonance are suppressed; only a faint creaking, crackling, or rumbling is heard. In the upper part of the axilla there are heard pleural creaking, bronchial breathing, and a modified bronchophony; in the lower part all sounds are suppressed. In the supra-spinous fossa the respiratory sounds are loud, harsh, and accompanied by crepitation, which, on coughing, becomes a crackle. There is no increase of vocal resonance. From the spine of the scapula, where they are weak and hollow, the respiratory sounds become fainter towards the base, and are there wholly suppressed. In no part of the right lung can any sign of disease be discovered. In 1878 the patient was reported to be in the same condition; but since then he has not been seen.

Dr. Douglas Powell's case, examined with Sir Andrew Clark on Jan. 7th, 1885.—The patient is a dark, stout, florid, healthy-looking man of fifty-four, and has no complaint except that he is breathless on exertion, and that he gets a little cough and expectoration in cold and damp weather. He has been slowly gaining flesh and strength for the last six years. In 1863 or 1864 patient had some serious trouble in his left side, and was ill for seven weeks. In 1866 he had a fresh illness with pains in his left side, and "a feeling as if there were two holes in his lung when he took deep breaths." Was first seen in November, 1867, by Dr. Andrew Clark, who reported the case to be one of chronic dry pleurisy, with secondary fibroid induration of the lung. About this time he was for six months an inmate of the Brompton Hospital, where he was repeatedly examined by Dr. Douglas Powell. The left side of the thorax is flattened and irregularly retracted, rises imperfectly and unequally on inspiration, and measures on the level of the nipple sixteen inches and a half, being one inch and a half less than the measurement of the opposite side at the same place. The left shoulder is depressed and angular; the left nipple corresponds to the fifth rib. The lower part of the axillary region is protuberant, and the upper retracted. The inferior angle of the scapula juts outwards from the ribs. The impulse of the heart is felt under the left nipple, and its action is slow and normal; the pulse is full, soft, and compressible. The percussion note, slightly tubular in the supra-clavicular space, and normal just below the clavicle, becomes increasingly dull to the base, where the dulness is absolute. In the axillary region there is dulness throughout, slight above, moderate in the middle, absolute at the base. Posteriorly dulness begins below the spine of the scapula, and increases to the base. The tactile vocal fremitus, normal at the summit and increased at the middle of the axillary region, is everywhere else either greatly diminished or entirely suppressed. About the summit of the lung the respiratory sounds are harsh, but of the vesicular type, and the expiration is prolonged; there are, however, no râles. About the middle of the axilla there are heard superficial creaking or rubbing, with occasional coarse crepitation and dry rhonchi, elsewhere the respiratory sounds are feeble, hollow, distant. The vocal resonance, loud in the supra-clavicular region and just below the clavicle, is bronchophonic in the middle and upper part of the axilla; at the base it is suppressed, and in other parts diminished. The right side of the thorax, full and rounded, rises fully on inspiration, and yields to examination no evidence of disease. The digestive organs are in excellent order. The urine, with less than an average discharge, has a specific gravity of 1014, is acid, clear, and contains no trace of albumen or of sugar.[3]

From these two cases, average specimens of their class,

[3] Since the delivery of this lecture Dr. Douglas Powell has reminded me that on more than one occasion the urine of this patient has been slightly albuminous.

a tolerably complete account may be obtained of the physical signs characteristic of the fibroid lung, and from the records of Dr. Douglas Powell's case one will now see how one may reasonably demur to the propriety of designating by the term chronic interstitial pneumonia a state of lung which has been quiescent for years, develops no general symptoms, and is compatible with more than average health. In these circumstances the terms sclerosis or fibroid ought, I think, to be preferred, inasmuch as they indicate with sufficient accuracy the physical characters of the pathological change, involve no hypothesis, and may, whilst hypotheses change, remain unchanged.

The local physical signs of pulmonary fibroid induration of moderate extent may be now formally enumerated, and they are as follows. The disease is commonly unilateral; the affected side is irregularly flattened or retracted; the shoulder is depressed, the lower angle of the scapula is tilted outwards, the spine is sometimes a little twisted, and the respiratory movements, especially the movement of expansion, are defective and irregular. The tactile vocal fremitus is diminished; there is more or less dulness on percussion; pleural rustlings, crepitations, cracklings, creakings or frictions are always at some time audible; the respiratory sounds are usually feeble, hollow, distant; from time to time there are crepitations which are often of a metallic quality, with moist or dry mucous rhonchi.

Such are the physical signs in favourable cases of fibroid lung, where the elasticity of the parenchyma is but moderately diminished and its nutritive conditions are not seriously disturbed. When, however, the base of the lung, surrounded and invaded by indurated lymph, has lost a great part of its elasticity, and the bronchial mucosa, stimulated by undue supplies of altered blood, secretes a more or less viscid mucus which cannot be expelled, bubbling rhonchi of metallic quality are heard in the affected region, and there arise recurring paroxysms of cough, which succeed, only by the help of retching, in emptying the bronchial tubes. Although this condition invades the comfort of the patient, it does not, unless greatly aggravated, seriously injure the health or obviously limit the duration of life. But when the lung becomes more and more rigid, and the bronchial tubes fill more easily with secretion, which is with increasing difficulty expectorated, the patient begins to suffer, and through secondary congestions, consolidations, emphysemas, and perhaps bronchial dilatations, both health and life are placed in peril. The constitutional symptoms accompanying fibroid lung vary according to the state of the induration. When this is not advanced enough to destroy the pulmonary elasticity, when the bronchial secretion is not in excess of what can be easily expectorated, and when the patient is kept under favourable physiological conditions, the general health is little if at all affected. It is true that he becomes breathless on exertion, that his general power of resistance to disturbing causes is lowered, and that from small provocation he falls into bronchial gastric or vesical catarrhs. Nevertheless, with just guidance and loyal obedience to it the patient may continue beyond the average duration of life to live and work. On the other hand, when the induration has destroyed the elasticity of the pulmonary parenchyma and the bronchi are filled for hours with sputa, which cannot be discharged, and perhaps undergo septic change, the constitution suffers; sometimes there is gastric, hepatic, and enteric catarrh; sometimes the urine falls in density and becomes more decidedly albuminous; sometimes the face and neck become swollen and the veins of the affected side enlarged; sometimes the feet become œdematous; and always, even with increased frequency of pulse, the temperature falls below the normal standard. But even in these conditions, with his comfort invaded and his capacity for work narrowed, the patient may return to the favourable stage of his malady, or without doing so may reach the longest term of life. The albuminous urine existing in the great majority of cases of fibroid lung seems to be of small importance in its earlier stages. But in its later and more unfavourable stages, when the bronchi are almost always loaded, and the lung becomes increasingly hard and congested, and the circulation is hurried and feeble, and the skin cold and harsh and dry, the condition of the kidneys becomes greatly aggravated, and at last puts an end to life. Indeed, in the greater number of cases, it is the renal and not the pulmonary affection which puts an end to life.

Proceeding now to the bronchiectatic lung state, I have to observe that its clinical characters have been elsewhere so admirably and exhaustively described that I do not feel justified in occupying the time of the College by giving another description, which I could not execute so well, and to which I could add so little. Nevertheless, I desire to notice some points in the clinical history of bronchiectasis, either because they have not been dwelt upon before, or because they have been inadequately or erroneously described. In the first place, the general condition of the bronchiectatic patient differs materially from the subject of tubercular phthisis on the one hand, and of fibroid lung on the other. Pale or cyanosed, for the most part thin and stooping, distressed by paroxysms of cough and drained by discharges of purulent and sometimes fetid expectoration, the subject of bronchiectasis displays a combination of mental and bodily engergy not to be met with in any other disease. In the second place, whilst in fibroid lung the disease is for the most part unilateral and in tuberculosis bilateral, in bronchiectasis both forms occur in nearly equal numbers. In the third place, whilst bronchiectasis resembles fibroid (for which it could not well be mistaken) in temperature, circulation, forms of cough, kinds of expectoration, conditions of breathing, absence of malaise, and slowness of general progress, it differs in almost all these points from tubercular phthisis, with which it is frequently confused and has nevertheless little in common. In the fourth place, whilst the excavations of fibroid occur at any part of the lung and the excavations of tubercular disease at its summit, and whilst the excavations of both, when they are multiple, appear in groups without definite form or order, the dilatations of bronchial tubes, found more frequently at first in the middle and lower than in the upper lobes, are arranged in order along the bronchial ramifications. In the fifth place, whilst the excavations of fibroid and tubercular disease arise in the midst of consolidations, the bronchial dilatations have no necessary relations to them, and, although commonly surrounded by fibroid induration, may be often found in the midst of apparently unaltered lung. In the sixth place, although bronchial dilatations may be unsurrounded by peribronchial thickenings, or by pulmonary induration, chronic pleuritic neoplastic membranes are never absent. In the seventh place, when several cylindrically dilated bronchi lie near to each other, the physical signs are sometimes such as to suggest the existence of a large cavity with rigid walls; but a careful and often repeated study of those signs will prove that they vary with the amount and time of the expectoration, and that sometimes the signs of a cavity are often wanting, and that at other times they are present only in isolated parts. In the eighth place, in opposition to Traube and others, I contend that the sputum in bronchiectasis, similar in characters to that of advanced and regressive fibroid, frequently contains fragments of elastic tissue in two forms: first, in the form of bands, consisting of fibres running in straight lines parallel to each other; and, secondly, in the form of elastic areolæ and thickened intersecting trabeculæ. The former are exfoliated from the bronchial mucosa; the latter come from the pulmonary alveoli disintegrated by ulceration proceeding outwards from the bronchial dilatations. In the ninth place, the sputum in uncomplicated cases of bronchiectasis, accompanied or unaccompanied by fibroid indurations and excavations, does not, as far as my present experience extends, contain tubercular bacilli. In the tenth place, the only certain means of distinguishing a tubercular from a bronchiectatic cavity, or of knowing when a tubercular has supervened upon a fibroid or bronchiectatic process, is the presence in the sputum of tubercular bacilli.

Leaving now the bronchietatic lung state, I proceed to consider the chief points in the clinical history of the phthisical fibroid lung. As before, I will discuss, first, the local and physical signs, and thereafter, the constitutional or general symptoms. The physical signs of the phthisical fibroid lung are the same as those of the simple fibroid lung, with certain alterations and additions. The disease is for the most part unilateral; and when we inspect the chest, we observe the same flattening or retraction of the affected side, the same depression of the shoulder and nipple, the same leaning of the body to the affected side, the same approximation of the ribs and hollowing of the intercostal spaces, the same displacement of the cardiac impulse and throbbing at the root of the pulmonary artery,[1] the same projection of the lower angle of the scapula and twisting

[1] This throbbing at the root of the pulmonary artery is sometimes mistaken for the systolic impulse of the left auricle.

of the spine, the same restricted movements of inspiration, and the same rounded fulness and compensatory expansion of the unaffected side. By palpation and percussion we elicit results resembling those elicited by examination of the fibroid lung: diminution in varying degrees of tactile vocal fremitus, sometimes friction fremitus, and dulness on percussion, seldom over the upper, usually over the lower lobes, and most frequently at the posterior base. Upon auscultation we hear over the summit a harsh and jerking respiratory murmur, prolonged expiration, perhaps some medium crepitation or dry rhonchus, and increased vocal resonance. Over the dull regions there will be heard feeble breath sounds, coarse crepitations, and bubbling rhonchi, usually metallic in character; at some parts the vocal resonance will be diminished, and at others increased. At one or two spots in the base or middle of the lung, very rarely at its summit, there will be found a tubular percussion note, increased fremitus, cavernous breathing, bubbling or smaller gurgling râles, and piercing bronchophonic voice resonance. Throughout the lung opposite the affected one the respiratory murmur, penetrating everywhere, will be found loud, harsh, and accompanied by a few rhonchi or by scattered moist crepitations, which come and go. The patient has paroxysms of cough, making the face swollen and livid, and ending sometimes in dry retching, sometimes in the expulsion of several ounces of expectoration. This expectoration, sometimes gelatinous or muco-purulent, sometimes in discrete opaque masses like softened cheese, sometimes watery, sanguinolent, or fetid, contains in a mucoid or granular matrix pus-globules, granule-cells, blood-discs, epithelial cells, bands and areolæ of elastic tissue, and the débris of decaying structures swarming with micrococci. The breathing, quiet when at rest, becomes, on moving about or on coughing, shallow, laboured, and quick. The heart, drawn to the affected side, may be acting vigorously and with moderate frequency; there will be probably a systolic bruit in the pulmonary area; the pulse will be of moderate volume, and the superficial cervical veins will be distended. If the disease is much advanced, the face and neck will be swollen, and the integument over the side of the affected lung may become œdematous; the pulse will increase in frequency and diminish in volume, and the extremities will become cold and damp. The digestive organs are more or less deranged through hepatic and gastro-enteric catarrh; the liver is enlarged, there are often hæmorrhoids, and the bowels are confined. Almost invariably the urine falls in density and contains albumen; and this condition of the renal secretion is one of the features which, with others to be mentioned, make so striking the difference between fibroid and tubercular phthisis. The patient is often fairly nourished, sometimes corpulent, and, unless there is much bronchiectatic disease, seldom thin. In a few cases he becomes cachectic-looking and anasarcous. The nervous system, except towards the close of the disease, is seldom seriously disturbed. Only one symptom occurs sufficiently often to be regarded as characteristic; this is pain about the base of the affected lung. Present in many cases, sometimes slight, sometimes severe, occasionally occurring in paroxysms which play around the attachments of the diaphragm and pass downwards into the abdominal walls, this pain, regarded as a neuralgia, is considered by the patient to be the essential part of his malady, and causes him, in fact, his chief if not sole complaint.

With such serious signs of disease, and with such an assemblage of symptoms depending thereon, it might well be thought that the patient was in constant suffering and in imminent peril; and yet, strange to say, it is sometimes quite otherwise. The symptoms which seem the most distressing cause him either little suffering or suffering which is immediately forgotten; and soon after a paroxysm of coughing, in which death from mechanical violence or suffocation or exhaustion seems inevitable, the patient may be found full of business, sparkling with humour, and confident of life. Here is another of those features of fibroid which serve to distinguish it from tubercular phthisis: the frequent concurrence of extensive disease with an abounding vivacity and abiding life. For although often it seems as if the patient must succumb, yet as often he rallies, and, renewing his conflicts and repeating his victories, he continues in the fervour of self-reliant hope to live and fight and to enjoy work.

Here, then, is the eventual outcome of a primitive dry pleurisy, which, after lasting for an uncertain time, has invaded the lung, altered or destroyed some of its structural constituents, consolidated portions of its parenchyma, and brought about ulcerous excavations therein. Here are well-defined pathological, corresponding with well-defined clinical, conditions moving forward together with constantly re-adjusted relations towards a definite issue. Here are an assemblange and progression of symptoms associated with or dependent upon an ulcerative destruction of more or less circumscribed non-malignant deposits in the lung. What is the name whereby we make known to each other the existence of this complex state? We call it pulmonary phthisis, and the term has so penetrated every department of thought and work in medicine that it can no more be rooted out. This final outcome of pulmonary fibroid invasion is therefore a pulmonary phthisis. And if nothing more could be said, here at last would be an end of the whole matter. But, for my own part, I believe that on this subject there is more to be said; and to those who have sufficient experience and settled convictions I regard it as a duty to say it. Such saying may clash with established opinion, assume the aspect of a retrograde movement, and be even inaccurate. Nevertheless, it ought to be welcomed; for genuine thought born of genuine work must always in science have its place and use. What, then, if under the term pulmonary phthisis there are included several states, which, although corresponding to the generic definition, are different in their characters, course, duration, and issues? If they exist, ought not such states to be named, and so named that the ideas which they express, and the distinctions which they embody, shall be preserved for future study and use? It cannot be a worthless knowledge which will enable one in a given case to predict with accuracy its future course, and say whether the subject of it is to live for five or for fifty years. And, furthermore, if such states have vindicated their right to be named, upon what principles shall the names be bestowed? Surely, if we wish to avoid confusion of thought and speech, surely if we wish to repress that needless ever-changing nomenclature, that substitution of words for ideas, that reproduction of old thoughts disguised under freshly furbished raiment, which in knowledge so often begets movement without progress, we shall make sure that the name given shall be based on some physical characteristic of the thing named; so that whilst theories of its nature may change, the name bestowed upon it, and by which it becomes everywhere and by everyone understood, shall remain unchanged.

Now, my contention is that our answers to all these questions should be in the affirmative. I contend that there is a general assemblage of pathological conditions upon which we may bestow the generic term phthisis; that included in this term are subsidiary groups of states, which, differing each from the other in some essential points of their pathological and clinical history, demand separate recognition; and that, in naming them, we should have exclusive regard not to the ephemeral theories of their nature, but to the abiding facts of their physical constitution. Guided by these considerations, I regard the ultimate condition of the lung invaded, altered, consolidated, and excavated by fibroid material as a phthisis; and seeing that the most obvious and unvarying fact in its physical constitution is the presence and action of this very fibroid substance, I am bold enough to call it fibroid phthisis. This boldness will doubtless call down upon me a storm of reprobation and denial; be it so. Confident that there is at least some just foundation for the position which I have taken, I must be content to endure and wait. In reply to this contention it will be said that the subject is no longer open to discussion; that experimental, pathological, and clinical inquiries concur to prove that there is but one phthisis, the sole originator of which is the tubercular bacillus; that there is neither room nor need for subsidiary classifications; and that their advocacy can be accounted for only by the ignorance or incompetence of the advocates. But these arguments, couched in such courtesies of modern controversy, are not so conclusive as they sound and seem. Many answers may be made to them, but on the present occasion I shall confine myself to two, which, as I venture to think, are neither light nor irrelevant.

In the first place, assuming the absolute unity of phthisis under the exclusive causation of the tubercular bacillus, this unity does not do away with the fact that there are included in it subsidiary groups which, for reasons already given and not refuted by the bacillary presence, require separate and permanent recognition. At present the bacillary hypothesis, although supreme in the domain of pathology, continues to be of but small account or even barren in the field of practical medicine. We

cannot prevent the entrance of the bacillus into the organism; we cannot follow it into the secret places where it dwells and works; we cannot reach it by drugs, nor put an end to its multiplication by taking refuge among the mountain tops. But although we cannot eradicate the bacillus nor arrest its action upon the organism, we may perhaps succeed in helping the tissues to resist more or less successfully the attacks which it makes upon them and the destruction which follows in their wake. And, although in addressing ourselves to the furtherance of this object, we must have regard in the first place to the general well-being of the organism, we must not be unmindful of the different structural effects which arise from the unitary action of the bacillus. We must remember that sometimes these structural effects appear under the form of tubercles, sometimes under the form of caseous masses, sometimes under the form of fibroid consolidations, and sometimes as combinations of these forms, in which, however, one form is always predominant. Now, it can scarcely be denied that there is some difference of meaning in these differences of structural effects; that they pursue different courses; and that they react in different ways to the influences of climate, food, alcohol, and drugs. And if this be so, I can discover no valid reason why those different groups should not be recognised by distinctive names, nor can I understand how we are to preserve a complete loyalty to the uses of knowledge if we continue to refuse them recognition. It can be no invasion of the rights and privileges of the bacillary suzerainty to grant subordinate autonomies to the several groups of states which, arising under its influence and continuing through its presence, pursue independent courses and create widely different histories. Why under the generic name bacillary phthisis should we not recognise the subordinate independence of tubercular bacillary phthisis, caseous bacillary phthisis, and fibroid bacillary phthisis? Surely every just differentiation is a substantial gain, and every confounding of things fructively distinct a material loss. In the second place, I hold that the assertion that all ulcerations of non-malignant deposits in the lungs are bacillary remains unproved, and is opposed to the results of inquiries made by several competent observers. I contend, on the contrary, that there exist cases of ulcerative bronchiectasis and of fibroid lung with excavations in which, after repeated search by processes successful in veritable tuberculosis, no tubercular bacilli could be found. It is to such cases that I give the name of non-bacillary fibroid phthisis.

It may now be justly asked, Would anything be gained by establishing this distinction? I think much in many ways. It is, however, of the clinical gain alone that I shall at present speak. By adopting and carefully studying the proposed distinction, we should learn that the history of non-bacillary fibroid phthisis is quite different from that of bacillary tubercular phthisis, and that the treatment which would prove useful in the one might prove both useless and injurious in the other; for example, alcohol which is usually helpful in caseous, is usually hurtful in fibroid phthisis. If anyone will critically compare the broad facts making up the history of tubercular with those making up that of fibroid phthisis, I think he will become disposed to admit that the distinction now contended for is both real and considerable.

Let me bring to your remembrance a very few of the contrasting facts which are found in the two forms of phthisis now under consideration.[5] Tubercular phthisis is primarily of constitutional origin, and appears for the most part in the young; it is bilateral; its course is accompanied by elevation of temperature and rapidity of circulation, by progressive loss of flesh, strength, and colour, sometimes by laryngeal ulceration, and sometimes by sensations of painful exhaustion and malaise; it is usually rapid in its progress; the majority die within three years; and the few who, in consequence of fibroid complications, live for several years, enlarge the average duration of the disease to four or five. On the other hand, fibroid phthisis is usually of local origin, and appears for the most part in the middle-aged; it is in the main unilateral; it is unaccompanied by elevation of temperature or hurry of circulation; flesh, colour, and strength may remain but slightly affected for years; it is not incompatible with great bodily and mental energy; the urine almost always contains a little albumen; the progress of the malady is slow; œdema is never absent throughout; and death, which seldom occurs within five years, often lasts for thirty.

Here I must bring these lectures to an end. Acutely sensible of their shortcomings, I regret that they have not been worthier of the occasion, of the place, and of you. Nevertheless, I take courage of heart in the thought that those who have worked the most, and thought the deepest, and can judge the best will not be ready to forget, or to despise when remembered, the small but sometimes perfect uses of imperfect work.

[5] That is, there exist in the organism certain peculiarities of soil which enable the bacilli to grow and multiply.

ON THE

THERAPEUTIC VALUE OF ARSENIC IN ANÆMIA AND ATROPHIC CONDITIONS.

BY SAMUEL WILKS, M.D., LL.D., F.R.S.

ALTHOUGH the value of arsenic in many diseases is well known, yet I believe the extent of its efficiency has by no means spread through the profession at large, judging from the frequent scepticism one meets with when its use is suggested. I should therefore wish, as briefly as possible, to state my experience of the great value of this most remarkable remedy during many years of practice. It has been best known as a medicine in skin diseases, but this only of late years, for Addison, who followed directly in the school of Willan and Bateman, rarely ordered it. Next to its use in cutaneous affections has been its administration in neuralgic affections and ague; after that in special cases of various kinds. More recently the great value of arsenic has been recognised in anæmia; but it is not widely known, I believe, as being equally efficacious in various forms of cachexia, of which I am about to speak.

When a remedy acts—to adopt the expression of the older schools—as an alterative, by modifying nutrition in some unknown way, a question arises which is quite open to consideration: whether those diseases which succumb to its action may not depend upon the same cause; whether, indeed, they are not bound together by some common origin. Be this as it may, there can be no doubt that many of the cutaneous affections cured by arsenic have a gouty origin, and therefore it is not surprising that the same remedy has a great power in preventing attacks of gout. This I have known for many years, and in some cases have by its use undoubtedly kept the attacks in abeyance. Then, this gouty class of persons are often neuralgic, and it may be in them especially that arsenic is the best nervine remedy. I have certainly found it amongst the most efficacious medicines, and in some cases the only remedy. Thus, before the introduction of nitrite of amyl and glonoin for angina pectoris I relied mainly on arsenic, and in some cases kept off attacks for weeks when they had previously occurred almost daily; but this is by no means a novel treatment, for a reference to THE LANCET of May 26th, 1832, will show a letter setting forth the virtues of arsenic in this complaint. In some forms of nervous affection I have found it quite unique in its action. For example, a lady for many years has been the subject of ciliary neuralgia—that is, she has attacks of violent pain in the eyeball accompanied by intense congestion and lacrymation. No ophthalmic surgeon to whom she has applied has afforded her the slightest relief either by medicines or local applications. The only respite she has from her sufferings is during the time she is taking arsenic. How I became acquainted with the use of this remedy in asthma from one of my out-patients I described many years ago.

But the most remarkable effects of this remedy are seen in anæmia and various forms of cachexia and atrophy. My attention was first markedly drawn to it in this connexion owing to the controversy which took place between my late colleague, Dr. Alfred Taylor, and others in reference to the statement published in Johnston's "Chemistry of Common Life" in the year 1855 about the arsenic-eaters in Styria. Young girls were said to add to their charms by using it, acquiring blooming complexions, full rounded forms, and a healthy appearance. Soon afterwards I began to use arsenic in chlorosis with much benefit, but it was not until about ten years afterwards that I had some striking examples of its good effects. If I remember right Dr. Sutton

of the London Hospital was then using it in the same class of diseases. The case I especially recollect was a lady about forty years of age, who was pronounced by myself and other physicians to be the subject of idiopathic anæmia, the form of disease subsequently discovered by a German, and styled "pernicious anæmia." Her bloodless and feeble condition compelled her to keep her bed, and it was never believed that she would rise from it again. I suggested arsenic as a possible useful remedy, and she began soon to improve, and in a few weeks was able to come to my house. I saw her some years afterwards, in 1874, when she was quite well. The case is more especially impressed upon my memory on account of the remarks of the husband. When I told him of the remedy which had cured his wife he expressed no surprise, saying it was just the medicine he should have thought of, for if he had a horse which was not "thrifty" he gave it arsenic, rendering it again plump and its skin glossy. Subsequent to this case I have had several of a similar kind, my last one being only a few weeks ago. It was that of a gentleman living at Holloway, and whom I saw with Dr. Blackstone. He had gradually grown anæmic and breathless, so as to be unable to leave his house, and he walked with much difficulty. I called it one of idiopathic anæmia, and feared that he would never recover. He took five drops of liquor arsenicalis, and in a month he was comparatively well. In most of the cases where arsenic has succeeded, iron had previously failed; and it is a question, therefore, whether the latter be of any use in the so-called pernicious anæmia. This, however, does not seem invariably the case unless the diagnosis is at fault. For example, a woman came into the hospital in so bloodless a state that she could not leave her bed, and it was said that iron had been given in vain. An examination of the blood displayed, as was thought, characteristically altered blood-globules, and arsenic was prescribed. After a long course of this medicine she was no better, when iron was ordered for her. She then immediately improved, and left the hospital well.

I remember two cases of anæmia with some discolouration of the skin, suggesting the existence of Addison's disease, and which were cured by arsenic. One was a lady whom I saw as long ago as 1869, who had gradually been getting thin, sallow, and bloodless. She was first thought to have liver disease, and then Addison's disease; but of these there was no evidence, and I recommended arsenic. She speedily recovered. The other case was that of a lad who was sent to me from Suffolk by Dr. Manthorp as he was supposed to be the subject of Addison's disease. He was anæmic, sallow, very feeble, and breathless on exertion. Arsenic was given him, and he completely recovered.

It is another class of case, however, which especially prompted me to take up my pen and extol the virtues of arsenic, for although its efficacy is known in anæmia, I do not find that a knowledge of its merits has extended to wasting and general cachexia. It was in the year 1868 that I went to see a lady who was confined to her bed and in an extreme state of emaciation. I found on physical examination nothing tangible except an enlarged spleen. She had been staying at a friend's house in a doubtfully malarious district, and therefore might have been infected by ague poison. Arsenic was given, and she made a rapid and complete recovery. It is well known that in cases of inveterate malarious poisoning arsenic is often the best remedy, but the possible existence of such a cause will not account for the marvellous effects of arsenic in other cases; and I have notes of two patients who lived at Margate, where a miasmatic influence could not be suspected. The first case was that of a lady sent to me by Dr. Thornton. She was much impoverished, and at the same time had loss of appetite and other gastric symptoms, so that I suspected early malignant disease. I could not, however, prove this, and suggested a trial of arsenic. The result is seen in a letter which I received from Dr. Thornton, dated December 1875, in which he says, "I fancy you will be pleased to know that Mrs. B——, for whom you prescribed arsenic, and of whom you took not the most sanguine view, thinking probably that some hidden malignant disease might develop itself, strange to say, is now convalescent—that is, she has recovered her natural complexion, lost all pains and feeling of debility, and, indeed, is as well as she has been for the last few years. I never saw a more unpromising case, and I do not remember ever to have seen anyone improve so steadily as she did under the influence of arsenic (?); at all events, she was very ill, and now she is comparatively well."

The second case from Margate was that of a young man resident in that town, and brought to me by Mr. Dunstan of Tollington-park. He was twenty-one years of age, and had been gradually wasting away for many months until he had become, as his friends said, a perfect skeleton. He certainly was emaciated to a most extreme degree. On examination I failed, like other medical men, to discover any disease, but saying that if the patient had been an infant he would have been called the subject of marasmus. I suggested arsenic as the only likely remedy to do him good if he had no organic disease, and four drops of the solution were prescribed three times a day. He immediately began to recover; in two weeks he had gained five pounds, and in a few more weeks he was perfectly well.

Another case where the remedy was of great service was that of the Rev. Mr. S——. He had been acting as curate both in London and Brighton, but, his health gradually failing, he was obliged to give up his duties. No medical advice was of any value to him, and he was recommended to take a voyage to Australia. He, however, grew worse and worse, and on his arrival at Melbourne he was sent into the hospital. After a while he was again placed on board ship, under the care of a medical man, and sent home to Hampstead. He was carried into the house, being far too weak to walk, and when I saw him I found him as wasted as any living man could be. He was lying on a couch too feeble to rise, and very little more than a skeleton. His weight on leaving the ship was 5 st. 7 lb. With the exception of a cardiac bruit I found no disease, and as he had had every kind of medicine, and every variety of essences of meats and other foods, there seemed little for me to do; but I prescribed arsenic. He slowly began to improve, and in a few weeks he was able to leave his home and visit me. He walked feebly, but his limbs had increased in size, and he weighed 7 st. 10 lb. He then left for the country and the Continent.

I have now mentioned a sufficient number of cases to show the value of an old remedy, and certainly one of the most remarkable in the Pharmacopœia. I would not have it supposed that it cures all cases of anæmia and atrophy, or that it has never failed in my hands; for if I collected all the cases in which I have given it and noted the result, it is probable that the failures might equal the successes. But an explanation will show that a statistical method of arriving at the truth is of no value, seeing that the cases where the remedy was administered were not of a like kind, and that the unsuccessful cases, although resembling in outward appearance those of simple anæmia and atrophy, were in the majority of instances examples of early malignant and other organic disease. The only cases which can be rightly compared are those of a like kind, but the question of its comparative value under the circumstances named cannot affect in any way the undoubted fact of its curing numerous cases of apparently fatal disease. No question can arise as to the efficacy of a medicine when it is prescribed for a person who is weekly and monthly declining in health, and who as rapidly, or more rapidly, regains his health and strength under its use. When this has been observed in a large number of instances, the proof of its value is complete. I have never given very large doses, generally four or five drops of the liquor arsenicalis three times a day, or a little more of the soda preparation. I have never observed any injurious effects from its long use, although, as is known, it becomes absorbed into the system, the urine showing its presence many weeks after its administration has ceased. I will not pretend to say how the remedy acts. Why, when wasting is going on and the blood-corpuscles becoming disintegrated, arsenic should stop the process, and the globules begin to grow, or why it should allow the carbon to be stored up as fat, I do not know. I lay the clinical facts before my readers, and hope that those to whom they are not altogether new will excuse my doing so in the wish to make their knowledge and mine more extended and useful.

Grosvenor-street, W.

BEQUESTS.—The late Miss Duthies of Ruthvieston has, we understand, bequeathed the following among other legacies to public institutions in Aberdeen:—The Royal Infirmary, £2000; the Aberdeen University, for two medical scholarships, £2000; the Hospital for Incurables, £500; the Lying-in Institution, £500; the General Dispensary, £500; the Hospital for Sick Children, £500.

ON A CASE OF OBTURATOR HERNIA.

BY RICKMAN JOHN GODLEE, M.S.,
ASSISTANT SURGEON TO UNIVERSITY COLLEGE HOSPITAL.

CASES of obturator hernia are so uncommon and present such difficulties of diagnosis and treatment, that it may be well to place the following one on record, although strangulation had been in existence for so long that there was little hope of any treatment giving relief, and that adopted did not save the patient.

E. F——, a woman aged forty-five, was admitted under my care into University College Hospital on May 29th, 1884, at 8 P.M. with symptoms of intestinal obstruction. We were unable to obtain any good previous history of the case, and the notes do not mention the length of time from which she had been suffering from symptoms of complete obstruction; but they had been in existence for several days, I think about five, and she had for some time been bringing up fæcal vomit. She was on admission in a state of great collapse, with small pulse, cold extremities, and a marked blue colour of the skin. She complained principally of pain about the region of the umbilicus, or rather above it, and it was only on carefully examining all the hernia regions that it was found that there was distinct tendernees and slight fulness in the left Scarpa's triangle. On questioning her about this point, she allowed that for a long time past she had been subject to pain in this part, which extended down the front of the thigh and which was subject to variations, and was relieved by lying down; but it was evident that occasionally it had caused her considerable inconvenience. The diagnosis apparently lay between some twist or internal strangulation and an obturator hernia (though the possibility of the obstruction depending upon the presence of a tumour was not lost sight of,) and, considering that the former was not improbable, and that if it were the latter it could probably be safely dealt with by abdominal section, I proceeded to operate at 9 P.M. An incision about four inches long was made between the umbilicus and the pubes through the abdominal wall, and a piece of great omentum which lay beneath the incision and which was much matted together was first drawn out of the wound. The index finger of the left hand has then at once passed down to the obturator foramen, and there was no difficulty in detecting the fact that a portion of bowel was tightly strangulated in the upper part of the obturator foramen. It was quite impossible without employing undue force to draw this back, so a blunt-pointed bistoury was carefully passed down along the finger, and by directing the edge inwards the constricting ring was divided and the gut was reduced. The division of the stricture at such a depth from the surface and with the coils of ntestine surrounding the finger was a matter of some difficulty, but when it was accomplished the gut was drawn up with ease. It proved to be a part of the small intestine, about two inches long; it was of a bluish colour, but rapidly became red under observation. It was also seen that the previous traction had caused two slight rents in the peritoneal coat, which passed obliquely across the gut, the edges of which were accordingly drawn together with continuous sutures of very fine catgut. The lacerations bled readily. The portion of protruded omentum was then ligatured in two places and removed, the stump being returned, and the abdominal incision was approximated. The patient did not rally after the operation, though she took nourishment, including a good supply of brandy, well. The vomiting stopped, but her extremities remained cold and became more blue, and her skin was bathed in a cold perspiration. Towards the afternoon of the following day an excited delirium set in, and in the evening she died.

The autopsy revealed the fact that the portion of gut which had been constricted was about eighteen feet from the pylorus, and that its mucous membrane was dark and opaque from extravasated blood. There was slight peritonitis around the piece of gut which had been included in the hernia, the coils in this region being adherent to one another and to the pelvic wall by recent lymph. There was also a little reddish fluid in the peritoneal cavity. The hernial sac was of small size, and lay immediately beneath the pectineus muscle. Beyond considerable hypostatic congestion of the lungs, nothing else worthy of note was learnt from the post-mortem examination.

I do not wish to bring this case forward in order to advocate the method of treating obturator hernia by abdominal section in preference to the operation in Scarpa's triangle, though it is probable that the latter is a more difficult procedure. The abdominal section is not an altogether simple matter, and it no doubt involves certain risks which are not encountered in the other operation. It was selected in this case because the symptoms, while obvious enough to direct attention especially to the obturator region, were not thought to be clear enough to negative the possibility of the mischief being found in the locality to which the greater part of the pain had been constantly referred; and it was argued that if the latter had been the case, an abdominal section following the necessarily tedious operation in the thigh would have been a very serious matter in the exhausted condition of the patient. An important lesson to be learnt from the case is the extreme care which should be exercised in making traction on the intestine in a patient whose tissues, as they were in this case, are all in a very flabby and easily lacerable condition.

Wimpole-street, W.

WHAT IS THE EXPLANATION OF ACQUIRED IMMUNITY FROM INFECTIOUS DISEASES?

BY GEORGE M. STERNBERG, M.D.,
MAJOR AND SURGEON, U.S.A.

IT is well known that in the specific infectious diseases of man and of the lower animals a single attack commonly confers immunity from subsequent attacks. There are, however, numerous exceptions to this rule, and the immunity conferred is not absolute, but has a variable value, which depends partly upon individual susceptibility, partly upon the physical vigour of the individual when subsequently exposed, and partly upon circumstances relating to the nature of the exposure—e.g., concentration of poison, mode of infection, &c. There is also evidence that in some cases at least the time which has elapsed since a first attack is an important factor in determining immunity when a subsequent exposure occurs. Even in small-pox and in yellow fever, diseases in which a single attack is in most cases protective during the lifetime of the individual, fatal second attacks occasionally occur. Nevertheless the general law of immunity as a result of a single attack is well established for a majority of the acute infectious diseases.

It is evident that the immunity which results from inoculation with an "attenuated virus"—as, for example, in Pasteur's protective inoculations against anthrax, or from vaccination—is of the same nature, and that a satisfactory explanation must include all established facts of this class. Upon taking a broad view of the question, it will be seen that it includes also the facts relating to relative race immunity, such, for example, as the comparative mildness of yellow fever in the negro, the alleged liability of the esquimaux to suffer a fatal attack of small-pox as a result of vaccination (Grawitz), the immunity of Algerian sheep from anthrax, &c.

Naturally this question has attracted the attention of the leading investigators in the field of experimental pathology, for its inherent interest and practical importance are apparent. Three explanations have been offered to account for the phenomena in question, which may be stated as follows:—(1) The "exhaustion theory," advocated by Pasteur, which supposes that some substance present in the body of a susceptible individual up to the time of a first attack, and which is essential for the development of the specific germ of the disease, is exhausted during the attack, and that consequently this particular germ is unable subsequently to multiply in the body of this individual. (2) The "antidote theory" advocated by Klebs and recently supported by Klein.[1] This theory supposes that some chemical substance is produced during the attack which is inimical to the development of the germ, and which, remaining in the body of the animal, prevents its subsequent development. (3) The vital resistance theory, which supposes that immunity is due to an acquired tolerance on the part of the living cellular

[1] Micro-organisms and Disease, Practitioner (London), vol. xxxiii, No. 4, p. 219.

elements of the body to the poisonous products evolved by disease germs, to which they probably owe their pathogenic power, and a consequent ability to resist invasion by them. According to this view individual and race differences in susceptibility, as well as the more or less perfect immunity resulting from a single attack of any one of the specific infectious diseases, are phenomena depending upon differences in vital resisting power, either inherited or acquired. The last-mentioned theory is referred to by Klein in his recent work on "Micro-organisms and Disease" in the following language:—"Some observers (Grawitz, &c.) are not satisfied with this theory" [the antidote theory], but assume that, owing to the first attack, the cells of the tissues so change their nature that they become capable of resisting the immigration of a new generation of the same organism. There is absolutely nothing that I know of in favour of such a theory; it is impossible to imagine that the cells of the connective tissues, of the blood, and of other organs, owing to a past attack of scarlatina, become possessed of new functions or of some new power—as, for instance, a greater power of oxidising, or the like."

As the present writer is perhaps included in the "&c." ("Grawitz, &c.") of the above quotation, he feels called upon to say something in favour of the theory thus summarily disposed of, which seems to him to be the only one thus far offered which is at all tenable, and which he advocated in an article published in the *American Journal of the Medical Sciences* of April 1st, 1881, which has the precedence over the paper by Grawitz by a few days, the latter having appeared in Virchow's *Archiv* on the 8th of the same month. In order that the two explanations which I reject as untenable may be fairly presented to the readers of the present paper, I shall quote verbatim the arguments advanced in their support by their most prominent advocates.

The first hypothesis (1) is supported by Pasteur in the following language:—"It is the life of a parasite in the interior of the body which produces the malady commonly called 'choléra des poules,' and which causes death. From the moment when this culture (i.e., the multiplication of the parasite) is no longer possible in the fowl, the sickness cannot appear. The fowls are then in the constitutional state of fowls not subject to be attacked by the disease. These last are as if vaccinated from birth for this malady, because the fœtal evolution has not introduced into their bodies the material necessary to support the life of the microbe; or these nutritive materials have disappeared at an early age. Certainly one should not be surprised that there may be constitutions sometimes susceptible and sometimes rebellious to inoculation—that is to say, to the cultivation of a certain virus, when, as I have announced in my first note, one sees a preparation of beer yeast made exactly like one from the muscles of fowls (bouillon) to show itself absolutely unsuited for the cultivation of the parasite of fowl cholera, while it is admirably adapted to the cultivation of a multitude of microscopic species, notably to the bactéride charbonneuse (bacillus anthracis). The explanation to which these facts conduct us, as well of the constitutional resistance of some individuals, as of the immunity produced by protective inoculations, is only natural when we consider that every culture in general modifies the medium in which it is effected; a modification of the soil when it relates to ordinary plants; a modification of plants and animals when it relates to their parasites; a modification of our culture liquids when it relates to 'mucédines,' 'vibrioniens,' or ferments. These modifications are manifested and characterised by the circumstance that new cultivations of the same species in these media become promptly difficult or impossible. If we sow chicken bouillon with the microbe of fowl cholera, and, after three or four days, filter the liquid in order to remove all trace of the microbe, and subsequently sow anew in the filtered liquid this parasite, it will be found quite powerless to resume the most feeble development. The liquid, which is perfectly limpid after being filtered, retains its limpidity indefinitely. How can we fail to believe that by cultivation in the fowl of the attenuated virus we place its body in the state of this filtered liquid, which can no longer cultivate the microbe? The comparison can be pushed still further; for, if we filter the bouillon containing the microbe in full development, not on the fourth day of culture, but on the second, the filtered liquid will still be able to support the development of the microbe, although with less energy than at the outset. We comprehend, then, that after a cultivation of the modified (*atténué*) microbe in the body of the fowl, we may not have removed from all parts of the body the aliment of the microbe. That which remains will permit a new culture, but in a more restricted measure. This is the effect of a first inoculation; subsequent inoculations will remove progressively all the material necessary for the development of the parasite."[2] In commenting upon Pasteur's explanation of acquired immunity in the chapter on "Bacteria in Infectious Diseases" in my recent work I remark:[3] "It is a little surprising that after disproving by the experimental method the hypothesis last mentioned"—viz., the antidote theory adopted by Klein—"which had been proposed by a member of the French Academy in explanation of the phenomenon in question, Pasteur did not, in accordance with his usual custom, attempt to establish his own hypothesis upon a firm foundation by an experiment which at once suggests itself. If a fowl which is protected against cholera, or an animal which is protected against anthrax, owes this protection to the fact that a certain material which is required for the development of the microbe of fowl cholera, or for the anthrax bacillus, has been exhausted in the course of the modified form of the disease to which immunity is due, then the flesh of such an animal made into bouillon should not constitute a proper culture medium for the organisms in question. The writer ventures to predict that the result of such an experiment would not be favourable to Pasteur's hypothesis, and that it will be found that the micrococcus of fowl cholera can be cultivated in bouillon made from the flesh of a protected animal, and that the bacillus of anthrax may multiply freely in the blood, or in an infusion of the flesh, of an animal which, before it was killed for the experiment, possessed immunity against the disease anthrax."[4]

Since the above was written, Salmon in the United States and Klein in England have reported the results of experiments which show that the prediction made was well founded.

Salmon says, in a recent communication to *Science*:[5]—"I trust, however, you will pardon me for calling your attention to the fact that more than two years ago I demonstrated that immunity was only relative, never absolute; that the most susceptible individual possessed a certain degree of immunity which can be accurately measured; and that all degrees of immunity may be overcome by a sufficient increase in the dose of virus. The immunity of the animal body, then, in no sense resembles the exhausted cultivation liquid in the flasks of Pasteur and Tyndall, which no increase in the amount of virulent material added can ever induce to support the development of new generations of the microbe, and the honour of demonstrating this radical difference is due to American investigations. I went further than this, however, and showed that this theory of our European friends was absolutely untenable, because broth made with distilled water from the flesh of an animal that had been granted a very complete immunity was just as favourable a medium for the growth of the virus as that made from susceptible animals; and that such virus lost nothing in virulence by being grown in such a medium. I will not trouble you with the theory of immunity which I developed from these experiments. Like other American work, it may have no value; but it may interest you to know that an able German writer, in the last number of Virchow's *Archiv*, has propounded a theory which in its most important points is identical with my own."

In referring to this theory as his own, Salmon seems to have overlooked the fact that I offered the same explanation of acquired immunity in my paper, already referred to, which was published in the *American Journal of the Medical Sciences* for April, 1881.

Klein says, with reference to the exhaustion theory:—"On careful analysis it will be found that it is not capable of explaining the facts of the case. As we mentioned in a former chapter, cattle inoculated with blood of a guinea-pig dead of anthrax become affected with anthrax, which, although not fatal, is nevertheless sometimes very severe. The animal recovers, and is now, for a time at least, secure against a second attack. But there is absolutely no ground for the assumption that if an infusion of the tissues of this animal were made the bacillus anthracis sown in it would not thrive luxuriantly, seeing that bacillus anthracis grows upon almost anything that has a trace of proteids. Similarly, when of the tissues of a guinea-pig, or mouse, or rabbit, dead of

[2] Comptes Rendus, Acad. des Sciences, xc., p. 952.
[3] Bacteria; Wm. Wood & Co., New York, 1884.
[4] Op. cit., p. 245. [5] Sept. 26th, 1884, p. 303.

anthrax, an infusion is made, and this is used as nourishing material for bacillus anthracis in artificial cultures, it is found that these latter thrive splendidly. There is then no reason whatever for assuming that, after one attack of illness the blood and tissues become an unfavourable soil for a second invasion of the same organism, and that this change is due to the exhaustion of some necessary chemical compound."[6]

In my own paper, heretofore referred to, in the absence of experimental data I argue as follows:—"Let us see where this hypothesis leads us. In the first place, we must have a material of small-pox, and a material of measles, and a material of scarlet fever, &c. Then we must admit that each of these different materials has been formed in the system and stored up for these emergencies,—attacks of the diseases in question,—for we can scarcely conceive that they were all packed away in the germ cell of the mother and the sperm cell of the father of each susceptible individual. If, then, these peculiar materials have been formed and stored up during the development of the individual, how are we to account for the fact that no new production takes place after an attack of any one of the diseases in question? Again, how shall we account for the fact that the amount of material which would nourish the small-pox germ to the extent of producing a case of confluent small-pox may be exhausted by the action of the attenuated virus (germ) introduced by vaccination? Pasteur's comparison of a fowl protected by inoculation with the microbe of fowl cholera with a culture fluid in which the growth of a particular organism has exhausted the pabulum necessary for the development of additional organisms of the same kind does not seem to me to be a just one, as in the latter case we have a limited supply of nutriment, while in the former we have new supplies constantly provided of the material (food) from which the whole body, including the hypothetical substance essential to the development of the disease germ, was built up prior to the attack. Besides this, we have a constant provision for the elimination of effete and useless products. "This hypothesis, then, requires the formation in the human body, and the retention up to a certain time, of a variety of materials, which, so far as we can see, serve no purpose except to nourish the germs of various specific diseases, and which, having served this purpose, are not again formed in the same system, subjected to similar external conditions, and supplied with the same kind of nutriment."

It hardly seems worth while to give further attention to this explanation offered by the great chemist to whom we owe so much, but who, if we may judge from his reasoning in this instance, is not equally great as a physiologist. We proceed, therefore, to consider hypothesis No. 2.

(To be continued.)

REMARKS ON

NINE CASES OF DEATH BY HANGING

(SIX EXECUTIONS AND THREE SUICIDES).

BY R. J. KINKEAD, M.D. DUB.,

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IT has been my lot to have rather an extensive experience in death by hanging, both by execution and suicide; although the scientific value of such experience has been largely reduced by the want of post-mortem examinations in all the cases save one, yet something may be learned from a report of them. In the case of executions the prison surgeon has no power to make a post-mortem unless ordered by the coroner. On sentence of death being passed, the prisoner is remitted to the local prison whence he came, and given into the custody of the governor. He remains in his custody, subject to the special rules for condemned prisoners, until the day fixed for execution. The death warrant is in the meantime issued to the sheriff, who has charge of everything connected with the execution. He it is who provides the gallows and engages the executioner, who acts as his officer. The sheriff is not bound to engage the public executioner; he can arrange with anyone he likes. In case no executioner can be found the sub-sheriff is bound to act as executioner, and in case he fails or refuses the high sheriff himself must discharge the duty. On the morning fixed for the execution the sub-sheriff comes to the prison, presents the death-warrant to the governor, and demands the body of the condemned, who is handed over to his custody, and by him to the executioner. Thus the condemned passes from the custody of the prison authorities entirely, and neither the governor nor any prison officer can interfere with him any more. They are, however, bound to assist the sheriff in the discharge of his duty; and by Act of Parliament the governor or deputy governor, the chaplain, and medical officer of the prison must be present at the execution, and make certain statutory declarations. But once the body of the criminal has been handed over to the sheriff, he passes completely from under the custody and control of the prison officials. It is necessary that this should be clearly understood, as there is a general impression to the contrary, and if, as sometimes happens, an accident occurs during an execution, the prison officers are supposed to be accountable, and to have an interest in hushing it up. It cannot be too clearly understood that they have nothing whatever to do with an execution beyond assisting the sheriff and acting as witnesses, and that the entire responsibility rests with the sheriff. Under this mistaken idea of the prison officers' duty it has been urged that the post-mortem examination on the body of an executed criminal should not be made by the prison surgeon, but that on independent medical man should be present at the execution, and give evidence at the inquest. I am not aware that there is any law which authorises a prison surgeon to make a post-mortem examination, on either an ordinary prisoner or executed criminal, without the requisite permission either of the relatives in the former case, or of the sheriff in the latter; and I am not certain whether the sheriff, although the legal custodian of the body, can give permission. He is debarred from the power, given to those in custody of a dead body by the Anatomy Act, of giving it for anatomical purposes. Consequently in cases of executions I have been unable to make a post-mortem examination, unless by order of the coroner. The body having passed to the custody of the sheriff I have felt I had no power as a prison officer to interfere with it. In the case of suicides, in addition to the difficulty likely to arise from the necessity of obtaining the permission of the relatives, the prison surgeon is prevented from making a post-mortem examination even at the coroner's bidding by an order from the executive; that in the case of any prisoner dying in prison, the post-mortem examination, if directed by the coroner to be held, shall not be made by the prison surgeon, but by an independent medical man, to be called in by the coroner for that purpose. This raises a question of law. In private practice, if an inquest is necessary, it is inexpedient that the medical attendant should make the post-mortem examination if any possibility of any question concerning the treatment could arise. In the case of a prisoner dying in prison an inquest must be held, and as the question of treatment, both medical and otherwise, necessarily arises, it is obviously expedient, unless the cause of death is very clear and the proof of good treatment convincing, that a post-mortem examination should be made, and that the duty should be discharged by "an independent medical authority." But as matters stand, the medical officer may be placed between the hammer and the anvil. The coroner is not under the authority of the executive. He is an independent judge, and can refuse to receive orders either from the Home Secretary in England or the Lord Lieutenant in Ireland. Suppose he orders the medical officer to make a post-mortem examination: if the surgeon obeys the coroner, he must disobey his superior officers; if he refuses to make the post-mortem examination, the coroner can commit him for contempt of court.

Shortly after the circular was first issued the coroner of the city of Dublin refused to recognise its authority, and directed the medical officer to make a post-mortem examination on the body of a criminal executed for murder. The Royal Commission on Prisons in Ireland has recommended that "governors be requested, whenever an inquest is about to be held, to inquire of the coroner whether a post-mortem examination is to be made, and, if he should reply in the affirmative, to inform him that" the Lord Lieutenant "wishes such examination to be made by a medical practitioner not connected with the prison service." This mode would certainly be an improvement; it would prevent the medical officer being placed in the very awkward predicament of having to choose which authority he should obey; and there are few coroners who would refuse to comply with a request

[6] The Practitioner, London, Oct. 1884, p. 247.

so conveyed. In only one case of the nine I have seen did the coroner deem a post-mortem necessary. Since January, 1880, there have been ten men executed, and three have committed suicide by hanging in Her Majesty's Prison at Galway. I have been present at the execution of six of these men, and saw the bodies of the suicides within a few minutes of their being discovered.

In eight of the executions Marwood was the hangman, and although he discharged his duty with celerity and death was instantaneous, yet it seemed to me that the time must have appeared terribly long to the criminal from the commencement of the preparations until the bolt was drawn. My observations have also convinced me that in no case should one executioner attempt to hang more than one person at a time; for not only is it likely that an accident may result—as actually did happen in one case—and the death of the criminal be prolonged, but the mental strain and agony of the miserable criminal waiting on the drop until the others are prepared must be something awful. To me, standing looking on, the time seemed interminable, although the work was done rapidly and did not occupy more than a minute or two. What must it have been to the unfortunate creature on the brink of eternity! This will be fully understood from a description of the process. The prisoner's arms are pinioned in the condemned cell. A belt is buckled round the waist; to this belt are attached two straps, which, when the belt is in its place, are about an inch or two in front of and above the anterior superior spine of the ilium. The arms are fastened to the side of the belt by these straps, so that the fingers can barely cross in front, and the elbows project somewhat behind. The pinioning being effected, the prisoner is marched to the scaffold and placed on the drop, immediately under the ring in the cross-beam, to which the rope is attached; the legs are then fastened together by means of a strap placed between the knees and the ankles. Next, the noose is placed round the neck, drawn firmly round the throat, and kept in position by a washer or ring. The white cap is then put on, and the executioner, stepping back, pulls the bolt. Now, it is evident that, no matter how dexterous and practised the executioner may be, the strapping the legs, adjusting the rope, and putting on the cap must take time; and if the prisoner is left standing while the same thing is being done to one or two others, his suffering must be very terrible. What it actually is I suppose no one can conceive; but in one case, although a single execution, and done very quickly, the man fainted, and was actually falling sideways when the bolt was drawn.

In Marwood's executions he used the long drop, and placed the knot under the chin. The rope hung down behind the prisoner's back from the ring in the cross-beam, and looped up from below the waist to its attachment under the chin. Thus it will be seen that the length of the drop was something more than the prisoner's height. This arrangement worked well if the prisoner was steady; but if restless, then there was the danger of what actually happened once—of the loop of the rope catching the convict's elbow as the body fell, and so preventing death being instantaneous. The first man I saw hung was executed in Jan. 1880. He was a tall, powerfully-built fellow, and met his death with great fortitude. One hour and a half after the execution, assisted by Dr. Pye, professor of anatomy, I made a post-mortem. Fæces had not been passed, but there had been an emission of seminal fluid. On dissecting the neck, we found most of the tissues torn through, the body of the third cervical vertebra was broken diagonally across and separated for at least two inches and a half to three inches from the remaining portion, the spinal cord was torn through, and in fact the head was retained in connexion with the trunk merely by the skin, which was not even abraded, a few muscular shreds, and the vessels on the right side. The trachea and œsophagus, the carotid artery and jugular vein on the left side, were torn through, and the tissues were emphysematous. On opening the thorax, nothing particularly abnormal was discovered in the lungs; they were slightly congested, but not to a very appreciable extent; the left heart was empty and firmly contracted, but on the right side both auricle and ventricle were full of frothy blood, the air escaping from the ruptured trachea having been evidently sucked down through the jugular vein.

The next execution I witnessed was in January, 1883. The prisoner walked with tolerable firmness to the scaffold, but appeared to faint on it, for just as the bolt was pulled he fell sideways towards the left; the drop too was evidently a very long one, as the loop of the rope was below the level of his knees. To ascertain roughly the lesions producing death did not need a post-mortem, as all the tissues, save about from one and a quarter to two inches of skin on the right side of the neck, were entirely severed. In fact, had it not been for that small portion of skin he would have been completely decapitated. I attribute this result to an excessively long drop, to a thin neck, and to a rotary motion being imparted by the man's fainting, so that the pull on the body falling did not act in the line of the long axis of the neck, but partly laterally. The next two men were executed two days after. The coroner did not deem a post-mortem examination necessary, but, from an external examination, I have no doubt that the bones of the vertebræ were separated in each case. In the first case I have recorded there was actual fracture of the body of the third cervical vertebra; in the second case the separation took place between the bodies of the second and third cervical vertebræ; and, as far as I could judge in the last two, luxation was about the same place; the ends of the bodies of the vertebræ could be distinctly felt separated from each other by at least two inches and a half.

If I recollect rightly, the evidence in the Dublin executions was to the effect that in all cases the vertebral bones were torn apart and the spinal cord severed. In the four cases which occurred while I was absent from Galway no post-mortem was made, but the gentlemen who discharged my duty have informed me that they had no doubt as to separation of the bones in three. In the fourth, the case in which the rope caught under the elbow, the doctor's evidence at the inquest was that there was no dislocation or fracture of the neck, and that death resulted from strangulation.

(To be continued.)

A CASE OF

HIGH AMPUTATION FOR GANGRENE OF THE FOOT; OBSTRUCTION OF THE POPLITEAL ARTERY BY HYDATID CYSTS.

BY H. MALLINS, A.B., M.B., M.CH.

JOHN T——, aged seventy-four, a labourer, always enjoyed good health until about seven years ago, when, owing to some slight injury, an ulcer formed on the anterior aspect of the middle third of the left leg. This ulcer seemed always to have been extremely painful, and for its relief, according to his account, every remedy, orthodox and unorthodox, had been tried without avail. At the end of last summer, the pain having become more severe, owing to a sloughing tendency which the ulcer began to exhibit, he was admitted into the Norwich Hospital, where he remained several weeks. Under the treatment adopted great improvement followed, and at the time of his discharge the ulcer was all but healed. A few weeks later, however, the whole foot of the affected side began to show signs of disease, the ankle became œdematous, and several of the metatarso-phalangeal joints suppurated and discharged. This recrudescence of the disease was attended with great suffering, the climax of which was reached at the beginning of January, when gangrene of the great toe showed itself. Amputation of the limb was now proposed, and, the risks of the operation having been duly explained, eagerly assented to. The operation was performed under chloroform on January 11th, by the method of long anterior and short posterior flaps, the femur being sawn through at the junction of the lower and middle third. On applying the tourniquet no pulsation of the femoral artery could be detected. Subsequently, when the fleshy parts were divided, the artery was found to be completely plugged by a firm clot. The collateral circulation seems to have been pretty well established, as six vessels required ligature. The wound having been well cleansed with dilute carbolic solution, a dressing of plain absorbent wool was applied. Everything proceeded favourably for the first forty-eight hours, when the temperature began to rise. On dressing the wound the anterior flap was found to have commenced to slough. Gangrene of the entire stump rapidly ensued, with a fatal result on the fifth day.

On examining the vessels of the amputated limb, the popliteal artery was observed to be much enlarged, presenting a fusiform dilatation, about an inch wide and four inches in length. In the process of dissection, the swelling having been accidentally pricked with the knife, a white matter, suggestive at first sight of pus, spurted out. On laying the swelling open, however, no pus could be detected. The walls of the artery were found to be thickened, but the main bulk of the dilatation was constituted by its contents, which consisted of a mass of hydatid cysts, varying in size from that of a very small pea to that of a good-sized raisin. Their walls in every case were collapsed. No hooklets could be discovered with the microscope. To clear up any doubt as to their true nature, a few specimens were sent to Dr. T. Spencer Cobbold, who most kindly examined them, and expressed the opinion that "they are unquestionably true hydatids. The ectocyst displays well-marked characteristics appertaining to echinococcus veterinorum."

Remarks.—It was the paper of Mr. J. Hutchinson, read before the Royal Medical and Chirurgical Society on Dec. 11th, 1883, urging the safety and expediency of high amputation in senile gangrene, that led to the undertaking of the operation in the foregoing case. It had been originally intended to amputate at the knee, but the existence of a small purulent depôt close to the popliteal space led to a suspicion of the healthiness of the tissues in its vicinity. One point to which it is desired to call attention is the early sloughing of the anterior flap. The experience of St. George's Hospital is, according to Mr. T. Pickering Pick, decidedly adverse to long anterior flaps, sloughing having taken place sixteen times in twenty-nine cases. The skin of a man aged seventy undergoes a certain amount of atrophy, a process in which its nutrient bloodvessels doubtless share. In the formation of a skin flap numerous vessels going to it must be divided, thus diminishing its vitality. Moreover, it is not improbable that a slight sloughing is quite sufficient to start off the process of gangrene afresh. For the foregoing reasons the method of long anterior flaps would seem to be unadvisable in amputation for senile gangrene. Though hydatids are found in many different situations in the human body, they seem to take up their abode in the bloodvessels but very rarely. In M. Davaine's analysis of 373 cases of hydatids, as given in Dr. T. Spencer Cobbold's work on "Entozoa," two cases occur in which the pulmonary vessels were the site of the cysts. As far as I can ascertain, these are the only cases of the kind hitherto recorded. In conclusion, it may be pointed out that there was very probably some connexion between the chronic ulcer of the leg and the plugging of the popliteal artery; either diminished blood-supply or pressure on the nerve from the bulging of the artery, leading to diminished vitality of the affected part. The constant and very severe pain would indicate the latter as the more probable cause.

Watton, Norfolk.

NEW REMEDY FOR CHOLERA.

BY SHAMSUDIN J. SULEMANI, L.M. BOMBAY.

DURING the latter part of the epidemic of cholera, which broke out in July last at Baroda (a town in India), five marked cases of this disease were treated with jadvari khatai, papita, narjili daryai, and cardamom seeds; four of these were cured and one proved fatal. The above-mentioned four drugs were mixed and given in ten-grain doses to adult patients every hour or two, according to the severity of the symptoms; in each case three or four doses were used. The following are the notes of the cases in question:—

CASE 1.—A girl of about twelve was attacked with cholera at 1 A.M., and seen by me at 6 P.M. the same day. Her body was cold, pulse almost imperceptible, eyes sunken, frequent purging, stools watery and copious, and of the colour of rice water. There was suppression of urine of twelve hours' standing. Before I saw her she had been given chlorodyne and stimulants, but without any effect. Three doses of the above medicine were administered to her, the second dose being given one hour after the first, and the third after two hours. Soon after the administration of the first dose purging diminished and the pulse became perceptible; the second dose was followed by marked improvement, and the extremities and the trunk became gradually warm. She voided urine some two hours after the third dose, and was then out of danger.

CASE 2.—An adult male commenced purging and vomiting at 6 A.M., and was treated with chlorodyne and stimulants, but without relief. I saw him at 5 P.M. the same day, and found him much exhausted. His eyes were sunken, extremities cold, and pulse hardly perceptible. Vomiting was incessant, and he could scarcely retain medicine or water, and had cramps. He had not passed urine for about eight hours. Sinapism to the epigastrium did not check vomiting, and so a mixture of equal parts of laudanum and chloroform was sprinkled over a piece of lint, which was applied over the pit of the stomach for about five minutes, though not continuously, and it stopped the vomiting. Immediately after this the medicine above referred to was given, and he gradually improved. It was repeated twice at the interval of two hours, and he passed urine and recovered.

CASE 3.—A woman aged twenty-five began to vomit and purge at 6 P.M., when chlorodyne and some other medicine were administered, by which vomiting was checked, but purging continued unabated. The next morning, at 11 A.M., I was called to see her for the first time. She was not able to speak, but could open her eyes when shouted to. She had not passed urine since the attack commenced. The whole body was cold, and there was no pulse; even the beating of the brachial artery could not be felt. Now and then cold perspiration broke out. Two doses of the above medicine were given, but there was no effect. Subsequently some other treatment was adopted by another medical gentleman, but the patient died at about 5 P.M.

CASES 4 and 5.—The remaining two cases had well-marked symptoms, and showed signs of improvement after the first dose; they were ultimately cured by two subsequent doses in one case, and by three in the other.

I may observe here that in all these five cases no food was allowed while vomiting and purging continued. Sinapism to the epigastrium (for checking vomiting) and friction and warm bottles to the extremities were ordered. As regards the medicinal properties of the above-mentioned drugs, I beg to state that the first three are said to be tonic, and recommended in Makhzanuladviya for cholera; cardamom seeds act simply as carminative. Their botanical names and the natural orders to which they belong are as follows:—

Name of drug.	Botanical name.	Natural order.
Jadvari khatai.	Delphinium denudatum.	Ranunculaceæ.
Papita.	Strychnos ignatii.	Loganiaceæ.
Narjili daryai.	Lodoicea seychellarum.	Palmeæ.
Cardamoms.	Elettaria cardamomum.	Zingiberaceæ.

These drugs are mentioned by Dr. W. Dymock in his "Vegetable Materia Medica." Narjili daryai has a very hard kernel, and requires to be filed before it is finely powdered.

It is obvious that the number of cases in which this new remedy was tried is too small to enable one to judge of its value; however, it deserves a further trial.

Oxford.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. GEORGE'S HOSPITAL.

EIGHT CASES OF FRACTURE OF THE PATELLA, PUT UP IN GUM BANDAGES AS SOON AFTER THE ACCIDENT AS POSSIBLE; REMARKS.

THE following cases illustrate the method of treatment of fracture of the patella as at present practised at one of the large London hospitals. It comprises the essentials of treatment of such fractures—rest, relaxation of the quadriceps extensor of the thigh, and apposition of the fragments by direct pressure. It also permits the patient to get about at an early date after the injury, the fractured ends being still retained in good position, and the knee-joint kept extended by means of the gum bandage. We would also refer to the

remarks appended to Mr. Rivington's case, where suppuration followed paracentesis of the joint, in a case of simple fracture of the patella.[1]

For the report of the following cases we are indebted to Mr. Allingham, house-surgeon.

CASE 1. (Under the care of Mr. Holmes.)—Thomas S——, aged thirty-five, carman, was admitted on Sept. 7th with the following history. While walking along the street he slipped off the kerb, and in trying to save himself from falling under his van heard something give way with a snap. Attempting to rise, he was utterly unable to use his left leg, so he was brought to the hospital. On admission the left patella was fractured transversely about its middle, the fragments being separated one inch; there was very little effusion into the knee-joint. It was immediately done up in the following manner. The limb having been thoroughly washed, the fragments were brought together with ordinary strong strapping. The centre of a piece of strapping one inch and a half wide, and long enough to encircle the limb twice, was placed immediately above the upper fragment, and the two ends pulled in the direction downwards and backwards, crossed behind the joint, and brought forward to meet upon the tubercle of the tibia. This tends to bring the upper part of the patella down to the lower. The other fragment was treated in like manner; a similar strip of strapping was placed just below the lower fragment, then crossed behind the joint and made to meet above the patella in front of the thigh. Next, strapping, two inches and a half wide, was placed over the front of the patella, each end drawn forcibly backwards, crossing behind the joint, brought forwards again, so that the ends might stick on the front of the knee. (Great care must be taken that none of the strapping slips in the slightest degree.) The limb was then well starched and covered evenly from the level of the base of the little toe to about two inches below the perineum, with two thicknesses of flannel bandage, and this in a similar manner encircled by a coarse muslin bandage three inches in width, strong thick gum being then spread over this. Two more layers of bandage, alternating with two of gum, having been applied, the splint was completed. During this process—or after the fragments were brought together with strapping—the leg was supported by the heel, nothing being placed under the thigh or knee that might tend to bend the joint in the slightest degree; for it is absolutely necessary that the fracture be not disturbed, and that the gum bandage should dry with the leg in a state of extreme extension. During the drying the leg was raised by a block placed under the heel to prevent the wet bandage sticking to the bed; as soon as the outside dried, the limb was placed in a patella junk. (The outer layer of gum takes about four hours to dry, but two days are required for the splint to become firm and hard.)

Sept. 8th.—Splint is drying fast, being elevated in a patella junk. Patient complains of pain in the knee; the toes are not swollen. Temperature normal; pulse 80; tongue clean and moist. Did not sleep well.

10th.—Still complains of a little pain, but much less than it was. Temperature normal; slept well.

14th.—No pain; got up and walked about the ward with the help of crutches.

21st.—Left hospital, fourteen days after the accident.

The patient returned about the middle of October, the splint being quite comfortable. He was told to come back at the end of three months, when the splint will be removed and a leather knee-cap supplied him.

CASE 2. (Under the care of Mr. Holmes.)—William B——, aged thirty-five, a painter, fell five feet and fractured his patella transversely by indirect violence on October 30th. On admittance, the fragments were separated about one inch. The accident occurring near the hospital, he was seen about ten minutes after, and as there was no effusion, the fractured surfaces were brought together with strapping as described in Case 1, and the limb enveloped in a gum bandage.

Oct. 31st—Had a good deal of pain in the knee, which was much relieved by elevation.

Nov. 1st and 2nd.—Still some pain, but not so severe; temperature remained normal; toes warm and not blue or swollen.

6th.—Patient was up but had not put his foot to the ground.

12th.—He left the hospital, thirteen days after the accident, with orders to return in a month.

Dec. 15th.—The splint becoming loose, it was removed. The fracture was in good condition with a quarter of an inch between the fragments. Another splint was then applied and he was told to come back at the end of January for a knee-cap.

CASE 3. (Under the care of Mr. Rouse.)—Arthur M'——, aged forty-six, was brought to the hospital on May 24th with the following history:—Whilst running he slipped on a stone, and, trying to save himself, felt something give way in his knee. The right patella was found fractured transversely, the fragments separated about an inch and a half to two inches, with some effusion into the knee-joint. As this was not considerable, and as the upper and lower fragments of the patella could be placed in good apposition, the limb was put up immediately in gum bandage as described in Case 1. For a few days he complained of pain in the joint, but as he was able to sleep and eat, and as his temperature remained normal, it was not deemed necessary to remove the splint. The pain in this case was greatly relieved by well elevating the limb. On June 2nd he left his bed and was about the ward, leaving the hospital on June 6th, thirteen days after the accident, with orders to come up to be seen every month. In July he presented himself and urged to have the splint removed, as he felt confident the leg was well. This was done, and the upper and lower fragments were found in very good position, firmly bound together with an interval of one-third of an inch. He was ordered a leather knee-cap.

CASE 4. (Under the care of Mr. Rouse.)—Sarah D——, aged thirty-four, pregnant seven months, was admitted on April 28th. While descending some stairs she caught her foot in the carpet and fell down. The left patella was found fractured transversely; no effusion into the joint, fragments separated about three-quarters of an inch, but easily approximated so as to elicit bony crepitus. The joint was strapped and the gum bandage applied at once. That night, and for the next few days, the patient complained of pain, which was greatly mitigated, as in the former, by elevation of the limb.

On May 6th she was about the ward, and left the hospital on the 8th, ten days after the accident. This patient has not been to the hospital since.

CASE 5. (Under the care of Mr. Pick).—Sarah MacP——, aged sixty, while walking along the street fell and struck her knee against the pavement. She was immediately taken home and fomentations ordered by her medical man. On June 29th, seven days after the accident, she came to the hospital. The left patella was fractured obliquely, the line of fracture running from without upwards and inwards, the fragments separated one inch. There was a large quantity of fluid in the joint, and great bruising extending over the front and sides of the joint, spreading also down the leg. Under these circumstances it was not thought advisable to treat this case as those previously described. So the leg was bandaged, including the knee, with a Martin's bandage, as tightly as the patient could bear it, the leg elevated, and an ice-bag placed over the joint. At night she complained of so much pain as to necessitate loosening the bandage, the ice being continued. This treatment was pursued for six days, when all the excessive fluid was found absorbed, and the fragments could be drawn together; the leg was put up in the usual way. She left the hospital on July 23rd, three weeks after admittance.

At the end of September, three months after the accident, the splint was removed. The fragments were in good position, with about one-third of an inch interval; but, as the bond of union was not strong, she had the splint reapplied for another month before commencing to wear a knee-cap.

CASE 6. (Under the care of Mr. Haward.)—Rose W——, aged thirty-nine, married. Two days before admittance into hospital she fell from some steps, and in trying to save herself injured her right patella.

On admission, Feb. 14th, a transverse fracture was found with one inch interval between the fragments, and no effusion into the joint. The fractured bone being placed in a good position, the leg was enveloped in the gum bandage.

Feb. 15th, 16th, and 17th.—Leg quite comfortable; no pain.

18th.—She got up, leaving the hospital on Feb. 27th, a fortnight after the accident.

May 14th.—The splint was taken off. A firm, strong, fibrous band, uniting the fracture with a quarter of an inch between the fragments, existed. Knee-cap ordered.

CASE 7. (Under the care of Mr. Haward.)—Walter C——,

[1] THE LANCET, Jan. 24th, p. 154.

aged thirty-three, carpenter. Slipped, catching his foot in a carpet. In falling he heard his knee-cap break. He could not stand, so was brought to the hospital on Feb. 19th. Right patella was fractured about its middle, with an inch and a half interval. As there was no excess of synovial fluid in the joint, the leg was put up at once.

Feb. 25th.—Had been up two days, going out on Feb. 27th, eight days after the accident.

On May 19th the gum bandage was removed. Good union and close apposition of the fragments being found, a knee-cap was ordered.

CASE 8. (Under the care of Mr. Haward.)—On March 17th Charles W——, aged thirty-two, drayman, was brought with the following history—viz., that he fell while walking on glazed tiles. On admission the left patella was found fractured, the fragments separated widely, nor could they be seen owing to the amount of fluid in the joint. This evidently was a case for the use of Martin's bandage, applied as in Case 5. After three days of this treatment the fluid was absorbed and the leg encased in gum bandages. The patient got up on March 23rd, and left the hospital on the 25th, eight days after the accident. The splint was taken off on July 2nd, and the fragments were found united by a firm and thick fibrous band, and separated half an inch.

Remarks.—With regard to this method of treatment, there are some points worthy of observation. It is well known that bringing the upper and lower parts of a fractured patella together tends to tilt the fragments so that the posterior edges of the fractured surfaces meet only, leaving an interval between the anterior edges. Now, it is to remedy this displacement that the third piece of strapping is used, the object being to press on both pieces, and so overcome the tendency to tilt. The amount of fluid in the joint is the indication for the method of treatment to be adopted. If the effusion is great, a Martin's bandage should be used for the first few days. On the other hand, a fracture accompanied with no increased secretion of synovia should be done up at once, for if left for only three or four hours there is sure to be considerable swelling. Previous to putting the fracture up in gum bandage it should be borne in mind, after the strapping is applied, to cover the limb in a double thickness of flannel bandage; for, as this is slightly elastic, it allows the leg to swell to a limited extent. Care should be taken, when putting on the muslin bandages, not to apply them too tightly, and as soon as the gumming is finished to elevate the limb. For two or three days after completion of the splint special attention should be paid to the temperature; if this remains normal, the tongue moist, and the toes warm, there is no need of alarm if the patient complains of pain; but should, on the other hand, the temperature rise, or the toes become swollen, cold, or blue, the splint must be immediately removed.

In treating these cases in the manner described quite as good results are obtained, with no more danger to limb or life and with the following advantages. The patient is not confined to bed for six weeks or two months, as he is if treated by Malgaigne's hooks or any other form of apparatus generally used, but can, as a rule, after a few days, say fourteen at the most, go home and undertake any light work. By strapping the fractured surfaces together and not interfering with them for three months it must be apparent that there is more probability of obtaining firm and good union than by those methods of treatment where it is necessary that the fracture should be frequently attended to, and the fragments thereby be more often disturbed; and certainly the method described is much less distressing to the patient. Putting up the leg in gum bandages rather than plaster-of-Paris has these advantages—viz., the splint is much stronger, does not bend or crack as plaster is apt to do, and, lastly, it is a much lighter apparatus.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.

CANCER OF THE RIGHT KIDNEY; CONGENITAL ABSENCE OF THE LEFT; NECROPSY; REMARKS.

(Under the care of Mr. F. E. MANBY.)

FOR the following notes we are indebted to Mr. J. W. Batterham, house surgeon.

George W——, aged forty-eight, a painter, was admitted on December 11th, 1884. The patient was a sallow, delicate-looking man, and suffered from dyspeptic symptoms. He stated that for fifteen years he had experienced pain in the right loin, that eighteen months ago he first noticed blood in his urine, and that five months ago his urine was again bloody, this time for three days, but since then he had had several attacks of hæmaturia at irregular intervals. He had lost flesh considerably during the last eighteen months. On the day of admission the urine contained a large quantity of blood and disorganised clot. No cells likely to be of malignant origin were found on microscopical examination of the urine. On passing a sound into the bladder no stone or tumour could be detected, nor was there any blood in the urine after the sounding. Examination of the abdomen revealed a smooth ovoid elastic tumour in the right lumbar and iliac regions, extending slightly into the umbilical region; its rounded margin could be distinctly felt on three sides, but above it appeared continuous with the liver at the level of the ninth rib. The tumour followed the descent of the liver and diaphragm on deep inspiration, and receded with them during expiration. The manipulation of the tumour was followed by the appearance of a little blood in the urine. The question of operation was entertained, but the patient was unwilling to submit to any operative interference. Meanwhile he caught cold, and died of bronchopneumonia.

Post-mortem examination showed the right kidney symmetrically enlarged, but presenting several small hemispherical bosses on its surface. It measured six inches by four inches and weighed twenty-five ounces. On section it was found to be infiltrated by a mass of encephaloid cancer. It contained no calculi or other concretions. Though a careful and prolonged search was made, no vestige of the left kidney and ureter could be discovered; nor could any trace of the left renal vessels be found, except a slight dimpling of the inner surface of the aorta at the spot where the renal artery would normally have been given off. On further dissection, it was found that the left vesicula seminalis was also absent, although the vas deferens pursued a perfectly normal course. Both testicles and both adrenal bodies were present and normal in appearance. No other abnormalities than those above described were discovered. There were no secondary deposits of the malignant growth. There were no adhesions between the liver and kidney, nor any apparent deficiency of perinephritic fat by which the mobility of the renal tumour might have been accounted for.

Remarks by Mr. MANBY.—The mobility of the tumour was a perplexing element in the diagnosis of the case Dr. W. Roberts states, with reference to renal cancer that the "fixity of the growth is usually a marked characteristic"; and had there been no hæmaturia, as happens (according to the above authority) in nearly half the cases of cancer of the kidney, the tumour would in all probability have been diagnosed as of hepatic origin. The absence of any other ascertainable cause of hæmaturia, and the appearance of blood in the urine immediately after manipulation of the abdominal growth, indicated, however, the nature of the case. The presence of one kidney only, illustrates one of the dangers of nephrectomy—viz., that of removing an only (or the only serviceable) kidney—an error which should be avoided by the use of Mr. Davy's rectal lever as a diagnostic instrument. By compression per rectum of the ureter of the kidney it is proposed to remove the flow of urine from the other ureter into a previously emptied bladder, as is readily demonstrable. This means of diagnosis has been successfully employed by Mr. Davy and others; and I have satisfied myself, by experiments on the cadaver, that the rectal lever will effectually control the passage of fluid along the ureter.

RUPTURE OF THE LUNG AND (?) RUPTURE OF THE LIVER; RECOVERY; REMARKS.

(Under the care of Mr. KOUGH.)

The notes of this case are also furnished by Mr. Batterham.

Eli T——, aged six years, was admitted on Dec. 21st, 1884, having been run over a few minutes previously by a light waggon, two wheels of which were said by a bystander to have passed over the patient's chest. He was sensible, but pale and collapsed. The pulse was small, quick, 168 per minute; respiration was abdominal, short, shallow, 76 per minute. Two hours after admission, when the effects of the shock were passing off, the following notes were taken. "Pulse 160; respiration 72. The short respiratory movements are restricted to the abdomen and left side of the chest. The little patient lies on his right side, with his thighs flexed on the abdomen, and complains of pain, which he locates when asked by placing his hand just above the umbilicus.

He has passed urine, which has been tested and found normal; and he feels sick. There are no broken ribs. The chest is distended; the right side is motionless, and the left nearly so. The whole chest is hyper-resonant, the liver dulness being completely lost. The breath sounds are exaggerated on the left side, and of a distant amphoric character on the right side. The tinkling bell sound which can sometimes be elicited on auscultating a case of pneumothorax is absent. There is a bruise over the right hypochondrium, and tenderness on pressure in the same region, but very little tenderness over the other parts of the abdomen. In the patient's present position (right lateral decubitus) abdominal percussion shows dulness on the right half of the belly, transgressing the median line. On turning the patient on to his left side the dulness changes its position to the left side, the dulness, however, remaining in the extreme right flank." As the administration of opiates seemed contraindicated by the embarrassed condition of the patient's breathing, no drugs were administered. He was kept lying on his right side, and carefully watched. By the 23rd his condition had improved. He had no longer the slight duskiness of the face. Pulse 136; respiration 44.

Dec. 25th.—The patient now lies on his back; both flanks are dull. The right side of the chest is less in circumference than the left, and moves less freely.

26th.—Liver dulness is not appreciable in the right nipple line. The patient feels better, has no pain, and wants to sit up in bed.

28th.—Respiration still less marked on the right side; no abdominal tenderness.

The patient was kept in bed until his discharge, at his parents' request, on Jan. 8th, 1885. He had manifested no jaundice, and his stools had been of normal colour.

Remarks by Mr. KOUGH.—This case is of some interest as illustrating not only the possibility of the occurrence of extreme pneumothorax from compression of the chest without fracture of the ribs, but the readiness with which this condition is remedied by nature without aid from the surgeon. Le Gros Clark in "The Diagnosis of Visceral Lesions," remarks that he has never found it necessary to perform paracentesis for this condition, and does not remember that it was ever so performed at St. Thomas's Hospital since his connexion with that institution. With reference to the injury to the liver, the absence of jaundice, of bilious stools, and of any marked signs of peritonitis (though this need not necessarily have been general or severe), tends to disprove the existence of any extensive laceration of the liver. On the other hand, physical signs showed the presence of a large quantity of fluid in the abdomen. This fluid could not, from the negative symptoms, have been derived from the intestines, bladder, or kidneys, and we are thus limited to the liver and spleen in our search for its presumed source. The reasons for assuming that the liver rather than the spleen was the source of the fluid in the peritoneal cavity are as follows:—1. The greater frequency of hepatic lesions due presumably to the greater fixity and bulk of the liver. 2. The presence of external marks of injury in the region of the liver. 3. The presence of tenderness over the liver, with a corresponding absence of extreme tenderness in the splenic region.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Violet Pigment discharged from the Mouth.—Atrophy of the Liver.—Rupture of Aorta.—Deposit of Bone in Testis.—Thrombosis of Vena Cava and Primary Sarcoma of Adrenal.—Congenital Sarcoma of Testis.—"Red-Water."

AN ordinary meeting of this Society was held on Tuesday last, Dr. J. Syer Bristowe, F.R.S., President, in the chair.

Dr. DICKINSON showed a handkerchief stained with Violet Pigment discharged from the Mouth. The case was that of a lady sixty years of age. Accidental introduction of pigment appeared to be out of the question. False teeth were worn on the side of the mouth from which the pigment was discharged. The tongue, on the right side, was coloured with the same vividly blue colour; there was no doubt that the pigment was derived from an aniline blue pencil, but there appeared to have been no deception practised by the patient. The discovery of the nature of the pigment was due to Dr. Paddison of the Surrey Lunatic Asylum; and Dr. Tindale, under whose care the patient was, subsequently detected a fragment of the blue pencil in the false teeth which the patient wore.—Mr. STEPHEN PAGET mentioned a somewhat similar case in which the half of the tongue was discoloured also from an aniline blue pencil.—Dr. RADCLIFFE CROCKER referred to a case in which a lady every time she washed her hands noticed that the soapy water became of a blue colour; this turned out to be due to the presence of some minute leaves of an orchid which were wafted unseen into the water.—Mr. PEPPER thought there was nothing extraordinary in the presence of aniline dyes in handkerchiefs.—Dr. BRISTOWE spoke of a case in which the linen of a lady became brown; this was not due to hair-dye but to a notorious hair-wash. Mention was made of a case in which a foreign body was passed from the bowel of a female; the body was of fusiform shape and transparent, and had a tail-like end. It proved to be the pulp of an orange.

Dr. CARRINGTON exhibited a specimen of Atrophy of the Liver, which might, however, have been one of acute cirrhosis. The patient, aged twenty-three, was a man, admitted on Nov. 13th, 1884, into Guy's Hospital, under the care of Dr. Goodhart. He had drunk, at least, eight pints of beer and some whisky every day for some weeks past. There was no history of gonorrhœa or syphilis. About two weeks before admission tremors appeared, great weakness set in, and the eyes became yellow. The body was well nourished; the mind was obscured; and the patient answered "No" to every question that was put to him. The respiratory and circulatory systems were normal; the liver dulness reached from the sixth rib in the mammary line to the lower border of the thorax; the urine was dark, acid, and contained no bile or albumen. After a time vomiting supervened, and the patient became more and more stupid, and finally delirious. Five days after admission epileptiform convulsions set in, and the seventh of these proved fatal. At the autopsy the body was well nourished; the conjunctivæ were slightly jaundiced; there was nothing abnormal found in the contents of the head; the lungs showed some hæmorrhagic patches, which ranged in size from a hazel-nut downwards; the heart was healthy, the left ventricle being firmly contracted; the peritoneum and large and small intestines were healthy, but the latter contained much albuminous coffee-ground material; the spleen was firm, and weighed 7½ oz.; the kidneys were enlarged and full of blood, and weighed 17½ oz. together; the shoulder-, elbow-, wrist-, hip-, knee-, and ankle-joints were healthy; the liver weighed only 33 oz., and consisted of yellow swollen bulging portions, which contrasted with depressed areas having a wrinkled appearance. The pale-yellow swollen mass on section showed the lobular arrangement of healthy hepatic structure, and two-thirds of the right lobe were composed of this; several small rounded nodules of the same kind were seen in the left lobe, but the rest of the hepatic tissue was bluish-brown in colour and homogeneous, having lost all lobular arrangement and appeared to be dotted over with white points of what seemed fibrous tissue. The dark, grumous, coffee-ground material was also present in the stomach. Microscopical examination showed the yellow part to consist of hepatic cells of normal appearance, though the protoplasm was granular or had oil globules in it. The darker part of the liver consisted of nuclei of uniform size and like leucocytes; this part also showed the highly vascular, loose-textured tissues of granulations or early fibrous tissues; there was some increase of the connective tissues around the portal canals; in many specimens an appearance as of a new formation of ducts was visible. With regard to the nature of the process, the parts of the liver where the red tissue abutted on the yellow gave the most information. Here between the rows of liver cells and between the hepatic cells themselves the cellular infiltration could be seen. There was no evidence of conversion of hepatic cells into connective-tissue corpuscles. The process appeared to be one of an acute inflammatory nature, and partook more of the characters of cirrhosis than of one of simple atrophy. He suggested that the specimen was one which should be submitted to the Morbid Growths Committee.—Mr. SHATTOCK said that the appearances resembled those of a specimen of actinomycosis, which he had recently examined, and asked whether Dr. Carrington had detected the micro-parasite of this disease in the specimen in question.—Dr. PARRY PRICE said that the specimen

resembled one which he had shown to the Society last year, in which there were bands of fibrous tissue enclosing islets of hepatic tissue; he had detected no parasite in the specimen shown by him.—Dr. BRISTOWE said that he had at first understood that the swollen yellow portion of the liver was the diseased part, but this appeared not to be the case.—Dr. CARRINGTON, in reply, did not suspect the presence of actinomycosis; he did not think that his specimens altogether resembled those of Dr. Price.

Dr. CHARLEWOOD TURNER showed a specimen of Rupture of the Thoracic Aorta. It was removed from the body of a man aged sixty-four, a labourer, who was seized with collapse of sudden onset and died from syncope the day afterwards. He had frequently suffered from faintness, dyspnœa, and palpitation. The loose stools contained some blood on the day of his admission to the hospital. At the autopsy the arch of the aorta exhibited an L-shaped rupture; the longitudinal rent was situated on the posterior aspect of the aorta. The recent transverse limb of the L-shaped rent passed round the whole circumference of the aorta. The rent led into the dissecting aneurysm, which had a wall of smooth lining membrane, and lay in the same plane as the recent separation of the coats of the aorta. The aneurysm had ruptured into the pericardial cavity, which contained a black blood-clot and some serous fluid. The aorta was atheromatous, but not in the first part; the left ventricle was hypertrophied, and its cavity nearly empty; the kidneys were granular; the cerebral arteries were atheromatous; the lungs were emphysematous. The day before the man's death it was probable that extravasation into the connective tissue of the mediastinum occurred, and the free extravasation into the pericardium probably accompanied the fatal seizure; these extravasations were due to the sudden giving way of the supporting blood-clot as the result of some sudden alteration in the arterial blood pressure. Dr. Peacock had put on record some cases of rupture of the aorta, some of which were of a T shape. In the present specimen the inner and a few layers of the middle coat were torn through in the lower part of the longitudinal rent, and the middle coat was completely rent in the upper part. A second specimen was shown of perforation of the aorta into the pericardium. The case was that of a woman thirty years of age. The arch of the aorta was extensively diseased, of dull appearance, and in many places eroded with intervening raised areas—probably in different stages of endarteritis.—Dr. NORMAN MOORE remarked on the presence of the cardiac hypertrophy associated with the condition of the kidneys, and said that in nearly every case of aneurysm of the aorta thus associated he had found that the patient was the subject of gout. In a case of hæmorrhage into the pericardium from rupture of an aortic aneurysm, where the kidneys were diseased, he had found gouty changes in almost all the joints of the body.—Dr. TURNER said that he had not examined the joints in his case.—Dr. NORMAN MOORE, in reply to a question from the President, said there were many cases of granular kidney in which no gouty changes existed in the joints.

Dr. PARRY PRICE showed specimens of Bony Deposit in the Testes and Epididymis, which were removed from the body of a man aged from fifty to sixty, who was admitted into the hospital in a comatose condition. There was cirrhosis of the liver and enlarged, slightly granular kidneys, cystitis, and two strictures of the urethra; the hard deposit in the testes and epididymis of both sides consisted of typical bone; no healthy glandular tissue could be seen in the testes or epididymis; the vas deferens was healthy. The symmetrical nature of the deposit was remarked on. The changes were probably the result of an old orchitis, following an urethritis, of which the strictures were evidence. He could find no account of any similar case. No cartilage was present in the specimen.—Mr. ALBAN DORAN asked whether there was any suspicion of the disease being of the character of a dermoid tumour. Dermoid tumours of the testes were very different from those which were found more frequently in the ovary. He did not think the specimens were related to the "dermoid class," and Dr. Parry Price agreed with him.

Dr. COLCOTT FOX showed a specimen of Primary Sarcoma of the left Suprarenal Capsule, with Thrombosis of the inferior vena cava and right auricle, taken from a child aged two years and a half. There was only a history of phthisis on the mother's side, and a possible history of syphilis in the family. The patient was the fourth child, and had always been very fat; there was a cutaneous eruption at the end of the first year, but no snuffles. When first seen, at the age of two years, she was very rickety and of bloated appearance, with a dusky hue about the cheeks, and remarkably hairy, especially about the genitals. For four months there had been enlargement of the abdomen, with a ravenous appetite and great thirst. There was a great deal of sighing. There was no œdema of the lower limbs, nor any specially enlarged subcutaneous veins. A tumour was felt in the left side of the abdomen, occupying the loin, and evidently not the spleen. The bowels were constipated; the urine was normal. Some days after first being seen she had an attack of vomiting, in which lividity and rapid breathing were observed. A similar seizure occurred later on, and the temperature was found to be 102·6°; there was a rapid feeble pulse, but no cardiac bruit could be detected; after stercoraceous vomiting the patient died. At the post-mortem examination the face and neck were swollen, the lips blue, the vulva and clitoris were much hypertrophied, the liver weighed 38 oz.; there was no clot in the portal vein; some dark grumous fluid escaped on removal of the tumour; the left kidney was healthy, but somewhat distorted in shape. The mesenteric glands were the seat of secondary deposits. There was a completely decolourised clot, filling the inferior vena cava and adherent to its walls, and reached along its whole length; it extended to and almost completely filled the right auricle, and projected through the auriculo-ventricular orifice. The uterus and ovaries were large. The tumour was about the size of a cocoanut, and had flattened the kidney; there were areas of hæmorrhage in it; it was microscopically proved to be a large-celled sarcoma. The sections were made by Mr. John Shaw. Thrombosis of the vena cava had been reported by Dr. Moxon in a case of pyæmia with abscesses in the pelvis. In the eighteenth volume of the Transactions Dr. Greenhow had placed on record the case of a girl, aged twelve years, in whom a suprarenal tumour existed. Merkel had described similar tumours. Dr. S. West and Dr. Dickinson had recorded other cases. In Dr. Dickinson's case the gipsy colour without bronzing, the enormous appetite and the vomiting, and other features closely resembled the case now recorded.—Dr. BRISTOWE said that he had seen a case of primary "cancer" of both suprarenals in a Chinese youth, and thought it was possible in the light of recent investigation that this might have been one of sarcoma.—Mr. SUTTON spoke of a specimen of a tumour replacing the right suprarenal capsule in a marmot; the liver and spleen were the seat of secondary growths. This tumour had the structure of the zona fasciculata of the suprarenal body. He had met with similar tumours in a man. He referred to a paper published by Grawitz in Virchow's *Archiv* on the subject of Supernumerary Suprarenal Capsules; tumours having the structure of the cortex of the adrenal were found beneath the capsule of the kidney, and also about the ovaries in the broad ligament. He considered that in the face of such facts we might have to establish a new variety of tumours to include those he had referred to.—Dr. DICKINSON spoke of two cases which had been under his observation. In the first case the voice was very gruff and of a bass tone; the words uttered by the precocious infant were very few, but consisted of expletives used by the lowest classes of society; the other characters had been referred to by Dr. C. Fox. The second case had been in the Hospital for Sick Children, Great Ormond-street, and was that of a female child, aged three years, who had also great development of the external genitals, which were studded with large hairs; there was an abdominal tumour having all the characters of a renal tumour, but the memory of the first case he had seen led him to diagnose tumour of the suprarenal body; the autopsy confirmed the diagnosis. In both the cases the relation of the colon to the tumour was rather different from that which usually obtained in renal tumours, for the tumour appeared to be rather above the level of the ascending colon. He thought that this clinical point might establish a distinction of diagnostic value between renal and suprarenal tumours.

Dr. NORMAN MOORE showed a specimen of Tuberculosis of the Kidneys of the Ox with Bacilli. The kidneys were much enlarged, and one completely changed into a great white mass, with hardly any remains of kidney structure except the external lobulation. One lobe of the other kidney had undergone a similar complete change, and elsewhere it showed numerous white nodules. These, as well as the completely changed kidney, showed abundant groups of bacilli, and the bacilli themselves agreed in form, method of staining, and size with the bacilli of tubercle in man. The

tuberculous part of the kidneys was nowhere broken down, but showed many zones of more or less complete calcification. The morbid change corresponded to the description of "Perlsucht," and the abundance of bacilli present confirmed the opinion that that disease was a true variety of tuberculosis, and not a lympho-sarcomatosis, as it was once believed to be.

Dr. SILCOCK showed a specimen of Congenital Sarcoma of Testes removed from a child aged eight months, who was under the care of Mr. Owen in St. Mary's Hospital. The left testicle was enlarged at the time of birth, and had gradually enlarged; it had an ovoid outline, and was not translucent; the spermatic cord was thickened; the tumour was encapsuled in the body of the testis, and sharply limited by the tunica albuginea; the tunica vaginalis and vas deferens were healthy. The tumour was a sarcoma of varying-sized cells, chiefly of spindle and oval shape. Mucoid degeneration was present in places. He said that such congenital growths were of infrequent occurrence, and no record had been found of a similar specimen. In medical literature cases of congenital "cancer" were referred to. These might possibly be sarcomata.

Mr. PARKER also showed a specimen of Congenital Sarcoma of Testes removed from a child three months old. The tumour had been noticed immediately after birth. On section it had a glistening appearance like wax. The soft matrix was composed of a large number of dilated tubules; there was much myxomatous tissue present, and also islets of cartilage. The congenital sarcomata were very rare. He had collected eighteen cases of tumour of the testicle occurring in children under ten years of age. He said that Mr. Athol Johnstone had recorded a specimen of tumour of the testicle in a child which contained a mass of bone. There had been no recurrence so far as he knew in the case from which he had taken the specimen shown. The tumours of the testicle in the child were very liable to recurrence, and the pleura was apparently a favourite seat for recurrence. He watched one case of recurrence in the pleura, and signs like those of pleuritic effusion were observed. The abdominal glands were frequently the seat of secondary deposits. In the eleventh volume of the Transactions Mr. T. Holmes had recorded a case in which recurrence took place in the lumbar glands, and a mass weighing 7 lb. was the result.

Dr. DICKINSON gave an account of an Epidemic of Renal Disease in Oxen, which had happened on the farm of a gentleman, an experimental farmer. The epidemic of "red-water" broke out in a herd of shorthorn oxen, and affected at least half the number with almost uniformly fatal result. The urine was loaded with blood, and there were casts of enormous size; turpentine was used as a remedial agent. He had examined the kidney of an ox which had survived the attack of renal disease six months. The kidney was in a typical state of interstitial nephritis. One kidney was more affected than the other; they were granular on the surface. The cause of the epidemic is unexplained. Some said it was the use of poor after rich pastures; others said it was digitalis; possibly the ingestion of "bracken" might account for the disease.

The following card specimens were shown:—Dr. Turner: (1) Ulceration of Aorta and Valves; (2) Aneurysm of Splenic Artery. Dr. Norman Moore: Cavity in Lung of an Infant. Dr. Chaffey: (1) Early Sarcoma of Testis; (2) Congenital Malformation of Pulmonary Veins; (3) Congenital Malformation of Heart. Dr. Ernest Clarke: Congenital Malformation of Heart. Dr. Hebb: (1) Two Cases of Aortitis; (2) Misplaced Kidney; (3) Tricuspid and Mitral Stenosis; (4) Cancer of the Uterus with Myomata; (5) Urethral Calculus.

HARVEIAN SOCIETY OF LONDON.

A MEETING of the above Society was held on Thursday, March 5th, Dr. T. Morton, President, in the chair.

Mr. T. W. CARMALT JONES exhibited a Single Apparatus for the Transfusion of Defibrinated Blood. The instrument consisted (1) of a receiver for the blood, in which defibrination was effected by whipping; (2) of a cannula, with movable connecting piece, for insertion into the vein of the patient; (3) of a funnel-shaped vessel, curved inferiorly like the letter L, and fitted with a perforated cap, through which pressure could be set up at the surface of the defibrinated blood by means of an indiarubber tube and hand-ball. A short piece of tubing, furnished with a spring-clip, established the connexion between the funnel-shaped reservoir and the cannula when the latter had been introduced into the vein. The various parts of the apparatus could be thoroughly cleaned, with the exception of the connecting tube, which required to be renewed after each operation.—Mr. JENNINGS said that he had listened with great interest to Mr. Carmalt Jones's able demonstration of his transfusion apparatus. For the treatment of acute anæmia (hæmorrhage being first arrested), the intravenous injection of saline fluid was sufficient to meet the exigency in the great majority of cases. Saline fluid could be safely substituted for blood up to a quantity which bore a definite ratio to the body weight (as ascertained experimentally in dogs); and it was only where this quantity had been exceeded by the hæmorrhage that transfusion of blood became indispensable. The nutritive value of blood was not to be underrated; and where transfusion was indicated for the sake of nutrition, the employment of whole blood would be better than that of defibrinated blood. This could be easily effected by means of a well-managed apparatus for the transfusion of blood and saline fluid, which Mr. Jennings exhibited to the Society (*vide* THE LANCET, Sept. 1st, 1883).

Dr. C. J. HARE read a paper entitled "Emetics: their Present Neglect in the Treatment of Disease. Is it reasonable? Is it right?" The subject of this communication was one of the numerous points referred to in a previous address on "Good Remedies out of Fashion." Although not a panacea, in certain cases emetics cured in a marvellously short time, and in others they alone appeared capable of saving life. The author passed in review the various members of this group of drugs and their doses. Speaking generally, ipecacuanha was the most useful, in doses of twenty to twenty-five grains of the powder mixed with water, or of six to eight drachms of the wine. Now and then purgation resulted instead of emesis, but persistent diarrhœa was never set up. The chief value of emetics consisted in their mechanical action upon the viscera: the stomach was not only emptied, but its innumerable follicles were cleared by pressure; the lungs were compressed and mucus forced out of the air-tubes; and the œsophagus, larynx, and fauces were swept clean. Allusion was made to cases of recurrent vomiting, commonly termed "bilious sick headaches," although more justly to be called "stomachaches in the head." The persistent vomitings were endeavours of nature to expel the slimy mucus of the gastric follicles and the morbid ferments which it contained. The desired result was often at once effected by an emetic. Many anomalous ailments, accompanied by loss of appetite, nausea, the non-enjoyment of life, ill-temper, &c., were due to a similar cause, and similarly relieved. The removal of the ropy mucus was promoted by washing out the stomach by means of warm water, which excited additional vomiting. Emetics were sometimes of signal service in severe bronchitis and in capillary bronchitis; the fear of "exhaustion" being produced by emetics was almost confined to those who never administered one. Attacks of catarrhal croup might be cut short, in children, by half a teaspoonful of antimonial wine; and in membranous croup, expulsion of the tough exudation was sometimes effected. Emetics were useful in the early stages of continued fever, of scarlatina, and of measles, and in some cases of whooping-cough. They were decidedly beneficial in the treatment of delirium tremens, and also in acute mania. By the same means the paroxysms of ague could be greatly modified, and either arrested or rendered more amenable to quinine. Drugs and diseases bear much the same mutual relation as in former ages; and as emetics were then found useful, so they would be now if fashion did not prevent their employment.—In the brief discussion which followed, Dr. DAY referred to the value of emetics in whooping-cough; and Dr. CLEVELAND insisted upon the necessity for caution, which he had learnt by experience, and pointed out that the more habitual use of purgatives in recent practice had greatly lessened the need for emetics.

MIDLAND MEDICAL SOCIETY.

AN ordinary meeting of the above Society was held on March 18th, Mr. T. H. Bartleet, F.R.C.S., in the chair.

Mr. TAYLOR showed a Fibroma of the Abdominal Parietes removed by Mr. Tait. This was considered to be a specimen of a special class of tumour, occurring in close relation to

Poupart's ligament, and into which the muscles of the abdominal wall are extensively inserted.

Mr. TAYLOR also exhibited a cast of a foot illustrating recovery after Disease of the Tarsus, in which the mid-tarsal joint had been largely involved. The internal cuneiform bone had been removed during the process of treatment, and the resulting cavity was thoroughly drained by a tube passed through the foot. After this was done the improvement was marked and rapid. The foot had been free from any discharge for nine months, and the patient was beginning to use it again.

Dr. SUCKLING showed a case in which Subcutaneous Nodules around the knee, elbow, and finger-joints were present. The patient, a girl aged nine, had had rheumatic fever six months previously; there was a well-marked double mitral bruit, the nodules seemed to be attached to the periosteum and tendons about the joints, and were painful at times.

Dr. SUCKLING also showed a case of Spinal Meningitis which had left loss of the patellar reflexes. The patient, a man aged forty, after being much exposed to cold and wet weather three months previously, had been seized with pains in the back, aggravated by movement, and hyperæsthesia of the feet which prevented him from walking. There was also loss of control over the bladder, and tenderness on percussion over the lumbar spinous processes. After free counter-irritation in the lumbar region of the spine, all the symptoms disappeared except the loss of the knee-jerks. The case was distinguished from one of locomotor ataxia by the absence of (1) characteristic lightning pains, and (2) of the eye symptoms, also by the rapid onset after exposure.

Dr. BODINGTON read a paper based on a visit to Mons. Voisin's wards at the Salpêtrière, Paris.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

A MEETING of this Society took place on Feb. 12th.

Perihepatitis causing Strictures of Bile and Pancreatic Ducts, and Cystic Enlargement of Pancreas.—Dr. BANHAM exhibited a specimen showing strictures of the cystic and common bile-ducts. The pancreatic duct opened into the diseased portion of the common bile-duct, so that both pancreatic and biliary secretions had been shut off from the duodenum, with the effect of causing considerable cystic enlargement of the pancreas and dilatation of the hepatic ducts. The liver was enlarged and indurated, and there were marked evidences of old attacks of perihepatitis. Notes of the case were given. The chief symptoms had been jaundice and distressing itching of the skin, and rapid emaciation. The morbid conditions were supposed to be due to syphilis.

Charcot's Disease.—Mr. CATKIN showed a case of Charcot's Joint Disease occurring in the practice of Mr. A. Jackson at the Sheffield Infirmary. The patient, a joiner, aged thirty-seven, with a previously healthy history, applied at the infirmary some months ago with a painless swelling of the knee-joint. It was thought to be an uncommon state of things at the time, as moist sounds, &c., were to be heard at the apices of the lungs. It was at first diagnosed as hydrarthosis in a tubercular subject. Afterwards, the state of his pupils attracted attention in the out-patient room, and all the commoner symptoms of locomotor ataxia were discovered. The relaxation of the ligaments of the knees was less marked in the right knee.—Mr. ATKIN considered that this case, as well as the one brought forward by him two years ago, effectually negatived the friction traumatic theory. The joint lesion in the first case came on whilst lying in bed with a "nerve cyclone," and in this one the arthropathy preceded the ataxia.

Thoracic Aneurysm.—Dr. PORTER exhibited a case of Thoracic Aneurysm. The patient was an engineman by occupation, forty-eight years of age; there was no history of syphilis or rheumatism. An interesting circumstance in the case was that fifteen years ago the patient received a severe injury to his head by the fall of a trap-door, and a scarf-pin he wore at the time was driven into his chest for an inch and a half. For the last two or three years he had complained of pain behind the sternum, and attacks of dyspepsia and palpitation, and for two or three months of neuralgic pain down the left arm. The aneurysmal tumour was visible to the left of the sternum in the third or fourth intercostal space, and a loud, rough, double murmur audible over it. There was considerable cardiac hypertrophy and high arterial tension, but there was no inequality in the pulse of the opposite sides, or of the upper and lower limbs. There were no marked signs of nervous engorgement or other pressure symptoms. The patient had a troublesome cough, and the respiratory murmur was deficient on the left sipe, with some dulness and moist râles at the left base.

Treatment of Phthisis.—Dr. HUNT read a paper on this subject. He agreed that the disease was a modern one; and pointed out that the countries most free from it were the northern and colder regions, and he strongly recommended the selection of such countries for the cure of phthisical patients. Dr. Hunt expressed himself very sceptical on all therapeutics as remedial agents, and strongly repudiated the course of certain authorities in recommending them as cures. He had extensively employed antiseptic inhalations, but without any marked success, and was disposed to rely very little upon their potency. Iodoform was another remedy that had been tried, but the results were not such as to warrant him to recommend it in the disease. Dr. Hunt closed his paper by expressing the opinion that in the future the treatment of phthisis would come more under the domain of surgery than it had ever done in the past.

At the meeting on Feb. 26th the following specimens were shown:—

Enlarged Heads.—Mr. B. WALKER introduced two very interesting cases of enlarged heads. The first was that of a man aged twenty-eight, a hawker, with abnormal development of the left side of the frontal bone. The right side of the head measured 10¾ in., and the left 12¼ in., the enlargement being apparently confined to the frontal bone, and causing a decided projection in that region. The condition was congenital, and he had been compelled always to have hats specially fitted. His memory was stated to be remarkably good, especially as regarded objects, persons and places, figures and forms, which he never forgot. The second case was that of a girl aged twelve, and was probably hydrocephalic. As an infant she suffered a good deal in her head, and was considered to have "water upon the brain." The head measured nearly 24¼ in. in circumference. Her intelligence was not impaired; she was very useful at home, but was not so far advanced in learning as others of her age.

Aneurysm of the Aorta.—Mr. LOCKWOOD showed a specimen of Aneurysm of the Transverse Portion of the Aorta which had burst into the left lung. The specimen was from a man aged about fifty, who was admitted into the public hospital in an unconscious condition, with blood flowing from the mouth. He only lived four minutes after admission.

Genu Valgum; Wedge of Bone removed.—Mr. PYE-SMITH showed a Wedge of Bone which he had removed from the Femur of a man with severe Genu Valgum. The specimen was from the right limb, a similar one from the left having been shown at a previous meeting. The limb first operated on was well, the other was healing.

Fracture of Cervical Vertebra. — Mr. PYE-SMITH also showed part of the Spinal Column of a man aged about forty, exhibiting a Fracture of the Sixth Cervical Vertebra. The injury had been received in a fall from a dray whilst the man was intoxicated. There was paraplegia and loss of sensation below the umbilicus, except in the distribution of the ilio-inguinal and ilio-hypogastric nerves. There was good thoracic respiration and no rise of temperature. A bedsore began to form within twenty hours of the injury, and the patient died on the fifth day. At the autopsy the cord was softened and congested opposite the fracture, and there was also a softened and ecchymosed portion, with considerable effusion of blood around it, in the lower dorsal region. This latter lesion seemed to have produced the paraplegia, and the later inflammation higher up the fatal termination.

Aural Polypus.—Mr. SIMEON SNELL exhibited a large Aural Polypus. It was of the fibrous variety, and grew from the wall of the meatus. It was only of interest on account of its unusual size.

Mr. ARTHUR JACKSON read a paper entitled "Changed Aspects of Unchanged Truths: The Use and Abuse of Rest." He endeavoured to show that the great truths of physiological and mechanical rest, as laid down by John Hilton in his never-to-be-forgotten and unrivalled lecture on Rest and Pain, were being lost sight of in the theories of the present day. He urged their application in the treatment of fractures, excisions, osteotomies, and in that of wounds; and the more or less complete reform of our present mode of treatment.

WOLVERHAMPTON DISTRICT MEDICAL SOCIETY.

A MEETING of the above Society was held in the Bell Library, Wolverhampton, on April 2nd, Mr. C. G. Newnham in the chair.

Mr. VINCENT JACKSON showed a boy, aged fourteen, both of whose elbows he had excised and who had strong and useful arms; also a boy whose os calcis he had excised.

Dr. BATTERHAM showed a man whom Mr. Manby had successfully trephined for a Compound Depressed Fracture of the Skull with Perforation of the Dura Mater.

Dr. DINGLEY showed a case of Pseudo-hypertrophic Muscular Paralysis in a boy aged fifteen; also the organs of a case of purpura hæmorrhagica.

Mr. MANBY then read his paper on "Climacteric Disorder," and commenced by defining it as "a disordered state of function which tends to develop, retrograde metamorphosis coming on about the climacteric period, from forty-three to fifty, and quite distinct from the menopause in women." After graphically describing the various symptoms of this disordered condition, Mr. Manby recommended change of air and generous diet as the best treatment. At the close Dr. Totherick, Dr. Lycett, Mr. C. R. Smith, and Mr. Jackson took part in the discussiou.

Reviews and Notices of Books.

The Inhalation Treatment of Diseases of the Organs of Respiration, including Consumption. By ARTHUR HILL HASSALL, M.D. Lond. London: Longmans, Green, and Co. 1885.

THE best-known works on the treatment of disease by inhalation are those of Cohen and Oertel. The latter is practically inaccessible to the English practitioner, and the many improvements in the methods of inhalation, with the increase in knowledge of the value of this plan of treatment, which have been made since the appearance of the last edition of Cohen's valuable treatise have put it somewhat out of date. We are therefore pleased to see a recent work in which a mode of treatment now so fashionable is treated seriously, and to find that Dr. Hassall has discussed the subject so thoroughly and exhaustively. The practitioner who wishes to know the principles on which the inhalation treatment depends, the apparatus employed, and the probable value of any medicament which suggests itself as suitable for the treatment of any disease of the respiratory organs on this plan, may rely on finding the necessary information in this work. In Dr. Hassall's first and second chapters, the reader will quickly learn that inhalation as carried on in the usual routine manner is most inefficient, and that to employ it successfully the chemistry and physics underlying it must be carefully studied. He gives many experiments which show that four-fifths of the more important antiseptics, such as carbolic acid, creasote, and thymol, are recoverable after the completion of the inhalation when the ordinary oro-nasal inhalers are employed. Steam, especially when given off in a concentrated form, carries over a considerable amount of the substances enumerated, but a great loss occurs from rapid diffusion and the difficulty of confining and condensing all the vapour, whilst even with steam- and air-sprays it is doubtful if even a very small amount of the substance employed really reaches the air cells of the lungs. For a more satisfactory method of inhaling antiseptics extent of surface and a regulated temperature of from 60° to 70° F. are necessary, and the means for securing these essentials, either in a patient's own room or in a specially constructed chamber, are plainly and clearly described. The experiments in support of this method were given in THE LANCET of October 6th, 1883, and are restated by the author in his book. In reference to the treatment of consumption by antiseptic inhalations, we should have liked to have seen details of some careful experiments on the influence of various substances on the growth of the bacilli of tubercle in cultivating media, and in media as viscid as ordinary phthisical sputa. We have some information as to how small a quantity of any given drug can possibly reach the air cells; but without the further knowledge above indicated the whole process is an unscientific and empirical one, even if we allow the bacillus to be the primary factor in the causation of this disease. We have not yet the data which would justify us in describing antiseptic inhalation as a method of cure of consumption resting on a scientific basis, however valuable it may be in relieving symptoms and as an adjunct to other means of treatment in this and other diseases of the respiratory organs.

A Handbook of the Theory and Practice of Medicine. By F. T. ROBERTS, M.D. Sixth Edition. London: H. K. Lewis. 1885.

THERE is but little that calls for notice in this new edition of "Roberts' Medicine." The sixth edition appears in one volume form of suitable dimensions, and the appearance of the book as well as the clear letterpress call for expressions of satisfaction. The work gives a good representation of the present state of the theory and practice of medicine, and such a statement as this must be considered as unqualified praise when we reflect that within the compass of 1000 pages a *résumé* of the whole of medicine is comprised. In looking over the chapter on Aphasia we noticed the following sentence, the wording of which is not altogether plain. "1. There may be complete mental incapacity and loss of intellectual power, so that no ideas are originated in the mind which the individual wishes to convey, as in the case of idiots." In the preface the author thanks Dr. Beevor for assistance in revising the portion of the work that relates to diseases of the nervous system. Some students, no doubt, learn more from the somewhat rigid method of exposition which is the characteristic of the present work; and we are of opinion that where simple matters of fact have to be learnt by the student the method is perhaps better than any other that could be adopted. Where, however, a description of a pathological process has to be undertaken, we think that a system which elaborates less and which attempts a more discursive style will be found to be better suited to the exposition of the subject. The actual matter contained in the section on Diseases of the Nervous System is certainly not less than in works which are usually regarded amongst its rivals, and yet we opine that the grasp which the student acquires of this difficult subject will not be so strong as it would be were the information conveyed more in the form of continuous narrative. We confess that these are matters pretty much of individual opinion, and it is probable that the advanced student who had been well grounded in the physiology of the nervous system would perhaps acquire the facts relating to its diseases rapidly and thoroughly from Roberts' work.

The Therapeutics of the Respiratory Passages. By PROSSER JAMES, M.D. New York: Wm. Wood and Co. 1884.

IN the preface we are informed that this book is not intended as a manual for students, but mainly for those who have left the schools and entered upon the responsibilities of practice. The second chapter is the real starting-point of the work, and treats of nutrition in relation to therapeutics. This chapter gives in an almost popular form an account of the physiology of life so far as we at present know it. The theory of the conservation of energy in the vegetable and animal worlds may be perceived to underlie all the statements made in regard to nutrition. The physiological knowledge given in the chapters treating of food stuffs and digestion is pleasantly communicated.

Analeptics are agents for the promotion of healthy nutrition, and cod-liver oil receives consideration first at Dr. James's hand. Iron and phosphorus have each a chapter to themselves. Extract of malt, pepsin and pancreatin,

peptonised foods, bile, feeding by the nose or rectum, and forced feeding are all considered under the head of Aids to Digestion. A page is devoted to stimulants to digestion, which include condiments, bitters, tonics, acids, alkalies, and stomachic sedatives. The arrangement of the matter in this section appears to us to be open to criticism. Unless the context be closely kept in view the author might be understood to imply that forced feeding, and feeding by the nose or rectum, were aids to digestion. Again, it is perhaps not strictly correct to regard alkalies and bismuth as stimulants to digestion. These, no doubt, are trivial objections; but we think it would add to the orderly arrangement of the work if slight alterations in this regard were made in future editions. Amongst the best chapters in the book are those on Pneumatics and Topical Pneumatics. The term "pneumatic" in therapeutics is not in very common use; it was employed by Pereira to signify therapeutical agents which influence the functions of respiration and the formation of heat. Speaking of the work as a whole, it must be pronounced as sound and good, though in our opinion somewhat too diffuse. This is, however, partly compensated by the increased readability which it entails. Had the work been more compressed the student of it would have saved time, though possibly have lost pleasure. But the book is written for those—and we suppose there are such—to whom a little leisure is not yet unknown.

INDIAN HEALTH STATISTICS.

No. I.

THE twentieth annual report of the Sanitary Commissioner with the Government of India shows a satisfactory state of the public health during the year 1883. The average strength of the European troops for that period was 55,525, the admissions into hospital from them were in the proportion of 1336, the deaths of 10·88, the invaliding of 32·66, and the mean daily sick of 62·85 per 1000, being all lower than in the preceding year; the death-rate, indeed, is the lowest recorded in the last fourteen years. The sickness and mortality were distributed in the three Presidencies as follows:—

	Ratio per 1000 of Strength.			
Average strength.	Admitted into hospital.	Died in India.	Invalided to England.	Mean daily sick.
Bengal, 34,079	1463	11·21	30·89	65·9
Madras, 10,498	1013	10·19	32·70	58·6
Bombay, 10,948	1249	10·50	38·08	57·5

The admissions in all the three Presidencies were considerably lower than in 1882, and the deaths also show a reduction, except in Bombay, where there was a fractional increase. The invaliding from Madras and Bombay and the mean sick in Madras were higher than in the preceding year. Bengal still furnishes the highest and Madras the lowest ratios of admissions and deaths, but the reduction in the death-rate has been much greater in Bengal than in the other two Presidencies. Paroxysmal fevers cause about one-third of the admissions into hospital in Bengal and Bombay, but Madras enjoys a comparative exemption from them. In the two former the cases were in the ratio of 434 and 412 per 1000, while in Madras they amounted to 112 only. They are not the cause of much mortality. The disease which gives the highest death-rate in all the Presidencies is enteric fever. The mortality by it in 1883 was 2·52 in Bengal, 2·86 in Madras, and 1·55 in Bombay. For the whole force the admissions were 7·7 and the deaths 2·40 per 1000; consequently 31 per cent. of the cases terminated fatally. Omitting stations where only one case occurred, the proportion of deaths to cases ranged between 8 per cent. at Kurrachee and 66 per cent. at Gwalior Fortress. The influence of age upon the death-rate by enteric fever was shown by the mortality among men under twenty-five being 4·34, from twenty-five to twenty-nine being 1·50, and at thirty and upwards 0·70 per 1000. In like manner, as regards length of residence in India, the death-rate in the first and second years of service was 4·98, third to sixth years 1·55, and seventh to tenth years 0·55 per 1000 living in each period. Of 44 cases at Lucknow, 35 occurred in the Derbyshire regiment, "which arrived in India from Egypt on 24th November, 1882, and which was principally composed of very young soldiers." The months in which enteric fever prevailed most were April to September, the admissions into hospital having been 340, as against 89 in the six months October to March inclusive. "With regard to the etiology of the disease, no positive results of any value were arrived at." At Bangalore there was strong evidence of its connexion with the unsatisfactory nature of the water-supply, but in many of the other stations it could not be traced to any common cause. The European troops were remarkably free from cholera, the admissions having been only 1·4 per 1000 in Bengal, 1·8 in Madras, and 1·4 in Bombay, with the corresponding death-rates of 0·94, 0·95, and 0·82 per 1000. In Bengal the stations affected were Allahabad, Benares, Gwalior Fortress, and Chunar; in Madras, Secunderabad and Kamptee; and in Bombay, Ahmednugger and Deolali. Next in frequency to enteric fever as the cause of death in 1883, apoplexy and sunstroke rank in Bengal and Bombay and hepatitis in Madras; the ratio of the former was 1·32 and 1·10, and of the latter 1·72 per 1000 of the strength.

Venereal diseases have been a cause of much inefficiency in all three Presidencies, the admissions into hospital having been in Bengal 281, in Madras 289, and in Bombay 218 per 1000 of the strength. The cases of primary syphilis returned in each Presidency were 88, 111, and 63 per 1000, and of secondary 25, 22, and 21 per 1000.

The mortality among the women was in the ratio of 21·28, being higher than in the preceding year, but under the average. The most frequent causes of death among them were childbirth and abortion and phthisis. Among the children the death-rate was 46·88, being considerably lower than in the preceding ten years. Diarrhœa, dentition, convulsions, and anæmia were the most fatal diseases.

The average strength of the Native Army of India during the year was 114,830. The admissions into hospital amounted to 923, the deaths from all causes to 14·31, the discharges by invaliding to 28·12, and the constantly sick to 31·3 per 1000 of strength. These ratios are all much below the average; the admissions and mean sick are considerably under, but the deaths 3·43 above, those of the European troops during the same period. The sickness and mortality in the three Presidencies respectively were as follows:—

	Ratio per 1000 of Strength.		
	Admitted.	Died.	Constantly sick.
Bengal	985	13·98	32·0
Madras	737	12·51	27·5
Bombay	994	14·96	34·7

This table shows the Bombay Presidency to have been the most unfavourable to the health of the native troops. Paroxysmal fevers were the most prevalent diseases in all the Presidencies; but, as was the case with the European troops, gave rise to a considerably lower proportion of admissions in Madras than in the other two Presidencies. The cases of intermittent fever were 398 in Bengal, 389 in Bombay, and 271 in Madras per 1000 of strength. The Native troops continue to show a marked exemption from enteric fever, only eighteen cases and five deaths having been returned from the whole army. Cholera did not prevail to any extent in Bengal or Bombay, but in Madras the admissions amounted to 6·2 and the deaths to 2·92 per 1000 of strength. Its prevalence was confined to Secunderabad, Kamptee and Raipur, Vellore and Trichinopoly, and among troops on the march, and two fatal cases occurred at Toungoo in Burmah. Twenty-five cases and fifteen deaths occurred in the Hyderabad contingent, and of these ten, with three deaths, were in the 2nd infantry at Ellichpur. The most fatal diseases among the Native troops were those of the respiratory system, the deaths by which amounted to 3·20 in Bengal, 4·62 in Bombay, and 1·66 in Madras per 1000 of strength. The prevalence of venereal diseases in the Native army offers a very marked contrast to that in the European force, the admissions having been only 31·6 per 1000, as against 270·3. The usual summary of the sanitary sheets of the Native Corps is given. They indicate a considerable amount of overcrowding and of insufficient ventilation, and there seems at many of the stations abundant room for improvement of the drainage and of the general sanitary arrangements.

THE LANCET.

LONDON: SATURDAY, APRIL 11, 1885.

THOUGH we do not always agree with Sir WILLIAM JENNER, there is no doubt that the College of Physicians is to be congratulated on having again re-elected him to the Presidency. There are doubtless other Fellows of the College entitled to fill the chair, and qualified to do so with advantage to the College, but it is no disparagement to them to say that they can wait, and that such a Corporation as the College does well, when it finds a representative physician, to make much of him, and to refuse to let him go. The address which Sir WILLIAM delivered touched upon subjects of much interest to the profession, and we propose to dwell on one or two of the principal of these topics. Referring to the high fees charged for the double diploma of the conjoint examination, Sir WILLIAM defended them as unavoidable till the scheme was well established. We cannot see this, and we venture to think that the good establishment of the scheme would be promoted by making the fees more equal to those for similar examinations elsewhere, and more proportionate to the nature of the merely qualifying diploma for which they are paid. On the next topic we are sorry to be obliged to agree with Sir WILLIAM JENNER—in attributing the withdrawal of the Medical Bill of last year to the determined opposition of the Scotch universities. Sir WILLIAM JENNER'S position as the President of the College of Physicians and an ex-Royal Commissioner gives great weight to this statement of the responsibility of the Scotch Universities, as to which indeed there can be no doubt, after the amendment of Sir LYON PLAYFAIR and the obvious effect of his fallacies and platitudes on the resolution of those responsible for the Bill. The action of the Scotch Universities was most unfortunate for themselves. It was inconsistent, as they had in the previous year given the Bill a public-spirited support, as calculated to raise the character and dignity of our medical examining system. Secondly, it gave occasion to the enemy to decry and to disparage the system of graduation in the Scotch universities, and to represent it as no better than that of the English corporations. Thirdly, it gave great impetus to the determination of English teachers to have an easy method of graduation for the benefit of London students and London schools. This determination found expression in Sir WILLIAM JENNER'S address. Our readers know how heartily we desiderate legislation that will put the medical schools of London into such relations with a living teaching university as to facilitate medical graduation for London students. But we fear that Sir WILLIAM JENNER'S views on this subject are open to grave objection. The President of the College sees, of course, what is only too patent, that the London students are lured to Edinburgh and other of the Scotch universities by their degree-granting powers. The regulations of the universities require residence for two years at least. The London University—a mere examining board—hitherto has had no pity for the best medical teachers thus deprived of their best students. Like too many of the alumni of this university, Sir WILLIAM seems hopeless of its having wisdom enough to submit to such changes as would be for the good of medical education in the largest city in the world. He is probably rather hopeless too, as well he may be, of the English Parliament within any reasonable period having either inclination or time to compel the University of London to come down from the clouds and make it what it was intended to be. Under these discouraging circumstances, Sir WILLIAM makes a suggestion that the two Colleges, in their conjoint form, might undertake an inquiry as to the best means of obtaining the favour to grant degrees. From the tenour of his language we should gather that he believed that the Colleges themselves might aspire to this high function and become degree-granting bodies. This seems to us to be an entirely inadequate suggestion. It is not in the nature of things that professional corporations should grant Degrees; and it would be a serious degradation of degrees and of their value if everyone passing the lowest qualifying examinations of the corporations were to become entitled to the highest and most coveted medical title. This would be levelling up with a vengeance. It would be to deal a deadly blow at the value of Degrees altogether, and to make distinction consist in not having them, or in having them and not using them. We cannot believe that such a step will ultimately have the approval of Sir WILLIAM JENNER or of the College of Physicians, which has always held high the distinction of graduation, and recognised that the conferring of degrees and of the titles attaching to them was the work of universities.

There are two questions which we should like Sir WILLIAM JENNER to consider, or the Conjoint Board to whom he would depute the inquiry concerning degrees for London students. First, is it to be believed that a degree from two London corporations would be considered equivalent in public value to those of ancient and well-ordered universities where all the Faculties exist, and lend lustre and *esprit de corps* to the whole body of graduates? Secondly, if the Corporations of London claim and receive the power to grant degrees, what is to hinder the Corporations of Edinburgh from doing the same? Obviously nothing. After this would come the deluge, and the whole system of graduation would be discredited. Men would cease to strive for that which had ceased to be an honour. We are not fearful of such a calamity, for whatever the faults of the existing universities, they have not yet so utterly lost influence in the State as not to be able to prevent such a blow at one of their chief functions. There is yet one more, but sufficient, objection to such a scheme as Sir WILLIAM JENNER seems to contemplate—namely, that it would give a false appearance of satisfying the deep and wide demand expressed for a true, complete, teaching University for London, in the ordinary and comprehensive sense of that word.

THE Government Bill to amend the Laws relating to Lunatics has been printed, and although in many respects its provisions will need to be modified in passing through Committee, it is certainly a measure which must be accepted as embodying considerable and salutary reforms. The salient defects happily admit of amendment by very simple changes.

The most urgent of these is a shortening of the period during which the protection extended to persons placed in an asylum under "urgency certificates" is to be withheld. Practically there is little fault to find with the safeguards provided for the protection of ordinary cases which, after this Act comes into operation, will be submitted to the supervision of a County Court judge, a stipendiary magistrate, or a justice of the peace; instead of being rushed secretly into an asylum without any sort of check on the *bona fides* of the person making the "order." Henceforth orders will, in the regular way, be made by magistrates only. There is, however, a dangerous loophole left for wrong-doing by the adoption of the method of incarceration by "urgency certificates." In itself, this method, which has been borrowed from the Scotch system, is admirable, and will fulfil many useful purposes; but it would manifestly be destructive of the principle of the measure to permit a weak-minded or eccentric person to be put away in an asylum with a single medical certificate, and left in the midst of lunatics for seven days before a petition were presented to a magistrate. Yet this is the effect of the Bill as printed! Again, a report is to be made to the Commissioners a *month* after the admission of a patient to an asylum. Why a month? If a month, and then so much longer as may suit the convenience of the Commissioners in Lunacy, are allowed to elapse before the lunatic is visited, obviously great harm may be done. The *idea* of the Bill is to provide that in *all* cases of admission to an asylum there shall be a special visit to the new inmate within a reasonable time after his reception. This is an excellent measure, but it is absolutely necessary that the visit should be paid much more promptly than at the end of a month, *plus* so much longer time as may be implied by "as soon as conveniently may be." As the Bill is drawn, it may very well happen that two months or more will elapse before the visit which is to act as a safeguard is paid, and long before that time the new inmate may be hopelessly insane. In the case of a patient admitted on an "urgency certificate," it is, as we have said, imperative that the magistrate should interfere in less than seven days. A very little reflection must suffice to make it plain that the danger of wrong-doing will be rather increased than diminished under the proposed Act, unless the powers given under the urgency clause are very carefully guarded.

Speaking generally, the aims of the Bill are good, and not only well directed, but thoughtfully and carefully carried out. Too much, however, is left to the Commissioners, who are assumed to be immaculate, whereas it should be borne in mind by the Legislature that the need for reform has to a large extent arisen out of the careless and perfunctory manner in which the Commissioners have hitherto discharged their duties. If the Commission had not been largely composed of men trained in the evil ways of the asylum-system, and very little in earnest for the interests of the insane, the laws already in existence would have sufficed for the protection of both the sane and the insane. Laws are made for those who either themselves do amiss, or by their error or apathy allow others to offend against the welfare of society. It is indispensable that the most stringent precautions should be now taken to keep the Commissioners up to their work, and to compel them to discharge the obligations of their office in no perfunctory fashion. Let those who doubt this only reflect on the way in which the provision for the scrutiny of certificates by the Commissioners has been carried out. As a matter of fact, it has been the boast of the Chairman of the Commission that extremely few certificates have been found to be defective. What does this mean? Simply and plainly that the Commissioners have not troubled themselves to look beneath the merest surface technicalities. For example, if in filling in a form the certifying person chanced to omit a statement in some blank space of the vocation of the alleged lunatic, he would be called to order; but if he filled another blank space with the veriest rubbish in the way of evidences of insanity, the Commissioners cared nothing for that palpable fact. Unless something be done to make these gentlemen understand that they are to do more than mere clerks' work, the provisions of the Act will fall flat. Let anyone who knows the working of the Commissioners' office at present ask himself what is likely to be the practical result of a provision such as this: "In the case of a private patient in an asylum, the Commissioners, after receiving the report [that is, the report to be sent to them by the medical officer of an asylum at the expiration of one calendar month after the reception of a private patient], shall either make arrangements for a visit being paid, *as soon as conveniently may be*, to the patient therein named by one or more of the Commissioners, or," &c. Beyond question, in as many cases as possible the Commissioners will content themselves by referring the matter to the committee of visitors of the asylum, as the Act allows, and for the rest, "as soon as conveniently may be" will mean anything from a month to three months. Probably it will amount to this, that at the next routine official visit to the asylum the Commissioners who chance to go will be charged to inquire for the patient named in the report, and his or her name will perhaps have two ticks on the list instead of one. If any good is to be done by the passing of this Bill, failure through official neglect must be guarded against at every point. Nothing can safely be left to the Commissioners in Lunacy, and unfortunately much has been left to them, with the gravest peril of reducing the Act to the level of a new incumbrance of the statute book. The provisions throughout are far too permissory in their character. They should order where they now simply allow. This is especially necessary in all that relates to the main purpose—namely, the protection of the alleged insane.

The effect of the measure as regards the gradual superceding of the private-asylum system is, we think, likely to be satisfactory. The Secretary of State can enforce the provision of sufficient accommodation for both pauper and non-pauper cases; and the interest of local financiers will be to receive private patients into public asylums because the profits made in this way can be applied to the relief of the rates by defraying other costs of the asylum. This appeal to the commercial instinct may doubtless be trusted to produce sound fruit. It is much to be regretted that the care of the "sane or insane" cannot be placed on an equally practical footing with respect to the discrimination between suitable or unsuitable cases. Unfortunately, when the committees of public asylums become *de facto* themselves private asylum keepers, making a profit out of every

paying case they can accommodate, there will be less rather than greater reason to trust to the security their disinterested vigilance is supposed to supply, and to which the new measure attaches very considerable importance. On the whole, as we have said, the Bill is a good one, but it will need to be amended in many points to make it consistent with itself.

IN another column will be found some remarks by Dr. WILKS upon the efficacy of arsenic as a remedy for certain obscure cases of anæmia and atrophy. Few are better qualified than Dr. WILKS to advocate a remedy for such conditions, which have been often made the theme of his suggestive essays; nor do we think his apology is needed for bringing the subject under the notice of the profession. For no one will accuse Dr. WILKS of over-estimating the value of any drug; he is, if he will allow us to say so, far too much imbued with scientific caution to lavish undeserved credit on any pharmacopœial preparation. It is this fact which makes his testimony of so much value, confirming so strikingly the opinion that is now tolerably widely established as to the importance of arsenic in therapeutics. Perhaps the most striking examples of its efficacy are in those cases of idiopathic anæmia in adults which, owing to their mostly fatal progressive course, were, as Dr. WILKS somewhat cynically reminds us styled "pernicious;" cases of blood-impoverishment, which appear to depend upon some defect in the process of blood-formation, but the precise etiology of which still remains shrouded in obscurity. The testimony of Dr. WILKS on this point is borne out by the experience of many physicians; amongst the most recent being Dr. WARFINGE of Stockholm, who reported several cases of remarkably rapid arrest of the downward progress of the disease, and even of recovery, under the use of arsenic. All such cases should, however, be subjected to prolonged supervision, as it is notorious that relapses are prone to occur. The same remedy has been also successfully employed in an even more definite cachexia—viz., Hodgkin's disease—where the internal administration of arsenic has been supplemented by its injection into the hyperplastic lymphatic glands with, according to WINIWARTER, astonishing result.

The list of conditions, exclusive of cutaneous and nerve affections, in which arsenic has been found empirically useful, is a very long one, and to it must be added such cases of general atrophy or marasmus, to which Dr. WILKS now draws attention. But, as is so often the case, the fact of a remedy being useful is admitted and recognised long before any satisfactory rational explanation of its mode of action is arrived at. This is pre-eminently the case with arsenic; for although experimentation has shown that it has most powerful effects upon tissue metabolism, there is a lack of harmony in results that prevents an exact conclusion as to the precise direction in which that change occurs. Thus, it has been asserted by some to promote oxidation, by others to lessen it; by some to act destructively upon the blood-globules, by others to reinforce them; some find an increased excretion of urea under its use, others a diminution of this product. One view of its mode of action is that its compounds readily take up and part with the oxygen they contain when in contact with protoplasmic molecules, arsenious acid being oxidised in the blood, and the resulting arsenic acid being reduced by such contact; in other words, that it acts vicariously for hæmoglobin. Hence its value in conditions where that essential agent to metabolic processes is diminished or in abeyance.

Dr. WILKS declines to speculate upon the *modus operandi* of the drug, and we will not rush in where so skilled an observer fears to tread, for the ground is so uncertain, and knowledge of the intimate processes of nutrition in health as yet so incomplete, that it is not possible to advance more than theoretical explanations of the reason of its efficacy. We must be content with proclaiming the fact that in arsenic the practitioner possesses one of the most valuable of drugs, of especial value in cases of profound nutritional disorder, which seem to depend, not upon the derangement of any single organ, or upon the extension of such morbid processes as tubercle or cancer, that sap the vitality of the organism, but upon some as yet hidden and mysterious disturbance of the normal dynamics of nutrition, in which both blood and tissue seem everywhere to be at fault. Until physiological and pathological research shall have elucidated more clearly these intimate processes, it is idle to speculate on the action upon them of therapeutic agents.

THE *Morning Post* has discovered a new *opprobrium medicinæ*. There is something fine in the dogmatism with which our contemporary settles that Lord CAIRNS a week before his death was a strong healthy man, and that the responsibility for his death from a "mere chill" lies at the door of "medical science." The sentence in which the conviction of the writer is expressed must not be "let die."

"Now we have no hesitation in saying that, notwithstanding the boasted progress of late years in medical science, it is simply an *opprobrium medicinæ* when a man full of health and vigour is sent to the grave through the operation of a disease which every physician would admit is curable if taken in time and properly treated."

This absence of hesitation is a quality in public writers which is very much admired by a large class of readers, and we do not like to say a word that would qualify their enjoyment of the deliverance of our contemporary, that such deaths as Lord CAIRNS' are a disgrace to medicine, and due entirely to the abandonment of the good old practice of "drawing blood in large quantities from the patient." Unfortunately our contemporary's authority, though great in questions of fashion, does not extend to the fashions of medical practice, and we find his argument vulnerable at every point. So far from knowing so much more than others, and being entitled to rate the degenerate representatives of medicine, he betrays a striking ignorance of what all the world but he himself knew well. He assumes that Lord CAIRNS was a man of strong health and vigour, whereas it is notorious that he was not so, and his residence at Bournemouth was determined by the very delicacy of his health. He further assumes that the deceased nobleman was perfectly well up to the time of a certain shower to which he was exposed, forgetting that, like the rest of his fellow-countrymen, he had been continuously exposed to two months of biting east wind, without the power of resistance that many have. Then our contemporary holds "medical science" responsible for Lord CAIRNS' death, whereas it is notorious that the noble and good earl, with all his acumen, did not appreciate what the

medical profession would understand by medical science, but preferred to be treated by the representatives of a medical system which is ignored by every University of Europe and by scientific men generally, and the chief representatives of which in England have fundamentally changed their ground. But where our contemporary has gone farthest wrong is in supposing that there is an alarming increase in the frequency of such deaths as that of Lord CAIRNS as compared with the palmy days of bloodletting. No mistake could be greater. The mortality of such cases has been immensely reduced by improvements in modern treatment, and especially by the leaving in the veins of the patient the large quantities of blood which used to be "drawn," as our new censor says. One physician alone, the late Dr. J. HUGHES BENNETT, has recorded 105 cases of *uncomplicated* inflammation of the lungs *without one death*, though many of the cases were severe, involving the whole of one lung in fifteen and both portions of lungs in twenty-six cases. His system of treatment, now generally followed, is described by himself as "treatment by restoratives, directed to further the natural progress of the disease and supporting the vital strength." He entirely avoided "drawing" large quantities of blood, under which the mortality was certainly infinitely greater. We cannot answer for the treatment pursued in Lord CAIRNS' case. It is quite possible, in the dilapidated and demoralised state of homœopathy, that it did not differ from that practised now by most sensible physicians. The fatal result may have been due to the occurrence of a sharp pulmonary congestion or a pneumonia in a constitution by no means vigorous or healthy, and worn by the labours of an anxious profession and position. But one thing we will venture to say without hesitation, that the omission of phlebotomy was not a subject for censure, and that our contemporary will have to find other cases than that of Lord CAIRNS on which to revive a practice so questionable as the "fashion" over the disappearance of which he seems to sigh, and which, like many other fashions, is generally more honoured in the breach than in the observance.

THE lecture on the Sanitary Condition of our Homeless and Nomadic Populations, delivered by Dr. RICHARDSON on Saturday before the Association of Sanitary Inspectors, has struck a chord which has caught the attention of the people in a very remarkable way. It is one of the often-expressed sayings of the author of the lecture that many of his efforts which have gained most public favour have been those which have cost him least trouble and the smallest amount of preparation. The lecture opened with an intimation that the services of the sanitary inspectors might be extended with good purpose and effect to the inspection, under skilled direction, of the condition of the people who live without any fixed home. The people thus named were then divided into three classes. The first, the vagrant class, who have no home of any kind, who sleep anywhere, and get food anyhow. The second, the itinerant trade and showman class, who wander about the country in vans, using the van as the living and sleeping house, as well as the storehouse. The third, the pure nomadic class, who still live altogether under canvas—tent-dwellers proper, or gipsies. The conditions of health of these three classes were then compared and contrasted *inter se*, and, by inference, with the members of the ordinary community. To the vagrants a life of a truly unhappy and worthless kind was accorded, but it was indicated that with all their misery they and theirs were less subjected to the decimating zymotic diseases than the members of the industrious populations aggregated in large cities and towns. It was further pointed out as a singular fact that these vagrants wandering to and fro amongst the people, wearing the cast-off and often infected clothing of the people, and occupying common lodging-houses in which the most simple hygienic rules prevail, rarely carry about with them any of the contagious diseases, and rarely suffer from them. The same rule was to a certain extent true in respect to the people who travel and live in the vans, but these are much more subjected to other diseases, induced even in the midst of nature, "under the canopy itself," when they begin to shut themselves and their families up "in a travelling experimental room." They then become anæmic and scrofulous, and are affected with consumption of the lungs from a rude and unscientific, though practical, synthesis of that formidable destroyer. As to the true nomads or gipsies who continue still to live in tents, their fate is indeed singular, in so far as the lecturer's observation extended to them, observation which seems to have won the special attention of hearers and readers. Dr. RICHARDSON said that in his early professional life, when he was associated in practice with the late well-known Dr. ROBERT WILLIS of Barnes, he had under his care for some months, on Barnes-common, a gipsy lad living in a tent, who had sustained an injury to the spine, and that during this long attendance he had gathered a number of facts relative to the gipsy life, and had learned a little of the language of this singular Indian trail, some words and sentences of which he still remembered and explained. From this and later sources of information he came to the conclusion that the gipsies, perhaps comparatively short-lived—although there were exceptions to this rule,—are remarkably free, so long as they remain in the tent, from the spreading diseases of the community at large. They seemed in this primitive condition to know nothing of small-pox, though little protected by vaccination, and he had never met with one of them pitted with small-pox. In 1850-51 the gipsies on Barnes-common were surrounded with cases of scarlet fever in the neighbouring places, but they all escaped, although they took no precautions, and in fact were absolutely ignorant or indifferent about the matter. More curious still was the statement of the lecturer that he had failed to find a gipsy man, woman, or child in the pure nomadic state who showed evidence of syphilis, either in its primary, secondary, or tertiary stages, and he referred to the perfect condition of their teeth as a corroboration of the truth of this noteworthy observation. When the nomadic gipsy changed his mode of life, when he settled in cities and towns, and so came "under the influences of a higher and more cultivated civilisation," then, doing at Rome as Rome does, he gets what Rome gets. But in his primitive state he seems to escape this, the most corrupting scourge of the human family in its more advanced social life. Altogether, the lessons derivable from the lecture were that poverty of itself, unless pushed to absolute famine, had nothing to do

with the occurrence of the zymotic diseases; that fresh air is the one mighty disinfectant; and that luxury and density of population are the two bad spirits that conjure up the great physical evils of humanity, and necessitate the existence of an army of protectors, of which our profession is the body and soul, against those evils. That the views and suggestions offered by Dr. RICHARDSON in his lecture are to be taken with all proper qualifying experience, to be sought out in the future, is what he himself anxiously asked for, and which we therefore may fairly urge. He had, he said, merely afforded a nucleus for further information, and he enlisted the services of the sanitary inspectors of the kingdom to report to him on a series of questions which he has drawn up for their and his own future guidance. We feel sure that the members of the profession will be glad to take part in a labour which, commenced by one of their own body, deserves to be supported generally, as affecting importantly the health and education of the nation at large.

Annotations.

"Ne quid nimis."

PROFESSOR MACLEAN OF NETLEY.

A FAREWELL dinner was given at the Medical Staff Mess, Netley, on the 31st ult., to Professor Maclean, C.B., whose official connexion with the Army Medical School terminated on that day. About fifty medical officers and guests were present at the entertainment. The Director-General of the Army Medical Department, who came from London to attend the dinner, proposed the toast of the evening in a speech characterised by much feeling and ability, and in the course of it gave a review of the long and valuable services of Dr. Maclean, not only at the Army Medical School, but also while serving under the Indian Government in the Presidency of Madras, where the accidents of service had caused them to be frequently associated. Professor Maclean, who replied with much emotion, said it was a source of the greatest satisfaction to him that, now he was quitting active employment in the Army Medical Service, he could feel he was leaving the department in a more efficient state of organisation for carrying out the important duties with which it is charged, in time of peace as well as in time of war, than it had ever had in former years; and in taking leave of his colleagues and brother officers he particularly congratulated them that the professorship he had held was now passing into the hands of an officer who had had such varied and extensive experience in tropical disease, and who had won for himself so distinguished a name in India, as Dr. David Boyes Smith.

THE PORT OF LONDON.

ACCORDING to the report by Dr. Collingridge for the second half of 1884, 12,111 visits of inspection were made to vessels within the limits of the port sanitary district of London. Attention is drawn in the report to the dangerous practice of bringing home in ships the clothing and effects of persons who have died of infectious diseases abroad; and during 1884 the clothing of cholera victims was included amongst these articles. Unless there is the most distinct evidence that such articles cannot have been exposed to infection, the practice of the port officers is to burn them and to recoup the owners. The cholera epidemic in Europe is entered into in some detail; and it is shown that considerable arrangements had been made for dealing with the disease had it made its way into the port. In connexion with the prevalence of infectious diseases, Dr. Collingridge calls attention to a curious anomaly in port sanitary administration. At the present time all bills of health are signed by the Customs officers, who have no proper means of judging of the real health of ports, and who are hence practically limited to the ordinary channels of information. Since infectious cases within ports are reported to the officers of health, it is obvious that they, and not the Customs officers, should sign the documents in question. The present arrangement is, of course, a remnant of a system which was antecedent to the universal appointment of officers of health in ports, but the time is approaching when it should cease. The new hospital on the banks of the Thames below Gravesend has been of great service in the isolation and treatment of cases of infectious diseases, and with a view of adding to its efficiency a covered boat fitted with a cabin for the comfortable conveyance of two persons in a recumbent position has been provided for the purpose of removing patients from ships. The polluted state of the Thames is once more adverted to. Last August the river was more foul than it had ever been before the cleansing of the upper reaches having been carried out at the expense of the lower, and the result was that attacks of vomiting and diarrhœa occurred in passengers coming up the river in consequence of the effluvia. The so-called "deodorisation" carried out by the Metropolitan Board of Works is stated to have been quite useless beyond causing a slight smell of chlorine in the neighbourhood of the outfalls. The cool weather and the rain which followed at the end of August alone led to a temporary abatement of this gigantic metropolitan nuisance. It is to be hoped that measures will before long be undertaken to remedy a state of affairs which, resulting as it does from the discharge of sewage in its crude state into the river, has been declared by the Royal Commission to be "neither necessary nor justifiable."

A NEW ANTISEPTIC.

SOME articles have appeared in recent numbers of the *Boletin Farmacéutico* of Barcelona, calling attention to a drug which seems to be well known in Spain, but which, not having been in the writer's opinion prescribed with due regard to its physiological properties, has disappointed many, and so has fallen into undeserved disrepute. The drug referred to is helenina, the active principle of Inula helenium (elecampane). It was formerly used for itch and herpes, also as an anthelmintic. It has now been found to have powerful antiseptic properties. Dr. Korab found that fifty centigrammes were sufficient to entirely arrest putrefaction in five litres of urine—i.e., 1 in 10,000 parts. The writer of the articles has also made some experiments. A slice of veal sprinkled with a solution of 25 centigrammes of helenina in 2 grammes of alcohol, and kept at a temperature of 28° C., remained perfectly sweet for ten days, by which time it was completely dried up. An egg beaten up with 300 grammes of water, to which was added 30 centigrammes (about five grains) of helenina dissolved in two grammes of alcohol, remained unchanged at the temperature of 28° C. for six days. Another egg similarly beaten up without the drug, and kept at the temperature mentioned, rapidly decomposed, and in twenty hours emitted a strong odour of sulphide of hydrogen; to this a solution of 50 centigrammes of helenina was added, and in a few minutes the offensive odour had disappeared, and the mixture underwent no further change. Similar experiments with urine, meat, and beaten-up eggs were made with carbolic acid, boracic acid, and salicylic acid, instead of helenina; but much larger proportions of these substances were required to prevent putrefaction, and none of them were capable of arresting commencing putrefaction

of the egg, as helenina had done. Korab found that a few drops of a solution of helenina immediately killed the organisms in ordinary infusions, and also in cultivations of the tubercle bacillus. While the writer was working with helenina in his laboratory, he noticed that the bad odours usually present in the vicinity were replaced by the aromatic smell of the drug, due to the washings thrown away. He also noticed that insects, which were commonly very numerous, were at that time absent; even the mosquitoes were kept away from the whole house during the months in which they specially abound. The drug has proved most valuable in surgery as an antiseptic when carbolic acid and other agents had failed. It has been successfully given internally in malarial fevers, tubercular, infantile, and catarrhal diarrhœa; and it is expected to prove an excellent substitute for carbolic acid in the Listerian system of aseptic surgery. The dose is about a third of a grain in pill or mucilage, and the price about a penny a grain.

THE FAVERSHAM JOINT HOSPITAL BOARD.

COMBINATION of sanitary authorities for the purpose of providing infectious diseases hospitals has so many advantages that the system has been largely favoured by the Local Government Board. The scheme involves but a comparatively small increase of cost over a hospital provided by a single authority, for one site, one boundary wall, one set of buildings for ambulance, laundry, disinfecting, and mortuary purposes suffice for two authorities, just as it does for one only; and even as regards the ward-pavilions, only some increase in the number of beds, and not of the buildings, is, as a rule, needed. Some time since, on the application of the urban and rural authorities of Faversham, and after public inquiry at which all parties seemed unanimous, the Local Government Board issued a provisional order forming the two authorities into a joint hospital board. From that moment, however, dissensions appear to have sprung up; disputes occurred as to the site and the character of the buildings, and at last the joint board suspended its meetings, having in the first instance applied to the central authority to be dissolved. But the board having been formed with the approval of Parliament for a definite purpose, the Local Government Board decline to sanction the dissolution except on the definite understanding that each authority will singly perform its duty in the matter of providing means of isolation. No such guarantee appears to be forthcoming, and the whole matter is at a deadlock. This is to be regretted. Both authorities have a considerable population among the labouring classes, who, when infectious disease appears in their homes, have no proper means of accommodation for the sick, and are utterly without such means as would suffice to stay the spread of infection. The elections which are about to take place as to local affairs may perhaps set the matter again on a proper footing, and thus the two authorities may be spared from acting without proper judgment in regard to a step which is of considerable importance to the health of their respective districts.

TRANSFUSION OF BLOOD.

THE public mind has been much astonished and bewildered during the past few weeks by the reports, through the general press, of certain experiments on transfusion of blood said to have been carried out at Denver, Colorado. The popular mind has been astonished and bewildered many times before now on the subject of transfusing restoratives into the circulation of men and animals. The operation starts, indeed, in mystery. Æson, the father of Jason of the Golden Fleece, becoming infirm, Medea, after drawing the blood from his veins, refills them with a potent fluid, and the old man, so runs the fable, rejuvenates. Libavius of Halle, in the early part of the seventeenth century, improves on this fable by suggesting the actual transfusion of blood. Christopher Wren, in the eighteenth century, gives the idea more distinct form; and Richard Lower, Edmund King, and Denis actually bring it into practice, with such effect that the world, startled by the first results and filled with admiring wonder, soon turns round, in disappointment at failure, and lets the Pope prohibit the operation in all parts where his mandate was law. Over and over again the wonder has, nevertheless, revived. Early in this century, Professor Harwood of Cambridge revivified a pointer that had been bled, as it seemed, to death by transfusing into it the blood from a sheep. Later on in the century Dr. Blundell made some remarkable experiments precisely similar in character, and now we have the same retold in a new dress, either by repetition of mere narrative or by repetition of experiment—which it is difficult as yet to say. Of the report going the round of the press it is quite impossible, at present, to speak with any certainty. The account may be nothing more than a piece of clever writing based on an imperfect knowledge of previous researches. It may be the account of some experiments similar to those we have described, but reported with more of enthusiasm than accuracy. We cannot tell. All we can say is that the absence of technical mode of description, some errors of detail, and the absence of reference to all previous research on the subject, together with the notice of many proceedings which according to our present knowledge would destroy the value of transfusion as a means of restoring suspended life, make us most cautious in accepting any part of the statement until it is corroborated by other and more trustworthy evidence.

FRUIT AS AN ARTICLE OF DAILY DIET.

ONE of the most salutary tendencies of domestic management in our day is that which aims at assigning to fruit a favoured place in our ordinary diet. The nutrient value of such food, in virtue of its component starchy and saccharine materials, is generally admitted; and while these substances cannot be said to equal in accumulated force the more solid ingredients of meat and animal fat, they are similarly useful in their own degree, and have, moreover, the advantage of greater digestibility. Their conversion within the tissues is also attended with less friction and pressure on the constructive machinery. The locally stimulant action of many subacid fruits on the mucous membrane deserves mention. Its control of a too active peptic secretion, and its influence of attraction exercised upon the alkaline and aperient intestinal juice, are points of more than superficial importance. To this action further effects, which aid the maintenance of a pure and vigorous circulation, are indirectly due. Thus it follows, on the simplest principles of physiology, that other essential organs, such as the skin and kidneys, are relieved by the transference of part of their excretory function to the bowel, and act with greater ease, the general vascular system is lightened by this regulating drain, and its faculty of absorbing the waste products of food and work is encouraged in proportion. Almost all persons in fairly normal health may partake of sound and ripe fruit in greater or less amount. Except in certain cases, indeed, there is practically no exact limit to its consumption under these circumstances. Among such exceptions may be noted the gouty and rheumatic diatheses. A tendency to diarrhœa or a dysenteric history obviously forbids the free or frequent use of fruit. Saccharine diabetes, or nervous conditions in which it is apt to appear, are similarly antagonistic—at all events where any but the non-amyloid fruits, such as nuts, are considered. Dyspeptic stomachs, on the other hand, are usually benefited

by a moderate allowance of this light and stimulating fare. It must be remembered, moreover, that every fruit is not equally wholesome, let the digestion be as powerful as it may. Nuts, for example, consisting as they do, for the most part, of condensed albuminoid and fatty matters, cannot compare in acceptance, either by the palate or the stomach, with other more succulent kinds, even though they contain in the same bulk a far greater amount of nutriment. A little of such fruit is enough for digestion, and that little is best cooked. Nevertheless, if we take fruit as a whole, ripe and sound of course, and consider its variety, its lightness and nourishing properties, whether eaten alone or with other food, and its cheap abundance, we cannot hesitate to add our voice in support of its just claims on public attention. In former articles we have shown why vegetable produce of all kinds should enter largely into the food of children. Well-chosen fruits are consequently for them as safe and beneficial as agreeable.

THE GENESIS OF CANCER.

A MARKED increase in the death-rate from cancer during the latter part of the present century has for some years occupied the minds of several well-known pathologists in endeavours to reveal its cause. There is a pretty general agreement with regard to this disease that it is prone to arise out of prior morbid states which do not appear to be directly or necessarily related to it. It is evolved as a successor to innocent tumours, or in the track of an old inflammatory lesion. It rises apparently *de novo* out of mere senility or exhaustion of tissue, its permanently rudimentary type representing the best efforts of wearied nature to make good the daily wear of more perfect structures. On the other hand, cases occur in which, without impairment in any visible degree of vital power, the energy of some local irritant appears to master so completely the normal process of growth as to maintain its elements in the exuberant imperfection of the malignant tumour. Manifestly the same irritant acting on weak tissues is still more likely to work out its pernicious consequences. If we admit, therefore, as we consistently may, that tissue exhaustion, the result of toil, anxiety, or privation, and whether inherited or directly induced, affords a sufficient basis for the development of cancer, we need not look far into the history of our laborious age to find an explanation of a rise in its death-rate which at first may seem to be anomalous.

WELL WATER AT ENFIELD.

A CURIOUS conflict of opinion has occurred in connexion with certain proceedings having for their object the closure of a surface well in the district of the Local Board of Enfield. Dr. Ridge, the medical officer of health, found the water suspicious from a chemical point of view, and still more suspicious because of the nature of the surroundings of the well. On this, proceedings were taken to secure the closure of the well; but the owner in the meantime procured an analysis by Dr. Tidy of water which professed to be that of the suspected well and of another well mixed together. The chemical results were all that could be wished, and the magistrates dismissed the case. The owner was then told that fresh samples would be taken, and this having been done, the analytical results were found not only to differ from the preceding ones, but, curiously enough, the water exhibited the presence of iron. In view of this, further samples were taken in the presence of several people, and this without any notice to the owner until the arrival of those who were prepared to take the water away with them. This time the analyst found chlorine equal in quantity to 18·45 grains of common salt in every gallon, 17·5 grains of nitric acid as nitrates, and no iron. The absence of iron in this sample points to the intentional addition of that substance with a view to a temporary purification of the water by oxidising or precipitating organic matter. The well in question is 16 feet deep; it lies in a district which has sewers with "open joints," and which have, in consequence, fouled the gravelly soil in which the well is sunk. Several of the house and closet drains were also recently found to be leaking through such joints. These circumstances alone amply suffice for the condemnation of the water-supply, and it is a matter of wonder how people can endeavour to show by chemical analysis that a water derived from a soil thus subject to the constant risk of pollution is really fit for domestic purposes. The freedom of individual samples from any indication of the surrounding contamination is a matter that should have no weight beside the fact that the source of the supply is one subject to constant risk of pollution. In this case, however, chemistry also came to the aid of the medical officer of health when the sample dealt with was collected under circumstances which were above suspicion.

CHILDREN IN WORKHOUSES.

THE care, treatment, and nursing of children in workhouses is a subject which at the present time calls for more attention at the hands of Local Government Board inspectors and the philanthropic public. After due allowance for the low physical standard of such children, and for their congenital tendency to disease, the excess of mortality that prevails among them is a subject that urgently demands inquiry and action. Inquiry, because Local Government Reports are silent upon the subject; and action, because much of this excess of mortality is assuredly preventable. It is only now and then that facts come to light helping us to call attention to the health condition of these unfortunate children; this makes it all the more necessary not to miss such opportunities. It appears from the last two weekly returns of the Registrar-General, that during the fortnight ending on the 4th inst. no fewer than fifteen children, most of them illegitimate, died from measles in the Camberwell Workhouse, Gordon-road, Peckham. It will be interesting to learn the number of infants in this workhouse, the number attacked by measles, and also whether this startling mortality will be the subject of a Local Government Board inquiry, with a view to ascertaining the kind of treatment and nursing which workhouse children receive on the occasion of such an outbreak of epidemic disease as that now prevailing in the Camberwell Workhouse.

MAD DOGS AT LARGE.

THE inhabitants of Sheffield seem to have been lately thrown into a state of consternation owing to mad dogs wandering in the streets. It is reported that special precautions have been taken by the police, and many dogs destroyed. These precautions are praiseworthy in themselves, but we doubt if they will prevent a recurrence of the danger. There can be no doubt that every dog roving at large, unattended, and "without visible means of subsistence," should be arrested as a rogue and vagabond, but the wholesale destruction of these waifs and strays seems unnecessarily severe. What we would suggest is that the number of places of refuge, or "dogs' homes," be extended. Greater facilities would then be given for watching suspicious characters, and for owners to claim their lost property. But these are cases which require peremptory treatment. If a dog is mad, it is worse than valueless to its possessor, whilst it is dangerous to every living being with whom it comes in contact. This might afford some reason, perhaps, why policemen should be armed with revolvers. It is not always easy, however, for the laity to tell whether a dog is the subject

of rabies, or merely gifted with vicious propensities. The necessary knowledge too often only comes of experience, and the vagrant cur runs fancy free until it has fleshed its envenomed teeth in some hapless passer-by. Save in a few isolated cases, where canine madness first shows itself in a fortuitous and unprovoked outburst of hostility towards an unsuspecting individual, the premonitory symptoms are sufficiently marked to arouse suspicion and point to danger. Restlessness, loss of appetite, and perversion of the affections are amongst the number. It is not feasible to educate the public in these matters by practical demonstration, but much may be done by way of warning and advice. A code of instructions might be drawn up and circulated by the local authorities, which would be of incalculable value to the community. It may be contended that such a procedure would arouse needless alarm, and condemn many an unoffending dog to a premature death; but against such an objection is the certainty that a number of human lives would be spared the perils of a terrible disease.

INTERNATIONAL HEALTH EXHIBITION.

DR. FELICE SANTINI, medical officer of health of the Royal Italian Navy, who was appointed by the Italian Government commissioner to the International Health Exhibition, has just published his report to the municipality of Rome.[1] He draws special attention to the excellent organisation of the Metropolitan Asylums Board, and the work done by them and the St. John Ambulance Association, and gives illustrations of the various ambulance carriages and stretchers used by these associations, together with a map showing the hospitals in connexion with the Metropolitan Asylums Board and diagrams of the hospital ships *Atlas*, *Endymion*, and *Castalia*, which are moored in the Thames. Dr. Santini was much impressed with the excellent idea of forming a hygienic library in connexion with the Exhibition, and brings to the notice of his Government and the municipality of Rome the services of Mr. Carl A. Thimm, the librarian, who so efficiently arranged and catalogued the voluminous publications contributed by Italy.

VOLUNTEER MEDICAL STAFF CORPS.

THIS corps, although enrolled only on April 1st, put in an appearance at the Brighton Review. Two companies, about fifty strong each, paraded at Wellington Barracks on Good Friday morning in full marching order, and, taking train at Victoria, accompanied the marching columns. No. 1 Bearer Company, under the command of Surgeon-Major Cantlie and Acting Surgeons Leech, Fletcher, and Willett, accompanied No. 7 column, under the command of Col. Sir Lloyd-Lindsay, V.C., and billeted at Burgess-hill. No. 2 Bearer Company, under the command of Surgeon-Major Norton and Acting Surgeons Huzzey and Raw, accompanied No. 2 marching column, and billeted at Newick. On Saturday the companies followed the troops over the downs, and had some rough work with the waggons. The ambulance waggons of No. 1 Bearer Company were blocked for three hours by a transport waggon, which had broken down on a narrow road over the hill. The bearers carried the stretchers over hill and dale for four miles to keep touch with the troops, and only by a forced march were they able to return to pick up their waggons and join the troops in the march into Brighton. No. 2 Bearer Company had to take the horses out and pull the waggons up the downs. At the headquarters of the corps at Brighton a temporary hospital of eight beds was opened, and as many as fifty-three patients were treated between Saturday night and Monday morning. The appearance of the new corps at the march past on Monday was the subject of much congratulation and cheering. The Duke of Cambridge, after the march past, rode up to the head of the column and complimented the corps on its appearance and efficiency. Surgeon Cross, Grenadier Guards, acted as commanding officer, and Surgeon Pearse as his staff officer. Lieutenant McLure acted as adjutant during the march. On the day of enrolment of the Volunteer Medical Staff Corps, an inauguration service was held at the Chapel Royal, Savoy, by the Rev. R. Westhorpe, Warden of Charing-cross Hospital and Chaplain of the Corps. About 180 attended.

[1] L'Igiene Pubblica e Privata e la Didattica alla Esposizione Internazionale d'Igiene in Londra, 1884. Rapporto all'onorevole Municipio di Roma, del Dottor Felice Santini. Roma: Fratelli Bencini. 1885.

THE METROPOLITAN BOARD OF WORKS AS A THEATRE LICENSING AUTHORITY.

THE Metropolitan Board of Works has politely asked the Lord Chamberlain whether he does not think it would make a better licensing authority than he has proved himself, and offered, "if his lordship agrees with this view," to take over the duty. We shall be curious to hear what the Lord Chamberlain thinks of this proposal. If he is wise he will hasten to wash his hands of the business. Meanwhile, will the Metropolitan Board of Works do the work better? And how about the licensing of stage plays? Does the Board propose to take that over also?

REPORT OF THE BERLIN HYGIENIC EXHIBITION.

WE have received a copy of the introduction to the first volume of the Report upon the German Health Exhibition, held at Berlin in 1883. On the close of the exhibition the task of editing this Report, which should survey the whole nature and scope of the exhibition, was placed in the hands of Dr. Paul Börner, who has prefixed to it an introduction detailing the steps taken to promote the exhibition, which was completed and ready for opening when destroyed by fire in 1882. Within twelve months the building was reconstructed on an improved plan; and a description of the building is given, with a brief history of the exhibition from its opening to its close. From the table of contents to the volume it is seen that the descriptive articles of each department are contributed by experts; and the work should therefore have a special and permanent value.

SHOULD AN INQUEST BE HELD?

MR. H. GOTOBED, the Cambridge borough coroner, recently held an inquest on a woman who had died suddenly of heart disease, and gave as his reason for so doing that about two years ago Lord Chancellor Selborne admonished a coroner for neglecting to institute an inquiry into the cause of death of a person found dead in bed. Lord Chief Justice Jervis held that, unless there was reasonable ground of suspicion that the person came to his death by violent and unnatural means, there was no occasion for the interference of the coroner. On the strength of the report of the recent inquest, we fail to see the discrepancy between the legal authorities cited by Mr. Gotobed. A person being found dead in bed, the presumption is that death arose from natural causes; but it would never do to grant a certificate on such wholly insufficient grounds. If, on the other hand, a person was known to have suffered from heart disease, and was subsequently seen to fall down in a fatal swoon, this, together with the circumstantial evidence, might warrant the coroner's decision not to order an official inquiry. At the same time, we contend it is highly desirable that the exact cause of death should, where possible, be determined in every case. Anything short of this obviously allows of mistakes, and possibly in some instances leads to

a miscarriage of justice. The records of our judicial proceedings clearly show that what has *à priori* been thought satisfactory proof of natural death has been really consistent with criminal intent and deeds.

OPPOSITION TO THE POISONS BILL.

THE opposition to the provisions of the new Poisons Bill continues with unabated vigour. In an article devoted to the subject in one of the trade journals, it is pointed out that the powers assigned to the Pharmaceutical Society are amply sufficient if only they were exercised with discretion. The omission in the Bill to define the term "poison" has been severely criticised, although it must be confessed that the difficulties in the way of a satisfactory definition are very great. Almost any substance capable of being absorbed into the circulation or of mechanically irritating the mucous membrane to a sufficient extent might cause death, the quantity necessary to induce a fatal result being one of degree only. A case is referred to of a gentleman who was poisoned by eating jugged hare in an advanced stage of decomposition. It is supposed that a fragment of bone caused an abrasion of the mucous membrane of the mouth or throat, and that this sufficed for the absorption of septic material. In another instance a young lady succeeded in destroying herself by swallowing a pound and a quarter of common table salt. Under the proposed Act it is probable that vendors of patent medicines containing active ingredients will incur a certain amount of responsibility, although the clauses dealing with the subject are so vaguely worded that it is difficult to foretell what will be the practical result of their operation. It is probable that the Bill, if not thrown out altogether, will be considerably modified in Committee.

PREVENTABLE DISEASES IN TOTTENHAM.

THE Tottenham Sanitary Association, which for many years past has done good work in stimulating sanitary work in its district, now publishes its eleventh report—namely, that for 1884. In a population of some 70,000, the death-rate was 16·45 per 1000. Typhoid fever and diphtheria were both excessive in their fatality, the last disease being three times more fatal than it was during the same period in London. As a result of this occurrence, special efforts are being made by the sanitary inspector to elicit information as to the state of the drains, their disconnexion and ventilation, whenever fatal zymotic disease occurs. This is good in its way; but it would be far better if, in addition to such action after the occurrence of the very result which should be avoided, the authority were to organise such a system of house-to-house inspection as would lead to the adoption of measures which would prevent the occurrence of diseases due to faulty drain connexions.

PERFORATING ULCER OF THE HAND.

THOUGH perforating ulcers occurring in the course of tabes dorsalis have their usual seat in the foot, there seems no reason why the hand should not be similarly affected. M. Terrillon showed a case of perforating ulcer of the palm of the hand at a recent meeting of the Société de Chirurgie. The ulcer was situate at the junction of the ring finger with the palm. The patient was a porter, and the subject of tabes dorsalis. M. Charcot did not hesitate to regard the ulcer as of dystrophic origin; pains and tinglings were experienced by the patient along the course of the ulnar nerve. A zone of anæsthesia was detected all round the ulcer. M. Nicaise inclined to the opinion that the ulcer was merely a corn which had become fissured, for the epidermis and cutis were thickened, whereas in perforating ulcers the cutis is thinned and even perforated.

ANTHRAX IN BERMONDSEY.

FROM time to time during the past few years cases of fatal anthrax have been reported at Guy's Hospital, arising in connexion with the Bermondsey tanneries. The most recent case occurred last week. The subject was a labourer, aged thirty-eight, employed in handling hides at a wharfinger's. Less than four days before his death he complained of feeling sick, and noticed a small pimple on the side of the neck; and the next day he presented himself at the hospital with well-marked symptoms of malignant pustule. At the inquest Mr. Langham, the coroner, drew public attention to the great importance of persons infected with the poison making early application for hospital treatment. The verdict of the jury, "Natural death from blood-poisoning," seems to us to have been scarcely sufficient; for it cannot be too widely known that the disease contracted from these infected hides is a definite and specific affection, and that every precaution should be taken to protect workmen against contamination.

EXPERIMENTS ON SOLDIERS' RATIONS.

EXPERIMENTS are being made in Munich, Mayence, Munster, and elsewhere, with companies specially formed of the strong men of different regiments. The men selected are obliged to submit for a fortnight to a strict campaigning diet, and during this period have to go through field exercises and route-marching for six hours daily in full marching order. Before and after every march out each man is carefully weighed. He receives daily a regulated quantity of a minutely described dietary—e.g., in Mayence, biscuit, coffee, pea-sausages *(Erbswurst)*; in Munster, rye bread, brandy, and *Erbswurst*; the Munich *menu* has so far remained a secret. The men are constantly and closely watched, so that it is impossible for them to obtain any other food or drink than that laid down. The object of these experiments is to determine how long men will remain fit for work on such diet, and also to institute a comparison between the different diets tested.

ANTISEPTICS AND ERYSIPELAS.

FROM a statistical study of the surgical cases which have been under his care during the past five years, M. Polaillon has come to the conclusion that Listerism and carbolic dressings generally do not diminish the liability to the occurrence of erysipelas, though they lessen the virulence of the disease. In his experience women are more frequently affected than men, but the latter occupy the more salubrious ward. Sometimes the erysipelas occurred in isolated cases. Erysipelas was more frequent during the cold and wet months. Carbolised dressings, he avers, certainly attenuate the virulence of erysipelas. He has seen epidemics spread from patient to patient rapidly, yet making but few victims, and those only whose constitutions were enfeebled by long-lasting disease.

BALNEOLOGICAL CONGRESS.

THE seventh annual Congress of the Balneological Section of the German Therapeutical Society was held on March 14th and 15th at Berlin, under the Presidency of Professor Liebreich. Dr. Schott of Nauheim spoke regarding the importance of cutaneous resorption in connexion with the effects of baths. Dr. Grödel raised the question whether special balneo-therapeutical methods could be defined for various forms of spinal affections, but the discussion which ensued bore unfavourably on the possibility of such a treatment being perfected. Professor Eulenberg of Berlin spoke on the subject of electric baths, and the mode of their application to therapeutical purposes.

THE LONDON UNIVERSITY AND MEDICAL DEGREES.

WE understand that the Senate of the University of London have consented to receive, on the 29th inst., at 4.45 P.M., a deputation from the Metropolitan Counties Branch of the British Medical Association in reference to the question of granting medical degrees to London medical students.

THE GENERAL MEDICAL COUNCIL.

THE General Medical Council is summoned to meet on Tuesday, May 12th. The Executive Committee will meet on the preceding day, to arrange the order of business, &c.

THE DEATH OF LORD CAIRNS.

WE have authority for saying, contrary to the statement of some newspapers, that Sir William Gull never saw Lord Cairns medically, and was never requested to see him.

THE BICHLORIDE DOUCHE IN OBSTETRICS.

THE *New York Medical Record* reports that Dr. Hulbert, of St. Louis, stated, at a meeting of the St. Louis Medical Society, that he had salivated five patients with a bichloride solution (1 in 3000) given as a vaginal douche twice a day. No particulars are given, but it is evident that this agent, though a very effective antiseptic, will have to be used very carefully.

DR. J. F. STEVENSON, J.P., has just resigned the post of physician to the Birkenhead Borough Hospital. He was appointed as honorary surgeon to the institution in 1848, and having filled that office for a period of fifteen years, was appointed to the office which he has just resigned. Dr. Stevenson will continue his connexion with the charity as consulting physician. The committee have formally recorded their high sense of the valuable and efficient services rendered by Dr. Stevenson for this period of upwards of thirty-six years. Dr. Stevenson is to be congratulated, as it is not given to many members of even the medical profession to complete so long a term of gratuitous daily work.

SOME very exaggerated reports having been circulated concerning the prevalence of small-pox at Southend, it is well to mention that the case which is supposed to have been the first was not small-pox at all, but pleurisy; also that the sexton who was employed at the funeral, and who really died of small-pox shortly afterwards, caught the disease from his son, who was found to be suffering from it on his arrival from near London, and who has now recovered. We believe that, owing to the isolated position of the house and the care exercised by the medical officer of health, no other cases have occurred.

A CONTROVERSY on the subject of undue pressure in the public schools of America has been proceeding for some time, and from the *New York Daily Tribune* of the 24th ult. it now appears that the advocates of reform are steadily gaining ground, it being expected that the much-needed revision of the course of study and method of examinations in American schools will be substantially accomplished before the beginning of a new school year.

AN outbreak of English cholera, causing considerable alarm, is reported from Mountain Ash, where many people are affected in one part of the district called Caegarw, and one man has succumbed to the malady.

AT the Teachers' Conference at Norwich on the 8th inst., Mrs. Burgwin (Southwark) read a paper on over-pressure in schools, which she described as work against time to secure payment by results—a system injurious to teachers and torture to children, who were made disgusted with learning. She advocated the abolition of all grants under certain conditions, considering that education should not be hurried. A resolution was adopted to petition Parliament to appoint a Royal Commission to inquire into the existence, causes, and extent of over-pressure, it being felt that a departmental inquiry would not be satisfactory.

AT Jativa, in the province of Valencia, seventy persons have been attacked during the past fortnight by a disease resembling cholera. About half the cases ended fatally, and although several physicians have hesitated to pronounce the epidemic to be cholera, others who were sent to inquire into the outbreak affirm that it is that disease, and precautions have been taken to prevent its spread. The patients and their families have been put under canvas, and the houses where deaths have occurred have been disinfected.

MR. M. A. ADAMS, F.R.C.S., has devised a card containing the leading facts of importance in the record and investigation of contagious diseases. It embodies a neatly drawn-up chart to indicate the presumed normal periods of latency, premonitory fever, duration of pyrexia, and of the infectiveness of such diseases; and, being of convenient size, it should prove of some service. It is issued by Messrs. Churchill.

THE Paris correspondent of the *Record* says:—"A remarkable instance of confraternity has just occurred at Carcassone at the funeral of an eminent doctor, a Roman Catholic, who behaved most nobly during the last cholera epidemic. Three discourses were pronounced at the cemetery, one by the prefect of the Department, one by the president of the Doctors' Association, and one by the [Protestant] pasteur of the place, the Rev. Ad. Monod."

MR. ARNOLD TAYLOR, of the Local Government Board, has been holding an inquiry in the Ramsgate Town Hall concerning the loan of £20,000 required for the completion of the drainage and for the construction of new outfall works. Various difficulties and objections having been overcome, the opposition to the proposed scheme was nominal, and Mr. Taylor signified his intention of reporting favourably on the plan.

THE fourteenth Congress of the German Surgical Society met at Berlin on the 8th inst., under the presidency of Professor Langenbeck, who announced, to the manifest approval of the members, that the Committee had been pleased to nominate as honorary members Sir James Paget and Sir Joseph Lister.

WE are asked to state that applications for the appointment of Assistant Physician at Guy's Hospital, rendered vacant by the promotion of Dr. Frederick Taylor to the Physicianship, should be sent in on or before Thursday, the 30th inst.

WE learn that, at the unanimous request of the medical staff of the Paddington-green Children's Hospital, the post of senior physician will be filled by the appointment of Dr. Lauder Brunton.

THE eighth edition of Erichsen's Surgery is being translated into Spanish, and is appearing in monthly parts.

DR. ANGEL MONEY has been appointed Assistant Physician to the Hospital for Sick Children, Great Ormond-street, in the place of Dr. Barlow, promoted to the post of Physician to the institution.

IN a letter to the Lord Chancellor, dated April 6th, the Earl of Shaftesbury has expressed his decision to resign his seat on the Board of Commissioners in Lunacy.

THE DRAMATIS PERSONÆ OF THE TERCENTENARY FESTIVAL OF THE UNIVERSITY OF EDINBURGH.

WE have good news for the alumni and graduates of the Edinburgh University. The event of the Tercentenary was one not likely to be forgotten. In itself it was one of the most remarkable gatherings of the men of light and leading in history. It produced, too, the "Story of the University," by the lamented and accomplished principal, Sir Alexander Grant, which is in itself guarantee that it will not be allowed to be forgotten. But as if this were not enough, a most exquisite volume of "Portraits of the High Officers and Professors of the University of Edinburgh at its Tercentenary Festival" has been published at the University Press by Messrs. T. and A. Constable. The volume before us, which is so charming as to disarm all criticism, is in a quarto form; but we gather that there are a certain number of folio copies to be had by those still more luxurious in their literary tastes. For ourselves, we are well content with and very grateful for the quarto form, which makes one of the pleasantest and most valuable additions to a library which we have seen for many days, and which cannot be too much praised either as regards the work of the printer, the compiler, or the artist. The artist is Mr. William Hole, A.R.S.A., who had already given some artistic intimations of the vivid impression made on his mind by the chief actors of the Tercentenary. In the forty or fifty portraits now presented to the public, the art of etching appears to the greatest advantage, and will hand down to a remote time a representation of the present professors. Even those learned professors whose physical qualities do not facilitate the etcher's art come out in style so natural and life-like as to be most interesting. And in the case of a few of the portraits, the result is most effective, as in that of Sir Stafford Northcote, of the lamented Principal, of Professor Blackie and his successor, of Professor Masson (in his slippers, sitting cosily by his fireside, and, low be it spoken, in the obvious enjoyment of his meerschaum), of Professor Turner, of Professor Fraser, of Professor Douglas Maclagan, of "John Chiene," of Professor Grainger Stewart, of Professor Rutherford, and of Professor Greenfield. Perhaps the most striking piece of art in the book is the portait of Professor Giekie, sitting on a boulder, a hammer in one hand and a geological specimen in the other style. The interest of the volume is greatly, if pathetically, enhanced by a frontispiece entitled "*Umbræ Quædam*," and giving the heads of professors and others recently dead who have shed lustre on the university, and whose fame still gives a strange fascination to the school—notably Sir William Hamilton, John Goodsir, David Brewster, James Syme, J. Y. Simpson, J. Hughes Bennett, R. Christison, J. H. Balfour, T. Carlyle, and others. Though the etchings and the general style of the book are the chief attractions of this happily conceived work, we should do great injustice to its promoters if we did not say a word in praise of the biographical sketches which are attached to each portrait. They are remarkably well done, occasionally perhaps betraying a little too much local complacency, but generally most readable and instructive. We cannot too strongly express our pleasure in possessing such a memento of so eventful an occasion. The only qualification of our satisfaction we have to make in our announcement of the book is that the number of copies is, we presume necessarily, limited. The impression for sale of the folio copies is 100, that of the quarto 750. *Beati possidentes!*

INTERNATIONAL CONGRESS OF HYDROLOGY AND CLIMATOLOGY.

THE first International Congress of Hydrology and Climatology will be held at Biarritz in October, 1886. Amongst the principal questions which will be brought before the members of the Congress are the following:—The Influence of the Phenomena of the Air on Mineral Waters, the Electrical Phenomena which manifest themselves in the presence of Mineral Waters, the Combinations which form Sulphur in the Waters termed Sulphur Waters, the Differences of Action between Fresh and Salt Water in Hydrotherapy, the Hygienic and Dietetic Rules to be observed whilst undergoing a course of Thermal Treatment, the daily Variations of Temperature in Sanitary Stations, General Characters of the Geological Constitution of the Pyrenees, the Hygienic Conditions which ought to prevail at Summer and Winter Health Resorts, the Influence of Sea Air upon Scrofulous Affections, the Influence of Winds, Quarantine by Land and Sea, &c. The Congress will last for eight days, and excursions to various places of interest in the neighbourhood will take place. The honorary president is the Minister of Commerce, and the acting president will be Dr. Durand-Fardel, the post of general secretary being filled by Dr. F. Garrigon.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Worcester Urban District.—In submitting his eleventh annual report to the Town Council of Worcester, Dr. Strange gives marked attention to cleansing of ashpits and cesspits, to the care of sewers and house-drains, and to the supply of drinking water to the inhabitants; and he does so with special reference to a somewhat heavy visitation of enteric fever from which the city has suffered. In the first place, Worcester still exhibits some of the old huge ashpits and cesspits, receptacles which were contrived in days when sanitary authorities were all but unknown, and when scavenging was a thing to be carried out as seldom as possible. Now, however, we know that these accumulations are hurtful in the extreme, and it should be a first object of the authority to get rid of such nuisances, especially in view of the risk they are to health. Much is, fortunately, being done in this direction, and it is to be hoped that there will be no need to recur to them in future reports, except as barbarisms of the past. As to the sewers, it is stated that complaints are made with respect to the emanations from the ventilators; but we can hardly agree with Dr. Strange that, inasmuch as these ventilators are only discharging their proper function, it is unwise to complain of them. Sewer ventilators should not stink. If they do, they are either not sufficiently numerous, or the sewers do not properly cleanse themselves, or else offensive house-drains are connected with them and foul them. If the sewers and house-drains are properly constructed so as to contain no stagnant contents, and if the ventilators are so numerous that a large number of them act as fresh-air inlets to dilute the sewer air before it escapes, then nuisance should not arise. But we fear that faulty conditions as to this exist in Worcester; for Dr. Strange talks of sewer air being forced back into dwellings unless it can escape into the streets. Such a forcing back should be impossible if there were an absolute break between the interior of the houses and the interior of the drains. In many hundred cases this break has now

been effected in Worcester, and it is to be hoped that it will soon be universal. The detailed account given as to the water-supply to the city, now derived from the Severn, raises some very important considerations. As matters now stand, the Severn is liable to pollution by sewage and other organic matter after a heavy rainfall. Thus, the sewage of Kidderminster, during the great enteric fever epidemic there, got into the Severn fourteen miles above the Worcester intake, and the question now being dealt with is whether Worcester is to endeavour to remedy its river supply and improve its method of filtration, or to resort to an artesian well. In seeking advice, the opinion of the borough analyst has been sought, especially as to whether filtration would secure the inhabitants against "this great source of danger" (i.e., "pollution by the germs of disease"), and he has answered, "If efficiently carried out, I believe it does." What this belief is based on we do not know, but we are quite certain that this view should not be acted on as regards a town water-supply. No such filtration as can be carried out by Worcester is likely to have the effect they wish to attain; and if the river is to remain subject to any such risks as hitherto, we should counsel its abandonment as a source of water-supply. The annual death-rate in Worcester for 1884 was 20·9 per 1000. Thirty-two cases, chiefly of enteric fever, were admitted into the Brabourne Hospital.

Lewes Urban District.—Lewes has for some years past had a satisfactory death-rate. Last year it reached 15·9 per 1000, somewhat in excess of the two previous years. Consumption is a somewhat fertile source of death, and we fear that the situation of the town at the foot of a chalk range in a river valley is a main cause in producing this result. The isolation hospital continues usefully to fulfil its purpose. The numbers admitted are not large, but the admissions prevent the extension of infectious disease, and, as Mr. Braden says, it would be impossible to say what mischief the thirty cases admitted since its construction would have brought about had they not been isolated.

Surbiton Urban District.—This suburban district enjoys a small death-rate. It was 10·8 per 1000 in 1883 and 11·9 in 1884, the rate for England and Wales during the latter year being 19·6. The zymotic rate is also low—namely, 1·4 per 1000. Infantile diarrhœa, too, which may be regarded as affording a valuable criterion of the healthiness of a place, only causes about 2 or 3 deaths per annum; in short, as a zymotic affection it is practically absent. Well water is, however, still resorted to, analysis almost invariably being such as to call for its abandonment. The ventilation of the sewers is engaging the attention of the authority, and a number of high shafts are being erected. There is as yet no hospital for infectious diseases. The neighbouring authority of the Kingston rural district have set an example as to this, and Dr. Coleman suggests inquiry as to whether Surbiton may share in its advantages.

Torquay Urban District.—The sanitary inspector for this district has issued a report showing the progress which has been made during the past year in the various matters coming within his cognisance, and it is certainly a record of very substantial advance. The detailed account of current work relating to such matters as the ventilation of drains and soil-pipes, drain disconnexions, closure of wells, disinfection of rooms, &c., relates to 4639 improvements. In addition to this as many as 545 new houses have been overlooked during the course of their erection. The change throughout the town from old, unventilated, choked, clay-jointed, untrapped drains to efficient, self-cleansing, and well ventilated conduits is in itself immense, and added to this work a large amount of incidental improvement has been effected in allied matters. Torquay aims at securing the reputation of being a real health resort, and such work as Mr. MacMahon gives an account of is eminently calculated to attain that end.

Belfast.—During the four weeks ending Feb. 21st the total births registered were 493, and the deaths 472, which latter included 216 deaths from lung affections. The average death-rate was, from all causes, 28 per 1000, from zymotic diseases 2·6, and from lung diseases 12·6. The general death-rate was a little higher than in January, though the rate from lung affections was 2 per 1000 less. Scarlatina still lingers amongst the population, but it is gratifying to learn that both typhus and enteric fevers have almost disappeared.

Cork.—During the four weeks ending the 21st ult. the births numbered 152, or a rate of 24·66; and the deaths 204, including 41 which took place in the workhouse. Excluding the latter, the mortality was equal to 33·09 per 1000. Compared with the corresponding return of last year, the death-rate has increased, and the birth-rate decreased.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5450 births and 3937 deaths were registered during the week ending the 4th inst. The births were 362 below, while the deaths exceeded by 310 the average weekly numbers during 1884. The annual death-rate in these towns, which had been equal to 23·5 and 23·2 per 1000 in the preceding two weeks, further declined last week to 23·1. During the thirteen weeks ending last Saturday the death-rate in these towns averaged 21·9 per 1000, against 24·7, the mean rate in the corresponding periods of the nine years 1876-84. The lowest death-rates in these towns last week were 15·7 in Leicester, 17·8 in Bradford, 19·1 in Brighton, and 19·8 in Wolverhampton. The rates in the other towns ranged upwards to 32·6 in Norwich, 33·7 in Newcastle-upon-Tyne, 34·3 in Preston, 34·7 in Oldham, and 40·4 in Sunderland. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 466, against numbers steadily increasing from 377 to 451 in the preceding five weeks; they included 173 from measles, 130 from whooping-cough, 45 from "fever" (principally enteric), 33 from scarlet fever, 32 from small-pox, 27 from diphtheria, and 26 from diarrhœa. No death was referred to any of these diseases in Derby last week, whereas they caused the highest death-rates in Norwich, Newcastle-upon-Tyne, Cardiff, and Sunderland. The highest death-rates from measles occurred in Bristol, Newcastle-upon-Tyne, Cardiff, and Sunderland; from whooping-cough in Oldham, Bristol, and Preston; from scarlet fever in Preston and Newcastle-upon-Tyne; and "fever" in Plymouth and Norwich. Of the 27 deaths from diphtheria in the twenty-eight towns 16 occurred in London and 2 in Norwich. Small-pox caused 54 deaths in London and its outer ring of suburban districts, 2 in Manchester, 1 in Birmingham, and 1 in Leeds. The number of small-pox patients in the metropolitan asylum hospitals, which had been 830 and 865 on the preceding two Saturdays, further rose to 879 at the end of last week; 141 cases were admitted during the week, against numbers increasing from 94 to 179 in the previous four weeks. The Highgate Small-pox Hospital contained 90 patients on Saturday last, 25 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 487 and 448 in the preceding two weeks, rose again to 478 last week, but were 65 below the corrected weekly average. The causes of 100, or 2·5 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bradford, Bolton, Wolverhampton, and Plymouth. The largest proportions of uncertified deaths were registered in Oldham, Preston, Sheffield, Halifax, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 24·2 and 23·3 per 1000 in the preceding two weeks, rose last week to 25·0, and exceeded the rate last week in the twenty-eight large English towns by 1·9. The rates in the Scotch towns ranged from 15·2 in Leith and 17·0 in Edinburgh and Aberdeen, to 30·8 in Paisley and 31·5 in Glasgow. The 600 deaths in the eight towns included 34 from whooping-cough, 23 from measles, 11 from scarlet fever, 6 from "fever" (typhus, enteric, or simple), 5 from diarrhœa, and not one from small-pox; in all, 84 deaths resulted from these principal zymotic diseases, against 85 and 73 in the preceding two weeks. These 84 deaths were equal to an annual rate of 3·4 per 1000, which was 0·7 above the mean rate from the same diseases in the twenty-eight English towns. The deaths from whooping-cough, which had been 35 and 32 in the previous two weeks, were 34 last week, of which 22 occurred in Glasgow, 4 in Edinburgh, and 4 in Dundee. The 23 fatal cases of measles showed an increase of 8 upon the number in the

previous week, and were all returned in Glasgow. The 11 deaths from scarlet fever also showed an increase upon the number in the previous week, and included 5 in Paisley, 3 in Glasgow, and 2 in Edinburgh. The 6 deaths referred to "fever" corresponded with the number in the previous week, and included 3 in Edinburgh and 2 in Greenock. The deaths from acute diseases of the respiratory organs in the eight towns, which had been 124 and 122 in the previous two weeks, rose to 130 last week, and exceeded the number in the corresponding week of last year by 22. The causes of 103, or 17 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 39·5, 34·6, and 40·4 per 1000 in the preceding three weeks, declined again to 33·6 in the week ending the 4th inst. During the thirteen weeks ending last Saturday the death-rate in the city averaged no less than 34·0 per 1000; whereas in the same period the rate did not exceed 21·6 in London and 20·0 in Edinburgh. The 227 deaths in Dublin last week showed a decline of 46 from the exceptionally high number in the previous week, and included 24 which were referred to the principal zymotic diseases, against 30 and 32 in the preceding two weeks. Of these 24 deaths, 13 resulted from measles, 5 from "fever," (typhus, enteric, or simple), 4 from diarrhœa, 2 from scarlet fever, and not one either from small-pox, diphtheria, or whooping-cough. The annual death-rate from these principal zymotic diseases was equal to 3·5 per 1000; in London and Edinburgh the rates from these diseases last week were equal to 2·6 and 2·1 respectively. The fatal cases of measles in Dublin, which had been 16 and 12 in the previous two weeks, were 13 last week. The deaths referred to scarlet fever and "fever" were respectively 5 and 1 below the numbers in the preceding week. Three inquest cases and 3 deaths from violence were registered within the city; and 86, or 38 per cent., of the deaths were recorded in public institutions. The deaths both of infants and of elderly persons showed a considerable decline from the high numbers in the previous week. The causes of 26, or 11 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

ARMY MEDICAL SCHOOL.

THE fiftieth session of the Army Medical School was opened at Netley on the 2nd inst. Forty-five surgeons on probation for the British army and five for the Indian army have joined. In consequence of the urgent need for medical officers, these gentlemen will only remain for two months instead of four, their places being taken by a second batch, who will join early in June and be dismissed in the beginning of August. The introductory address was delivered by Professor Aitken, F.R.S., who gave a philosophical lecture dealing with the application of the Darwinian hypothesis and the evolution of disease. The Director-General, Dr. Crawford, was present, and addressed some words of counsel to the surgeons on probation. Sir Joseph Fayrer, K.C.S.I., Surgeon-General Murray, Colonel Bell, and the officers of the school and hospital staffs were also present.

Several lady nurses from the Guards Hospital in London have left for Suez for duty with the Guards' field hospital at that place.

It having been decided to separate the duties of the medical administration of the troops stationed in the Home and Woolwich districts, which have hitherto been vested in one officer, Surgeon-General Sir James Hanbury, who was principal medical officer in Egypt during the campaign of 1882, takes over the medical charge of the Home district, and Brigade Surgeon T. Rudd that of the Woolwich district.

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Staff Surgeon Alfred Hubert Kelly, B.A., M.D., has been allowed to withdraw from Her Majesty's Naval Service, with a gratuity.

The following appointments have been made:—Staff Surgeon Edward E. Mahon, to the *Bacchante;* Staff Surgeon Herbert M. Ellis, to the *Sapphire;* Staff Surgeon Robert W. Williams, to the *Pegasus;* Surgeon H. G. Jacob, to the *Racer;* Surgeon J. M. Rogers, to the *Agincourt;* J. W. Grene, to be Surgeon and Agent at Crookhaven; Fleet Surgeon James Flanagan, to the *Cambridge;* Fleet Surgeon Garland W. L. Harrison, to the *Northumberland;* Surgeon Herbert W. G. Doyne, to the *Bacchante;* Surgeon James C. F. Whicher, to the *Agincourt;* Surgeon Henry G. T. Strickland, to the *Victor Emanuel;* and Surgeon J. D. Henwood, to Plymouth Hospital.

A trained naval sick-berth staff is being established, and boys, who will be medically examined as to fitness for the service, will be selected from Greenwich Hospital School, the mercantile marine, and other sources. After completing a year's service in a training ship they will be sent to Haslar Hospital, where they will receive instruction in elementary anatomy, bandaging, in dressing wounds, and such other exercises as will enable them to render first aid to the wounded afloat and ashore. After performing these preliminaries the candidates will undergo an examination, and if found qualified they will be rated as sick-berth attendants with Admiralty approval. A notice has also been published that, pending the introduction of the new scheme, a few young men, whose age is between eighteen and twenty years, will be trained as nurses. They will have, if fit for the duties, all the advantages of the new system.

Correspondence.

"Audi alteram partem."

"STRANGULATED OMENTAL HERNIA."

To the Editor of THE LANCET.

SIR,—Some time ago Mr. Rushton Parker published a short work on "Abdominal Hernia," in which he questioned the usual doctrine that the strangulation of omentum only in a hernia will produce the same symptoms (though possibly less severe) as are produced by strangulation of the intestine, and he repeated his views in your columns on May 17th, 1884. He called attention to the fact that in my work on the "Principles and Practice of Surgery" I had supported the usual teaching, although I thought it right to call attention to the circumstance that the ligature of the omentum produces no such symptoms. Mr. Parker believes that the old doctrine is erroneous, and that the symptoms, in cases where strangulation is believed to have occurred in herniæ, which are really epiploceles—i.e., purely omentum—are due either to obstruction resulting from the dragging of the omentum on the colon, or to peritonitis, or to purely functional obstruction of intestine due to some other cause, and unconnected with the epiplocele except by simultaniety of occurrence;[1] whilst he believes that there is another class of cases in which the hernia is not really omental only; but that a piece of bowel has been in the sac, but has somehow got reduced either during the operation, or by the taxis just before the operation. I replied to Mr. Parker's criticisms in a letter which you published on August 4th, 1883, in which I hesitated to accept the second hypothesis (that of the reduction of previously strangulated bowel). As, however, a case has lately occurred in my own practice showing the reality of the fact, I hasten to put it on record in justice to Mr. Parker, as well as in consideration of the interest of the surgical question itself.

The heads of my case are briefly these:—An old man (aged seventy-three) was admitted into St. George's Hospital during the night of March 19th for umbilical hernia, with constipation and vomiting. I was accidentally absent, and a colleague was called in, who saw no reason to interfere by operation. Nor did I when I saw the man next day. He had had the rupture for two years. Latterly he had had a bad cough, and the tumour had become larger. On the previous day, after a severe fit of coughing, he suddenly experienced great pain at the umbilicus, and increased swelling. He began to vomit soon afterwards. The vomiting, however, at first was almost entirely of the contents of the

[1] Of this last view Mr. Parker gives an example in the accompanying letter.

stomach, and seemed to be excited by his cough. I must not burden your space with all the particulars of the case. Gentle attempts were made to reduce the hernia, but with no effect, on March 20th, and I believe no serious effort at taxis was made on any subsequent occasion. The man went on in much the same way for three days; but then the vomit became obviously more "fæcal"—i.e., it was no longer from the stomach only but from the small intestines, and his strength began also to fail, so that it was clear that if not relieved he would die. At the same time, his chest was so full of rhonchi, and his heart's action so feeble, that I was unwilling to give an anæsthetic. On March 23rd the parts over the sac were frozen and divided, and the sac found tightly constricted. The stricture being freely divided, attempts were made to reduce the hernia; and these not succeeding, the sac was opened, and nothing found in it but congested omentum, which was removed after tying its stalk with a double catgut ligature. The vomiting continued, and the patient died eighteen hours afterwards. On post-mortem examination the omentum was found adherent, not to the neck of the sac, which was quite free, but to the parietal peritoneum inside the belly. The portion in the sac could not, therefore, have exerted any traction on the colon, nor was there any serious displacement or any loading of that portion of the bowel. But about four inches from the ring was found a knuckle of small intestine, which had obviously been recently strangulated, and is thus described by our curator, Mr. Shield:—"It was about two inches in length, congested, and claret coloured, and was terminated above and below by the dark narrow furrow, both discoloured and contracting the bowel, which is commonly seen in intestine reduced in hernia, and is unmistakable in appearance." The fresh appearance of the constrictions and the still congested condition of the bowel appear to me conclusive proof that the reduction of the constricted intestine must have taken place during the operation, eighteen hours before death, and not in the attempts at taxis three days before.

The case proves beyond reasonable doubt that Mr. Parker is *right in* believing that some of these cases are not cases of *pure epiplocele* at all, and that I was wrong in thinking *that an experienced* surgeon could not have reduced a small knuckle of bowel without being aware of the fact, or noticing an unoccupied portion of the sac from which the bowel had been reduced. It does not, however, convince me of the truth of Mr. Parker's opinion, that strangulation of omentum only cannot produce the symptoms which I have indicated, and I confess that I still hold the opinion stated in my book, in connexion with many other surgeons, who also have met with cases inexplicable to their minds in any other way, difficult, as it may be, to form a satisfactory theory of the occurrence. At any rate, I thought it my duty to ask you for space to record this case.

I am, Sir, yours truly,

Great Cumberland-street, April 6th, 1885. T. HOLMES.

To the Editor of THE LANCET.

SIR,—Mr. Timothy Holmes has had the great kindness to let me see the copy of his letter, in which he makes very handsome reference to me. Having myself found post-mortem evidence of previous intestinal replacement in fatal strangulated hernia that had been, or was capable of being, supposed to be mere epiplocele, I had the best grounds for believing that a similar condition of things could occur again. The combined circumstances that render this observation possible must be so rare that Mr. Holmes's independent confirmation lends to my contention a support without which many would fail to be impressed by it. After all, however, his case, like the one I referred to, merely shows how, in a certain rare, but always possible, class of cases, to avoid the fallacy of attributing to strangulated omentum symptoms really caused by strangulated intestine. I continue unshaken in the firm conviction that strangulation of omentum alone, *as* strangulation, can have no symptoms, seeing that the tightest ligature never produces them. Among the various explanations that can be given of the undoubted symptoms that are found in cases where omentum alone exists, and is supposed to be strangulated, I mentioned the occurrence of intestinal obstruction of the "functional" kind in persons who happen to also have an omental, though harmless, hernia. It is not a very uncommon thing to meet with patients who suffer from constipation, vomiting, griping, or vague abdominal distress. Such cases are remedied by fasting, by rest and warmth, and by the narcotic assistance of opium, alcohol, or both. In my pamphlet on "Abdominal Hernia" I asked, "Why such symptoms should not now and then occur to persons already possessed of a hernia?" They are, in fact, perfectly well known in old large herniæ, especially umbilical; and although the hernia of intestine is often, if not generally, at fault, even if not strangulated, by being materially hampered through adhesions, &c., still such symptoms have often nothing whatever to do with the hernia. It must be so, for surely persons do not require a hernia in order to get "bowel complaint," whether it be diarrhœa, constipation, or mild obstruction. Such being the case, it is contrary to common sense and clinical experience to put down such symptoms at once, and in every case, to the supposed strangulation of a previously long harmless omental hernia. Such a case I, not long ago, witnessed. On Dec. 22nd, 1884, I saw, in consultation with Mr. H. O. Thomas, an old lady of nearly seventy who had long had an irreducible omental femoral hernia. For two or three days previously she had had constipation, vomiting, furred tongue, loss of appetite, griping, and general abdominal distress. The hernia, moreover, had increased in size, but whatever its contents, it was not resonant on percussion. Taxis was very gently attempted under an anæsthetic, as well as without, but the hernia could not be in the least altered in bulk or shape. The case we both admitted to be consistent with the existence of functional obstruction of intestine, independently of the hernia; yet, knowing how insidiously strangulation of intestine occurs, without much addition to the hernial bulk, I felt that operation would be the wiser course to make sure. But Mr. Thomas rather held to the view that the hernia was not in this case in fault. So after ample discussion I agreed to his proposal to trocar the centre of the hernia for exploratory purposes. The only issue was blood-stained serum, without odour at all, on which it was agreed that we had not reached intestine and that the patient could fairly be left to medical treatment. A little morphia was given under the skin and the mouth merely moistened with necessary liquid, the result being entire cessation of symptoms and speedy recovery. Cases like this show that the whole casuistry of the subject is rather more intricate than is often imagined, and prove more and more how well founded is the very reasonable rejection of the doctrine assigning symptoms to mere strangulation of only omentum. It has occurred to me while writing that some might think that a portion of intestine was possibly here reduced in the manipulations. This is not possible; we were keenly on the look out for any such fact, which would have been welcomed, and could not under the circumstances have eluded observation. No change whatever in the bulk of the hernia resulted until it was tapped. A similar case is recorded by Mr. Thomas at the end of his work on intestinal obstruction, but the above is the first that I have myself recognised. Pray excuse the length to which I have gone.

I am, Sir, yours truly,

Rodney-street, Liverpool, April 6th, 1885. RUSHTON PARKER.

"SMALL-POX AND VACCINATION."

To the Editor of THE LANCET.

SIR,—In your last week's notes in Parliament, at p. 643, it is not made clear that the seventy-eight persons engaged at the London small-pox hospitals, about 7 per cent. of the whole number employed, who had had small-pox had it before they were engaged at those hospitals. When Mr. G. Russell from his official position had to state that his department had no reason to doubt that "none of the nurses at any of the London small-pox hospitals who had been *duly vaccinated before entering on their duties* have ever caught small-pox" is substantially accurate, he goes on to say that this might have been more guardedly expressed in "Facts concerning Vaccination." The words now put in italics show how sufficiently the expression is guarded, and most members of the Local Government Board would probably admit this.

Of late it has been common to report cases of small-pox after vaccination, not only when the vaccination was performed after the reception of small-pox infection, but also where there is no evidence of any effect of revaccination having been produced. In times of great pressure persons have been engaged for duty at small-pox hospitals before their revaccination was known to be effective. Even

a previous attack of small-pox is not a positive safeguard unless tested by a revaccination. All the evidence accumulated to the present time conclusively proves that vaccination has lost none of its protective power, and we are constantly reminded to our cost that small-pox has lost none of its virulence.

I am, Sir, your obedient servant,

April 4th, 1885. WILLIAM SQUIRE, M.D., F.R.C.P.

DONBAVAN *v.* MORRISON.

To the Editor of THE LANCET.

SIR,—The above case came on for trial before the judge of the county court, Croydon, on the 31st ult. After all the points on which we relied had been ably put forward I regret to state that the judge, without calling on the defendant's counsel for reply, gave judgment in his favour, giving costs also on the higher scale, alleging as the grounds for his decision that he held that a workhouse and workhouse infirmary were public institutions within the meaning of the 5th section of the Coroners' Witnesses Act, and that the officers of such institutions were not entitled to payment for making post-mortems and attending and giving evidence; thereupon our solicitor applied for leave to appeal, which the judge, after some hesitation, assented to.

This decision, if not upset on appeal, will seriously affect the interests of all workhouse medical officers, who in future will not be paid for such examinations and evidence, and it practically reverses the system that has been followed since the Act came into force, which has been to pay workhouse medical officers for such examinations and evidence.

The trial so far will cause a heavy drain on the very limited income of our Association, and without immediate pecuniary assistance it will be impossible for us to prosecute further proceedings. May I ask, therefore, my professional brethren who are able and willing to at once announce their intention of supporting us by forwarding subscriptions to me. I am, Sir, yours obediently,

JOSEPH ROGERS,
Chairman of Council, Poor-law Medical Officers' Association.

31, Montague-place, W.C., April 1st, 1885.

"ALLEGED DEATH FROM VACCINATION."

To the Editor of THE LANCET.

SIR,—After reading your article I feel it due to myself, being misunderstood, to say:—1. That I accept, and have for twenty years accepted, the proposition that vaccination modifies small-pox. 2. I do not consider "arm-to-arm vaccination an undesirable method of procedure," except in the case of tuberculous infants. 3. I was called urgently, for the first time, on the 14th ult., to the deceased infant, H. J. Downing Walker, because the child was "in a fit." The difficulty in breathing spoken of in Court by Mrs. Walker was on the 12th ult. Any observations made in Court as to the effect of point vaccination as compared with arm-to-arm vaccination were given only as the result of my own individual experience. Finally, in the certificate, which the superior wisdom of a coroner's jury was pleased to condemn, it was my intention to state, according to my light, the prominent medical facts preceding death, and that being so, the certificate, when written, was a "correct statement" of the opinion of

Your obedient servant,

Regent's-park, N.W., April 6th, 1885. C. C. WHITEFOORD.

AN EASY METHOD OF CURE FOR SALIVARY FISTULA.

To the Editor of THE LANCET.

SIR,—The following method does not appear to be mentioned in any of the usual text-books of surgery:—

J. K——, a fish salesman, came to me about the New Year with a fistula of the parotid duct resulting from a former knife wound. The flow of saliva was continuous, but was much aggravated at meals, and when opening oysters in the course of his business. Applications of nitrate of silver, pure nitric acid and a hot wire were tried without success, as all communication with the mouth seemed shut off. On Jan. 20th two needles threaded on one fairly strong piece of silk were successively passed through the fistula into the mouth on a rather lower level than the external fistulous orifice, piercing the buccal mucous membrane about a quarter of an inch apart. The needles were then removed, and the threads firmly tied and cut off short, thus leaving a ligature enclosing part of the internal wall of the duct, a portion of mucous membrane, and the intervening structures, but in no way preventing the healing of the external wound, as would be done by the seton usually recommended. The edges of the fistula were touched with pure nitric acid on Jan. 22nd, and some swelling of the side of the face ensued. On Jan. 25th a scab had formed outside, and nearly all the saliva found its way into the mouth. This scab came off a few days later, leaving the skin soundly healed, and the ligature inside cut its way through the mucous membrane on Feb. 11th, since which time the man has experienced nothing differing from the normal condition.

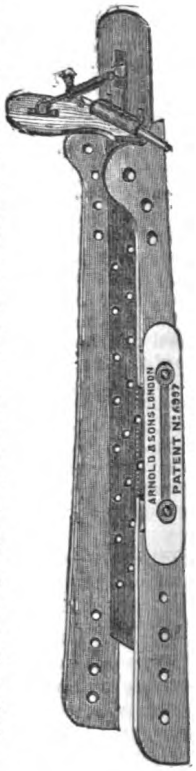
I am, Sir, yours faithfully,

Rochdale, April 6th, 1885. ALFRED HODGSON, M.B. Aber.

IMPROVED FRACTURE BOX.

To the Editor of THE LANCET.

SIR,—I wish to bring under your notice a new invention, which I presume will be of great advantage to surgeons in the treatment of fractures of the leg. It is an improved fracture box, suitable for any fracture of the leg, simple or compound, or disease of the ankle-joint requiring rest in position. It consists of three pieces: bottom and two sides. The bottom is pierced with drainage holes, and has a hinged foot-plate attached. This foot-plate is further connected to the foot end of the bottom splint by a regulating screw. This screw is a "fine thread" screwed socket rotating on a screwed pin. This screw regulates the angle at which the foot-plate is required to be kept. One of the side splints is plain; the other is in two parts, kept together by a brass slide having a longitudinal slot of the diameter of the thumb-screws, on which it runs, and which serve to retain it in position. This is the "interrupted" splint of the fracture box. It can be made a plain splint if required, or can be fixed at any divergence by the thumb-screws. One of these interrupted splints is only required, as both side splints are reversible, and will fit either side of the apparatus. The usual straps and buckles tie it together. The accompanying woodcut will assist in giving a clear idea of the nature and construction of the apparatus.



I remain, Sir, yours sincerely,

JAMES J. FOLEY,
Riversdale, Midleton, co. Cork, April, 1885. Medical Officer, Midleton Hospital.

NEW WORKHOUSE INFIRMARY AT WEST BROMWICH.—The *Building News* gives a lithograph of the New Infirmary, West Bromwich. Accommodation is provided for 224 patients. The arrangement of the wards is on the pavilion system. The contagious and infectious wards are separated from the buildings, and so arranged that each ward may be isolated. None of the buildings exceed two storeys. The staircases are of stone, and numerous hydrants have been placed in convenient positions. The cost of the infirmary has been about £12,500.

WITH THE TROOPS IN THE SOUDAN.

(From our Special Correspondent.)

Base Hospital, Camp near Suakim, March 23rd, 1885.

FOOTSORE, dust-begrimed, and desperately tired, I sit down to write you a few lines from this entrenched spot, as I feel assured any information from the front, however brief, will be welcome from this newly selected battle-field of the African Soudan. Scarcely had I arrived in this port ere private news reached me of a projected advance of our troops in the direction of Tamai, *en route* for Berber. I at once proceeded on foot under a blazing sun to the head-quarters of our camp, situate about a mile from the Arab town, and sought an interview with General Graham, now in command of the troops out here. On inspecting my papers, however (your certificate of appointment as "special" I refer to), he remarked that my credentials were not exactly in order, and explained to me that a properly attested registration certificate should have been obtained from the proper authorities at the Horse Guards, in order to place me on the same footing as other specials accompanying the troops in the field. I explained how hurried my departure had been from England, and after a few minutes' conversation the difficulty seemed to be bridged over, and a very pleasant interview terminated in the Chief of the Staff pointing out the principal medical officer's tent, and referring me to that gentleman for any future instructions for my guidance on the subject. Surgeon-General Barnett at once received me in a most cordial manner, expressed his pleasure at meeting a representative of THE LANCET, and assured me that no obstacle whatever would be placed in my way, but every facility possible afforded for my obtaining any medical or surgical records of such cases as I thought fit to notice, and were likely to interest the profession at large, at the same time handing me a paper (a general order) for my perusal, whereby I was enabled at a glance to ascertain that a very careful disposal of the medical staff had already been made in view of the troops moving westward to confront and give battle to the enemy in the plain.

On Thursday morning last, March 19th, I was aroused at 3 A.M. Hurriedly dressing, partaking of biscuit and a good cup of strong coffee, and then filling my small handbag with a tourniquet, some artery forceps, surgical needles, silk, and such other necessaries likely to be useful, as well as comforting in case of accident or delay on the road, I quitted the easy quarters on board the steamship *Arab*, and proceeded on shore in company with a "special" bent on a representative errand as myself. On arriving at headquarters, we found the column had left the camp about an hour before our arrival, and not being able to secure a horse for myself, I had to part company with my companion and follow General Graham's force to Asheen on foot and alone—a by no means happy prospect, in view of a some seven or eight miles' dusty walk over a sandy desert under the scorching rays of a tropical sun, and in the presence of a subtle, active, and relentless foe. By the time the sun had risen, a light, cool, northerly breeze had sprung up, so that my solitary tramp turned out not quite so unpleasant a one as I expected it would have been. Doing my level best, as they say—some five miles an hour,—I came up with the rearmost of the camel train, in charge of native Indian drivers, and in an hour afterwards I had forged so far ahead that I could easily discern the entire distribution of the force in front, and in two hours from the time of leaving the ship was up with and coming on at a canter with the Brigade of Guards, and felt not much the worse for my long walk. Soon afterwards a halt in front, and an order from the General for the camels and mules to immediately come into square, suggested the probability of a "find," either for refreshment or foe. "Breakfast, I guess," says a sturdy mule-driver close to me, the wish on his part being father to the thought, as our stomachs were by this time empty enough. Not long, however, had we to wait for a decision on this point. An extended line of white-greyish smoke making its appearance over the helmets of the men standing in front of us, and the sharp rattle of musketry heard on our left front face told no uncertain tale, but proclaimed the fact that the enemy were there—more than that, not at bay, but, as their usual custom and valour is, were charging right up to our very front. Cavalry, with their gaily decorated lances, were seen dashing along in one direction, whilst our Guards, the 49th, 53rd, and 70th, were doing their very best pegging away in another. The din of battle proceeded, whilst dust and smoke soon obscured from view nearly everything going on around us. After quitting the camel convoy I had marched on with the Guards, and then joined the hospital and bearer company, hoping to see what wounded were brought in from our front face of the square; but in the hurry and scurry, the confusion and rapidity of movements going on around me, I for a time lost touch of the medical department, and, by getting out of the way of a score or so of refractory camels, suddenly discovered myself outside of the square that had fortunately, and yet quickly, been formed at the base of a small hill to resist the onslaught of a most brave, active, and determined enemy. For some seconds I was at a loss to know what to do. There I stood alone, unattached, and withal perfectly unarmed. I felt for at least once in my life that I had outstepped the bounds of discretion, and had really no business where I was, and further than that, if I remained much longer just at that particular spot looking at the action, and admiring the pluck as well as the dash of our own brave fellows in mounting the spur of the hillock, and carrying up planks and bags to form a zereba, the occasional thinning of the dust cloud and blowing away of the smoke giving me an opportunity now and then of getting a glimpse of what was going on in this tug of war, I myself would be as near as possible in a line betwixt two fires, and form an admirable target for either side which should choose to fire upon me. I was in a dilemma, it is true, having to determine upon one of two dangerous alternatives—either to dash back through the dust and smoke and try to regain the inside of the Guards' square, with the prospect of being mistaken and shot at as an enemy, or make for some safe distance in the rear. Acting on a natural instinct, impulse if you will, and which has stood my friend on many a trying occasion before, I decided for the latter, and at noon exactly started across the plain for Suakim, and the entrenched camp some seven miles away. Two young men, who had come out with the force in the morning, joined me a few minutes afterwards, and I at once felt relieved by their companionship in this retrograde movement on our parts; however, they, like myself, were amateurs, and had come out of camp—just as Easter Monday holiday folk do on Brighton Downs to see what was going on; and one of them had in his possession a large, ugly revolver, which he persisted in carrying in his hand at full cock. As I considered there might possibly be, from inexperience in its use on his part, more danger in this friend than in a foe, it was with no small degree of relief to my feelings that we three parted company, having reached a place of comparative safety about four miles away from the action that was then going on. By 2 P.M. I was inside the West Redoubt, the furthest post out held by the English in the plain, and learnt from the officer in charge, Lieut. the Hon. H. White of the Guards, the great danger I had run in going out, and especially in coming in unarmed over a wide plain that might then actually be in possession of the enemy, who give no quarter, but slaughter every man and beast they meet. From the crow's nest of this redoubt we watched the fight going on; saw that the brave British force had already secured the low hills which dominated the wells; but had formed a zereba as well as established heliographic communication between head-quarters and themselves. By three o'clock the fight was practically over. The gallant 70th were left to hold the zereba, and the remainder of the expeditionary force returned to camp to give the men a good meal, and get a little rest in their entrenched position after a most fatiguing march out, and the gallant exploits of the day.

Poor Lieutenant Dalliston, of the Guards, fell early in the day, shot dead, and very soon afterwards Surgeon Lane, also of the Guards, as gallant a fellow as ever breathed, and as accomplished a young surgeon as ever graced the pages of the Army List, sank to earth pierced by a bullet wound through his left lung. He was very carefully brought back to camp; considerable hæmorrhage meanwhile ensued, and all felt that his wound was desperately dangerous. The following morning he was dying, no possible hopes whatever being entertained that he could live out the day. He breathed his last about two o'clock in the afternoon. Every care and attention was paid him by his medical brethren, but all to no purpose. He passed away in the prime of life and pride of manhood, to give place for others to emulate

him in quality and action, as well as to place another lasting testimony on the record of fame that there are men in the non-combatant as well as the combatant branch who are prepared to lay down even their lives, if needs be, in the execution of their duty for their Queen and their country. I had telegraphed to you early in the day of the serious character of his wounds, as well as that of some other officers; but from some misunderstanding on the part of the telegraphic company, all messages now being under a military censorship prior to being sent away, my report, containing ciphers to save expense, was stopped, and handed back to me in consequence.

Our list of casualties in this slight action, and the day day following, when a relieving column was despatched to the zereba, was heavy enough. Sergeant-Major Nicholls was stabbed to death, and some men of the 2nd Scots, 1st Coldstream, and 2nd Grenadier Guards fell mortally wounded by Remington bullets. Major Robertson, of the Bengal Cavalry, was stabbed by a spear very severely. Major Harvey, of the 5th Lancers, received a bad thrust through his left thigh, but is doing well. Most of the wounds were gunshot ones, the rebels not getting within thirty yards of our squares. The injuries inflicted by spear thrusts are simple clean flesh-cuts, the enemy's weapon having a razor-like edge. These wounds under ordinary antiseptic dressing do well, and generally heal by first intention. Their large double-edged sword, used with great force, held in the two hands, and generally aimed at the neck and head, produces most ghastly wounds, severing flesh, vessels, and bones in the course of its descent, and killing its victim outright. No man unhorsed in fight ever escapes the fury of these ruffians, nor lives to tell the tale of a hand-to-hand encounter with their active and brave but relentless, foes. (*Vide* sketch.)

Corpse of a private after falling into the hands of the enemy. One sword-wound in the neck, severing everything through the cervical vertebræ; the rest are spear-wounds on the chest and arm, six in number. (Sketched at Base Hospital, March 23rd, 1885.)

Saturday (21st) was a quiet day as far as the home force was concerned; but much firing was heard in the direction of the Hasheen zereba, although no reports had come in from them until Sunday, the 22nd.

On Sunday (22nd) a large force left the camp before daylight, taking a southerly direction towards Tamai, twelve miles distant. Five or six miles out, the camp, whilst the men were building a zereba, was surprised by a large number of the enemy, and a regular stampede among the camels and camp followers in consequence ensued. The details of this affair must sooner or later reach England, and some explanation will be required to account for the sad loss of life that has taken place amongst the troops and men employed. As I write this an order has reached the Base Hospital from headquarters for the medical staff to be in readiness to receive a large number of wounded from the field. A large and powerful escort has gone out to bring the wounded in. During the whole of this day (Monday, 23rd) Brigade-Surgeon Hinde, assisted by his energetic staff at the redoubt, have been working hard to have everything in readiness to receive them. About 100 are expected. In this camp Surgeon-Major Tanner can accommodate 70 in beds, 20 can be taken in the Auxiliary Hospital at Quarantine Island, whilst 55 could be removed on board the *Ganges*.

The hospital tents are both roomy and airy, being lined with double protective covering overhead, and are square, not bell-shaped, as wrongly described by some correspondent. The operating tent, under the superintendence of Surgeon-Major Tobin, is a picture of comfort, method, and order, and reflects much credit on the indefatigable officer in charge of it.

7 P.M.—Just dusk, and the wounded are being brought in. Poor fellows, I pity them indeed! Their faces, and those of the gallant band who have brought them, are so brown and covered with dust that they are scarcely recognisable; but never mind—comforts, in the shape of a nice bed, good warm soup, hot tea, or even brandy-and-water, await each one, as the necessity of his case demands it. The dressings, moreover, are so carefully adjusted, and the patients seem to have had such good attention in the field, that they will enjoy the comfort of a quiet night before their wounds are further inquired into.

LIVERPOOL.

(*From our own Correspondent.*)

MEDICAL FACULTY, UNIVERSITY COLLEGE.

THE vacancy caused by the resignation of Dr. Ewing Whittle, of the chair of Medical Jurisprudence and Public Hygiene, has been filled by the election of Mr. Frank T. Paul, surgeon to the Royal Southern Hospital, and surgical tutor in University College. Mr. Paul possesses eminent qualifications for the chair, having been a pupil of the late Dr. Alfred Swayne Taylor at Guy's Hospital, and having also held the appointment of pathologist to the Liverpool Royal Infirmary, where he was previously resident medical officer for nearly three years. He has personally made upwards of 1000 post-mortem examinations, and was for some time demonstrator of physiology. Altogether, the appointment is one on which the College may be congratulated.

THE LOCK HOSPITAL: COMPARATIVE RARITY OF SYPHILITIC IRITIS.

At a recent meeting of the Medical Institution, Dr. Bernard, surgeon to the Lock Hospital, read a paper on "The Treatment of Constitutional Syphilis," in which he remarked on the rarity of cases of syphilitic iritis seen in the hospital. The total number of patients treated averages over 600 annually, of whom the larger proportion are suffering from constitutional syphilis. Mr. Shears, senior assistant-surgeon to the Eye and Ear Infirmary, who took part in the subsequent discussion, observed that syphilitic iritis was very frequent among the out-patients of that institution. Subsequent inquiries showed that in a period of ten years (May, 1875, to March, 1885) there had been only seventeen cases observed in the Lock Hospital, and in the majority of these the eye is affected either on admission or very shortly afterwards. A very probable explanation is that the cases seen at the Eye and Ear Infirmary are those of patients who have neglected the primary disease, the influence of mercurial treatment in both preventing and curing syphilitic diseases of the eye in particular, being now undisputed.

STREET NOISES.

For some years past most of our leading thoroughfares have become insufferably noisy, there being an incessant roar of traffic from a very early hour in the morning until very late at night. The wood pavement does not appear to find much favour with the local authorities, who have only permitted a very limited use of it in the neighbourhood of the Northern Hospital, in Bold-street and part of Church-street, thoroughfares devoted to fashion. The asphalte pavement deadens the sound somewhat, though it has the disadvantage of being very dusty. Medical practitioners, who are obliged to live in or near leading thoroughfares, suffer much from this annoyance, as also from much noise

which might be avoided, such as street music and singing, newsvendors' cries, &c. A recent local Act, which does not appear to be generally known (Liverpool Improvement Act, 1883), contains a section (29) which requires every street musician or singer to depart from the neighbourhood and from within hearing of any householders on being requested to do so by the latter, or any member of his family, or servant, or by any constable. A refusal to comply with this perfectly reasonable request renders the offender liable to a penalty of 40*s*.

CITY CHURCHYARDS.

This city contains within its corporate boundaries a large number of intra-mural churchyards and cemeteries which, since the year 1854, have been closed absolutely against all interments. Their appearance, until very recently, has been dismal in the extreme, presenting a dreary outlook of neglected graves and tombstones, while some have been made the receptacle for all the refuse of the adjoining street. Some years ago the incumbent of St. James's Church, Toxteth-park, the churchyard of which was in a most disgraceful condition, took steps to improve it, including the planting of trees. The experiment has proved both successful and contagious, other churchyards and cemeteries having been planted with trees and made into recreation-grounds. Another churchyard, St. Luke's, is now being laid out; and it is probable that in the course of years every intra-mural burial-ground will have been similarly transformed. This will conduce greatly to the health and comfort of the inhabitants in their neighbourhood.

THE ROYAL SOUTHERN HOSPITAL.

At the Royal Southern Hospital there are several cases of operation for the removal of new growths, under the care of Mr. Paul. A recurrent melanotic sarcoma of the neck, primary in a submaxillary gland, is worthy of note. The original growth was removed two years ago from a man aged forty-eight; he has since been in good health, but the recurrence was very extensive and deep, so that, although the wound is healing well, the ultimate prospect is not encouraging. Among the most interesting are two cases of carcinoma of the antrum, involving removal of the whole of the upper jaw and contents of the orbit. Mr. Paul refers to six cases of this nature which he has recently met with, all of them presenting the same clinical history, and one which enables the diagnosis from sarcoma to be made without reference to the microscope. In all, the first symptom noticed by the patient was a formation high up in the nostril on one side, which easily bled and gave rise usually to some unpleasant discharge; subsequently, at the inner angle of the orbit, a small soft tumour grew, displacing the eye, and this was the immediate cause of the patient's applying for admission to hospital. In no case was the antrum distended, as in sarcoma. The growth evidently began in the mucous membrane of the antrum, fungated into the nostril, and then spread up, probably along the nasal duct, to the inner angle of the orbit. Microscopically, two of the cases were of the ordinary squamous epithelioma, and the remaining four the normal cylindrical-celled carcinoma of this part. Both the patients have recovered temporarily from this extensive operation, but one already has a recurrence. An epithelioma of the back is another case not very common; and two old cases, come up to show themselves in good health, were encouraging—one, an excision of the rectum for cylindrical epithelioma nearly four years ago, still free; the other, a colotomy for the same growth in the sigmoid flexure of the colon six months ago. Mr. Paul has two cases of compound fracture of the leg into the ankle-joint, in which very good results have been obtained by treatment with his splint and wiring the bones; and two or three cases of talipes, in his splints, undergoing a gradual improvement.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

HEALTH LECTURES AT MORPETH.

A COURSE of six lectures of a popular nature has been commenced at Morpeth, and it is satisfactory to know that the public have taken a considerable interest in the matter, as evinced by an attendance which is said to have fully tested the capacity of the Town Hall. A few years ago a popular lecture by one of our professional brethren was a rare event in the North, and only "the leading men" ventured to address the public, and then on non-professional subjects as a rule. Now the younger members come forth, to the great advantage of the public, who desire, and will have, medical information and light on sanitary subjects. The first lecture was by Dr. David Drummond of Newcastle, and his subject, "House Sanitation," was ably treated, dwelling with force and lucidity on the importance of ventilation and drainage, and giving a number of very striking illustrations of how such diseases as scarlet and typhus fevers and consumption were generated by neglect of the principles laid down. The second lecture was given by Dr. Byrom Bramwell of Edinburgh (whom we claim here as a Tynesider); his subject, "Common Diseases, their Cause and Prevention," was very ably treated, and the Hall, if possible, was more crowded than on the former occasion. It is as well to mention, as bearing on the success of these sanitary lectures, that the experiment was tried, which has proved so successful, of charging one penny for admission to each lecture. This has been shown to be a better plan than free admission; for what people get for *nothing* they generally attach little or no value to.

THE CHLORAL HABIT.

A very distressing case has occurred in Durham City since my last letter. A lady, the wife of a prominent citizen, was found dead in her bed. It was stated at the inquest that she suffered from sleeplessness, for which she was in the habit of taking chloral without medical advice, and it was shown that death had taken place "from syncope, accelerated by chloral, self-administered."

AN EXAMPLE FOR TRAVELLERS IN SUNNY LANDS.

Sir George Elliott, Bart., M.P., has sent large boxes of beautiful flowers from the south of France to Durham County Hospital, Sunderland Infirmary, and Newcastle Infirmary, with instructions that they should be dispersed amongst the sick wards. Sir George has frequently shown his sympathy with the sick poor of the north before, but I venture to say this last act of his will be felt by them as most graceful and considerate.

MEASLES AND RÖTHELN IN THE NORTH.

There is now rather a smart epidemic of measles prevalent at Gateshead. I have heard of as many as forty pupils in one school being absent from this cause. Several adults have been attacked, and, as usually observed, have suffered more severely than children. Some cases have been evidently of the character of rötheln; but as a rule the epidemic has not shown the severity nor the fatality of the Sunderland outbreak, which, I regret to say, still prevails in a bad form in that borough.

TRIPLETS IN THE NORTH.

Since the New Year set in several cases of triple births have occurred in the north, both sides of the Tyne having received augmentation to their population in this way, and also some of the mining districts of Northumberland. If we suppose that the usual midwifery statistics are correct as showing triple births to take place once to every 6000 cases, we must allow that the experience of Mr. John Foggin, a young surgeon in practice here, has been quite unusual, for many practitioners will not have a case of triplets in a lifetime, while Mr. Foggin has had a case on January 8th last, two boys and a girl born alive; and again on March 28th, three boys born alive, and still living. I believe Mr. Foggin has been successful in obtaining the Royal Bounty for the first case, and is also hopeful of getting it for the last; both have occurred in the wives of poor and industrious people.

Newcastle-on-Tyne, April 6th.

PARIS.

(From our Paris Correspondent.)

THE SUSPECTED ARSENICAL POISONING CASE.

IN my letter of Jan. 31st I gave an account of a suspected case of poisoning by arsenic. The supposed criminal, whose name is Pel, and a clockmaker by trade, is soon to appear before the Court of Assizes of the Seine. The trial promises to be most interesting, and at the same

time most perplexing, as the preliminary examination has been before the magistrates and medical jurists. Owing to the mysterious disappearance of the maid-servant of the accused man, a stove in which he is strongly suspected of having burnt the body of his victim, or perhaps victims, was seized; but as the dimensions appeared somewhat too small for the execution of his purpose, the medical experts had one made exactly like it, and by way of experiment burnt the corpse of a human adult in it. They were greatly surprised at the rapidity and completeness with which the body (previously cut up) was consumed. In fact, it might be used as a crematory. That belonging to the accused, which was rather primitive and unique of its kind, is supposed to have been devised by himself, and has been carefully preserved in the same condition as when found, as it will necessarily be brought forth as evidence against him. Although very small, yet the mouth of the stove was found large enough to admit a man's head, entire. It has also been noted that Pel followed very assiduously, and for a long time, the course of Medical Jurisprudence delivered by Professor Brouardel at the Morgue. Another crushing circumstance against the accused is that when the examining magistrate observed to him that arsenic was found in the body of his first wife, which was exhumed, he replied that that was not astonishing, as she had been treated for two years with arsenic; but it has been ascertained that none of the medical men who attended her had prescribed that substance, nor did any of the prescriptions made up at the pharmacies for her contain it.

REMOVAL OF A CANCEROUS KIDNEY.

Dr. Péan, one of the most daring French surgeons of the day, and a well-known ovariotomist, submitted to the Academy of Medicine last week the case of a patient (an English lady) from whom he had removed a cancerous kidney about fourteen months ago. Dr. Péan had seen the patient six years previously, but he did not then consider the case ready for any operative measure. She had in the interim consulted some of the most eminent surgeons in London, who declared, in response to her desire for an operation, that it was impracticable. She then came to Paris to consult Dr. Péan again, and when he saw her about fourteen months ago, he found her in the last stage of marasmus, and the tumour occupied as much of the abdomen as would a nine months' gravid uterus. The removal of the tumour was decided upon by gastrotomy, and the operation was effected by making an incision through the abdominal walls, along the linea alba from the pubes up to the epigastric region. The tumour was removed with some difficulty, and was found to weigh six kilogrammes, or about thirteen pounds, and the whole operation occupied a little more than an hour. It is, however, a pity that Dr. Péan did not mention whether the operation was performed under the influence of chloroform or other anæsthetic, or whether antiseptics were employed or not. Professor Charles Robin, who examined the tumour histologically, pronounced it to be an epithelioma of the kidney. Dr. Péan stated that, although the operation was performed about fourteen months ago, he did not then wish to submit the case to the Academy, as he was afraid of an early relapse. This, however, has not occurred; the general state of the patient has never failed to improve from the commencement, and the remaining kidney has been found sufficient to produce the normal quantity of urine. The urine of the patient was lately examined by M. Méhu, an eminent chemist, who declared that it was of the same chemical and histological constitution as that of women in health.

THE HEALTH OF THE ARCHBISHOP OF PARIS.

The Archbishop of Paris, who was reported to be suffering from bronchial catarrh, is now officially pronounced by his medical attendant to be out of danger, and notwithstanding his advanced age (his Eminence being an octogenarian), every hope is entertained of his recovery.

Paris, April 7th.

ANONYMOUS letters containing threats to blow up Netley Hospital with dynamite have recently been received by the Commandant and other officials of that institution. A few nights ago a package, which was immediately destroyed, was found in the vicinity of the hospital, and since then increased vigilance has been shown, and the force of military police stationed at the hospital has been increased.

THE ROYAL COLLEGE OF SURGEONS.

AT a quarterly meeting of the Council, held on Thursday last, the minutes of the last meeting were confirmed.

The thanks of the Council were given to Mrs. Fairlie Clarke for the presentation of drawings, &c., illustrating Diseases of the Tongue, which had been prepared by her late husband.

No essay was received for the Jacksonian Prize. The subject for next year is to be the Pathology, Diagnosis, and Surgical Treatment of Diseases of the Thyroid Gland.

Mr. E. H. Fenwick, of the London Hospital, was elected an Examiner in Physiology under the combined scheme.

The Committee of Charters and Bye-laws presented their report, the reproduction of which we must defer till next week. It was agreed that the Association of Fellows and Members be informed that the College is about to proceed to get the necessary charters and bye-laws drawn up.

The question of recognition by the College of the vaccination certificates granted at Belfast, having been again raised by a letter from Professor Redfern, was referred to a select committee.

A request from the Western University, London, Ontario, to have its teaching recognised, was referred to a committee of management of the two Colleges.

Mr. Durham gave notice of the following motion, to be brought forward at the next meeting of the Council: "That seven delegates from this College be appointed, with authority to invite an equal number of delegates from the Royal College of Physicians, to meet and confer upon what steps, if any, can be taken to enable the two Colleges to obtain the legal right of giving the title of Doctor to persons who shall have obtained the licence of the Royal College of Physicians of London, and the diploma of Member of the Royal College of Surgeons of England."

MAHOMED MEMORIAL FUND.

THE following additional subscriptions have been received:—

	£	s.	d.
Dr. Edward Chisholme (Sydney)	5	0	0
Dr. Arthur Evershed ...	1	1	0
H. Lund, Esq.	1	1	0
Albert Martin, Esq., M.B.	5	0	0
T. D. Ransford, Esq. ...	1	1	0
A. H. Tubby, Esq.	2	2	0

A meeting of the General Committee will be held in the Governors' Court-room, Guy's Hospital, on Thursday, April 16th, at 4.30 P.M., to receive the report of the Executive Subcommittee, and to consider how best to make use of the fund.

ARTHUR E. DURHAM, Treasurer.
JAMES F. GOODHART, W. H. A. JACOBSON, } Secretaries.

COUNTY COURT, CROYDON.

MEDICAL FEES FOR NECROPSIES IN WORKHOUSES.

In re DONBAVAN *v.* MORRISON.

MR. W. J. FRASER, who appeared for the plaintiff, having stated the facts, contended that it formed no part of the duty of the medical officer of the Croydon Workhouse and Infirmary to make a post-mortem examination of the deceased's body. The case was properly reported to the coroner's officer, who, having deemed an inquiry necessary after consulting the coroner, the medical officer not being certain as to the actual cause of death, was ordered by the coroner to make a post-mortem. It was no part of such medical officer's duty to make such examination at the coroner's request. He was not remunerated for it. Indeed, prior to the appointment of the present (recently elected) coroner, his predecessor, Mr. Carter, had for years paid the fee. The workhouse and infirmary were not public institutions within the meaning of the Act. They were exclusively maintained at the expense of the ratepayers of the union, and were for destitute persons and none others. Unless a person was destitute, or in fact a pauper, there was no right whatever on the part of such person to receive treatment

therein. No person could be treated in a workhouse infirmary without becoming a pauper. The plaintiff was therefore the medical officer of a pauper, and not of a public, institution. A coroner had no more right to call upon the medical officer of a workhouse to make a post-mortem without paying the stipulated fee than he had to require the ordinary medical practitioner to do so, who might have been casually called in to attend upon a person upon whose body an inquest had to be held, and also a post-mortem. A public hospital or infirmary was an institution open for the reception of any person, no matter what might be his or her rank in society who sought its aid and could be cured therein. The word "public" was general in its application, and applied to all classes of persons, whereas a workhouse and infirmary was only for the pauper and no other. The word "public" meant public generally, and not any section such as the destitute and the pauper. In conclusion, Mr. Fraser saw that, whether the object for which the statute was passed, the mischief at which was aimed, the plain and natural interpretation of the language used, or the fact that workhouses were not mentioned or even referred to, was regarded, no other conclusion could be come to other than that the plaintiff was entitled to his fee, and it would be a manifest injustice to compel him to go without it, and to give that to him would be in accordance with the practice which had for the most part prevailed since the passing of the Act in 1841, and in harmony with the opinion of the Poor-law Board (now the Local Government Board), which was by no means an unworthy authority.

The judge, Mr. Lushington, gave a verdict for the defendant, with costs on the higher scale, alleging as the grounds for his decision that a workhouse infirmary was a public institution within the meaning of the section.

Mr. Fraser thereupon applied for a case for appeal, which the judge assented to.

Obituary.

JAMES WHITEHEAD, M.D., F.R.C.S.

WE regret to record the death on the 3rd inst., at Sutton, Surrey, from cancer of the œsophagus, of Dr. James Whitehead, late of Manchester, in the seventy-fourth year of his age. The deceased, who was a native of Oldham, obtained his professional education at Manchester, Westminster Hospital, and Paris. In 1845 he obtained the diploma of Fellow of the Royal College of Surgeons of England, in 1850 the degree of M.D. from the University of St. Andrews, and was elected a Member of the Royal College of Physicians of London in 1859. He was also a member of various British and foreign scientific societies. Previous to its union with Owens College, Dr. Whitehead was lecturer on Obstetrics at the Royal School of Medicine, Manchester, and some years ago held the position of senior officer in ordinary at St. Mary's Hospital, and also that of Demonstrator of Anatomy. Amongst his published works are: "Diseases of the Uterine System," "Hereditary Diseases," "The Wife's Domain," "The Rate of Mortality in Manchester," and "Reports of the Manchester Clinical Hospital;" he also contributed various papers to the medical journals. In conjunction with the late Dr. A. Schoeff-Merei, Dr. Whitehead was a founder of the Manchester Clinical Hospital.

THOMAS HOWKINS, M.R.C.S.

MR. THOMAS HOWKINS died of heart disease at Torquay, in the fifty-fourth year of his age, on the 29th ult. His career as a medical student at University College, London, was a distinguished one. He gained, amongst other honours, the gold medal in Professor Erichsen's class of surgery; and, after obtaining the membership of the Royal College of Surgeons, established himself as a dental surgeon in Birmingham. Here he soon rose to leading practice, was appointed dental surgeon to the Children's Hospital, and more recently lecturer on Dental Physiology and Surgery at the Queen's College. For some years Mr. Howkins was one of the members of the Council of the latter institution; and when the local practitioners of dental surgery formed a Society for their specialty, Mr. Howkins was called to the presidential chair. His opening address was characteristic of him, as an accomplished surgeon and an eloquent speaker. He held one of the highest positions, as a philanthropic worker, in the Masonic brotherhood, and is sincerely mourned in a wide circle of devoted relatives and friends.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 2nd inst.:—

Burd, George Frederick, St. Bartholomew's Hospital.
Rowlands, Thomas Frederic Watkin, Guy's Hospital.
Whitwell, Alfred Frank, St. Bartholomew's Hospital.

DR. E. B. TRUMAN has resigned his office as public analyst to the borough of Nottingham.

THE eminent zoologist, Karl Theodore Ernest von Siebold, Professor at the Munich University, has just died at Munich.

MEDICAL MAGISTRATE.—Dr. Henry G. Thompson has been appointed a Justice of the Peace for the borough of Croydon.

VACCINATION GRANT.—Mr. W. Hood, of Castlegate, York, has received the Government grant for successful vaccination (third time).

ON the 31st ult., the foundation-stone of the new sanatorium for Hull, now in course of erection, was laid by Dr. King, Sheriff of the town.

THE Prince of Wales has consented to preside at a dinner in aid of the funds of the North London or University College Hospital, on May 13th.

AN additional ward to the Birkenhead Corporation Fever Hospital was opened on the 31st ult. The erection has involved an expenditure of about £600.

IT is stated that the first report of the Royal Commission on the Housing of the Working Classes has been agreed to, and that it is now in the hands of the Government printers.

THE SHOEBURYNESS DISASTER.—A testimonial is to be presented to Mrs. Long, of the Prittlewell Sick Nursing Fund, upon whom rested the burden of nursing the sufferers from the late disaster at Shoeburyness.

ROYAL COLLEGE OF SURGEONS OF ENGLAND—At a meeting of the Council on the 9th inst., Mr. Edwin Hurry Fenwick, F.R.C.S. Eng., Assistant-Surgeon to the London Hospital, was elected Examiner in Elementary Physiology.

ARRANGEMENTS have been completed for a "Conference on Education under Healthy Conditions," which is to be held in Manchester from April 14th to the 17th inclusive. The conference will be under the presidency of Lord Aberdare.

PARKES MUSEUM.—A lecture was delivered in this institution on the 26th ult. by Mr. Fletcher, of Warrington, entitled "Smokeless Houses and Manufactories." The lecture was followed by a discussion, in which Dr. Coffin, Mr. Coles, and others took part.

IN reference to the present movement to enlarge the Royal Surrey County Hospital, it has been suggested that the children's ward of the new wing might be specially termed the "Gordon Ward for Children," as a memorial of the hero of Khartoum.

AT the recent annual meeting of the Margate Royal Sea-bathing Infirmary for Scrofula, the directors' report stated that the infirmary is approaching its centenary, and they appeal to the public for increased subscriptions in order that the iexpenditure arising from the recent extensions of the building may be met.

SOCIETY FOR THE STUDY AND CURE OF INEBRIETY.—The annual general meeting of the members of this Society was held on the 7th inst., when the president, Dr. Norman Kerr, who occupied the chair, delivered an address, in the course of which he stated that the Association now numbered 279 members. A paper was then read by the secretary, Dr. W. M. Sturrock, contributed by Mr. Crother, of Hertford, Connecticut, honorary secretary of the American Society for the Study and Cure of Inebriety, entitled "The Incipient Stages of Inebriety." A discussion followed, in

the course of which Dr. Farquharson, M.P., pointed out the difficulty of any legislative measures, and also asked for the results of the treatment in the Dalrymple Home for Inebriates. The chairman, in reply, stated that it was difficult to arrive at any satisfactory results from the statistics, as they had only been in existence for about a year; but that of the 49 cases treated in the Home, 50 per cent. of them had remained steadfast and had been restored to their ordinary careers, and 29 per cent. had been greatly benefited. The discussion was continued by Dr. James Stewart, Dr. Morton, and others.

ACTING on the suggestion of a scientific journal in Germany, that neutral tints are beneficial to the eyesight, an enterprising publisher in that country has just issued a book printed in dark-blue ink on pale-green paper.

PRIZE ESSAYS.—The following questions are selected by the Spanish Society of Medical Hydrology as subjects for prize essays, to be sent in by November, 1886:—1. Physical and Clinical Research on the Sulphuretted-Soda Natural Mineral Waters of Spain, and Comparison of Spanish Springs with the principal Foreign Springs. 2. Pathogenic conception of Pellagra, and its Mineral Water Treatment. The prize is £20, and the essays are to be written in Spanish, Portuguese, or French, and are to be signed with a motto only, and accompanied by a sealed envelope bearing the motto outside and the name and address of the author inside. The address of the secretary of the Society is Costanilla de los Angeles 13, Madrid.

MELBOURNE HOSPITAL.—At the annual meeting of the governors of this institution on January 28th, it was stated that the total receipts during 1884 for the purposes of maintenance amounted to £24,302, and the expenditure to £23,277. The number of in-patients admitted was 3334, and of out-patients 13,009. The mortality in the wards was 16·7 per cent., more than one-fourth of the total number of deaths being due to phthisis; and the medical superintendent, in his report, having urged that provision should be made for the treatment of consumptives away from the metropolitan hospital, in the purer air of the country, it was unanimously resolved that steps ought to be taken by the committee of management to carry out the suggestions of the medical superintendent with reference to the removal of phthisical cases, either by establishing a separate institution in the country, or by arrangement with some other institution for their reception.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a special supplementary examination, held on Monday, March 16th, and following days, the following gentlemen were successful:—First Professional Examination: T. P. Connolly, C. D. Jones, R. Jones, J. H. Lovely, H. M'Carthy, R. Martin, T. O'Brien, E. O'Neill. Seven were rejected. Second Professional Examination: G. P. Carte, T. G. Goodman, C. M'Donnell, P. J. F. O'Brien, J. C. O'Donnell, J. O'Sullivan, A. V. Shine. Eleven were rejected. Third Professional Examination: W. A. Johnston. At the First Half Examination for the Letters Testimonial of the College, held on March 23rd and following days, the undermentioned gentlemen were successful:—J. A. C. Coen, A. R. T. Craig, I. Duncan, J. D. O'D. Egan, R. Elliott, E. W. Hamilton, J. C. Hines, A. M. Hunt, E. B. Kennedy, A. D. Macleod, A. E. Murphy, V. Nash, H. F. C. Pilcher, J. A. Scully, A. F. Smith, P. Stevenson, W. Stritch, W. Swan, W. E. Waters, J. A. Whitty, T. D. Wylie. Twenty-five were rejected.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BARRETT, W. A. H., L.S.A.Lond., has been appointed Assistant House-Surgeon to the Royal Albert Hospital, Devonport.

BOURNS, N. WHITELAW, M.D.Brussels, L.R.C.P.Ed., M.R.C.S., has been appointed Assistant-Surgeon to St. John's Hospital for Skin Diseases, vice Mr. Palmer, resigned.

CAMPBELL, CHARLES M., M.D., C.M., L.R.C.S.Ed., has been appointed Assistant-Physician to St. John's Hospital for Skin Diseases, vice Dr. Boothby Dow, elected a Physician.

DOW, H. BOOTHBY, M.D. St. And., M.R.C.S., has been appointed a Physician to St. John's Hospital for Skin Diseases, vice Dr. Oates, elected a Vice President.

DOWNES, HOWARD, L.R.C.P.Lond., M.R.C.S., has been appointed House-Surgeon to the Victoria Hospital for Children, Chelsea, vice F. H. Hawkins, M.B., C.M., resigned.

DUNCAN, P. T., M.D., B.S.Lond., has been appointed Surgeon to the Croydon General Hospital.

DUNN, HUGH PERCY, F.R.C.S.Eng. (Assistant Ophthalmic Surgeon), has been appointed Pathologist to the West London Hospital.

GLASSINGTON, CHARLES W., M.R.C.S., L.D.S. R.C.S.Ed., has been appointed Lecturer on Dental Materia Medica to the National Dental College, Great Portland-street.

HARRISON, EDWARD, M.A., M.B.Cantab., has been appointed House-Surgeon to the Royal Infirmary, Hull.

JACKSON, HENRY, M.R.C.S., L.S.A.Lond., M.O.H., has been appointed Honorary Surgeon to the North Devon Infirmary, Barnstaple, vice Dr. Ferine, deceased.

LEICESTER, AMBROSE WILLIAM MONTAGUE, M.B., C.M., has been appointed Medical Officer for the Second District of the Eastbourne Union, vice Harold Arthur Tuxford, deceased.

LYNDON, THOMAS, B.Ch.Dub., has been appointed Surgeon to the Wicklow County Infirmary.

MOLYNEUX, HAROLD JOSEPH, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Upholland District of the Wigan Union, vice J. L. Molyneux.

MORTIMER, J. D., M.R.C.S., L.S.A.Lond., has been appointed Assistant Medical Officer to the Portsmouth Borough Asylum, vice James Neil, M.D., C.M., resigned.

MURRAY, C. STORMONT, L.R.C.S. &c., has been appointed Administrator of Anæsthetics to the Samaritan Free Hospital.

PRONGER, CHARLES ERNEST, L.R.C.P.Lond., M.R.C.S., has been appointed Honorary Surgeon to the North Devon Infirmary, Barnstaple, vice C. H. Gamble, resigned.

SANCTUARY, THOMAS, M.D., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer to the Workhouse and Fourth District of the Alderbury Union, vice Gowing.

WAINEWRIGHT, BENJAMIN, M.B., C.M.Ed., F.R.C.S.Eng., has been appointed Assistant-Surgeon to the West London Hospital, vice Albert Boyce Barrow, M.B.Lond., F.R.C.S.Eng., resigned.

Births, Marriages, and Deaths.

BIRTHS.

GABBETT.—On the 26th ult., at Gibraltar, the wife of Surgeon-Major Poole R. D. Gabbett, Medical Staff, of a daughter.

HICKEY.—On the 5th ult., at the Royal Naval Hospital, Esquimalt, British Columbia, the wife of Staff-Surgeon L. Canning Hickey, M.B., of a daughter.

HUNT.—On the 3rd inst., at Queen's-road, Dalston, the wife of Joseph W. Hunt, M.D.Lond., of a son.

ILLINGWORTH.—On the 31st ult., at 1, Crowther-terrace, Clayton-le-Moors, the wife of C. R. Illingworth, M.D., of a daughter.

PARAMORE.—On the 1st inst., at Hunter-street, Brunswick-square, W.C., the wife of Richard Paramore, M.D., of a son.

RICHARDS.—On the 1st inst., at 38, Arundel-square, Barnsbury, N., the wife of C. C. Richards, M.D., of a son.

MARRIAGES.

CHAMP—SCHAEFFER.—On the 4th inst., at Holloway Chapel, London, John Howard Champ, M.D.Lond., son of J. Champ, Esq., of Chelmsford, to Josephine, eldest daughter of the late Joseph Schaeffer, of Heidelberg.

DUNLOP—GALT.—On the 8th inst., at the Alexandria Hotel, Bath-street, Glasgow, by the Rev. Fergus Ferguson, M.A., of Queen's-park U. P. Church, and the Rev. D. W. Forrest, M.A., of Hamilton, Thomas C. Cameron Dunlop, M.B., C.M., of Newmilns, Ayrshire, to Amy, second daughter of W. M. Galt, Esq., of The Brook, Enniskillen, Ireland.

YEATMAN—BROWNE.—On the 12th Feb., at St. Luke's Church, South Melbourne, by the Rev. R. B. Dickinson, John W. Yeatman, M.R.C.S.Eng., son of the Rev. E. K. Yeatman, M.A.Oxon., of Auburn, South Australia, to Katherine Maude, fourth daughter of the late John E. Browne, of Northcote, Melbourne.

DEATHS.

BOND.—On the 2nd inst., at Mentone, France, George Weddall Bond, M.R.C.S., third son of the late Rev. R. Bond, Rector of Pulham St. Mary the Virgin, Norfolk.

HOWKINS.—On the 20th ult., at Torquay, Thomas Howkins, M.R.C.S., late of Bennett's-hill, Birmingham.

POPE.—At South-crescent, Bedford-square, Joseph John Pope, M.R.C.S.

SANKEY.—On the 27th Jan., on board the *Chimborazo*, in the Red Sea, from inflammation of the lungs, George Sankey, M.R.C.S. & L.S.A.Lond., of Maidstone, aged 54.

STURGE.—On the 2nd inst., at Rue Longchamp, Nice, Emily Bovell Sturge, M.D. Paris, Officier d'Académie, daughter of the late John Roache Bovell of Demerara, and wife of William Allen Sturge, M.D.

WHITEHEAD.—On Good Friday, the 3rd inst., at his residence, Fairlands, Sutton, Surrey, James Whitehead, M.D., late of Mosley-street, Manchester, in his 74th year.

WILKIE.—On the 3rd inst., at Paris, David Elliot Wilkie, M.D., of Rathobyres, third son of the late Rev. Daniel Wilkie of Rathobyres, Minister of New Grey Friars, Edinburgh.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

Medical Diary for the ensuing Week.

Monday, April 13.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Mr. J. Bland Sutton: Injuries and Diseases of the Jaws in Wild Animals.—Casual communications by Messrs. W. A. Hunt, Wenland Pedley, A. S. Underwood, and F. H. Weiss.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Whipham: A case of Myxœdema with the Microscopical Appearances of some of the Organs.—Dr. Hughes Bennett: A case of Brachial Monoplegia due to a Lesion of the Internal Capsule.

Tuesday, April 14.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

ROYAL INSTITUTION.—3 P.M. Prof. Gamgee: Digestion and Nutrition.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. Dr. J. G. Garson: On the Inhabitants of Tierra del Fuego.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. Lunn and Dr. Benham: Case of Aneurysm of Abdominal Aorta, distal compression for four hours and three-quarters under chloroform, cure of aneurysm, death from gangrene of jejunum on the eleventh day.—Mr. Henry Morris: A case of Aneurysm of the Abdominal Aorta leading to Gangrene of the Lower Extremity.—Dr. Beevor: Two cases (Progressive Muscular Atrophy and Infantile Paralysis) illustrating the Localisation of Motor Centres in the Brachial Enlargement of the Spinal Cord.

Wednesday, April 15.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department: 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.

MEDICAL OFFICERS OF SCHOOLS ASSOCIATION.—3 P.M. Mr. R. Brudenell Carter: Eyesight in Schools.

Thursday, April 16.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Tyndall: Natural Forces and Energies.

HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Dr. R. W. Burnet: Cases of Ulcerative Endocarditis, with remarks.—Mr. J. Ernest Lane: Hæmophilia.

Friday, April 17.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—7.30 P.M. The Council will present a report on the Rivers Pollution Bill and the Water Companies Regulation of Powers Bill.—Dr. Thomas Stevenson: Sewage Disposal.

ROYAL INSTITUTION.—9 P.M. Prof. S. P. Langley: Sunlight and the Earth's Atmosphere.

Saturday, April 18.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. W. Carruthers: Fir-trees and their Allies.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, April 9th, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Apl. 3	30·26	N.E.	46	39	96	52	34	...	Bright
,, 4	30·09	E.	42	38	94	51	34	...	Cloudy
,, 5	29·82	E.	45	40	82	50	34	...	Cloudy
,, 6	29·34	W.	45	43	91	54	42	·16	Cloudy
,, 7	29·41	E.	41	40	90	55	37	...	Overcast
,, 8	29·55	N.E.	42	40	...	45	40	...	Cloudy
,, 9	29·56	N.W.	43	40	...	45	40	...	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

NEW FARINACEOUS SEED.

A LETTER from M. Sacc of Cochabamba to the Paris Academy of Sciences reports upon a new alimentary substance the composition of which is remarkable. The seed which is richest in nitrogenised substances is that of the Bolivian cotton tree. Its analysis shows 23·70 per cent. of fibrine and 6 per cent. of caseine. When ground, there is only 3 per cent. of loss, a yellow flour being 56½ per cent., and a black bran 40½ per cent. M. Sacc remarks that this flour ought to be particularly suitable for pastry, as it would to some extent replace milk. It is also of service in sugar manufacture, as a substitute for carbonic acid. It is likewise good for sweets, &c. As the production of cotton seed is very large, its utilisation would be of great alimentary importance.

Dr. C. Morfit.—We will try to find a place for the article in an early number.

"EFFECTS OF HANDLING DYNAMITE."

To the Editor of THE LANCET.

SIR,—Surgeon-Major Colson's letter on this subject reminded me of having read of the same thing before; and on referring to my notes I find that Dr. Colquhoun (*Australian Medical Journal*, June, 1881) found symptoms of this kind result, as he believed, from the vapour of imperfectly consumed nitro-glycerine in the air of mines where dynamite was used, and that Dr. R. B. Nevitt (*Canadian Journal of Medical Science*, February, 1882) reported the case of a man aged forty, a contractor, in the habit of using dynamite cartridges, who suffered from headache, tinnitus, and palpitation, which symptoms disappeared when he took the precaution to wear gloves and avoided a previous trick of tasting his fingers with his tongue to see if all the dynamite was washed off. I think it is very doubtful if nitro-glycerine acts through the skin or the atmosphere; and I would suggest that the utmost caution should be used to prevent actual contact of the dynamite with the eyes or mouth, which may easily occur if the user is not forewarned of the danger.

I am, Sir, yours obediently,

Birmingham, April 4th, 1885. ROBERT SAUNDBY, M.D.

To the Editor of THE LANCET.

SIR,—In reply to Surgeon-Major Colson's note, "dynamite headache," as it is called, is very similar to that produced by amylic nitrate, and, so far as I know, is inseparable from the use of the explosive, until immunity is produced either by prolonged use or idiosyncrasy; but no permanent injury results. With regard to the cure, there is none, except cessation from working with it; but brandy-and-water will mitigate it, and sleep generally remove it. Some physiological notes were published in THE LANCET some time ago.

I am, Sir, yours faithfully,

WALTER WICKHAM,

Surgeon to Nobel's Explosives Co., West Quarter Factory.

Polmont Station, N.B., April 6th, 1885.

THE INDEX MEDICUS.

As announced in a recent issue, the publication of the Index Medicus will be continued by Mr. G. S. Davis of Detroit. On account of the delay required to perfect the new arrangement, the first number of the journal for the current year will comprise the literature of January, February, and March, after which it will appear monthly as usual. At the end of the year, in addition to the usual annual index of names, subscribers will be furnished with an index of subjects to the volume.

A Constant Reader.—A patient suffering from a *small* irreducible strangulated femoral hernia is better without a truss, as the pressure tends to cause inflammatory adhesion and constriction of the bowel, and so increases the danger of internal strangulation. The case as described by our correspondent reads more like one of incarcerated (obstructed irreducible) than strangulated hernia. That being so, enemata (not purges), spare liquid diet, local application of ice, and complete rest constitute the appropriate treatment. In most cases of strangulated hernia, unless gangrene of the bowel is feared, it is customary to attempt reduction under an anæsthetic before resorting to the more severe operative procedure; and this rule applies with greater force to obstructed hernia. At the same time, each case must be judged on its merits.

A. B. C.—Wooton's Guide to the Medical Profession (U. Gill, Strand, London) would assist our correspondent.

Beta.—Yes, in an early number.

"APPLICATION OF MIDWIFERY FORCEPS."

To the Editor of THE LANCET.

SIR,—I should be the last in the world to despise the aid given by forceps in cases where they are really necessary, but I think there is a growing tendency among general practitioners to shorten labour by means of the forceps, especially if they be adepts in the use of the instruments. How many women there are who have to thank their impatient medical attendant, in, say, a first confinement, for a perineum ruptured into the anus—a life-long discomfort! The doctor is rarely blamed; as a rule, a woman is only too glad to get over her troubles at any price, and the medical attendant is lauded "to the skies" for his cleverness in bringing matters so quickly to an apparently successful issue. Further, I would ask those who make the diseases of women a specialty, how many of the various flexions of the uterus are due to the application of the forceps? and, again, how much their use conduces to malposition of the organ? I cannot but think that many of these troubles are due to the meddlesome, nay wicked, interference with what nature would successfully accomplish, and very much better than the doctor. In this opinion I am supported by the fact that uterine troubles in the rural districts are very rare in comparison with those existing in town practice, nature, not the doctor, doing the work.

It is argued by many that deformities in women are more common than they were formerly. I, for one, consider that Englishwomen of the present day are as well developed and as capable of going through maternity naturally as their grandmothers were. It is an easy matter, however, to point out errors, but to apply the remedy is more difficult. But here the remedy lies in ourselves, our own judgment, and the recollection of what is due to those who place themselves with such trust and confidence in our hands.—Yours faithfully,

W. AYLMER LEWIS, F.R.C.S.

Willow-street, Oswestry, April 7th, 1885.

To the Editor of THE LANCET.

SIR,—With reference to the above subject, permit me to describe a method of applying the forceps which I have adopted and practised for many years. I apply the lower blade first. The patient's right knee is then drawn up, and the left leg extended and drawn outwards. The upper blade is then introduced, using the left hand, the forefinger of the right hand being in the vagina to direct the blade over the head and gently press the convex edge of the blade. In this way it easily goes into its proper position and locks with the other. Extraction is then made in the ordinary manner.—Your obedient servant,

Kingussie, March, 1885. J. C. ORCHARD, L.R.C.S. Edin.

B. will see that the subject to which he has been so good as to direct our attention has not escaped our notice.

T.—Bath or Buxton.

AN OLD MEDAL.

To the Editor of THE LANCET.

SIR,—I should feel much obliged to any of your correspondents who would give me information as to a medal in my possession, of which the following is a description: Diameter 1⅛ in. Obverse—A pot of flowers in high relief, standing on a label, on which is the date, also in relief, 1684, and engraved on the label, evidently prepared for that purpose, the inscription, "MR. JOANNES. DE. WALL." In the exergue are the words, 'HORTUS MEDICUS." Reverse—A skeleton with scythe and hour-glass, standing in a flowery mead. The botanic gardens in Chelsea (commonly called the "Physic Garden") were not enclosed till 1680, so that a ticket of admission, which this medal evidently is, would have no *raison d'être* in 1684. Yet, I feel no doubt that its design and execution are English.

I am, Sir, yours obediently,

April 6th, 1885. M. U.

THE RUPTURE OF BLOODVESSELS.

MM. GRÉHANT and QUINQUAUD have reported to the Paris Academy of Sciences their experiments proving that the pressure necessary to cause the rupture of arteries is much greater than that to which they are normally subjected. The carotid artery of a dog required from thirty-five to fifty-five times the normal pressure of the blood, and the jugular vein from thirty-two to forty-five times the usual force.

Practitioner should remonstrate with the chemist, and, failing to get satisfaction, should complain of his conduct to the President of the Council, who is at present trying to regulate the sale of poisons by legislation.

"VEGETABLE FOOD FOR CHILDREN."

To the Editor of THE LANCET.

SIR,—Perhaps you will allow me to make a remark or two upon your notice under the above heading of the dinner given by Mr. S. Morley, M.P., under the auspices of the National Food Reform Society. The dinner mentioned was given with a view of showing the people of Leigh that a good dinner could be provided at small cost and yet be pleasing, wholesome, and sufficient. The menu was "Scotch broth," "lentil sandwiches," "lentil fritters," with cauliflower, potatoes, and "brown sauce," "Albert pudding," with white sauce. Whole wheat-meal bread was also given. The entire cost of dinner (for food) was under fourpence halfpenny per head. Mr. Morley and all to whom I have spoken have pronounced the dinner as having been first-class in every particular, and a good lesson in practical thrift.

In regard to non-flesh eaters being non-drinkers, I may mention that previously to my giving up "meat" I was fond of "a glass," but in three months I lost all desire or taste for strong drink. I could say much on the head of experience, as I have now been an abstainer from "meat" for upwards of seven years, and I have lost many of my former complaints. I may say that I am quite willing to place myself in the hands of any medical gentleman for the purpose of experiments in dietetics, and that without any compensation whatever. In conclusion, allow me to state that the National Food Reform Society will give its thrifty dinners when asked so to do, provided a hall, &c., is furnished free of cost. I am, Sir, yours faithfully,

F. P. DOREMUS,

Hon. Secretary, National Food Reform Society.

Finsbury-square Buildings, E.C., April 4th, 1885.

*** While we cannot agree that vegetarianism is a sound enough principle in dietetics to be generally adopted, we freely admit that an occasional change of fare of this kind is both wholesome and agreeable. Some persons also, even adults, thrive better, as a rule, on vegetable than on animal diet; or, at all events, on a diet in which vegetables markedly predominate. Such are those of gouty constitution. With regard to the effect of food on the liking of alcohol, no conclusion, we think, can yet be arrived at. Possibly the flavour of fruit may satisfy some as a substitute for its more potent derivative.—ED. L.

NURSING STATISTICS.

M.D. asks: "Will any of your readers oblige by referring me to a source of information regarding the cost of nursing (apart from other sources of maintenance) in the large general hospitals of the metropolis and the provinces."

E. De Manin.—There is no particular objection to gas-stoves, so long as proper provision is made for carrying off the products of combustion.

RECREATION FOR THE SOLDIERS IN THE SOUDAN.

To the Editor of THE LANCET.

SIR,—You were good enough to put a paragraph in THE LANCET of March 21st, saying that I would be glad to receive contributions of suitable literature for the soldiers in the Soudan. I now desire to thank the public, amongst whom are a few medical men, for the parcels they have sent; and as they have a right to know what I have done, I may say that since March 21st I have sent 5 cwt. of books, dominoes, draughts, and a few pipes to Suakim, about 4 cwt. to Dongola, and about 4 cwt. to Wady Halfa, and I think I shall be able to forward about 4 cwt. next week. I know from experience how a newspaper, six weeks old even, is valued in such a place as the Soudan, and consequently have some feeling for our brave soldiers who are now fighting our battles and suffering all manner of privations. Those who have kindly sent parcels please accept my thanks. I am, Sir, yours truly,

258, St. Philip's-road, Sheffield, April 4th, 1885. JOSIAH WILLIAMS.

THE DEBATE ON CHOLERA.

Mr. J. B. Scriven writes that the report of his remarks on cholera in our last issue, page 616, is incorrect. His argument as to the cause of the viscidity of the blood may be stated thus: The almost unlimited power of absorbing fluid which the blood possesses during health has not been proved to continue in full force during an attack of cholera; so that in that disease much of the water discharged in the stools may possibly not be replaced in the blood.

Calyx.—1. No; choice should be made beforehand.—2. In London, two or three days before the examinations begin.—3. We are not aware of their having been published.

ILLEGIBLE PRESCRIPTIONS.

A CORRESPONDENT from West Australia has forwarded us a prescription which, written by a brother practitioner, was handed in to his dispenser to be made up. The writing is so bad, and the figures denoting the quantity of each drug to be used so blotted and confused, that the medicine could only be made up by the knowledge of doses possessed by the dispenser. This fault of writing, through haste or carelessness, illegible prescriptions is one shared by many medical men; but it is nevertheless a grave one, and one that has frequently ere now led to serious consequences.

J. J. J.—A burn which destroys the skin, superficial fascia, and muscles must necessarily be followed by profuse suppuration and cicatricial contraction. The one described could not by any possibility have healed in a month. Where home comforts and careful nursing can be obtained, we consider the patient best treated out of hospital.

E. H. should consult his medical attendant.

Iron.—We do not give advice.

MEASLES IN GUERNSEY.

To the Editor of THE LANCET.

SIR,—I hope I am not in error in accepting your note under the above heading in your last issue as an invitation to make a personal explanation.

At the end of the Table of Contents in each issue of the *Glasgow Medical Journal* the following notice appears:—"Authors of original articles may, by applying to the printer, obtain twenty-five reprints of their articles gratis, and additional copies at a small cost." I obtained the twenty-five copies, and detail for your information the distribution which took place in Guernsey. Drs. Corbin, Crewe, Constantine, Conclean, Glasse, Thornhill, three personal friends (none of whom can be referred to by your correspondent) who furnished me with statistics concerning the number of cases in the schools, and the following officials: the Lieut.-Governor of Guernsey, the Bailiff of Guernsey, the Chief Constable of Guernsey, and Dr. Le Page, each received a copy of the *Journal*. I defy your correspondent to supplement this list. The copies sent to the Lieut.-Governor, the Bailiff, and the Chief Constable were sent officially, and were marked, as the enclosed copy is, on pages 2 and 3, directing their attention to the comments there on the sanitary condition of the place, a subject which has occupied them much during the past winter, and on which medical opinion was invited. The Lieut.-Governor and the Chief Constable are not patients of mine, and they received their copies addressed to them as officials at their offices.

The allegation that the recent epidemic of measles differed from the description given of it in my paper will not be much credited in Guernsey. Only those who failed to observe, or were blinded by prejudice, could make a contrary statement.

I am afraid that your notice will render it difficult for me to keep my comments on the sanitary condition of the town within the official limits which I had intended even until my reply reaches your columns. The statements made in my paper are well known to be correct, and could only have done public good while their distribution was limited to those concerned in the local sanitary administration.

I am, Sir, your obedient servant,

Guernsey, April 4th, 1885. J. AIKMAN.

To the Editor of THE LANCET.

SIR,—My attention has been drawn to an extract from THE LANCET of the 4th inst., in which exception is taken to Dr. Aikman's action in sending copies of his paper in the *Glasgow Medical Journal* on the Epidemic of Measles in Guernsey to the patients of another medical man. As I received a copy of his paper from Dr. Aikman, and may be one of the recipients alluded to, I ask your permission to state that I, as Lieut.-Governor of Guernsey, have publicly interested myself in the sanitary state of the island, and have no idea that the paper was sent to me except in my official capacity.

I have the honour to be, Sir, your obedient servant,

H. A. SAREL, Major-General.

Bournemouth, April 7th, 1885. Lieutenant-Governor of Guernsey.

To the Editor of THE LANCET.

SIR,—At Dr. Aikman's request, I hereby beg to state that I received a copy of the reprint of his notes on a recent epidemic of measles in Guernsey, addressed to me at the Constable's Office in my official capacity; also that the copy was marked at the passages referring to the sanitation of the town.—Pours faithfully,

Guernsey, April 4th, 1885. JULIUS A. CAREY, Chief Constable.

*** We think Dr. Aikman's letter satisfactory. Moreover, we have read the paper on Measles, and cannot see anything in it to justify the complaints made. The epidemic had been very extensive and rather severe, and was the more noticeable as being rare in the island.—ED. L.

PREVENTION OF CARBUNCLE IN CATTLE BY VACCINATION.

To the Editor of THE LANCET.

SIR,—I should be much obliged if any of your readers could tell me where I can get lymph for "vaccinating" cattle as a preventive against carbuncle. I believe Pasteur is the discoverer of the method and preparation.

I am, Sir, your obedient servant,

April 7th, 1885. F. G. V.

WHOOPING-COUGH.

Mr. C. Clark Burman, L.R.C.P. & S. Ed. (Belford, Northumberland), solicits replies to the following questions:—(1) Are the paroxysms of whooping-cough more frequent always at night, whether the patient sleeps or not? (2) At what hours of the night are they most apt to occur? (3) What relation do they bear to the sleep of the child—i.e., during profound sleep or otherwise? (4) What circumstances appear to induce them?

Mr. W. Holderness.—1. Berkeley Hill's work on Bandaging and Minor Surgery.—2. Lewis S. Pilcher's Treatment of Wounds. The latter, an American work, is one of the best on the subject with which we are acquainted. It is published by Messrs. William Wood and Co., 56, and 58, Lafayette-place, New York.

THE BIRMINGHAM MEDICAL INSTITUTE.

To the Editor of THE LANCET.

SIR,—The interesting account, given in to-day's issue of THE LANCET, of the Birmingham Medical Institute, ought to make one glow with pride at having the privilege of living even within two or three miles of such a noble and generous Society. But, Sir, there is another side to the picture, and this, I am sure, out of regard for your time-honoured maxim, *Audi alteram partem*, you will allow me to present with the pen of a truthful but not unfriendly critic.

Rather more than a year ago a "registered practitioner" applied to the sub-librarian of the above-named Society for information as to the steps to be taken to enable him to avail himself of the library. He was told by that official that the payment of a guinea was the chief thing required, although there was another ceremony to be observed, which, however, was a "mere form." The ceremony thus described as a "mere form" was the signing by six members of the institute of a paper left in the reading room for that purpose. The "registered practitioner" paid the fee, and in due course two signatures were affixed to the paper. Then in a short time the document disappeared altogether, leaving the "registered practitioner" to believe that the "mere form" had been duly complied with. His surprise, however, was great when, three months afterwards, on applying for a book, he was told that he was not a member. On further inquiry he learned that the signatures referred to had been withdrawn at the dictation of a "distinguished hospital surgeon," who had forbidden his name to be divulged. I regret to say that the "registered practitioner" lost his temper on this occasion, though I do not much wonder that he yielded to this infirmity. To have been blackballed by a ballot would have been intelligible, and timely notice would have been given of the result; but the above-described method of procedure seems both ill-natured and illiberal. The "registered practitioner" has no complaint to make against the officials of the Society, either honorary or paid, but he would like to see the "distinguished hospital surgeon" emerge from his Olympian cloud and give some explanation of his conduct.—Yours obediently,

Birmingham, April 4th, 1885. WILLIAM J. NOTLEY, M.D.

F.R.C.S.—Reports from Her Majesty's Representatives at European Courts and in the United States on the Working of the Lunacy Laws in the Countries in which they reside. Miscellaneous, No. 1 (1885). Messrs. Hansard, 13, Great Queen-street, W.C.

Mr. E. Playter.—We do not think it would serve any good purpose to open the discussion our correspondent suggests. There can be no doubt of "the present usefulness of the practice."

"A HALFPENNY A WEEK."

To the Editor of THE LANCET.

SIR,—In answer to an annotation under the above heading, which appeared in your issue of March 21st, the Committee of the Working Men's Medical Society at Sheerness would like to correct the serious errors made in that statement. As to there being some sixty applicants who applied for the position as advertised in THE LANCET of March 7th, it is due to them and others to know that the working men of Sheerness did not expect a medical gentleman to work on such unremunerative terms as appeared in the paragraph alluded to. A similar Society to ours has been in existence this past forty years; it is true our contribution is only one halfpenny per week, but it is for each individual entered, which on a little consideration will show that the scheme is very feasible. Let us give a short digest of how our Society now stands, and we think it will conclusively show the different gentlemen who applied that what we stated in our advertisement was more than correct.

The Society was inaugurated on March 1st, 1885; our present number of members (March 29th) is about 3800, which gives £111 per annum, the accouchement fee for members' wives are paid in addition to these contributions, which would equal another £150, making a total of about £560 per annum; private practice is also allowed. None of the above amounts are deducted for working expenses.

In reference to the paragraph alluding to the Portsmouth Association, it was stated at the meeting that they paid their doctors about £300 and £400 per annum each, and not, as represented, that amount divided between them. We hope this statement will satisfy those gentlemen who have written to us on this subject since the erroneous insertion of March 21st. I am, Sir, yours respectfully,

THOS. LOVATT, Secretary.

For the Committee of the Working Men's Medical Society.

Marine Town, Sheerness, April 6th, 1885.

A CAUTION.

Mr. Roche Lynch, of Boyle-terrace, Holland-park, would caution his professional brethren against a "broad-shouldered man, forty or fifty years of age, with sandy whiskers," who, representing himself as an agent of a certain firm, called at his house under pretence of seeking information about some person, and who, being shown into Mr. Lynch's consulting-room, made off with a surgical instrument which happened to be lying on the table.

A Subscriber will find a whole series of the measurements of which he is in quest on pp. 655–657 of Woodman and Tidy's Handbook of Forensic Medicine and Toxicology. Churchill, 1877.

M.B.—Jevons' Logic, Ribot's Psychology, Killick's Abstract of Mill.

MEDICAL PRACTICE IN THE UNITED STATES.

To the Editor of THE LANCET.

SIR,—If any of your readers have had experience of medical practice in the Southern States of N. America, perhaps they will kindly inform me through your columns what prospects there are in any of the large cities for a London physician, and what qualifications he must obtain in the United States to permit of his practising there, provided he is a L.R.C.P. and M.R.C.S.L. I am aware that in Canada an English medical man must take out a licence to practise before he can put up his "shingle" in the colony. Relying upon your usual courtesy to insert this letter, I remain, Sir, yours obediently,

April 7th, 1885. MEDICUS.

A CORRECTION.

To the Editor of THE LANCET.

SIR,—Most misprints may be passed over as unimportant. But in the abstract of my paper read at the Medical Officers of Health Society, page 622, third line from top, "the element of *lime*" should be "the element of *time*," and I fear, unless corrected, it will give the impression that I think highly of lime as a disinfectant.—Yours truly,

Wellington-road, N.W., April 5th, 1885. A. WYNTER BLYTH.

"HYDROCHLORATE OF COCAINE."

To the Editor of THE LANCET.

SIR,—In reply to Mr. Symes's letter, which appeared in your last issue, I beg to state that the filtered cocaine solution which I mentioned in my first communication to THE LANCET has been used at this hospital with the most satisfactory results.—Yours faithfully,

Sussex Eye Hospital, April 8th, 1885. J. CHURCHYARD.

ERRATUM.—In Mr. B. Roth's remarks, page 619 of our last issue, for "Fletcher's bags" read "*Fleming's* bags."

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Wilks, London; Dr. W. Squire, London; Dr. Saundby, Birmingham; Dr. M. Oxley, Liverpool; Mr. T. Holmes, London; Mr. Rushton Parker, Liverpool; Professor De Chaumont, Netley; Mr. Husband, Leeds; Dr. Goodhart, London; Prof. Wharton Jones, Ventnor; Dr. Eben. Watson, Glasgow; Mr. J. Oliver, London; Mr. C. Boyce, Maidstone; Surgeon-Major Sargent, Bedford; Dr. Rogers, Ventnor; Dr. W. J. Notley, Birmingham; Mr. Bothamley, Bromley; Dr. G. Oliver, Harrogate; Dr. R. Neale, London; Mr. Wynter Blyth, London; Mr. C. C. Burman, Belford; Dr. Hingston Fox, London; Mr. Dartnell, Limerick; Dr. Dingley, Wolverhampton; Mr. S. Snell, Sheffield; Dr. Scriven, London; Mr. B. Roth, London; Dr. C. Dibdin, London; Surgeon-General Longmore, Netley; Mr. J. B. Crozier, London; Mr. Holderness; Mr. Whitefoord, London; Dr. Alder Smith, London; Mr. J. Williams, Sheffield; Mr. F. P. Doremus, London; Dr. Aikman, Guernsey; Mr. A. Hodgson; Mr. W. Wickham, Polmont; Mr. W. H. Kesteven, London; Mr. G. J. B. Stevens, London; Mr. J. D. Mercier, Rhyl; Mr. Lewers, London; Mr. Grant, Birmingham; Mr. Barff, London; Messrs. Smith and Son, Manchester; Mr. Bell, New York; Messrs. Wood and Co., New York; Mr. Heywood, Manchester; Mr. Fuge, Taunton; Messrs. Austin and Son, Clifton; Mr. Burland, Leeds; Mr. Steel, London; Dr. Valentine, New York; Messrs. Riddle and Co., London; Messrs. Bosworth and Stein, London; Mr. Connolly, Ireland; Messrs. Hammond and Co., Birmingham; Mr. Ponsford, London; Mrs. Pratt, Cardiff; Dr. Skerry, Bristol; Dr. McNaughton Jones, London; Mr. Turner, Colchester; Mr. Armstrong, Manchester; Dr. Thomas, Glasgow; Mr. Fry, Swindon; Messrs. Crossley and Co., London; Mr. Corbishley, Macclesfield; Mr. Taylor, Buxton; Mr. Mason, Oldham; Mr. C. P. Elliott, West Australia; Mr. C. A. Thimm, London; Mr. L. Jeffery, Eastbourne; Mr. Mallins, Watton; Mr. Godlee, London; Dr. Durand-Fardel, Paris; Dr. Sidly, Edinburgh; Mr. Nickels; Dr. Maclagan, Hexham; Mr. Pryn, Devonport; Mr. W. T. Brooks, Oxford; Mr. B. Hewetson, Leeds; Mr. Tallack, London; Dr. Kinkead, Galway; Mr. C. F. Rideal; Mr. Churchyard; Mr. Cantlie, London; Mr. Roche Lynch, London; Mr. Leslie, Manchester; Messrs. Squire and Sons, London; Mr. Pentland, Edinburgh; Messrs. Reynolds and Branson, Leeds; Dr. Buchanan, Glasgow; Mr. Mosse; Mr. Heaton, Hornscastle; Mr. Symons, Dumfries; Messrs. Brooks and Co., London; Mr. W. H. Kesteven, London; A Surgical Nurse; M.B.; Justice; Medicus; M.D.; B.; Veritas; Calyx; A Constant Reader; Practitioner; A Solicitor; A. B. C.; B. X.; Thyra, London; W. E., Southampton; Publicity; Albus, Leicester; Count.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Diver; Mr. White, Bayswater; Mr. Sankey, Maidstone; Messrs. Mackay, Edinburgh; Mr. Grange, Leeds; Mr. Wheeler; Messrs. Hammond and Co., Birmingham; Mr. Harold, Carmarthen; Mr. Nickoll, Victoria; Mr. Foord, Colchester; Mrs. Ford, Clapham; Mr. Brown, Cardiff; Dr. Hicks, Hendon; Mr. Mason, Highbury; Dr. Duncan, Victoria, Australia; Mr. Inglis; Mr. Campbell; Mr. Playter, Ottawa, Canada; Mr. Whipp, Burton; Mr. Pilkin, Ormskirk; Mr. Morgan, Islington; Mr. Pope, Sandbach; Dr. Kerr, London; Mr. Leslie, Manchester; Messrs. Mulliner and Co., Northampton; Messrs. Lee and Martin, Birmingham; Mr. Cooper, Clonmel; Messrs. Wyer and Hartley, London; Mr. Beckwith, New Haven, U.S.A.; Mr. Croke, Hull; Mr. Illingworth, Clayton-le-Moors; Mr. Redpath, Norwood; Dr. Trimmer, Ganglingay; Dr. Turner, Finsbury; Messrs. Slinger and Son, York; Dr. Eberle, Thirsk; Messrs. Edmunds and Co., Walbrook; Mr. England, Winchester; Dr. McKinder; Dr. Christison, Montrose; Mr. Fowler, Hammersmith; Messrs. Porteus and Co., Glasgow; Habana, London; Medicus, Bolton; M.R.C.S., Sheffield; Surgeon, Burnley; M.B., Oldham; J. G., Ironbridge; L.S.A.; Matron, Suffolk General Hospital; C. C. C.; Forceps, Bolton; Medicus, Basingstoke; M. S. S., London; J. L., Llandyssil; Quill Pen; Medical Officer, Lincoln; Medicus, Chatham; M.B., Manchester; M. Y., Cannock W. G. D.; Beta, Cleator; M. G.; Medicus, Southport; W. B. M., Burnley; Alpha, Sheffield; Physician, Southsea; Medicus, Child's Hill; H. B.; R. C. P., New Haven; Beta; A. B., Pimlico; Delta, Victoria-park; Lady Superintendent, Cambridge; Medicus, Stratford; M.R.C.S.; Physician, London; J. R.; Medicus, St. John's-wood; M., Huntingdon; J. W. D., Barnsbury.

Liverpool Mercury, Lincoln Gazette, London Figaro, Lincolnshire Chronicle, Cork Constitution, New York Daily Tribune, Hull News, Sunderland Echo, Kentish Express, Sunderland Herald, Croydon Advertiser, Newton Herald, American Eagle, Health Assurance Record, The Policyholder, &c., have been received.

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Croonian Lectures

ON THE

HYGIENIC AND CLIMATIC TREATMENT OF CHRONIC PULMONARY PHTHISIS.

Delivered at the Royal College of Physicians,

BY HERMANN WEBER, M.D.,

PHYSICIAN TO THE GERMAN HOSPITAL.

LECTURE III.

5. Climates. — Purity of Air the most important element. — Floating Matters. — Climates of Elevated Regions. — Objections met. — General Characters. — Physiological and Therapeutical Actions. — Swiss Alps. — Peruvian Andes. — Rocky Mountains. — South African Highlands. — Home Climates.

MR. PRESIDENT AND GENTLEMEN,—It is difficult to say anything new on the treatment of phthisis by *climate*, as the literature on the subject is rich in good articles. I need only mention the names of Sir James Clark, Walsh, J. E. Pollock, King Chambers, J. H. Bennet, C. J. B. Williams and C. Theodore Williams, Thorowgood, F. and P. Niemeyer, Rohden, Jaccoud, Biermann, Thilenius, H. Hassall, Sée, Symes Thompson, Marcet, Clifford Allbutt, Burney Yeo, Sparks, Denison, Solly, and Tyndale. The remarks which I am going to make can only be very fragmentary.

The difference between different cases of phthisis is so great that it is impossible to lay down fixed rules for climatic treatment. In deciding between different climates and localities, the circumstances connected with the etiology, the stage of the disease, the amount of destruction, and the complications with diseases of other organs are very important; but still more so the distinction between a weak and a strong constitution, an excitable or a torpid nature—between progressive and retrogressive, active or stationary, cases. Mental peculiarities, too, ought not to be overlooked; nor the habits of the invalid and the circumstances in which he has lived. Unlike, however, as different invalids are in these and other points, in all of them we must bear in mind that we have to deal with raw and ulcerated surfaces in the respiratory passages; surfaces which in most cases, at all events, are infected by a specific microbe, and are very susceptible to all impurities of the atmosphere, and especially to the microbe element, which abounds wherever organic decomposition, and particularly putrefaction, takes place, and wherever there are congregations of human beings and animals in shut-up localities. Hence it is clear that *purity* or an *aseptic state* of the air is the first demand which we ought to make on the climates to which we send persons affected with phthisis. Temperature, the degree of moisture, atmospheric pressure, light and sunshine, electricity, wind, frequency or absence of rain and snow, nature of soil, elevation above the plain or the sea, which in their varying combinations form the different climates, are each and all-important agents in the climatic treatment, as I have endeavoured to show elsewhere; but none is so essential to the consumptive patient as the purity of the atmosphere. After what I have said before on the necessity of pure air and its renewal in rooms, it is scarcely necessary to add here that in every climate the position and the internal arrangements of the house, and particularly of the rooms in which the invalid is to live, are as important as the character of the climate of the place. In former years the composition of the air in its influence on health was judged principally by the amount of oxygen, nitrogen, carbonic acid, ammonia, and water, but of late attention has been forcibly directed to the amount of *floating matter* in the air by Ehrenberg, Pasteur, Tyndall, Maddox, and others; and a great accession to our knowledge and a fuller appreciation of the influence of the atmosphere has been obtained by the interesting labours of Miguel at the Observatoire de Montsouris, near Paris, to which Professor Sée has directed my attention, and the result of which has been mentioned by Dr. Poore in his Cantor lectures, already alluded to. Miguel gives us the following interesting table of the number of bacteria found in ten cubic metres of air taken as nearly as possible at the same time in July, 1883:—

1.	At an elevation of from 2000 to 4000 metres	None
2.	On the lake of Thun (560 metres)	8·0
3.	Near the Hôtel Bellevue, Thun (560 metres)	25·0
4.	In a room of the Hôtel Bellevue	600·0
5.	In the Park of Montsouris, near Paris ...	7600·0
6.	In Paris itself (Rue de Rivoli)	55,000·0

This table shows clearly, as I have already pointed out, the difference not only between a high and low elevation and between town and suburb, but also between in-door and out-door air; the air in a room of the Hôtel Bellevue containing twenty-four times as many microbes as the air in the grounds outside. The difference between the air on the lake of Thun (8·0) and on the shore—i.e., the grounds of the Hôtel Bellevue (25·0)—is likewise significant; and the low rate on the former may be ascribed to the distance from the sources of organic decomposition. We may reasonably infer that a still greater rarity of microbes will be found in the air on high sea. Similar researches into the purity of the air are being energetically pursued at Berlin, but I am not yet acquainted with the result.

Another point of consideration is, How far do climates and health resorts assist the invalid in improving the general nutrition and power of resistance? This depends to a great degree on their enabling the invalid to be much in the open air and take active exercise without risk of chills and consequent complications. Not all the climates, however, which allow the invalid to be much in the open air are at the same time conducive to active exercise. Some are apt to produce a feeling of languor and diminished inclination for food, while others raise the nervous system, improve the appetite, digestion, sanguinification and muscular energy, and facilitate the elimination of used-up matter. We may, in some points, compare climates with medicines. There are such medicines, as morphia, which soothe the cough and procure sleept, but check the appetite and nutrition in many people. Antipyrin has a wonderful power in subduing pyrexia, but in almost all my trials of its effect on the pyrexia of consumptive patients it has entirely suppressed the appetite. Such medicines ought, therefore, to be avoided in the majority of hopeful cases of phthisis, because the improvement of the nutrition is the first demand. So there are agreeable climates which soothe the cough, but diminish the appetite and the inclination to take exercise, and can, therefore, be recommended only in exceptional cases. On the other hand, bitter remedies and tonics do not soothe the cough; but if they improve the appetite they often exercise a beneficial influence on the course of phthisis. In the same way cold does not soothe cough, but, on the contrary, sometimes produces it at first; but if it improves the appetite of the consumptive person, and enables him to take more exercise, it improves the nutrition, and thus exercises a beneficial influence on the course of phthisis. The consideration of such qualities of climate is all-important in the treatment of phthisis, though these characters are not shown by meteorological tables, however carefully prepared; they must be learned from personal observation and from carefully watching invalids and their healthy companions. In these points lies the difference between what are popularly called relaxing and bracing climates. We will not, however, disregard meteorological tables and descriptions, for from these we often learn important facts about the nature and strength of wind, the frequency of mist and rain, the conditions of temperature, the degree of humidity, the amount of sunshine, so that we can avoid sunless and depressing climates, with frequent cold wind, mist, rain, and drizzle, which prevent the invalids from taking a sufficiency of out-door exercise. Unsatisfactory, however, as these influences are there are others to be much more dreaded, as crowding together of many human beings, stagnation of air, presence of decaying substances, organic dust, lowness of situation, and dampness of soil (Bowditch and Buchanan).

Many people still cling to the idea that cold is injurious and warmth curative in phthisis, but this idea is quite incorrect. Another idea that equable climates are the best in the treatment of phthisis should likewise be much restricted. The most important point of all good climates in phthisis, as I have said before, is purity of air. This is to be found, first, on elevated regions; second, in the desert; third, on the sea. The first two are usually considered

under the great division of inland climates, the third under marine climates. In rapidly glancing over these divisions, I shall have the opportunity of mentioning some other localities which are used as health resorts in phthisis, although they could not claim pure air, or air of an aseptic character, as one of their prominent features.

Allow me, gentlemen, to begin with the climates of elevated regions (altitude or mountain climates), which only in comparatively recent times have come into favour in Europe; although they were used in Peru at an earlier period (Archibald Smith). They were somewhat roughly treated in the beginning. A justly esteemed author on diseases of the lungs, for instance, in 1871 calls the plan of treating consumptive patients by long residence in the Alps "a startling quasi-sensational novelty in climatic therapeutics" in reference to a paper of mine "On the Treatment of Phthisis by Prolonged Residence in Elevated Regions" in the Medical and Chirurgical Transactions of 1869. In further discussing this plan the same author speaks of the winter in an "elevated site in Switzerland" as a sojourn "amid mist, fog, damp, the fiercest cold, frost, ice, and snow." Surely, great physician though he is, he is somewhat misinformed on this subject, and has not himself visited the High Alps during winter, but has possibly formed his impressions from a writer who practised during winter in Southern Italy. I shall discuss the author's objections *seriatim*, as this will show the character of the climate.

1. The "mist" and "fog" amid which he imagines the patient to be during winter in the High Alps exist, indeed, only in imagination. They are at all events excessively rare in those high valleys in winter, and when Zurich, Berne, and Basle are for days together wrapped in dense mist, the sky is most blue in the High Alps, and the air perfectly transparent and transcalent. M. Billwiller, the head of the Meteorological Department in Switzerland, has quite lately organised a system of recording sunshine at different meteorological stations, and I have, by chance, before me the comparison between Zurich and Davos, during the months of last November and January (having mislaid the number for December). At Zurich the amount of sunshine during the month of November was 48½ hours, or an average per day of 1 hour 36½ minutes; ditto at Davos, 128 hours, or 4 hours 16 minutes per day. During the month of January at Zurich the recorded sunshine was 37 hours, or 1 hour 11 minutes per day, the same at Davos, 137·8 hours, or 4¾ hours per day. All those authors who are thoroughly acquainted with the winter in the Alps, as Spengler, Waters, Frankland, Ludwig, Volland, Addington Symonds, Theodore Williams, and Jaccoud, amongst others, have described the absence of mist and the abundance of sunshine, and it is only a corroboration of their statements, when I add, that while at Zurich and in the whole of the lower regions of Switzerland a thick mist entirely shut out the rays of the sun from the 18th to the 27th of January last, 6 hours of sunshine were registered daily at Davos, and what kind of sunshine this is the dwellers in the lower regions who have never been in the High Alps during winter can scarcely imagine. At the end of November, 1869, I spent on the Piz Languard, about 10,700 feet above sea level, and on an ice pyramid of the Morteratsh glacier (about 9700 feet) more than 1½ hours on two consecutive days without an overcoat. As long as I remained in the sun I never felt warmer in August and September at the same localities, but in the shade an overcoat would have been just a comfort, though I did not feel cold in spite of a temperature of only 20° to 25° F., the air being perfectly calm. A black bulb thermometer *in vacuo* showed in the sun between 88° and 92° F., while an ordinary thermometer showed only between 31° and 32° F., and the exhaled breath became rapidly condensed. This shows that the air itself was only slightly heated by the sun's rays, though the body covered with woollen clothes had all the benefit of the warming rays. I specially mention this difference between the black bulb and the ordinary thermometer because it shows that the air inhaled is cold, to which point I shall later return. During these two days a dense mist prevailed in the lower part of Switzerland and Upper Italy.

2. How can the author call the air damp, and how has he obtained this notion? Dr. Frankland speaks of the "excessive dryness of the air at Davos," and further on says, "The absence of suspended watery particles in the air has no doubt very considerable influence in preventing the chilling of the skin." I need only consider the facts that air at a low temperature can hold only a very small quantity of watery vapour, and that if that small maximum is reached the vapour must become condensed in the shape of mist or fog, the rarity of which I have already mentioned; and the usual transparency and transcalency show likewise that the quantity of suspended vapour can be only very small. All the authors agree on this point, and Dr. Volland and Mr. Waters have further pointed out that also the air in the rooms is very dry, indeed, even drier than out of doors. Mr. Waters found the relative humidity in his bed-room at Davos during the winter 1881-82 varying from 25° to 35°; the temperature of the room being about 60° F. with an open window at night.

3. "The fiercest cold and frost" of which our author speaks is scarcely felt by the patients at Davos or St. Moritz; Spengler, Waters, Frankland, Unger, A. Symonds, Theodore Williams, Ludwig, Rohden, Peters, and myself, as well as many others, have often discussed this question. The main points which prevent the cold being much felt are:—(1) That the air is dry; (2) that it is calm; and (3) that the sun heat is very great. In an excellent article in a recent number of the *Practitioner* on "Winter Health Resorts" the same question is discussed. "The temperature of the human body depends very much on the dryness of the air. A Canadian feels it much colder at 4° below freezing-point in London than in Canada when the thermometer stood at 40° below zero. The dryness of the air in Canada more than compensates for a difference of 68°. Dry air has very little capacity for heat, so that when it is at rest it conducts away very little heat from the body." Wind changes the matter very considerably; but wind, as I have said, is rare during winter in the chief Alpine health resorts; partly through the shelter of the mountains, partly through the absence of local winds, as every place is covered with snow. In summer there is much more wind, and it is then often very disagreeable, and unless care is taken chilling; but it is not so injurious as it would be in winter. I have spoken already of the great sun heat, and the papers of Waters, Frankland, and others are well known. The result of this sunshine and absence of wind is that even rather delicate invalids can sit for many hours lightly covered on open terraces and in verandahs, or on seats, along the southern slopes of the mountains or round the ice-rink; that they can frequently drive in sledges and take short walks; while the hardier ones can join in long excursions, in skating, and tobogganing; the time passes quickly and the majority of invalids manage to be more in the open air than on the Riviera. Is the calm, dry cold of the Alpine winter health resorts injurious? My answer is decidedly, No. It is not only not injurious, but beneficial to all those who are suited to this climate. When warmly dressed, the invalids who are able to walk can be out, even if there is no sun, provided there is no strong, cold wind; and the majority of them can with reasonable precautions in dressing even walk on calm evenings. The danger of becoming chilled at the time of sunset is far less than in the Riviera climates. It is only a remnant of our old prejudice which can make us afraid of dry, calm, moderate cold. A consumptive patient is in a better condition for recovery if he lies on a couch in a judiciously selected spot in the open air even in winter than in a shut-up room. The low temperature of the air has the obvious advantage that the bacillus and other microbes cannot thrive in it, and that putrefaction is arrested. In addition to this, the low temperature of the inhaled air leads to loss of heat, and of a large amount of water. This, I presume, acts as well in an antiphlogistic as also in an antiseptic way; and it may arrest the disease by drying up a sore and by checking the thriving of the bacillus within the lungs. The diminution of the expectoration observed in many cases is partly due to it, and, perhaps, also that of the night perspiration. The pulmonary circulation becomes increased, in order to supply the water lost, and the energy of the right heart, and of the cells and tissues of the lungs, must be likewise favourably influenced. The respiratory thoracic movements cannot escape being rendered more active, and through this expansion of the thorax, strengthening of the thoracic muscles and a help to all the respiratory acts. It is not too much to say that a great part of the favourable influence of the winter climate of the High Alps takes place through the increased inhalation of this cold, dry, pure, and rarefied air.

4. I fully acknowledge the author's correctness with regard to ice and snow in the winter climate of the High Alps, but with this I find as little fault as with the calm cold air. Indeed, they are almost inseparable, for the ice and snow

which cover the ground prevent dust and decay, and the microbe laden emanations from the soil. The calmness of the air, the absence of local winds ("Thal" and "Berg" winds), are in great part due to the ground being covered with ice and snow; furthermore, where the roads are for months together covered with snow, the invalid can walk on them without the danger of wet feet, and the healthful exercises of sledging, tobogganing, and skating for the more hardy invalids and their companions are certainly not to be despised.

After having discussed the bad character of our author's Alpine winter I must devote a few minutes to the purity and rarefaction of the air. The purity, or aseptic character, is intimately connected with the cold, ice, and snow, and also with the sparseness of population and industries. To this point, and particularly to the comparative absence of spores, I had always been inclined to ascribe the favourable influence of residence at high elevations on phthisis; and when Professor Tyndall in 1868 directed my attention to Pasteur's researches, published in 1862, I became strengthened in this view, which I mentioned at the Medical and Chirurgical Society in 1869. The facts published by Miguel, and already quoted above, as to the absence of microbes in the Alps at localities above 2000 metres, strikingly show the purity of the air. I am not, however, blind to the fact that wherever a large number of human beings, especially invalids, congregate, there the purity of the air is likely to be impaired. The rarefaction or rarity of the air with which its lightness or diminution of pressure is intimately associated has been the subject of many theories; for instance, as causing a starvation of oxygen and the peculiar kind of mountain anæmia, of the existence of which, however, I have not been able to convince myself in the Alps. What seems to be certain is that more blood flows to the surface of the skin, that this organ becomes better nourished, that internal organs become in proportion somewhat unloaded, and, further, that the separation of carbonic acid from the blood in the lungs is facilitated (Marcet and Chermond). I am less certain with regard to the view that a diminished quantity of oxygen contained in a given quantity of air leads to the inspiration of a larger volume of air, and through this to a greater expansion of the lungs and thorax. This theory has been quite lately expounded in a very plausible way by Professor Jaccoud, a great advocate of the curative effect of Alpine climates, in his valuable work on phthisis, of which a good English edition by Dr. Lubbock has just been published. I am not prepared to say that this view is incorrect; but, as I have pointed out already in 1869, and in later communications on the subject, the experiments of Frankland and Tyndall on the burning of candles on the top of Mont Blanc and at Chamounix show that, although the light-giving power of the flame is much less on the top of Mont Blanc, the quantity of stearine consumed, or, in other words, the energy of combustion, is almost precisely the same as at Chamounix. This remarkable result is ascribed by the author of the experiment to the greater mobility of the atoms in the rarefied air, "making atonement for the smallness of their number by the promptness of their action." I can corroborate the experience of Dr. Theodore Williams regarding the increase of the circumference of the thorax, and especially of the diseased side of the chest in several of those cases which have shown a satisfactory progress. I am not, however, sure that this is due to the rarity of the oxygen, as the inhalation of the dry cold air already accounts for it. Whether the thinner air of high regions is unable to hold the microbes floating, and whether in this way rarefaction is a source of purity, as Miguel seems to think, I am not able to say; but this point could, I should think, be settled by experiment.

I must deny myself the pleasure of further entering into the details of the peculiarities of mountain air and mountain health resorts. The main physical features important to us are:—1. The purity or aseptic nature; the comparative absence of floating matter. 2. Dryness of the air and soil; comparative absence of mist. 3. The coldness or coolness of the air temperature and the great warmth of the sun temperature. 4. The rarefaction and low pressure of the air. 5. The intensity of the light. 6. The stillness of the air in winter. 7. A large amount of ozone. The effects on the invalid suited to such climates are—increase of appetite, improvement of sanguification and general nutrition, strengthening of the heart and circulation, raising of muscular and nervous energy, and of activity of the skin. Under the influence of such constitutional progress, which is assisted by the local action of the aseptic dry and cold air by increased ventilation of the lungs, and by compression of the diseased parts through healthy and emphysematous dilatation of the surrounding tissue, we observe a gradual improvement in the state of the lungs, leading to arrest of the disease and actual cure.

(To be concluded.)

THE RADICAL CURE OF VARICOCELE.

By HENRY LEE, F.R.C.S.,
CONSULTING SURGEON TO ST. GEORGE'S HOSPITAL.

THE difficulty of performing an operation for the radical cure of varicocele which is at once safe and effective, without any prolonged after-treatment, is evidenced by the number of different proceedings which have of late been advocated. Favourable results have been obtained by most or all of these methods where the veins have been simply enlarged; but in the severer cases, especially when accompanied by a relaxed condition of the skin of the scrotum, the benefit derived from the operation has been only temporary.

The operation which I have now been in the habit of performing for some years in such cases is as follows. The surgeon's hands and instruments are washed in a solution of carbolic acid and wiped dry. The patient is placed in a convenient position, generally on the left side of the bed, under the influence of ether. A portion of the skin of the scrotum is then pulled up and removed either by curved scissors or a knife. The longest diameter of the wound should be transverse. The edges of the wound separate to a considerable distance. The enlarged veins are rolled between the finger and thumb, and can easily be distinguished from the vas deferens. Should there be an artery of any size among the veins its pulsation can be felt, and in that case it is separated from the veins before the operation is continued. A hare-lip needle is then introduced through the wound under some of the veins, and a figure-of-8 ligature tied round its ends over the veins. The same thing is done with another needle about half an inch distant. A thin knife is then introduced on the flat beneath the veins, its edge turned towards the surface, and the veins divided. An ordinary iron cautery, previously heated in the fire, is dabbed on a wet sponge until very little steam is produced; the cautery is then applied to the extremity of the divided veins, and allowed to remain quietly in contact with them for a quarter or half a minute. The tissues adhere firmly to the iron and to each other, and the blood is firmly coagulated in the veins. In order not to disturb the parts by any unnecessary violence, the tissues are gently separated from the cautery by the handle of a scalpel. The needles placed under the veins are now removed and the edges of the wound brought together by short fine hare-lip pins, or by a continuous suture of carbolised catgut. The loss of blood in this operation often does not exceed a teaspoonful. The wound generally heals in great part by first intention. The cautery, applied as described, produces no slough. The charred surface is absorbed, as are also the clots in the veins. At the end of forty-eight hours the patient may be removed to a sofa, and may leave the house within a week.

The son of a medical man had for years been troubled with greatly enlarged veins and a relaxed scrotum, accompanied with occasional pain. He was operated upon on a Wednesday, and went down to Brighton on the following Tuesday. An officer in the army, having little time at his command, and wishing particularly to see his friends before rejoining his regiment, had the operation performed and left London within a week. In both these cases the result was most satisfactory. Details of cases might readily be multiplied.

The only inconvenience that has arisen is that in some instances a portion of the wound has been long in healing, but this is accompanied with no pain, and does not prevent the patient going about his usual avocations. It may, however, not be altogether a disadvantage to allow the wound to granulate, as the longer that action continues, the firmer will be the cicatrix. The one danger in operating for varicocele is absorption by the open mouths of the veins. If these are effectually closed a wound in the scrotum may be safely treated in the same way as a wound on any other part of

the body, and it requires no very particular attention. When a vein is divided by ligature, or if a rod-hot cautery be applied, some amount of ulceration and suppuration necessarily takes place. Both these processes are incompatible with the adhesive action, and the latter can only commence when the former has ceased. If a ligature be applied to a vein, a patient is never safe so long as it is ulcerating its way through; and the same may be said when a portion of the vein is made to slough by the application of the red-hot iron or by the galvanic cautery. The caution that surgeons have always shown in dealing with veins affords abundant evidence of the risks incurred if the veins be not completely closed. This object is effectually accomplished by the application of the actual cautery as above described. The parts are glued together before the operation is completed, a chemical adhesion of the different tissues takes place, the blood in the veins is firmly coagulated, and the vessels are securely sealed.

The removal of a portion of the skin in front of the scrotum as a remedy for varicocele was first, I believe, practised by Dieffenbach, and was advocated by the late Mr. Briggs. In an able memoir published by Dr. Henry, Surgeon to the New York Dispensary, he gives the credit to Sir Astley Cooper of having originally suggested the operation of "amputation of redundant scrotum in the treatment of varicocele." While this operation, he says, had met with much favour and been attended by successful results in New York, it has been comparatively neglected in England, Germany, and France.[1] Mr. Wormald proposed to lessen the scrotal bag by drawing a portion of it through a ring which was worn during the daytime. This is a plan of treatment not uncommon in the present day. The persistency with which patients affected with varicocele occasionally wear these rings and different kinds of suspensory bandages indicates conclusively the relief which they sometimes afford. As long, however, as the veins are left in a varicose condition, the disease cannot be cured. The practice soon, therefore, came into use of obliterating the veins by ligature, and later still by subcutaneous section. A large proportion of the cases in which the last-named operation has been performed have been permanently cured, some have been relieved, and in some the varicocele has become as troublesome as before.

The cases which have been the least successful are those in which the skin of the scrotum has lost its natural elasticity and become relaxed and redundant. The difficulty of dealing with such cases first suggested to me the plan of combining the operation of dividing the veins with that of removing a portion of the skin of the scrotum. This operation may be modified to suit individual cases, but in principle it is that which I am now in the habit of performing. The use of an anæsthetic entirely removes any objections that might be made to the use of the actual cautery on account of any pain which it might be supposed to produce in these operations. Patients sometimes, but very seldom, complain of some burning pain afterwards, but they certainly do not complain more than when the veins are subcutaneously divided. It is well that the bleeding should be completely controlled by pressure before the cautery is applied, otherwise the blood prevents the cautery from remaining fairly in contact with the orifices of the vessels. This may be the case if the iron be heated above the boiling-point of water. There is then a danger of the blood instead of coagulating being boiled, and also of the surrounding tissues being destroyed, instead of adhering to each other. The great advantage of operating with the actual cautery is that the divided vessels are completely sealed, and if the operation be properly performed no bleeding occurs, and no coagula are left in the wound. But that which is of far greater importance is that no absorption can take place through the veins. This is, in fact, the object of all antiseptic dressings. As far as any constitutional effects are concerned, lymphatic absorption is, I believe, unknown as a consequence of the operation above described.

The late Sir James Simpson was in the habit of relating how, after the American War, when he entertained some of the Northern surgeons at dinner, he told them that he believed that they had been in the habit of poisoning the wounds of the Southern soldiers who fell into their hands. The medical officers laughed at the idea; Sir James persisted, and the officers became angry. At length he explained to them that the pieces of flesh, including the divided extremities of the arteries, which were strangulated by ligatures died, decomposed, and were apt to poison the wounds. It is these decomposing particles which have necessitated the various forms of antiseptic dressing which have of late been so profusely used. But if the veins be closed, no such absorption can take place. In surgical operations where the veins can be completely sealed, as in cases of varicocele, venous absorption may be prevented with the greatest certainty.

Many years ago a patient presented himself at St. George's Hospital in whom the scrotum was so relaxed that when he lay upon his back the testes would hang over on the outer side of the left thigh. There was a well-marked varicocele. It was thought practicable to remove a large portion of the skin of the scrotum, and to obliterate the veins at the same time. Two needles were introduced under the most prominent veins far apart. Over the ends of each needle a figure-of-8 ligature was passed, so as to command any bleeding from the veins. The intermediate portion of skin, together with the subjacent tissues containing the enlarged veins, was then removed, leaving a very considerable gap. No hæmorrhage occurred. The needles were then drawn towards each other and the edges of the wound held in position. The wound readily healed, and the testis was subsequently retained very nearly in its natural position. This was the first case in which this operation was performed. Previous to that time no one thought of cutting deeper than the skin, as no means were then in use which would effectually control hæmorrhage from the spermatic veins. In the operation which I now perform the portion of skin to be removed is dealt with first, and the veins divided afterwards. The veins are sealed so as to prevent hæmorrhage on the one hand and absorption on the other, and the needles at once removed.

In cases of varicocele where the scrotum is not relaxed, the subcutaneous division of the veins answers very well without the removal of any skin. It was originally proposed to allow the needles which compressed the veins to remain undisturbed for forty-eight hours. It has since been suggested that they might be removed at an earlier period. As far as any fear of hæmorrhage is concerned, this might certainly be done; but, on the other hand, there might be a danger of the circulation through the veins being restored before their divided extremities were consolidated. In the severer cases in which the scrotum has become unnaturally pendulous, it is advisable to remove more skin than at first might appear necessary, so that that which is left may act the part of a suspensory bandage.

Savile-row, W.

[1] This operation has lately been revived in Paris.

WHAT IS THE EXPLANATION OF ACQUIRED IMMUNITY FROM INFECTIOUS DISEASES?

BY GEORGE M. STERNBERG, M.D.,
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(Concluded from p. 657.)

THAT full justice may be done to the "antidote theory," I quote fully from the latest authority who has written in its favour. Klein says: "There is another theory commonly spoken of as the 'antidote theory' (Klebs). According to this, the organisms growing and multiplying in the body during a first attack produce, directly or indirectly, some substance which acts as a sort of poison against a second immigration of the same organism. I am inclined to think that this theory is in harmony with the facts. There is nothing known from the observations before us which would negative the possibility of the correctness of this theory; nay, I would almost say all our knowledge of the life of the micro-organisms points to the conclusion that the different species are associated with different kinds of chemical processes, and that as a result of the activity we find different chemical substances produced.[1] The different fermentations connected with the different species of fungi afford striking illustrations of this view. According to this theory we can well understand that, just as in the case of an animal, say a pig insusceptible to anthrax, the insusceptibility being due to

[1] This is beyond dispute.—G. M. S.

the presence in the blood and tissues of a particular chemical substance inimical to the growth of the bacillus anthracis—so also in the case of a sheep or ox that has once passed through anthrax—there is now present in the blood and tissues a chemical substance inimical to the growth and multiplication of the bacillus anthracis whereby these animals become possessed of immunity against a second attack of anthrax. Whether this chemical substance has been elaborated directly by the bacilli, or whether it is a result of the chemical processes induced in the body by the bacilli during the first illness, matters not at all; it is only necessary to assume that the blood and tissues of the living animal contain this chemical substance. Some observers (Grawitz, &c.) are not satisfied with this theory, but assume, &c.[2] ..... On the whole, then, we may take it as highly probable that, owing to the presence in the normal blood and tissues of a living animal of a chemical substance inimical to the growth of a particular micro-organism, this animal is insusceptible to the disease dependent on the growth and multiplication of this micro-organism; and, further, that in those infectious maladies in which one attack gives immunity against a second attack of the same kind, one attack produces a chemical substance in the blood and tissues which acts inimically to a new immigration of the same organism; hence the animal becomes insusceptible to a new attack, or is 'protected.' This is not the case with all infectious maladies, for, as is well known, in a good many instances, a single attack does not protect against a second; and, as is also well known, a first attack may protect only for a limited period, or for a period greatly differing in different individuals. All this would be explained by our theory in the same way as it is explained by the other theories—viz., when one attack does not protect, no inhibitory chemical substance has been produced; while in those diseases in which one attack does protect only for a limited period, the necessary inhibitory substance has only lasted for a limited period, and so on."[3]

It is unnecessary to point out that Klein simply states and reiterates his own opinion in all that he says with reference to the theory which he favours, and that no experimental evidence is adduced in support of this opinion, nor, I may say, any arguments worthy of consideration; yet it would seem that, as in the case of the first hypothesis, a very simple experiment should decide whether this view is tenable. Fortunately, the experimental evidence which shows that it is untenable is at hand, and has been furnished in part by Klein himself.

It is difficult to understand the kind of reasoning which excludes Pasteur's hypothesis upon the ground that the anthrax bacillus multiplies freely in the blood of an immune animal, or in an infusion of the flesh of an animal dead of anthrax, but which supposes that a chemical poison present in the tissues prevents the development of the bacillus in the protected animal. What, then, has become of this poison when the blood of such an immune animal is drawn from its veins into a test-tube, or in the infusion made from the flesh of a recent victim of anthrax? We might possibly admit that the hypothetical chemical substance which remains for years in the blood and tissues of an immune animal, notwithstanding the elaborate provision made by nature for the excretion of useless or injurious products, is dissipated by boiling in the infusion made from the flesh of the animal; but this assumption will not apply to blood freshly drawn from its veins, which also furnishes an admirable culture-medium for the anthrax bacillus. But even this possibility has been disproved by Pasteur, who has given the *coup de grâce* to the antidote hypothesis by the following experiment. He says, "Is this the only possible explanation of the phenomenon?" referring to the exhaustion theory. "No, we may admit the possibility that the development of the microbe, in place of removing or destroying certain matters in the bodies of the fowls, adds, on the contrary, something which is an obstacle to the future development of this microbe. The history of the life of inferior beings authorises such a supposition. The excretions resulting from vital processes may arrest vital processes of the same nature. In certain fermentations we see antiseptic products make their appearance during, and as a result of, the fermentation, which put an end to the active life of the ferments, and arrest the fermentations long before they are completed. In the cultivation of our microbe products may have been formed the presence of which possibly may explain the protection following inoculation. Our artificial cultures permit us to test the truth of this hypothesis. Let us prepare an artificial culture of the microbe, and after having evaporated it *in vacuo*, without heat, let us bring it back to its original volume by means of fresh chicken bouillon. If the extract contains a poison to the life of the microbe, and if this is the cause of its failure to multiply in the filtered liquid, the new liquid should remain sterile. Now this is not the case. We cannot, then, believe that during the life of the parasite certain substances are produced which are capable of arresting its ulterior development."[4]

If Pasteur's experiment, which relates to fowl cholera only, is not considered conclusive, let us consider the tax upon our credulity which this hypothesis involves. In the first place, the individual who has suffered attacks of several different infectious diseases—as for example, of small-pox, measles, scarlet fever, yellow fever, &c.—has stored up in his blood and tissues as many distinct chemical substances as there are diseases in the list, each of which was produced by the development of a specific microbe in his body. These poisons in no way harm the individual, and no one of them, or even the combined action of several, has any effect in preventing the development of other pathogenic microbes of the same class. How different this from the action of known antiseptics, which act in a similar manner, although not in all cases in equal amounts, in restricting the development of all micro-organisms, pathogenic or non-pathogenic, of the class to which known disease germs belong. And how improbable it is that certain substances exist capable of preventing the development of these low organisms in the animal body, which are not injurious to the higher and more sensitive organism, when all our laboratory experiments go to show that the most potent "germicides" and antiseptics are poisonous agents, which are capable of destroying animal life in a relatively smaller proportion than is required for the destruction of "germs." Moreover, we are to believe that these several poisons remain indefinitely in the ever-changing blood and tissues, and that normal physiological processes, by which waste products formed in the cell laboratories of the body are quickly removed from the circulation, are impotent for the excretion of these very peculiar poisons, although non-lethal doses of potent vegetable and mineral poisons are known to be removed from the body in a comparatively short time. We are also required to believe that during the development of a vaccine vesicle in an infant a poison is formed, inimical to the development of the small-pox germ, in such quantity as to afford it protection during the period of its growth and maturity, and perhaps during a long life. In short, the difficulties in the way of accepting this explanation seem to be quite equal to those involved in the "exhaustion theory," and we are obliged to look further for an explanation of the phenomena in question.

As already stated, the explanation which seems to the writer most satisfactory, and most in accordance with the facts, is that which has been denominated the "vital resistance theory." It is well known that living tissues resist the invasion of putrefactive organisms, while dead tissues quickly fall into putrefactive decomposition. So, too, blood within the vessels of a living animal does not behave like the same fluid in a test-tube, but in some way disposes of the bacteria of putrefaction when they are injected into the circulation instead of nourishing them and being decomposed by them. Perhaps the histological elements of the vital fluid which exhibit the greatest vital activity—namely, the leucocytes—may be directly concerned in removing from the circulation bacteria which are introduced experimentally on those pathogenic or harmless organisms which by accident find their way into the blood. However this may be, it is evident that the blood and tissues of a living animal resist putrefaction by virtue of their vitality, and we are justified in using the term "vital resistance" in explaining the immunity of certain animals (acquired), or of certain races (inherited) to the invasion of certain pathogenic micro-organisms belonging to the same class as that which includes the bacteria of putrefaction, although we may not be able to explain the *modus operandi* of this vital resistance or to define exactly what vitality is. We know, at least, that vital phenomena are exhibited by a special kind of matter called protoplasm, and that the living portion of the histological elements of the blood and

[2] Already quoted, see *ante*.

[3] Op cit., p. 249.

[4] Op. cit.

tissues is composed of the complex nitrogenous substance which has received this name. We know, too, that this living matter, although apparently the same in its gross chemical and physical structure wherever found, has the most varied vital characters, which have been transmitted to it by living matter of the same kind from which it is derived. The special vital characteristics of each bit of protoplasm, enclosed in a cell wall or otherwise, are manifested during its growth, and, as is well known, certain cells—as, for example, the fertilised ovum of a mammal—develop into most complex organic structures; while others, as in the case of a micrococcus or a yeast cell, simply produce other cells like themselves. Not only are the characters which distinguish one species of animal or plant from another transmitted in this way, but individual characteristics may be transmitted in like manner, especially those of a vital or physiological order—such as a feeble or robust nervous or digestive system, a tendency to long life or to premature decay, vital resistance to morbific influences, &c.

As examples of inherited physiological peculiarities of the order last mentioned, I may refer to the predisposition in some families to diseases of the nervous system—insanity, epilepsy, and the like,—to the vulnerability of others to tuberculous infection, to the small-pox poison &c., and to the very feeble vitality of many children born of parents whose vigour has been impaired by excesses or disease, and which causes them to fall victims to the first devitalising agent with which they come in contact. On the other hand, we have numerous examples of unusual individual or family resisting power to specific morbific agents, and this is still more marked in certain well-defined varieties or races of man and of the lower animals. Thus, the negro, as already mentioned, is less subject than the white man to severe forms of malarial fever and to yellow fever; the Algerian sheep has an exceptional immunity from anthrax; the fatal form of septicæmia in the mouse, which Koch has so well studied, affects only house mice, while field mice are not susceptible to it. But, in addition to these inherited differences in vital resistance to various morbific agents, it is well known to physicians that wide differences in susceptibility to the action of these agents result from influences which lower the individual standard of vitality, temporarily or permanently. Among the most prominent of these influences may be mentioned hæmorrhage, chronic wasting diseases, excessive fatigue, inanition, venereal or bacchanalian excesses, &c. This is shown in a striking manner during the epidemic prevalence of pestilential diseases, which find their victims especially among those whose vital resistance is "below par" from one of the causes above mentioned.

The absolute immunity which certain species of animals have against the infectious diseases of other species is probably due in great part to causes of a different order, and is to be attributed to constant (specific) differences in the chemical composition of the tissues and fluids, and to differences in the normal temperature of the body, &c., which constitute favourable or unfavourable conditions for the development of particular pathogenic organisms. But this is quite a different matter from the relative immunity which results from a single attack of one of the infectious diseases, which may in certain cases be overcome by unusually large doses of the disease poison, by exposure when the general health of the individual is at a low standard—deficient vital resistance of a temporary nature,—or by an unusual individual susceptibility—"idiosyncrasy." There can be no doubt, then, that differences in vital resisting power do exist which determine the development or otherwise of a first attack after exposure to infection in those diseases in which one attack is to a greater or less extent protective; but this does not explain the immunity which follows such an attack. This I believe to be due to an increased vital resistance to the specific disease poison—probably not to the germ, but to the chemical products evolved as a result of its vital activity, and which give it pathogenic power—resulting from a tolerance to this poison acquired during the attack, when it must be present in the system in considerable quantity.

We have numerous examples of acquired tolerance to the action of known toxic agents, and especially to those which act chiefly upon the nervous system—e.g., opium, tobacco, arsenic. And there is evidence that disease poisons produce the morbid phenomena which characterise the acute infectious diseases, in part at least, by their action upon the nervous system. The febrile phenomena, for example, are no doubt largely due to the action of some toxic agent upon the nervous system; and the chemical explanation of fever, which supposes that it corresponds with the rise in temperature observed in a liquid undergoing fermentation, is as crude as is the chemical explanation of immunity. Evidently, if the explanation is correct thus far, the vital resistance of which I speak is a property of the living matter or protoplasm of the body, and resides in the cellular elements of the tissues—nerve cells, gland cells, muscle cells, leucocytes, &c. Now, these cells are not fixtures like bricks in a house, but are constantly being replaced by other cells. Their progeny, which in their turn grow old, die, and give way to younger generations. It is therefore necessary to suppose, in order that this explanation may cover the fact of a continued immunity for many years, that the tolerance acquired during an attack by the cellular elements of the body is transmitted to their cellular progeny through successive generations. This supposition will not overtax the credulity of biologists and of physiologists, for they are familiar with the wonderful power which protoplasm has of transmitting its peculiar vital properties, inherited or acquired, to its offshoots.

The vegetable kingdom furnishes us excellent examples of the transmission of acquired properties through successive generations of cells. Cultivated varieties of fruits and flowers are propagated by slips, buds, or grafts. The cellular elements of each bud or graft are in this case the direct progeny of those in the first cutting, which was selected because of some peculiarity which it was desired to propagate. But if we plant the seed produced by such a bud or slip, we do not obtain the peculiarities of fruit, flower, or foliage which we had preserved by the first mentioned method. In like manner acquired immunity from infectious diseases and acquired physiological or structural peculiarities generally are not transmitted through the reproductive elements of an individual to his offspring, at least not to an extent at all comparable with the transmission of race or family peculiarities. How, then, are these race or family peculiarities established? Darwin has answered this question in a most satisfactory manner for plants and animals in a state of nature. There are congenital differences in the progeny of the same parents which give character to the individual and which are to a greater or less extent transmitted to his offspring. "The survival of the fittest" has a constant tendency to perpetuate advantageous peculiarities, and these are intensified in succeeding generations by the action of the same general law of natural selection. It is by the action of this law that we explain acquired race immunity, as, for example, the superior tolerance of the negro to the action of malaria. Living in an intensely malarious region, a race tolerance has been established for this poison by natural selection and the survival of the least susceptible individuals. In this case we cannot explain the superior tolerance to the malarial poison by supposing that acquired individual tolerance has been transmitted and has become a race character, for the malarial poison is peculiar in that one attack not only does not protect, but constitutes a predisposition to subsequent attacks. I am disposed to explain in a similar manner the marked difference in susceptibility to infectious forms of septicæmia, which is exhibited by carnivorous and herbivorous animals. The herbivora are especially susceptible to these septic germ diseases, which are propogated by inoculation and are known to us mainly by laboratory experiments. It is evident that in a state of nature they are little liable to accidental inoculation with septic material containing the various organisms associated with putrefactive decomposition, and consequently there has been no opportunity for the establishment of race immunity by the survival of the least susceptible. The carnivora, on the other hand, are frequently forced, in a state of nature, to feed upon putrefying animal bodies, and in their battles over such prey must constantly wound each other with teeth or claws smeared with material containing septic organisms. If wolves were as susceptible as rabbits to the forms of septicæmia referred to, it would appear that the species could not long escape destruction. But this is not the case, and I can scarcely doubt that their immunity is the result of the survival of the least susceptible through successive generations; or, in other words, is due to natural selection.

MR. LEWIS W. STEVENS, L.R.C.P. Ed., &c., has been appointed a Justice of the Peace for the district of Robertson, Cape of Good Hope.

ON SOME

SURGICAL ASPECTS OF RENAL TUBERCULOSIS.

BY REGINALD HARRISON, F.R.C.S.,
SURGEON TO THE LIVERPOOL ROYAL INFIRMARY.

TUBERCULAR disease of the urinary organs has recently received considerable attention, and the literature of the subject has been importantly added to by the French school of pathologists. In reviewing urinary tuberculosis it is impossible entirely to dissociate any one part of the system as belonging to the physician, it being now well recognised that certain morbid conditions feign well-marked surgical complaints, and give rise to consequences which are only amenable to surgical interference. The observations I am about to make have been led up to by cases presenting symptom indicating the necessity to explore for calculi or to practise cystotomy for their relief.

Tubercle of the kidney in its earliest form I have frequently found to be a cause of incontinence and urinary irritability in children; many children, especially males, who were suspected of stone, proved to have tubercular kidneys. It is not easy always to determine cases of this kind. In one instance recently under observation, where in addition to medical treatment, circumcision of an elongated prepuce had been performed, extensive renal tuberculosis with almost entire atrophy of one kidney was shown after death to have taken place. In assisting to make a diagnosis between what we may call medical and surgical incontinence, I have found the use of the thermometer extremely valuable in doubtful cases. If there are tubercles in the kidney, the temperature will generally show them, provided the observations are continued for some time, in addition to other indications which it is not my province to enter upon.

Of the various operations employed for the relief of urinary affections it would be difficult to mention one that had given better results generally than cystotomy; the least favourable cases, in my experience, have been those where this operation was undertaken for symptoms traceable to tuberculosis. Of these I might instance several. The following example was a particularly interesting and an instructive one of its kind.

Some years ago a small boy four years of age came under my care at the Royal Infirmary, at the request of Dr. Little, on the suspicion that he had a stone concealed somewhere in his urinary organs. He had many of the symptoms of this complaint, but though he had been sounded several times no calculus could be felt. He was the child of distinctly strumous parents, and was singularly bright and intelligent for his age. Twelve months previously he commenced to wet his bed at night and to suffer from urinary irritability in the daytime. Occasionally very small quantities of blood had been detected with the microscope in the urine, which was invariably acid and opaque. Within two months prior to his admission the urine had been charged with mucus and granular matter containing a few pus cells of a tenacious character, efforts to expel which from his bladder produced much spasm and suffering. To aid micturition, and at the same time with the view of mitigating his spasm, he acquired the habit, which at last became constant, of pulling at his penis. He seemed, as it were, to milk away the urine and what it contained from his bladder. It was under these circumstances he came into the infirmary, when it was found necessary to give him sedatives freely. The urine, always granular-looking and opaque, now and then contained something which seemed more like the white of an egg half boiled than anything else. He was sounded, under ether, but nothing abnormal could be detected by any form of physical examination that was employed. Towards evening he was generally noted to have a rise in temperature, and there was a distinct tendency towards hectic. To alleviate the constant pain and spasm of micturition a median cystotomy was performed, but with little benefit. The spasm and vesical tenesmus still continued almost unabated. In the course of a month the child died with renal symptoms and a gradual suppression of urine. Post-mortem examination showed nothing wrong with the bladder or the urethra. The ureters were dilated and the kidneys cystic and tubercular. Some of the cysts thus formed, communicating with the pelvis of the kidney, contained thick gummy-looking mucus similar to that which was observed in a more diluted form in the urine; the cyst walls seemed to be engaged in secreting this viscid matter, which obviously with some difficulty had found its way along with the urine down the ureters. This was the explanation of the dilated ureters, the bladder spasms, and the irritability which led to cystotomy being practised. Without such an explanation it was difficult to understand how the ureters could be dilated, and yet no stricture exist in the urethra.

This case has since served to illustrate, in connexion with others of the kind not very dissimilar in history, progress, and results, at least three points: (1) That urinary incontinence or irritability in young children may proceed from renal tuberculosis; (2) that though cystotomy gives relief by allowing escape of the viscid mucoid material the tubercular cysts in the kidneys furnish when it has reached the bladder by slowly trickling, or insinuating itself down the ureters, there might in other cases of this kind be more cogent reasons for opening and directly draining the cystic kidneys, with the view of preserving what remains sound in structure as well as of preventing the constant spasm or colic which is aroused by the products of the disorganised kidney forcing a way along the ureters; (3) that such a case serves to illustrate those extremely rare cases (of which but few specimens are known to exist) where stones in the bladder have been found, wrapped up as it were in fibrous or gelatinous envelopes.

It was only comparatively recently, until I had by the kindness of Mr. Bickersteth an opportunity of carefully preserving and examining a well-marked specimen of what these tubercular cysts in the kidneys are capable of pouring along the ureters into the bladder, that I felt it possible to explain the formation of semi-fibrous stones. The best specimen I know of is in the Liverpool Infirmary Museum, and has been there referred to by me on a previous occasion.[1] "In 1873 a boy was admitted into the Liverpool Royal Infirmary, under the late Mr. Long, suffering from symptoms of stone. The child was sounded carefully, but without any evidence of stone being afforded. Death occurred in the course of a few days. On making a post-mortem examination the kidneys were found in an advanced stage of tubercular disorganisation and cystic. The bladder was small, and in it lay a calculus made up of a urate of ammonia nucleus, the size of a damson-stone, surrounded by a thick layer of soft material, consisting of mucus, fibrin, and a little gritty matter, probably phosphatic. The outer covering could be cut or torn easily, and after it had been in spirit it presented on section a laminated appearance, like the fibrinous layers found in an aneurysm. On striking the mass with a metal instrument no ring was produced; hence the impossibility of determining its existence with the sound during life." Mr. Bickersteth records a similar example.[2]

The possibility that in a strumous subject a small stone in the bladder may, as it were, be wrapped up in a fibrous sort of coat furnished by a tubercular kidney must not be lost sight of in the investigation of obscure cases of vesical stone, whether or not the explanation I have offered as to their formation be a satisfactory one.

In the diagnosis of urinary tuberculosis in the adult male, in whom this disease is frequently found between the ages of twenty and forty, the careful examination of the testes and prostate with the finger often furnishes valuable evidence as to the probability of tubercle existing in some other portion of the genito-urinary apparatus which is beyond reach. When such evidence coexists with positive signs of functional urinary irritation in some form or other, further evidence as to the cause of the symptoms is hardly requisite. In all cases where there are grounds for suspicion the testes and prostate should be carefully examined. So far as the testes are concerned, there is nothing to be said in reference to their mode of examination. With the prostate it may be observed that our generally recognised method of examining this gland with the patient on his back or side is a very imperfect one, for whatever purpose, diagnostic or otherwise, it is required. To examine the prostate thoroughly and with the least amount of discomfort both to the patient and the surgeon, the former should be placed with his abdomen

[1] The Surgical Disorders of the Urinary Organs, second edition, p. 281 (with plate of stone).
[2] Observations on Lithotomy, Liverpool Medical and Surgical Reports, vol. i., 1867.

over the end of a sofa or on a pillow over the side of a bed, with the legs slightly apart, so that the surgeon may introduce the finger into the rectum with its palmar surface downwards, the patient's abdomen being at the same time pressed backwards and towards the pelvic outlet by the weight of the body on the bed. In this way the most accurate information can be obtained by the finger respecting the size, consistence, and relations of the gland. In urinary tuberculosis in the adult male small rounded bodies like shots, sometimes softened in their centres, can be felt either singly or scattered throughout the gland. This I have often demonstrated in the wards of the Royal Infirmary in connexion with the diagnosis of urinary tuberculosis. In young male children, or in adults where the prostate is immature, and it is difficult to make out accurately with the finger, even under an anæsthetic, the consistence and boundaries of the glands, I generally examine with a slightly flattened smooth staff in the bladder; this furnishes a central point of resistance which renders it easy to detect any structural change by the finger, such as a tubercular deposit. I attach much importance to the examination of the prostate in all cases of suspected tubercular disease of the urinary organs.

Liverpool.

A CONTRIBUTION TO THE

CLINICAL STUDY OF THE LIVER VIEWED THROUGH THE URINE.[1]

BY GEORGE OLIVER, M.D. LOND.

No. I.—TEN TESTS FOR THE BILE SALTS, WITH DEMONSTRATION.

THE study of the urinary aspect of diseases of the liver is so large, and withal so full of clinical interest, that he who has mastered it merely in outline, cannot well do it justice without devoting a series of papers to the elucidation of it. I, therefore, cannot hope to do more on this occasion and at our next meeting than to provide a sketch of one department—namely, the clinical significance of the colourless central components of the bile in the urine. In this communication I will confine myself to a consideration of the tests which enable us to detect the presence of the biliary salts in the urine, leaving over for the next meeting an outline of the physiological and clinical aspects of the subject.

The urinary derivatives of the biliary salts.—The salts of the bile acids, as they exist in the bile, are taurocholate and glycocholate of sodium, the former greatly predominating. These biliary constituents are not altogether eliminated by the kidneys in the chemical forms in which they are secreted by the liver. When they reach the intestines, they are split up into taurin and glycin on the one hand, and cholate of sodium on the other. The cholate is mainly reabsorbed by the bowels, a small portion only being excreted in the fæces; while the rest is returned to the liver by the portal blood, and is, at least, in part, eventually discharged in the urine. The bile salts, as they appear in the urine, therefore, in all probability, consist of the liver-secreted salts—taurocholate and glycocholate, and of the derived salt—cholate.

The clinical tests hitherto employed for detecting bile salts in the urine are unsatisfactory.—All the works on physiology and on urine refer to Pettenkofer's test—sulphuric acid and cane sugar—or some modification of it, as the only clinical means by which bile acids are to be detected in the urine. However satisfactory this test may have proved itself in the hands of chemists, who have applied it to solutions of the bile acids extracted from the urine, it cannot, I am fully persuaded, claim an analogous position as a mode of direct testing, such as the practitioner requires, for my experience of it as a clinical test has been most disappointing. In delicacy it falls very far short of the clinical needs of the practitioner, and in reacting with other substances besides the bile derivatives—e.g., albumen[2] and other organic bodies—it is apt to mislead the observer. I can, therefore, endorse Dr. Tyson's remarks on this point: "From a perusal of almost all the text-books on Physiology, and even of numerous manuals on the examination of the urine, the student is led to suppose that the detection of bile acids, if present in the urine, by means of what is called Pettenkofer's test, is one of the easiest possible. On the other hand, nothing is farther from the truth, and the fact is that *such detection by the direct application of the elements of Pettenkofer's test to urine, or any other animal fluid, is practically impossible, even if the bile acids are present in considerable amount.* Nor have any of the modifications of Pettenkofer's test, recently announced as clinically available, proved such in my hands, even where the elements of bile have been added to the urine, except where inspissated ox-bile has been used." The italics are Dr. Tyson's.[3] I am disposed to conclude from my observations that Pettenkofer's test does not react directly with the liver-secreted salts, taurocholate and glycocholate, but only so with the derived salt, cholate. Hence, it does not indicate the presence of the biliary salts in fresh ox-bile until it has had time to decompose them, and thus to liberate cholic acid; but it reacts at once, and very decisively, after the bile has been boiled for several hours with caustic potash, a procedure that breaks up the liver-secreted salts, and furnishes the derivate, cholate. This is doubtless the reason why Pettenkofer's test reacts with inspissated, though it fails to do so with fresh bile, for the taurocholate is readily decomposed by boiling only, and the extract is an evaporation product; and, furthermore, why it rarely affords at once a distinctive reaction in jaundiced urines, which are highly charged with liver-secreted salts.[4] The test for peptones, recently introduced by Dr. Randolph, of Philadelphia,[5] may likewise be employed for the direct testing of bile salts, and for this purpose it is delicate; but is unfortunately open to the objection that it reacts equally well with the merest trace of peptone—a constituent often present in small quantity in the urine of hepatic cases, and, moreover, generally in such traces as to be detected with difficulty, and, therefore, cannot always be definitely excluded.

The proposed test is founded on a physiological reaction.—The test I employ for the direct detection of the bile salts in the urine is a purely physiological one, for it is based on a reaction which belongs to the bile itself as it flows into the intestines. When the products of gastric digestion—peptone and parapeptone—which leave the stomach in a state of acid solution, meet with the bile, they are precipitated, as a tenacious layer, all over the villi of the lining membrane of the duodenum.

A solution of the bile salts precipitates acidulated albuminous urine or urine charged with peptone.—The same physiological fact is illustrated outside the body, by acidulating—by means of citric or acetic acid—albuminous urine,[6] or urine charged with peptone, and treating it with a solution of the bile salts, or by ox-bile freed from pigment, mucin, and fat, when the proteid is precipitated. I take a sample of albuminous urine, acidulate it with a citric test paper, and add a few drops of a solution of the biliary salts, and a voluminous white precipitate is observed, just as if I had thrown down the albumen by ferrocyanide of potassium, or by potassio-mercuric iodide. But though like other precipitates of albumen in failing to dissolve when heated, when the bile salts have not been added in excess, it differs from them in this—in vanishing on the addition of acetic acid. This precipitation of albuminous matter from an acid solution is induced not only by the bile salts, taurocholate, and glycocholate, but also by their derivative, cholate of sodium.[7]

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[1] Read before the Leeds and West Riding Medico-Chirurgical Society, April 10th, 1885.

[2] I have sometimes been led to believe that the presence of albumen retards or prevents the reaction with bile acids.

[3] Practical Examination of Urine, p. 91.

[4] Just lately I met with an instructive instance of this fact in a specimen of colourless bile extracted by aspiration from the gall-bladder of a jaundiced patient. I first of all determined the presence of a fairly large quantity of bile salts. Pettenkofer's test, however, afforded no reaction within several hours; but, after boiling a portion of the colourless fluid with liquor potassæ, the test afforded the characteristic colour change in a few minutes.

[5] THE LANCET, June 28th, 1884.

[6] Physiological writers assert that the bile only precipitates the proteid from the acid solution that enters the duodenum when in the form of peptone and parapeptone, and not when in that of albumen—as when albumen is dissolved by an acid. If this be so in the duodenum, it certainly is not so in the urine. When a solution of bile salts is added to an acidified albuminous urine, the proteid is precipitated, just as in the case of acidulated normal urine artificially charged with peptone.

[7] Observation shows there are three conditions that prevent the reaction between the bile salts and an acidified solution of albumen

Why not employ an acidulated solution of a proteid in order to detect the presence of bile salts, or the derivative of them, in the urine?—Hence, as this reaction is a thoroughgoing and decisive one, why not utilise it as a means of discovering the colourless bile derivatives that may overflow into the urine? For if these biliary constituents are present, in however small a quantity, they will surely precipitate an acidified solution of a proteid—resembling, in fact, the chyme—when brought into contact with the urine. Experiment and clinical observation have proved such to be the fact.

Acidification is a necessary condition of the reaction.—I add a solution of the bile salts to albuminous urine, and the mixture is seen to be clear,[8] but on letting fall a few drops of acetic acid into it, the albumen at once falls out of solution, and on the further addition of the acid the precipitate dissolves. Then, again, I take equal parts of an albuminous and of a jaundiced urine, and the transparency of the mixed urines is unaffected; but on dropping in a citric test-paper, a cloud of precipitated albumen collects below, with, however, this peculiarity—the coagulated albumen forms a zone just above the bottom of the tube, where, indeed, the urine remains clear, because the large amount of acid concentrated at this part prevents the precipitate from appearing there. In this case the bile salts present in the jaundiced urine precipitate the albumen, as in the preceding observation, the citric acid merely performing the same duty as when employed in the mercuric or ferrocyanic test for albumen. About twelve months ago I encountered a fact in urine-testing which at that time I could not explain, nor could I derive light either from books or from my friends: the same patient, on different days, provided me with various samples of albuminous urine, which were divisible by the action of citric or acetic acid into two classes—one set precipitating freely with the acid, the precipitate insoluble with heat, and the filtrate albumen-free; and the other set unaffected by the vegetable acid. I carbolised a good example of each kind, and set it aside, believing that the explanation would be forthcoming some day or other. On now re-examining these specimens, I find the one that precipitates albumen by the organic acid contains a large quantity of bile salts; while the other has none—or merely a little more than the trace that belongs to normal urine.[9] The precipitant of the albumen was therefore in this case also the bile salts, which remained inoperative until the vegetable acid was added.

I have lately met with several urines of normal reaction, containing albumen and bile salts, in which the proteid was precipitated by merely adding an organic acid. I show you two examples. This dark urine is a jaundiced urine containing albumen; you see how freely the proteid falls on merely dropping into it acetic acid. And this is a specimen containing an excess of bile salts, but no biliary pigment, along with albumen; and you will note in the course of a few minutes that a citric test-paper produces the characteristic zone-like precipitate, leaving the lowest part quite clear. When the precipitate induced by the organic acid is collected, washed on the filter, and dissolved in an acid (such as acetic or hydrochloric), the albumen is freely precipitated afresh by nitric acid, by the picric acid solution, and by other precipitants of albumen, so that it is albumen and nothing but albumen.

Acidified albuminous urine is a test for bile salts in the urine.—I run this diluted albuminous urine, acidified by acetic acid, over a jaundiced urine, and along the plane of contact of the urines a sharply defined white band or zone of precipitated albumen will be noted, a reaction which is indeed very striking and decisive.

(To be continued.)

or peptone—namely, (*a*) an insufficiency of acid, (*b*) an excess of acid, and (*c*) the proteid present in large quantity. The precipitate with an acidified solution of albumen or peptone, or with acidified urine containing either form of proteid, dissolves on adding acetic acid, or a citric acid test-paper, to sixty minims where the bile salts are present below a certain proportion. These facts appear to me to be interesting in connexion with the temporary albuminuria or peptonuria which is confined to the digestive periods, and with the increased elimination of albumen in chronic renal disease which takes place after meals. May not a sub-acid or a per-acid chyme, or an excess of the ingested proteid, when the bile flow is imperfect, prevent the biliary salts from precipitating—or, rather, from completely precipitating as in health—the albuminoid materials which flow into the duodenum, and thus permit the premature absorption of them?

[8] When the bile salt solution is run upon an albuminous urine, or more especially upon a normal urine charged with peptone, but in neither case acidulated, a delicate zone of precipitated proteid appears, which, however, vanishes on mixing up the solution with the subjacent urine; but the opacity is restored by a citric test-paper, or by a drop of acetic acid.

[9] This patient also on several occasions furnished me with specimens containing peptones in the place of most of the albumen. One of these I also carbolised. On retesting it, I find the peptones still present, with a trace of albumen; and on running over it a diluted solution of acetic acid, there instantly appears a beautiful thick pearly-white zone. Bile salts are present in large quantity.

REMARKS ON

NINE CASES OF DEATH BY HANGING

(SIX EXECUTIONS AND THREE SUICIDES).

BY R. J. KINKEAD, M.D. DUB.,

LECTURER IN MEDICAL JURISPRUDENCE, QUEEN'S COLLEGE, GALWAY.

(*Concluded from p. 653.*)

As far as instantaneous death and freedom from suffering are concerned, hanging by means of the long drop, with the knot of the rope under the chin, seems effective and humane; but it is not unaccompanied with the danger of decapitation. This actually occurred some years ago in Dublin in the case, I think, of Kilkenny, and was then attributed to the use of an old rope which had lost its elasticity. The ropes used by Marwood were also old and had lost their elasticity, but they were thick, I should say an inch to an inch and a quarter in diameter. That decapitation did not occur was probably due to the thickness of the rope, and more especially to Marwood's long practice, enabling him to judge pretty fairly from a look at the criminal, what length of rope should be given. Yet in one of the cases I witnessed decapitation was almost complete, and it seems marvellous that the small portion of skin by which the head was attached to the body did not give way during the hour the body was left suspended. In another most of the tissues inside the neck were torn through and only the skin left intact, so that there must have been in many cases very narrow escapes from decapitation.

I do not enter on the question or express any opinion as to whether it is expedient or inexpedient, right or wrong, that capital punishment should exist. But surely so long as the penalty of death is exacted it is the bounden duty of the State to see the provision made for executions shall be as perfect as possible, so that they may be rapid, painless, and free from the possibility of mistake. The penalty of death is the heaviest punishment the law can inflict; it is a very terrible one, not alone to the criminal, but to those whose duty compels them to witness it. That any bungling should take place or any delay occur through the inexperience or awkwardness of the executioner, or that through his avarice he should be able to dispense with needful assistance, would be to add great cruelty to the punishment; yet under the present system this is not only likely to occur, but has actually happened. There is no such thing as a public executioner for the kingdom. The sheriffs of Middlesex and London appoint one, but his appointment confers no right outside their jurisdiction. The sheriffs of other counties are not obliged to employ him, and there is no fixed scale of pay. It is simply a matter of bargaining, and a sheriff can employ anyone willing to undertake the duty, and pay whatever sum may be agreed upon. Strange as it may seem, there is no lack of competitors for the loathsome office, and there is no guarantee that a totally unfit and inexperienced person may not be selected, and wretched criminals' sufferings prolonged. It seems incredible an execution should be a matter of bargaining, to be touted for like any other trade, yet so it is. I have myself seen a letter from Marwood asking for a certificate as it would be useful to him in his business. So long as capital punishment exists there ought to be a public executioner, with properly trained assistants, a fixed scale of pay, and the sheriffs ought to be obliged to employ them and no others. Furthermore, when more than one person is to be hanged at the same time, it ought to be rendered imperative that the executioner should have a sufficient number of assistants to avoid delay. The conclusions arrived at by Dr. Haughton, in a paper read before the Surgical Society of Dublin, are in the main correct, except that the fall of ten to fourteen feet is too long. In no case I have seen was the drop more than eight or nine feet, yet in one the head was almost severed from the body.

The three cases of suicidal hanging I have to record

present some features of interest. In none of them were there any traces of insanity, nor was there anything in their manner or conduct which could have led one to suppose that suicide would be attempted. In only one could any reason for the act be traced.

E. S——, aged thirty-six, was last seen alive at about 1 P.M., when his dinner was served. At 2 P.M. he was found hanging in his cell from the gas-pipe; his feet were about six inches from the floor. The warder who found him cut the body down at once. When I saw him at 2.25 he was quite dead; the body was warm; rigor mortis had not set in. The eyes were half open, pupils moderately dilated. The face was pale and calm. The tongue was not protruded or pushed up against the roof of the mouth, nor was it dark in colour. The fingers were not clenched; surface of body pale; no evacuation of fæces or semen. He had drunk all his soup and eaten part of his bread. He had used his neckerchief as a means of suspension.

T. K——, a strongly built, robust man, aged thirty-seven, was found dead at 6 A.M. hanging by his necktie from his hammock hook. He had been seen last alive at 10 P.M. on the previous evening. When found the body was cold, and he had evidently been dead some time. The body swung clear of the floor, and fæces, evidently passed in the death-struggle, were found on the floor immediately under the body. There was no trace of seminal emission. When I saw the body rigor mortis had commenced in neck and upper extremities. The face was swollen and livid. The right eye closed, the left half open and prominent. The tongue, black, swollen, and protruded, was pressed against the upper jaw; the limbs were livid; the surface of the body was congested and the hands clenched.

T. B——, a lad aged eighteen, had been in prison only a couple of days. He ate his dinner, which was served at 1 P.M. At about 2.10 P.M., after the dinner tins had been removed, he rang his bell and was let out to the closet, where he remained about three minutes and returned to his cell. Ten minutes later the warder, on looking through the trap in the cell door, saw him standing in a curious position against the wall under the window of his cell, which was immediately opposite the door. He at once went into the cell, and found him partially suspended by one of his braces to the chain of his window. He immediately loosened the brace, took the body down and sent for assistance; when found the boy appeared to be quite dead. Professor Lynham, M.D., who lived close to the prison, was sent for at once, and on my arrival at 3 P.M. I found him endeavouring to restore animation, and making use of artificial respiration. All our efforts, however, failed. The face was pale and calm. No prominence of eyes or protrusion or alteration in colour of the tongue, nor escape of saliva from the mouth. Neither was the surface of the body congested, nor were the hands clenched. What was remarkable was the rapidity with which rigor mortis set in: the boy was last seen alive at about 2.20; the body was found partially suspended at 2.30, yet when I saw it at 3 P.M. rigor mortis had commenced in the neck. As, during efforts to restore respiration, the arms were brought down to the sides, the head and neck raised up, and when the arms were extended above the head, the upper portion of the trunk arched slightly backwards—phenomena which rapidly became more marked. The method adopted for self-destruction was peculiar. The cells are heated by hot water, the pipe passing through the cell under the window; the top of the pipe is about six inches from the floor. The window opens on a swivel in the middle, and a slight metal chain attached by one end to the top and the other end to the bottom enabled the occupant of the cell to open or close the window at pleasure. The loop of the chain hung down to the edge of the embrasure of the window, which would be about the level of the boy's neck when standing on the hot-water pipe. The prisoner's braces were made of frieze and lined with coarse calico. The prisoner had stood on the hot-water pipe with his back to wall, passed his brace round his neck and through the loop of the chain of the window; he had not tied it in a hard knot or, I may say, in any knot at all, the ends making merely the first folds of a knot. Whether he then stepped down off the pipe or slipped off will never be known, but when found he was standing on the floor, his back resting against the wall and the brace tightly round his throat. The surfaces of the brace being rough, and the sides of the loop of the chain coming close together under the strain, had prevented the folded ends of the brace yielding, and consequently it held as firmly as a complete knot could have done. Whether the prisoner really intended to commit suicide or only to feign to do so, whether he slipped off the pipe, or that, thinking the fastening would yield sufficiently to allow him to breathe, he stepped off, are conjectures. Taking the entire circumstances into consideration, I believe the intention was to make a feigned attempt, knowing that the result would be his being placed in association in charge of two other prisoners. Experience has shown that when suicide is really attempted care is taken to make secure knots. I am not aware of any case on record in which the ligature round the neck was not tied.

The scientific value of these cases is sadly deficient from the want of post-mortem examinations. The results of suicidal hanging cannot be compared with those of executions, the mode of death being so entirely different; the laceration of the spinal cord, and rupture of the trachea and bloodvessels, preventing engorgement of the lungs and right side of the heart. The appearance, therefore, of criminals after execution cannot be taken as typical of hanging in general. In two of the suicidal cases the appearance was totally dissimilar, although in both the bodies were perfectly suspended. In one, suspension could have only lasted an hour at the outside, probably less; in this case the face was pale. In the other the length of time the body was hanging was uncertain; from the position and size of the hook, and the time taken in making, and the intricacies of, the knots made on the handkerchief, by which it was attached to the hook, it was evident that it was done after daylight had appeared—that is, some time after 2 A.M. The appearance of rigor mortis and the reduction of the temperature of the body led to the presumption that it had been hanging for some hours. The former alone would have been no indication of time; as in the third case, rigor mortis was apparent half an hour after the man had been seen alive. The appearance of the face and body in this case supports the statement that the face is "more often congested, especially in those who have been long suspended."

The third case has more interest in a medico-legal aspect. It confirms the fact, already recorded, that death from hanging takes place very rapidly, even with the feet or other portions of the body resting on the ground. It shows how rapidly rigor mortis may set in and how carefully the mode of hanging ought to be examined, and the means used tested, in all cases where a body is found suspended. Although it is true that in hanging (excluding executions) the presumption is in favour of suicide, yet it may be homicidal, and further, death having been otherwise caused, the body may be suspended after death. If a body had been thus found in any other place with the ligature so incompletely fastened, the presumption would have been in favour of homicide; for *a priori* it would have appeared in the highest degree improbable that a suicide would have been so careless in the arrangement of the noose, or, if he had, it would have seemed unlikely that so incomplete a fastening—only the first fold of a knot passed through the loop—could either have supported the weight of the body, or, without yielding, have borne a strain sufficient to cause death. It would rather have appeared that after death the body had been placed in that position, and that time had failed to complete the knot. Not only was such a supposition entirely out of the question, but I satisfied myself by actual experiment that, with the material used, the arrangement was effectual; for, on placing the brace in the loop of the chain, folded as it was found, and applying a downward strain to the noose thus formed, the sides of the chain came tightly together, which, with the roughness of the material, prevented any yielding and enabled it to bear a weight equal to that of the body. In all three cases the mark of the ligature was distinctly visible on the neck.

Since writing the foregoing two more executions have taken place. In both Berry was the executioner, and his method differs from Marwood's. Although both were single executions, he had the aid of an assistant, who strapped the legs while the executioner adjusted the noose, thus materially shortening the time. Instead of leaving the rope hanging its full length, so that when the noose was adjusted it looped down behind, he coiled the slack of it up under the beam, and fastened the coil with a piece of thread, thus avoiding all possibility of the rope catching under the elbow or foreleg in any way. He also placed the loop under the left ear. In neither case did the coroner consider a post-mortem examination necessary. From an external exami-

nation I judged that the vertebræ were separated, but in neither was the separation so marked or distinct as in those executed by Marwood. The faces were deeply congested, the hands were not clenched, and rigor mortis was well marked in both when taken down one hour exactly after the drop fell. My experience leads me to believe that in addition to a proper length of drop, fracture or dislocation of the spinal column and instantaneous death are most likely to be attained by the loop being placed under the chin.

Galway.

THE TREATMENT OF

ACUTE EARACHE BY THE INJECTION OF GLYCERINUM ACIDI CARBOLICI.[1]

BY H. BENDELACK HEWETSON,
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OF late years the use of various forms in solution of carbolic acid has been so universally prevalent in modern antiseptic surgery that many, as it were, hidden virtues have, by constant familiarity with the drug, become patent, as well as that the cautionary mirages which naturally always arise on the introduction of a new drug have been paled into insignificance before the light of experience. The anæsthetic properties of the drug are now much more fully understood and appreciated than they were some few years ago, although a solution of carbolic acid, short of being caustic, was well known to have local anæsthetic as well as antiseptic properties. Any surgeon who has worked for a long time at an operation such as ovariotomy, for instance, must remember his lack of tactile power when he went to his next meal. I myself have frequently dropped my glass, my tactile corpuscles having become temporarily and locally anæsthetised from constant immersion in the solution of carbolic acid which is used for instruments. In nearly all operations (the removal of a breast, for instance) the glycerinum acidi carbolici is applied to the wound to stop the after-smarting, and this it does effectually. Then arose the application of the glycerinum acidi carbolici to the exposed nerve in toothache. The relief is absolutely instantaneous if the tooth-pulp is exposed, the patient passing from the severest pain to that of a state of bliss, which all testify to who have experienced relief from toothache. I must here, in passing, just allude to the fact that when earache is due to toothache, which it is in a large number of cases, this application of the glycerine and carbolic acid cures the earache by relieving the toothache.

It is now about seven years since a patient came to me saying that his little boy of five years of age had, within the previous three hours, developed acute earache, and that his temperature was above 100° F. The temperature had been taken by his mother, and was rising. The thought occurred to me, why not inject glycerine and carbolic acid into the ears, as it was evidently a case of inflammation of the middle ear, which would eventually end in perforation and relief, as it had in this child done several times before. I injected this solution of carbolic acid and glycerine, and, to my great delight, it acted as in toothache, almost instantly relieving the acute pain. This was done at three in the afternoon, and the next morning the boy was perfectly well, and heard nearly naturally, though not quite, as he still had a cold. The tympanum never became perforated, as it had done on previous occasions, and the temperature rapidly fell to normal. This is a typical case, and I may say that I have repeated it times without number in the same way, both in children and adults—that is, in earache and in catarrhal otitis. In all cases of this kind, at whatever stage it is applied for earache, it invariably stops the pain; and I feel sure that in many cases, even when perforation seemed imminent, the relief from the pain diminished the tension, and by its strong antiphlogistic as well as anæsthetic power perforation has been avoided. If an earache returns, as it does sometimes, where a perforation has taken place and has again closed, the application of the glycerine and carbolic acid gives great relief, and stops the tendency to recurrence to the same thing in some cases, but not in all, although it always relieves pain, and thus constitutional disturbance. In cases of earache from periostitis, either in cases of chronic otorrhœa or in uncomplicated cases of inflammation of the external auditory meatus, the relief to the pain is not so rapid; but if the carbolic acid and glycerine be allowed to remain in the meatus, then relief from pain is obtained in from ten to thirty minutes. It occasionally returns in these cases, when the solution can be reapplied with renewed benefit. By this means I am convinced, by a large experience extending over some years, that if the treatment is used early, perforation of the tympanum can be stayed in many cases. Of course the tendency to catarrh, or other causes which make a patient prone to otitis, is not the object of this paper, nor also is the after-treatment of such cases where the otitis is got rid of. I am dealing only and solely with earache, and the circumstances immediately surrounding it. I may say that I am not only relating my own experience of the treatment; but, in consequence of a paper which I read before the Yorkshire Medical Society, it has been quite generally used by medical men in the north of England who have reported their experience to me. There is one way in which it may fail to relieve pain at once, and that is in case it is poured too quickly into the external auditory meatus, when the patient has his head aside, with the lobe of the ear in its natural position. In this way the air cannot escape sufficiently freely, and a bubble of air prevents the fluid from reaching the bottom of the meatus. The proper way is to draw the lobe of the ear forcibly upwards and backwards, as in syringing the ear, to straighten the entrance to the meatus, and then allow the fluid to trickle gently down one side, whilst the air escapes up the opposite side. In cases where the meatus is very swollen at its orifice, I have injected the solution up a fine elastic catheter well covered with vaseline to promote its easy passage, and in this way I have relieved earache when it could not have been alleviated except by a hypodermic injection of morphia or such means.

I have taken great pains to arrive at the best strength of carbolic acid and glycerine to attain these results, and I find that weaker solutions do not cure the pain so rapidly or effectually. If weaker solutions are used, they will be found to fail in attaining the same results, and of course stronger solutions would soon become caustic. The glycerinum acidi carbolici in this form is not strong enough to be caustic, and can be applied in severe earache when a perforation exists quite harmlessly.

I have a further suggestion to make as to the applicability of this treatment; but I am only able to support my suggestion by a few successful cases which have come under my own observation. I refer to this application as a means of checking the disastrous otitis in scarlet fever, as well as to relieve the earache in these cases. I am very hopeful on this point; for in one or two instances where I had an opportunity of applying the glycerine and carbolic acid, when a patient first complained of earache in scarlet fever, and the membrana tympani had begun to redden, the relief to pain was immediate, and no perforation took place.

I make the suggestion, and hope all who have the opportunity will try it, since one important (very important) element, I take it, to anyone, much more to a patient in high fever, is the immediate relief from local pain, which must act as a beneficent element in assisting the patient through his illness.

[1] A paper read before the meeting of the International Otological Congress, Basle, Switzerland, September, 1884.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—A quarterly court of the directors of this Society was held at 53, Berners Street, on April 8th, Mr. Tegart, V.P., in the chair. Six new members were elected, and the death of one reported. Applications for grants were read from sixty-three widows, nine orphans, and three recipients of grants from the Copeland Fund, and a sum of £1349 was recommended to be distributed among them at the next quarterly court. A fresh application for grants was made by a widow on behalf of herself and daughter, and grants were made them. Mr. Henry Lee and Mr. Cooper Forster were nominated for election as vice-presidents at the annual general meeting, in the place of Mr. Cæsar Hawkins and Sir Erasmus Wilson, both deceased, and the following gentlemen were named as directors to fill the vacancies arising from the retirement of the six senior, and from the death and resignation of others—viz., Mr. Hogg, Dr. Burker, Dr. F. Roberts, Dr. Broadbent, Dr. Ogle, Dr. Duka, Mr. Bennett, Mr. J. S. Turner, Mr. Stokes, and Mr. Latham. The annual general meeting was fixed to be held on May 20th at 5 p.m.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at mor borum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

A CASE OF LITHOTRITY; REMARKS.

(Under the care of Mr. CLUTTON.)

THE following case of lithotrity with prolonged manipulation is a good example of the method of procedure introduced by Bigelow in the year 1878, which he prefers calling litholapaxy, but which retains the name of lithotrity in this country. In this case the amount of débris produced was such as to render its removal at one sitting impossible, without exposing the patient to unnecessary risk, the remainder being removed seven days later without any inconvenience having resulted to the patient in the meanwhile, whilst the good effect of the first operation was well marked. The stricture, which had been carefully dilated, does not appear to have interfered with the progress of the operation, nor to have caused after-trouble.

R. R——, a coachman, aged forty-nine, was sent to Mr. Clutton by Dr. Phillips of Bromley, Kent, in the autumn of 1884. For eight months he had suffered from frequency of micturition; and during the latter part of this time had begun to feel pain at the end of the penis after emptying his bladder. The frequency in passing urine troubled him as much during the night as in the daytime; so that it is open to question whether this particular symptom was not due to the presence of a stricture from which he had suffered, for fourteen or fifteen years. He had of late neglected the stricture, and thought that all the symptoms were due to this neglect. He had during the last three or four months noticed blood occasionally in his urine, which had at the same time become thick and ropy. The pain at the end of the penis and an occasional presence of blood in the urine made it probable that there was also a stone in the bladder. A No. 6 silver catheter was with difficulty passed through a stricture at about four inches from the orifice of the urethra. A small-sized sound was then introduced, and a vesical calculus detected. He was therefore admitted at once into the hospital. In the course of a fortnight the stricture had been so far dilated as to admit a steel sound of the size of No. 30 of the French scale. But the symptoms of irritation in the bladder had been much aggravated. He was passing urine almost every half hour, and had to keep a "slipper" constantly in bed. There was also a large quantity of pus and mucus in the urine that he evacuated. It was determined, therefore, at once to give him relief by lithotrity.

On Oct. 15th, 1884, the patient being brought under the influence of an anæsthetic, a Bigelow's lithotrite was introduced and the stone seized. It proved to be about two inches in diameter, but of soft and crumbling consistence. It was therefore very easily crushed, but the amount of débris produced was so large, and the stone had broken up into so fine a powder, that even at the end of an hour and a half a considerable amount was known to be left behind. The weight of the fragments removed at the operation after careful drying was 659 grains, or a little over an ounce and a half; but no great care was taken to preserve all the fluid that came away, so that a good deal of the fine powder was lost.

On the 17th, two days after the operation, he said that he felt better than he had done for some months. He had no pain except some slight scalding in passing urine, and this was accomplished about once in two hours, instead of every half hour. Altogether the relief was very great. The urine also was quite clear, containing only a few fragments of the crushed calculus.

On the 22nd an anæsthetic was again administered and the bladder washed out by Sir Henry Thompson's improved evacuator and a No. 18 cannula, which had been used at the first operation. The second operation lasted about three-quarters of an hour, and the fragments, dried and weighed, amounted to 336 grains. The bladder was again washed out in the same way on the 30th, but very little débris indeed came away.

The patient left the hospital perfectly well on Nov. 4th. The stone was entirely composed of phosphate, and therefore very light for its size; but when thoroughly dried, the total weight of the fragments removed by the evacuator, with those passed in the intervals, was 1026 grains, or 2 oz. 151 grs. The original calculus must therefore have been of considerable size.

Remarks by Mr. CLUTTON.—This case is of interest on account of the large size of the stone, the few symptoms to which it gave rise, and the very short time that these symptoms had existed. There was, moreover, a stricture of the urethra, which increased the difficulties of the case.

LIVERPOOL ROYAL INFIRMARY.

CASE OF DISLOCATION OF THE SHOULDER, REDUCED AFTER ABOUT SEVEN WEEKS, AND FOLLOWED BY ANEURYSM (SUBSCAPULAR?), TREATED SUCCESSFULLY BY LIGATURE OF THE SUBCLAVIAN; REMARKS.

(Under the care of Mr. RUSHTON PARKER.)

THIS case is very interesting as an illustration of a rare accident following the reduction of dislocation of the humerus. The patient was not of an age when one expects degeneration of the vessels, and the dislocation was a comparatively recent one, apparently requiring no excessive force for its reduction. The aneurysm probably followed laceration of the dorsalis scapulæ artery, as suggested by Mr. Parker, and this may possibly have been injured at the point where it turns round the axillary border of the scapula, at which point it would be most exposed to injury during the necessary manipulations.

A woman, aged thirty-six, fell and injured her right upper limb in the first week of December, 1882. To the medical man who attended her she only complained of her forearm, in which he found a fracture, and treated it successfully. Four weeks later, her forearm being nearly well, she went to the Liverpool Royal Infirmary, complaining of her shoulder and general lameness and pain in the limb. On examination the head of the humerus was found dislocated, the limb somewhat œdematous, and the injured forearm satisfactorily healed without deformity. After two attempts at reduction under ether, with the heel in the axilla, by Mr. Harrison's house-surgeon, the case was placed under the care of Mr. Rushton Parker, who is indebted to Mr. Harrison for the opportunity of attending it. Again, under ether, reduction was attempted on Jan. 23rd, 1883. The patient was laid on the operating-table, having a roller towel passed round her chest on the affected side, and looped at the other end to an adjacent iron post, being put on the stretch between. This maintained her fixed while the limb was submitted to linear extension at an angle of about 60° from the trunk. At first the hands of those employed slipped off the œdematous limb, on which another roller towel was hitched on the limb, and steady traction kept up by three or four students, while Mr. Parker directed their movements, clasped the head of the bone, and kept it outwards, while the arm was brought to the side. After prolonged efforts, without any jerking, the bone was found replaced in its proper situation without any indicating sound or perceptible movement at the moment of reduction. The wrist was slung to the neck, with the elbow flexed, and the patient was put to bed. Some ecchymosis resulted and pain in the shoulder, neither more nor less apparently at first than at the previous attempts. But the pain continued; and on viewing the shoulder from time to time to ascertain the cause, there was noticed on Jan. 29th a pulsating swelling over the axillary border of the scapula behind. The pulsation was distensile; the swelling evidently communicated directly with an artery, and its size was about that of a small walnut, with additional induration around. The radial pulse was unaltered on this side, and during the period in which it was examined the position of the aneurysm was more and more conspicuous at the border of or outside the axilla, and near the situation of the dorsal scapular artery or the subscapular at the junction of the two. The swelling under rest in bed did not show any sign of diminution, but rather of increase; it was attended by severe neuralgic pain, that greatly distressed the patient,

who could hardly sleep. At a consultation with his surgical colleagues, Mr. Parker's proposal to tie the subclavian artery was agreed to. This was accordingly done on February 16th, 1884, under ether, with Lister's carbolic acid method and a chromicised catgut ligature. After the skin incision and the closure of its vessels, the fascicæ were divided with two pairs of dissecting forceps, the successive apertures being held open by Mr. Harrison with a pair of artery forceps in each hand. The artery was too deep to thread the aneurysm needle after passing it, so the needle had to be withdrawn and passed threaded. Pulsation ceased at once on compressing the artery against the finger with the ligature, so the latter was tied, cut short, and the wound sewn and drained, being covered with a Lister's gauze dressing. Union by first intention resulted without inconvenience or complication. The blood tumour that had pulsated remained for weeks unreduced in size, and felt so soft that Mr. Parker was tempted to aspirate it. This failed, as the blood was clotted, though soft. Eventually a puncture was made on March 10th, under a stream of carbolic lotion, and some black clot squeezed out. Decomposition eventually occurred, but was quickly corrected by carbolised washing, and entire cicatrisation resulted. The patient was kept in hospital all the summer, her arm being slung the whole of the time, and the stiffness of the shoulder gradually becoming slacker. She was lost sight of, and when sought in April, 1884, could nowhere be found.

Remarks by Mr. PARKER.—Six weeks after an accident one would hardly expect reduction to be so difficult as in this case. The parts were, no doubt, stiffened by the previous attempts, and all rendered difficult by inflammatory stiffening, which may have resulted from her own neglect of the injury, due to her ignorance of its existence and the omission of remedial precautions. The pulsating blood-tumour was a good example of circumscribed traumatic aneurysm that results from arterial rupture subcutaneously. It certainly did not appear to communicate directly with the axillary trunk, and was thought likely to be subscapular or dorsal scapular both from position and behaviour. Under any circumstances this must be a rare situation for aneurysm, though perhaps more likely to follow a stab than any other predisposing cause.

THE FRENCH HOSPITAL.

DISLOCATION OF THE FOREARM, OF EIGHT WEEKS' STANDING; REDUCTION; REMARKS.

(Under the care of Sir W. MAC CORMAC.)

FOR the following account we are indebted to Mr. Alfred S. Gubb, resident medical officer.

Léon P——, aged twenty-four, a musician, on Dec. 23rd last, was returning home late at night, carrying a parcel in each hand, when he was assaulted and knocked down quite unexpectedly. On rising he found himself unable to use his right arm, and any attempt to move it was attended with much pain. The next day he went to a neighbouring hospital, the arm being then very much swollen, where the case was diagnosed to be one of fracture just above the elbow-joint, and the limb was put up in an external angular splint reaching from the shoulder to the wrist. He returned to the hospital several times subsequently, but the arm was left undisturbed, until, being dissatisfied, he went on Feb. 9th to the French Hospital, where the splints were removed and the limb examined by Sir William Mac Cormac, who found a dislocation of both bones of the forearm backwards and slightly outwards. The patient was put under an anæsthetic and the adhesions broken down by flexion and extension movements, and efforts made to reduce the displacement by these and counter-extension. It was, however, only after three-quarters of an hour of very energetic manipulation that reposition was effected. The limb was then put up in fully flexed position, and secured by a plaster-of-Paris bandage. A good deal of swelling and pain followed, which were subdued by the continuous application of the icebag and the administration of opium. The limb was left in this position for a fortnight, and then passive movements were cautiously resorted to. A good deal of stiffness of the elbow and fingers remained, but after another fortnight of massage and passive movement the patient was enabled to extend the arm about forty-five degrees beyond a right angle, and to use his fingers with some amount of comfort. He left the hospital for Paris with every prospect of a useful limb.

Remarks by Sir WILLIAM MAC CORMAC.—Dislocations of the elbow are rare in adults, and in this case the interval was nearly the limit at which a successful reduction can be accomplished. Further, it serves to illustrate the difficulty of diagnosis in injuries to the elbow when the relations of the part are concealed by swelling.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Aneurysm of Abdominal Aorta treated by Distal Compression.—Localisation of Motor Centres in Spinal Cord.

AN ordinary meeting of this Society was held on Tuesday last, Dr. George Johnson, F.R.S., President, in the chair.

Mr. T. R. LUNN and Dr. F. L. BENHAM read a paper on a case of Aneurysm of Abdominal Aorta treated by Distal Compression. The patient, a man aged thirty-two, a shoemaker by trade, was admitted into the Marylebone Infirmary, in October, 1883, with a large abdominal aneurysm. He had been in the army nine years, and had syphilis five years ago. There was no history of strain or injury. The urine contained a slight trace of albumen. The patient was not relieved by the usual remedies, including rest, low diet, narcotics, &c. He was evidently getting worse, and was extremely anxious to have some operation done, the danger attending which was explained to him. On October 31st the patient was placed under the influence of chloroform, and compression of the abdominal aorta just above, and to the left of, the umbilicus was kept up four hours and three-quarters with Carte's tourniquet. There was slight vomiting on the first and third days after the operation (apparently due to the morphia and chloroform combined), but otherwise the patient expressed himself as feeling better; the tumour was smaller, harder, and pulsation less marked. The man continued to do well for seven days, but on Nov. 8th persistent vomiting set in, chiefly of a dark grumous material. The pulse was feeble, 192; there was intense thirst, no abdominal distension or pain, some dulness over right lung, the face was congested, and the feet warm. The patient became worse, and died on November 10th, the eleventh day after the operation, At the autopsy the aneurysm was found to be cured, but there was gangrene of about two feet of the jejunum.

Mr. HENRY MORRIS contributed a paper on a case of Gangrene of the Right Lower Extremity, due to an aneurysm which was full of laminated clot, and therefore practically cured. The patient was a man aged thirty-eight, who on December 27th, 1884, suddenly felt, whilst walking, severe pain, numbness, and pricking in the right leg, accompanied by profuse sweating; the left leg was also affected in a less degree, but the mobility and sensibility of the left lower limb returned, though the right remained paralysed and without sensation. On January 1st the patient was admitted into Middlesex Hospital. There was a history of syphilis sixteen years previously. Six months ago he had had lumbago, and later on drowsiness and throbbing of the right temple. On admission there was gangrene of the right lower limb; the femoral artery could not be felt. Some weakness and coldness of the left foot were present. On the right side of the abdominal parietes the veins were greatly distended. It was decided to wait before amputating the gangrenous limb. On January 14th the right limb was amputated through the lower third of the thigh by the circular method; a feeble, tiny stream of blood flowed from the superficial femoral artery. The eighth day after the operation the man died; delirium and diarrhœa had been present, and the urine was albuminous. At the autopsy the intermuscular planes of the stump were infiltrated with badly smelling sanguineous fluid. There was an infarct in the liver, and this organ weighed 71 oz.; the kidneys were swollen, and weighed 7¼ oz. each; in the right kidney there was an infarct. Atheromatous patches were present in the aorta, and an oval aneurysm, full of laminated clot and two inches and a half in length and of the size of a Tangerine orange, was found close to the superior mesenteric artery, which, however, was not involved. The bodies of the first and second lumbar vertebræ were eroded. The blood-clot extended into the aorta. Just above the right profunda artery there was an embolus. The vena cava inferior was completely blocked, as were also the

common iliac veins. The case was brought forward chiefly to show that even an aneurysm which had been cured by nature could by accident cause the death of the patient.

Mr. R. BARWELL said that it was unfortunate that the paper should have confounded proximal and distal compression for the treatment of abdominal aneurysm. There were now four cases of treatment by distal pressure; in two no benefit and no injury resulted. In Mr. Bryant's case the intestinal injury was the cause of death, just as it was in Mr. Lunn's case. He doubted whether the soft spongy clot occurred as the result of pressure, or as the result of arrest of the circulation during the last moments of life.—Mr. BRYANT said that in his case of distal compression he thought he could, with justice, attribute the clot in the aneurysm, not to a recent formation, but to one which had been formed slowly during the compression of the aorta. He considered that Mr. Lunn's case was an encouraging one for the treatment advocated. He asked for further particulars as to the precautions which were taken in applying the tourniquet.—Mr. T. HOLMES said it was open to doubt whether the treatment ought to be described as distal pressure; for there was but little space between the terminal portion of the aneurysm and the bifurcation of the aorta; it was more likely that there was direct compression of the aneurysm. He thought that distal compression was not likely to cure the aneurysm, but more likely to kill the patient. There were so many sources of collateral circulation that a cure was almost impossible. The risk of rupture of sac was great. He was inclined to think that in Mr. Lunn's case there was a genuine tendency to the cure of the aneurysm, for it had the appearance of being firmly consolidated; but he thought that this consolidation was not the result of distal pressure on the aorta.—Mr. HULKE concurred with the remarks of Mr. Holmes, and doubted whether the exact seat of the pressure could be definitely asserted, even when it was supposed to be applied proximally. In two out of three cases which had been under his observation there was direct pressure on the aneurysmal sac. The result in all his cases was successful, and the aneurysm was consolidated. Nevertheless, the dangers were great, and considerable risk must be run.—Mr. H. MORRIS spoke of a valuable contribution to the subject made by Mr. Barwell to "Ashhurst's Encyclopædia of Surgery." There were ten cases in which proximal pressure had been used, with recovery in five cases and death in five cases. Death was due to bruising of the intestine and peritonitis. It was a question as to how far the intestinal injury was due to direct pressure on these structures or to embolism of the superior mesenteric artery. He would like to know what chance there would be of gangrene of the intestines when the superior mesenteric artery was occluded. We had to do with the same dangers whether proximal or distal pressure were employed. He spoke on a subject to which he had already drawn attention—viz., that aneurysms may be cured by nature and yet bring about the death of the patient. His own case proved this, as did also a case of aneurysm of the ascending aorta in which consolidation had taken place; but a minute rent formed, through which leaking into the pericardium took place and caused death.—Mr. JONATHAN HUTCHINSON doubted whether medical treatment was wholly powerless to cure cases of abdominal aneurysm situated high up on the aorta. He referred to a case of his reported in "Holmes' System of Surgery," in which the free administration of diacetate of lead to the degree of producing a blue line on the gums and lead colic was carried out, together with the use of ice-bladders over the abdomen, a dry diet, and absolute rest. In this case within three months there was a complete cure, and the man went to work. He agreed with Mr. Holmes that there was a very great risk of causing the death of the patient by the method of distal compression. In ergot of rye, diacetate of lead, and iodide of potassium we had powerful drugs which might be used in combination, and which were able to exert a very important influence on the state of the blood and arterioles.—Mr. J. R. LUNN, in reply, said that before the tourniquet was applied the bowels were thoroughly emptied, and the bladder also. Gradual pressure was made after the skin and tourniquet had been properly dusted with powder. Carte's tourniquet was a very convenient one. The patient was a most restless man and difficult to keep at absolute rest, though this and large doses of iodide of potassium had been attempted for a period of one month without benefit.—Dr. BENHAM, in reply, quoted some references to prove that embolism of the branches of the superior mesenteric artery could cause gangrene of the intestines. He was of opinion that the pressure of the tourniquet was distal and not immediate.

Dr. C. E. BEEVOR read a paper on two cases illustrating the Localisation of Motor Centres in the Brachial Enlargement of the Spinal Cord. The first case was one of progressive muscular atrophy, occurring in a goldbeater and lamplighter, aged thirty-eight. The disease commenced three years ago, with gradual wasting and loss of power, beginning in the muscles of the back of the right forearm, the muscles of the hand and the interossei, and involving other muscles of the right arm. The left arm was affected a year later, with difficulty of supinating the forearm, flexing the elbow, and abducting the shoulder-joint. The legs have been weak for the last six months. At present the muscles most affected on the right side are the small muscles of the hand and interossei, the flexors and extensors of the wrist and fingers, the teres major, serratus magnus, deltoid, biceps, brachialis anticus, supinator longus, rhomboid, and teres minor. On the left side the same muscles are affected, except the small muscles of the hand and the flexors of the fingers; while, in addition, the clavicular part of the pectoralis major are slightly affected, and the supra- and infra-spinati are involved. The second case was that of a young man aged eighteen, suffering from infantile paralysis. The onset was sudden when the patient was a year old, with paralysis of all four limbs, of which the legs and right arm have recovered fairly well, while the left arm has remained more paralysed. At present, in the right arm, the only muscles affected are the latissimus dorsi, triceps, and pectoralis major, the sternal part of which is absolutely gone. On the left side, in addition, the teres major, subscapularis, rhomboid, supra- and infra-spinati, and teres minor are severely affected; while the extensors of the fingers, serratus magnus, and deltoid are only slightly involved. There was nothing of great importance in the course of the two cases; but they were brought forward to illustrate clinically the groups of muscles found by Professors Ferrier and Yeo to be thrown into action by faradising the peripheral ends of the divided anterior motor roots forming the brachial plexus. These groupings were shown in some tables, and side by side with them were given the muscles found to be affected in these two cases. On comparing the cases, it will be seen that whereas in the case of progressive muscular atrophy the groups of muscles severely or completely affected belong chiefly to the fourth, fifth, and eighth cervical and first dorsal nerves on the right side, and mainly to the fourth and fifth cervical nerves on the left side, in the case of infantile paralysis the opposite holds good, for on the right side the only muscles affected (the triceps latissimus dorsi and pectoralis major) are innervated, according to Ferrier and Yeo, only by the sixth and seventh cervical nerves, whilst the rest of the groups are unaffected; and on the left side the sixth and seventh cervical nerves are most affected, and also some muscles innervated by the fourth and fifth cervical are partially paralysed. The reaction of the muscles to electricity (faradisation and constant current) has been ascertained, and they correspond to the degree of power lost and to the amount of wasting, and are quite in accordance with the above groupings. A third case of infantile paralysis was also described affecting the muscles of the right arm, corresponding to the sixth and seventh cervical only—viz., teres major, latissimus dorsi, subscapularis, pectoralis major (sternal half), triceps, and serratus magnus. It should be remarked that Ferrier and Yeo's experiments were made on the motor roots, but it is considered that the groups of muscles thereby differentiated can be equally applied to the cells of the anterior cornua supplying these nerves, and these cells are known to be affected in progressive muscular atrophy and infantile paralysis.—Dr. HUGHLINGS JACKSON said that Dr. Beevor's observations were an example of a kind of work that was much wanted. Ferrier's experiments gave us some clue to the nature of the mixing up of the nerves at the level of the lowest centres. Lesions of the cervical region of the spinal cord were known to have an influence on the pupil. In these cases the pupil was small and unable to dilate when the eye was shaded. Stabs of one half of the cord illustrated this, as did also cases of rupture of the brachial plexus. Ferrier's experiments were more definite in this regard, for they showed that it was only the second dorsal motor root in the monkey which contained the dilating fibres of the iris. Stimulation of this root causes dilatation of the pupil and contraction of the intrinsic

muscles of the hand. In a case of progressive muscular atrophy under his care the intrinsic muscles of the hand were affected, and there was smallness of the pupil on the same side, and inability of the pupil to dilate when the eye was shaded, thereby affording a clinical corroboration of the experimental work. A case of Mr. Rivington's also bore out the same fact.—Dr. FERRIER said it was important that his and Yeo's experimental observations had been corroborated and verified by clinical research of so laborious a kind as that which Dr. Beevor had undertaken. The intricate plexiform arrangement of the brachial and crural nerves had long been a physiological puzzle, and his experiments were undertaken with a view to clear up the mystery. He and Yeo had found that each root of the brachial plexus of the monkey answers to a distinct and well-defined muscular action due to coördinate contractions and relaxations of groups of muscles. It was most probable that centres of complex coördination existed in the brachial enlargement of the spinal cord. Stimulation of the cervical nerves going from the upper part of the brachial swelling gives rise to a combined and coördinate movement in which the deltoid, biceps, brachialis anticus, and supinator longus muscles took part, as in the act of raising the hand to the mouth. He referred to some observations in human anatomy made by Dr. Cunningham, which showed that twenty-seven out of thirty-seven subjects examined the second dorsal nerve sent a contribution to the brachial plexus. If this relation were found to hold good, then there would exist a complete harmony between the nervous relations of the brachial plexus in man and monkey. It was important to decide whether the nuclei of all the muscles were present in each segment of the brachial swelling or whether they were arranged in a linear order. In his opinion the facts of anterior poliomyelitis seemed to show that in each segment we have the nuclei of all the muscles. Neurologists had come to recognise an upper arm type and a lower arm type, and he believed that there were as many distinct types as there were groups of muscles. In the middle of the brachial enlargement there was a coördinating centre which presided over the latissimus dorsi and pectoralis major and the rotators of the shoulder-joint. It was highly probable that in the spinal cord there were mechanisms for the carrying out of complex coördinate actions, and he believed his experiments had roughly mapped out the chief of these mechanisms.—Dr. BREVOR said that in one of his cases the right pupil did not dilate when shaded, and so resembled the instance of which Dr. H. Jackson had spoken. In this case the first dorsal nerve supplied the group of affected muscles, and therefore still further corroborated the views of Ferrier.

CLINICAL SOCIETY OF LONDON.

Amputation at the Hip-joint.—Pityriasis Circiné.

AN ordinary meeting of this Society was held on April 10th, Mr. Thomas Bryant, F.R.C.S., President, in the chair. There was a well-sustained discussion on the surgical papers.

Dr. LEWIS W. MARSHALL read a paper on Amputation at the Hip-joint by Furneaux Jordan's Method. The author, in giving a record of ten amputations at the hip-joint by this method, mentioned at the outset the fact that a paper had been previously published by him in the *British Medical Journal*, October 27th, 1882, on the same subject. He likewise mentioned that Dr. Maclaren of Carlisle also read a paper in Edinburgh, which was published in the *British Medical Journal*, June 7th, 1884. He gave a brief account of the two methods of operating suggested by Mr. Jordan in THE LANCET, March 23rd, 1879, stating that he himself preferred the second method, which was done by making the circular sweep through the soft parts first, the enucleation of the femur being the second step. Of Dr. Marshall's ten cases, three were done after excision, and the remainder when this operation could not be practised on account of extensive implication of the femur or pelvis, or from the general condition of the patient prohibiting more conservative measures. The ages of the patients were as follows: two at eleven, one at ten, two at eight, two at seven, one at six, one at five, and one at three years. In all but one the fingers were used to compress the femoral artery in the groin. Esmarch's bandage and Davy's lever were spoken of, and had been used, the latter in the only case which has to be recorded as a death in this list. This death occurred within a few hours after operation from shock, the result of loss of blood. The amputation was on the right side. The patients are living and well, with the exception of two. These deaths were due to visceral lesions. The dressing used in each case was a loose antiseptic covering of carbolic oil and lint. Stress was laid upon the after-treament of the patient. Food was withheld by the mouth for some hours, if iced champagne be excepted, nutrient enemata being given instead. An extract was read from Mr. Jordan's paper, detailing the advantages of his method over the older flap operation. The reason given for the choice of the second method of operating was as follows:—"That the increased length of leverage gained by freeing the limb from the main attachment of the muscles enables the fingers and the knife to pare the muscles off from the bone with much less risk of wounding vessels unnecessarily." It was also stated that the separation of the tough bands which in old-standing cases of hip disease weld the trochanter and what exists of the neck of the femur so closely to the pelvis is rendered easier and more rapid. The fact of the gluteal vessels remaining untouched was insisted on. Dr. Marshall also spoke of the possible risk to the patient when disease was present in the pelvis by the use of Davy's lever. The use of this instrument appeared to be undesirable, because the efficacy of the nutrient enemata might be interfered with. Mr. Wright, Senior Surgeon to the General Hospital, Nottingham, controlled the common femoral. The hand in the groin for this purpose was in no way a hindrance to the operator. The femoral artery was always tied after the circular incision was made. The stump left by Jordan's method was said to be all one could wish for. A case in which albumen in the urine had been present for some time, and where the liver was enlarged to the umbilicus, is now living and well. The albumen could be found up to ten months after amputation. In two other cases large deposits of albumen were present when amputation was done.

Mr. JONATHAN HUTCHINSON read a paper entitled a Plea for Amputation at the Hip-joint in certain Cases of Advanced Suppurative Disease. The author commenced by stating that he had no new method of treatment to recommend, but simply the more liberal adoption of an old one. He believed that not a few cases of advanced suppurative destruction of the hip-joint would be more safely treated by amputation than by excision or by rest; especially did this remark apply to cases in which the limb was diseased at other parts, and damaged as regards its usefulness. He included also some which after excision were not doing well. In all cases in which such conditions existed, he felt sure that the surgeon would do well to remember that amputation at the joint was usually very successful even in cases of extreme exhaustion. It was also usually followed by rapid restoration to good health. The difference between operations for disease and for tumours was very great. The former were attended by obvious relief from the very first, the latter not unfrequently by severe shock. Bearing this in mind, he felt sure that it was often a mistake in practice when open suppuration was established, and the patient's strength failing, to delay or decline amputation at the hip-joint. In looking back in his own practice he recollected several cases in which he much regretted not have done so. In such the patient was always in danger of the development of lardaceous disease, as well as in risk of his life from hectic or some intercurrent malady. Particularly in adults is the hopefulness of recovery from suppuration of the hip-joint very poor. Several cases were related. In one, in an adult, there was disease of hip and knee together, and in another disease of hip and femur together. Both were in a state of extreme exhaustion, and both recovered well. In another case, in a boy, the operation was done in spite of advanced lardaceous disease and an enormous liver, with the result of greatly improved health and diminution of the liver. In a fourth case, in which extreme exhaustion from suppuration was the reason for amputation, erysipelas had attacked the limb on the day before the operation, yet a successful result ensued. The author stated that he had not in any single case lost a patient as the immediate result of the operation, nor was he aware that anyone had subsequently died. Respecting two, however, he was obliged to report that they had not regained good health nor had their sinuses healed when last seen. As regards the mode of operation, it had varied with the nature of the case. Of late he had used Furneaux Jordan's method, of which he

thought highly. In one, done by that plan, with stripping up of periosteum, a long stump which appeared to contain bone was obtained. In all cases of late years some antiseptic method of dressing had been adopted, usually a strong lotion of lead and spirits of wine had been applied, but in some Lister's gauze dressings had been used. The paper concluded by the mention of cases in which, after consultation, the operation had been declined or deferred, on the plea that the patient would probably recover without it, and in which an opposite result had occurred.—Mr. HOWARD MARSH considered that the subject required a great deal more attention than had been given to it. In his experience amputation at the hip-joint was a very valuable step to take in certain desperate cases. The tendency to the performance of this operation had increased of late at the Hospital for Sick Children, and he himself had performed the operation six times, and had seen it performed many times besides; death very rarely occurred. He had used Davy's lever many times, and he had found it one of the best appliances that had been introduced into surgical practice. By its use the operation was rendered as nearly as possible bloodless, for it controlled not only the common femoral artery, but also the posterior division of the internal iliac artery. He had three times performed Furneaux Jordan's method, and said that it took a long time to do, and the size of the wound was increased. There was less risk of hæmorrhage from the posterior flap if Davy's lever were used, and with it the old flap method could be done much more quickly than Furneaux Jordan's operation. In the latter operation amputation lower down could be done, so as to obtain a longer stump for the adaptation of an artificial limb; this and the subperiosteal method were noteworthy points in the case shown by the late Mr. Shuter to the Society. In this case there was a central stem in the stump, which had the consistence of bone, though it was probably not composed of osseous tissue. The disappearance of the signs of amyloid disease after removal of the strumous disease was a most important and well-ascertained fact. Moreover, the presence of lardaceous disease need form no bar to the operation. Some years ago, when he was a member of the committee for investigation into the treatment of hip disease by different methods, it was ascertained that death occurred in 33 per cent. of the cases treated by any method, and so it was a well-ascertained fact that death could result from hip-joint disease.—Mr. GOLDING-BIRD said that Furneaux Jordan's operation was very much like Fleuret's modification of Larrey's operation on the shoulder-joint. He advised that the circular incision should be made in two portions, the second circular incision to be performed after enucleation of the bone; the second circular division divides the vessels last. The vertical incision should be made first, as it enables the joint to be examined and the kind of operation to be decided upon.—Mr. R. BARWELL shared almost the same opinions as those which Mr. Hutchinson had expressed. In a case in which the liver reached as low as the umbilicus there was albuminuria, with large hyaline casts, and amputation was performed for strumous disease of the hip-joint. He urged that frequent microscopical examinations of the urine should be made, for the presence of narrow casts with albuminuria contra-indicated the operation of amputation, as the small casts, he believed, indicated deeper affection of the kidneys. Statistics showed how very much more favourable were amputations done for chronic strumous disease as compared with those performed for tumour or injury. He testified to the great value of Davy's lever, though this agent had sometimes caused bruising of the iliac vein and its consequences. He agreed with Mr. Marsh that Furneaux Jordan's method, being more tedious, might be dispensed with now that Davy's lever could be used.—Mr. BLACK spoke of the elastic tourniquet, and said that it perfectly controlled the circulation through the lower limb. Out of forty cases of amputation at the hip-joint in which Mr. Davy had used the lever, there was but one case in which the intestine had been damaged or any injury had resulted.—Mr. WARRINGTON HAWARD said there was no doubt that for strumous disease amputation was a different matter than for tumour or injury, and much more favourable. He spoke of the enlargement of organs, and said that he remembered a case in which this diminution occurred where there had been no surgical interference. He believed in the use of Davy's lever, and had employed it successfully in a case of ruptured gluteal artery. He considered that it might be as easily used for the right as the left limb. Mention was made of the use of a cone of wood suitably padded for compressing the abdominal aorta, which was less distressing than Lister's tourniquet. In reply to Mr. Hutchinson, he said the case in which spontaneous diminution of the liver took place there was chronic hip-joint disease, which also receded under medical treatment.—Mr. BRYANT said that his experience was to the effect that amputation in such cases was unusually favourable, but he considered with Mr. Hutchinson that some surgeons were apt to postpone the operation unnecessarily. The value of the long stump was remarked upon. He would not dispense with the subperiosteal method, for it gave rise to less disturbance in the muscles about the part, and left a dense hard mass of new tissue, probably not bone, but fibrous in nature. He did not think it a matter of much importance whether the vertical or circular incision was made first. Davy's lever was not so successful as was at first believed, for, in addition to injury of the intestine, it had also caused bruising of the iliac veins. A means employed by Mr. Lloyd of Birmingham was favourably spoken of; a folded indiarubber bandage was passed round the buttock, between the anus and the ischial tuberosity, and then over the hip, so as to press on a roller placed along the line of the external iliac artery.—Dr. MARSHALL, in reply, said that one point had been overlooked in his paper, and that was that all his operations were done on children. He had used Esmarch's bandage, though it slipped in one case. Stress was laid on the importance of rectal alimentation during the period of vomiting and collapse. He said that Dr. Maclaren found, by experiment on the dead body, that the flap operation took but eleven seconds less to perform than Furneaux Jordan's operation. The operation he advocated was followed by less shock, and there was less chance of septic inoculation.—Mr. HUTCHINSON, in reply, said with regard to the use of Davy's lever, he shared the opinion which the President had expressed. He had found that an elastic strap placed round the abdomen, compressing a large towel placed over the aorta, was most effective in controlling hæmorrhage. The method of Furneaux Jordan gave a better stump, though the time required for the operation was rather longer.

Dr. COLCOTT FOX read a paper on a Peculiar Form of Skin Disease, with the object of drawing attention to an affection of the skin accurately described for the first time by Hovaud of Lyons, in the seventh volume of the first series of the *Annales de Derm. et de Syph.* Dr. Fox had met with seven cases in the last two or three years, and thought the disease was a distinct morbid entity resembling Willan's roseola annulata in appearance, but running a chronic course. The lesions were slightly raised, rounded, the smaller uniform in aspect, the others depressed in the centre with only the borders raised, which gave them a distinctly circinate form. Their colour varied from a pale-rose to yellowish-white, approaching to the tint of the surrounding skin, so that one could sometimes with difficulty distinguish them from the rest of the integument. Often the border alone was coloured. The eruption was constituted by discrete or confluent patches, of which the dimensions varied ordinarily from a lentil to a two-franc piece. They exceeded these dimensions only in rare cases. The maculæ were constantly dry, their surface was more or less furfuraceous. They were accompanied by a little itching, especially when they were excited and reddened by heat or bathing. The eruption seemed to commence nearly always on the trunk and extended thence to the limbs, and disappeared in the order of its invasion. Its etiology was very obscure. Hovaud's cases were met with between the ages of eight and thirteen, and Dr. Fox had seen the eruption at four years of age. He then detailed two cases of a somewhat similar condition in children, which he believed to be the pityriasis circiné et marginé of Vidal, only there was considerable symmetry. The eruption was almost universal, and the maculæ rather larger than in the affection portrayed by Hovaud. In these cases the patches were found to be invariably crowded with masses of micro-organisms. The hairs were unaffected, and there was no mycelium. Repeated attempts to inoculate the cultivated organisms had failed. He had already met with a similar organism in two cases of psoriasis in children, and it was possible that the micro-organism was commonly to be found amongst the desquamating epithelial scales of children's skins. A stained preparation was exhibited to the meeting.—Dr. GLOVER spoke of a case of the disease affecting the bare portion of the neck; the eruption was present in a young lady, aged twelve, and had the appearance of psoriasis guttata; it was slowly getting well.—

Dr. S. MACKENZIE said the microscopical appearances of the fungus were highly suggestive of a micrococus, as was also the fact that no mycelium had been discovered either by Vidal or Dr. Fox. Moreover, the micro-organism occurred in a variety of diseases. Further, in no case had there been any extension of the cutaneous disease to other individuals.—Mr. HUTCHINSON asked questions as to the cause of the malady and mode of cure. He was acquainted with a form of pityriasis which always commenced on the trunk and never affected the hands and feet, though it nearly always extended secondarily to the limbs. This eruption he believed to be due to the wearing of peculiar vests, and it might assume a great variety of forms; the eruption certainly spread to parts of the limbs where the vest or other offending article of clothing did not touch. If these patients wore silk next the skin, he found that the eruption disappeared.—Dr. FOX agreed with Dr. Mackenzine, and said that it was not he who had given the long name to the affection; of its cause he knew nothing.

Dr. Sidney Phillips showed a living specimen of Sporadic Cretinism, and Mr. Strugnell one of Total Paralysis of the Fifth Nerve.

MEDICAL SOCIETY OF LONDON.

Myxœdema.—Uncomplicated Brachial Monoplegia from Lesion of the Internal Capsule.

AN ordinary meeting of this Society was held on the 13th inst., Dr. W. Miller Ord, President, in the chair.

Dr. WHIPHAM read a paper on a case of Myxœdema, and showed microscopical specimens of some of the organs of the body. The patient was a female aged twenty. She had suffered from rickets, and the tibiæ were still bowed on her first admission to hospital. She had been languid and weak ever since the catamenia appeared. Up till two or three years ago she had had abundant very long golden hair, but this all fell out, and has grown but very slowly since. On admission she was ill-nourished and apathetic; red hair grew low on the forehead, and there was much downy hair on the temples. Her manner was slow. The abdominal swelling of which she complained had been coming on for three or four years. Slight œdema of the legs and occasional puffiness of the face were present. Polyuria had existed for several years. For the last three weeks the abdominal swelling had increased; there was anæmia, vomiting, and some swelling of the legs; the pulse was 88 per minute, very weak, and compressible; the feet and hands were large, the skin over them coarse, red, and cold; the urine was acid, albuminous, and had a specific gravity of 1016; the teeth were markedly notched. After some purgative treatment, the ascites was treated by Southey's tubes, and ten pints of fluid withdrawn. She then left the hospital, and was readmitted a year later, having lived in a state of complete idleness. She had had profuse menorrhagia. At the end of 1882 she manifested all the signs of myxœdema. She had previously been treated by the late Dr. Barclay as a case of chronic peritonitis. The thyroid body could not be felt. The ascites slowly and persistently increased; eight pints of viscid clear fluid were withdrawn; at one time diarrhœa was present. The temperature was rarely above normal. In August last she was sent into the hospital with pneumonia; the ascites was relieved by tapping; pericarditis supervened; and the patient died, the temperature having been between 102° and 103°. At the autopsy the body measured five feet two inches; the calves were very large; the left gastrocnemius weighed twenty-one ounces. There was a little lymph and fluid in the right pleural cavity. The upper lobe of the right lung was in a state of red hepatisation. In the submucosa of the stomach some patches of "mucous" tissue were seen. There were twenty pints of mahogany-coloured fluid in the peritoneum. In the brain behind the right locus niger there was a small deposit of hæmatoidin. Sections of the organs were made by Dr. Heneage Gibbes. In some parts of the brain there was an increase of the fibrous tissue in the perivascular spaces, and in places the vessels were enormously distended; in places the vascular walls were thickened. There was an increase of the fibrous tissues of the branches of the capsule of Glisson; the hepatic cells were compressed by intervening hyaline exudation. The signs of chronic interstitial nephritis were also present in patches, and in places the tubules were separated by hyaline material (œdema). The interstitial tissues of the pancreas were swollen and œdematous and bacteria were found. The ovaries were œdematous. The tongue had a general appearance of œdema and the muscle fibres showed a tendency to transverse cleavage. Œdema beneath the sarcolemma was detected in the muscle-fibres of the upper lip. In the pulp of the right middle finger the fibres were separated by œdema. Tubercular lesions were present in the lymphatic glands. The aorta showed thickenings and atheromatous changes. The case was compared with the description of the tissues given by Dr. Ord and Sir W. Gull.—Dr. ORD said that he now believed there were more changes in the connective tissue of the central nervous system than he had formerly admitted. He inquired whether any chemical investigation of the amount of mucin had been made.—Mr. VICTOR HORSLEY remarked on the presence of disease of the vessels in myxœdema. In cases of myxœdema symptoms of premature senility, with tremors and general weakness, were present. The thyroid gland in old age would be found to be greyish in colour; its weight was notably diminished. He thought that microscopical examinations of the thyroid in old age were much wanted.—Dr. HADDEN said that he had examined the thyroid gland in six or seven cases of myxœdema. Outside the acini there was a round-celled infiltration, which became organised into fibrous tissue; the cells of the acini underwent proliferation and became fibrous in structure. He had also found fibroid overgrowths in the portal canals. He was now investigating the condition of the thyroid gland in persons dying from any disease.—Dr. A. ROUTH asked whether the ovaries always presented the appearance Dr. Whipham had described, and made some remarks on the state of the catamenia.—Dr. WHIPHAM, in reply to the President, said no chemical examination had been made. He could give no further information concerning the ovaries and menstruation.

Dr. HUGHES BENNETT and Dr. M. C. CAMPBELL read a paper on a case of Brachial Monoplegia due to Lesion of the Internal Capsule. The patient was a man aged eighty, who, when in a condition of fair health, suddenly lost consciousness; on regaining his senses he was found to have lost his speech, and the left side of the face and the left upper extremity were paralysed. With the exception of the paralysis of the arm, he recovered from these symptoms. There was no rigidity of the affected muscles, and the sensibility was everywhere normal. This condition persisted for about six weeks, when the patient died from old age and general break-up of the constitution. The essential lesion found on post-mortem examination was a limited defined softening, about the size and shape of a small horsebean, but flatter, occupying the upper part of the internal capsule without seriously involving any of the neighbouring structures. It was stated that uncomplicated brachial monoplegia caused by a lesion of the internal capsule was of extremely rare occurrence, and from the circumstances likely always to be so. That such a lesion should have existed in the present instance suggested some interesting physiological and anatomical considerations. As all the conducting fibres from the different motor centres of the cortex are collected together at the internal capsule and pass through it in a very limited space, it is evident that if a small flat lesion causes paralysis of one limb only without affecting the others, the fibres from such motor centres must pass through the capsule in separate bundles. A diagram was shown and explained to attempt to define the course and position of these conducting fibres, as they run from the cortex cerebri through the corona radiata to the internal capsule. Dr. Bennett contended that both anatomical and pathological facts seemed to indicate that these conducting parts, which at first run from the cortex arranged in a lateral direction, as they entered the capsule bent upon themselves, passed through it in bundles, arranged in an antero-posterior fashion, those of the face being the most anterior; next in order coming those of the arm, leg, and trunk. In this case a limited disease destroyed only the fibres conducting motor impulses to the arm, leaving those of the face and leg on each side of them intact, thus supporting the above theory.—Dr. ORD spoke of the many-sided value of the case in question.—Mr. V. HORSLEY referred to a paper published by him in THE LANCET, vol. ii., p. 7, 1884, and said that the case bore out some views on "substitution" therein stated. The case also overthrew the theory of Munk, that the cortical centres were both sensory and motor, for the lesion merely removed the power of originating movement, and did not affect sensation in any way. The case also went against the view

of Hughlings Jackson on bilateral representation of the limbs, for there was no recovery of power, even after some weeks had elapsed.—Dr. KINGSTON FOWLER showed a patient suffering from nervous disease which began in the first instance as a case of left brachial monoplegia. He had no doubt then that there was a cerebral lesion of specific origin. Headache, diplopia, and partial blindness, with squint later on, were the early symptoms of the case. Some numbness along the course of the left ulnar nerve was present. After an attack, in which the patient was giddy and lost consciousness, the left arm was found to be paralysed; the left leg and face were also slightly affected. There was greatly delayed sensation on the left side, and the special senses were also affected on the same side. There was no optic neuritis. Under antisyphilitic treatment there was some recovery of power and return of sensation in the left limbs. At the early part of the present year an attack left him powerless in the right upper limb. There was also delayed sensation and delayed appearance of the reflex actions. A blow on any part of the body caused the head to be thrust forward. There were no knee-jerks.—Dr. H. BENNETT briefly replied.

Reviews and Notices of Books.

The International Encyclopædia of Surgery. Edited by JOHN ASHHURST, M.D. Vol. V. Pp. 1207. London: Macmillan. 1885.

THIS handsome volume contains articles by fourteen contributors, of whom seven are American physicians and surgeons of repute, five Englishmen, one Scotchman, and one Irishman. They are in order as follows. 1. Injuries of the Head, by Charles B. Nancrede, M.D., Professor of General Surgery in the Philadelphia Polyclinic. 2. Malformations and Diseases of the Head, by Frederic Treves, F.R.C.S., Lecturer on Anatomy, London Hospital. 3. Injuries and Diseases of the Eyes and their Appendages, by E. Williams, M.D., Professor of Ophthalmology in Miami Medical College, Cincinnati. 4. Injuries and Diseases of the Ear, by Albert H. Buck, M.D., of New York. 5. Diseases and Injuries of the Nose and its Accessory Sinuses, by George M. Lefferts, M.A., Clinical Professor of Laryngoscopy, Columbia College, New York. 6. Injuries and Diseases of the Face, Cheeks, and Lips, by Alfred C. Post, M.D., Emeritus Professor of Clinical Surgery in the University of the City of New York. 7. Injuries and Diseases of the Mouth, Fauces, Tongue, Palate, and Jaws, by Christopher Heath, F.R.C.S., Holme Professor of Clinical Surgery in University College, London. 8. Surgery of the Teeth and adjacent parts, by Norman W. Kingsley, M.D., Professor of Dental Art in New York College of Dentistry. The most original and perhaps the best article in the volume is the first, by Charles Nancrede. His experience and reading have been alike large, and the rules he gives are well worthy of consideration, though they are not always in accord with the text-books. Thus, in cases of simple depressed fractures he approves the use of the trephine and the elevation of the depressed portion; he thinks that the dangers of a simple depressed comminuted fracture are greater than those which follow its conversion into a compound fracture. Numerous and interesting cases of injuries to and of foreign bodies in the brain are given, and excellent rules are laid down for the determination of the fissure of Rolando and other points in cerebral topography. Dr. Williams's essay on Injuries and Diseases of the Eye occupies 120 pages, and is very complete. He commences with a short description of the anatomy of the orbit, eye, and its appendages, and then proceeds to consider the affections of the orbit; and some interesting cases are rather fully given. Wounds of the eyeball are then discussed, and good rules to determine whether a foreign body has penetrated or not are appended. He dwells very properly on the danger of wounds in the ciliary region, and records a case that young surgeons should bear in mind. A young lady, as a result of a perforating corneal ulcer, had a large prolapse of the iris, which, though disfiguring, was not apparently troublesome. Dr. Williams in an evil moment, clipped it off with scissors. Iritis followed of a persistent character, and after some time sympathetic ophthalmia of the opposite eye followed, leading to complete disorganisation and blindness. He may console himself with the reflection that the same untoward result has occurred in the practice of other ophthalmic surgeons besides himself. Dr. Williams thinks that an attack of sympathetic ophthalmia is preceded by a warning irritation in the sound eye, and that if this be recognised, and the offending eye be promptly removed before inflammation is established, the patient is saved from blindness. We are inclined to agree with him in the case of adults, but with children we think the rule should be general that in punctured wounds with knives, scissors, pins, or other similar instruments in the ciliary region the eye should be removed. It is almost impossible to keep a child quiet or to maintain a bandage upon both eyes, and irritation in them runs insidiously and rapidly into inflammation. The symptoms and treatment of purulent ophthalmia in children are of course well given, but the writer does not mention the prophylactic measures adopted with such success by Crédé, of using antiseptic vaginal injections just before delivery. The treatment of diseases of the cornea is treated at unusual length and with great ability. In regard to cataract, Dr. Williams operates without anæsthetic, and without dilatation of the pupil. He makes the section of the cornea at, or a little in front of, the sclero-corneal junction; he performs iridectomy; he carefully clears the pupil of fragments of the lens; he changes the dressings twice a day, and in ten days removes them altogether; he does not allow the use of glasses till six weeks have elapsed. The method and the details given are all unexceptionable, and may be followed implicitly by all who are about to operate. For the relief of glaucoma the writer practises iridectomy, but speaks doubtfully about sclerotomy. The chromolithographs, both of the diseases of the conjunctiva and iris, and of the ophthalmoscopic appearances of the eye in disease, are poor and unrepresentative. Mr. Bencke, the lithographer, could, we imagine, turn out something better than these. No satisfactory drawings of the fundus can be produced with only two or three tints.

The article by Dr. Buck on Injuries and Diseases of the Ear follows that on the Eye, and runs to about seventy pages. Dr. Buck considers Wilde's ear speculum, if made of silver, highly polished, and very thin, as the best means of exploring the meatus, when aided with a good forehead mirror, with a focal distance of twenty centimetres. He gives a very full description of the various maladies of the external ear, including eczema, diffuse inflammation, perichondritis, contusions, deformities, frost-bite and burns of the auricle, and impacted cerumen, common boils, ulcers, wounds, and new growths of the auditory meatus. In speaking of the modes of examining the middle ear, Dr. Buck gives Valsalva's and Politzer's methods and describes the mode of employment of the Eustachian catheter. He supplies some important and very useful directions with regard to the contra-indication for the use of Politzer's method, which, we fear, are often neglected. It should never be adopted, he says, until after both drum membranes have been examined, nor when there is a deeply depressed membrane, which may possibly be adherent to some of the deeper parts of the middle ear, nor when the drum membrane is atrophied or presents a thin cicatrix, nor when actually inflamed. When abscess of the tympanum exists, he has no hesitation in perforating the membrane, avoiding the dangerous region of the upper half of the posterior superior quadrant. The diseases of the mastoid

process follow, with a very short section on affections of the auditory nerve. The article is illustrated by many woodcuts of instruments, some of which are novel, and an excellent chromolithograph of the morbid appearances presented by the membrana tympani. Though brief, Dr. Buck has managed to compress into the space at his disposal nearly all that is important in his special subject, We may say the same of Dr. Lefferts' essay on a subject not generally given in full in surgical works—namely, the Diseases and Injuries of the Nose and its Accessory Sinuses, which, of course, involves a description of the examinations of those parts known under the names of anterior rhinoscopy and pharyngo-rhinoscopy. The article on Injuries and Diseases of the Mouth has been entrusted to Mr. Christopher Heath, and is thoroughly and comprehensively treated, though Dr. Port still finds something to say on Injuries and Diseases of the Face, Cheek, and Lips, and Dr. Macleod on the Injuries and Diseases of the Neck. Both Mr. Morris's article on Injuries and Diseases of the Abdomen and Mr. Treves on Malformations and Diseases of the Head are very creditable productions. No better exponent of the modern views on the Varieties and Treatment of Hernia could have been found than Mr. John Wood. The volume as a whole well sustains the repute of those which have preceded it, and it may be consulted with advantage by even the most accomplished surgeon.

Topographical Anatomy of the Brain. By J. C. DALTON, M.D., Professor Emeritus of Physiology in the College of Physicians and Surgeons, New York, and President of the College. Philadelphia: Lea Brothers and Co. 1885.

THIS is one of the most magnificent works on anatomy that has appeared during the present generation, and will not only supersede all its predecessors on the topographical anatomy of the brain, but make any further work on the same lines unnecessary. It is published in three volumes, and contains forty-eight exquisite illustrations of the brain, *en masse* and in sections. The specimens were prepared by Dr. Dalton and photographed by Mr. G. Mason, photographer to the Bellevue Hospital, New York. Heliotype transfers were then made from the original negatives, and the plates printed by the Heliotype Printing Company of Boston. In this manner not only has perfect accuracy been secured, but one of the finest and most artistic works of recent times has been presented to the medical public. Its value as a work of reference is considerably increased by the very careful outline sketches which accompany the plates, and which enable them to be easily followed and understood. These sketches are very complete and accurate, and have been reproduced from tracings made by Dr. Richard Lennox of the Roosevelt Hospital, New York. The first volume is devoted to the exterior convolutions, and contains ten plates corresponding outline sketches, and the explanatory descriptions; in the second volume fifteen horizontal sections, and in the third volume twenty-three vertical sections, are similarly shown and explained. The descriptions by the author are clear, precise, and accurate; and the methods by which the sections were made and the specimens reproduced are given very plainly in an introductory chapter, which cannot fail to be of the greatest value to anyone who is desirous of making similar preparations. Criticism on such a work is superfluous. We can only congratulate Dr. Dalton, his assistants, and the publishers on the energy they have shown in undertaking such a work, and the success with which they have overcome a task presenting so many mechanical difficulties. We envy our American *confrères* the authorship and execution of so beautiful and useful an addition to medical literature, and much light is thrown on some obscure relations of parts of the brain which have never before been seen in correct juxtaposition.

ROYAL COLLEGE OF SURGEONS.

THE Committee on Charters and Bye-laws have adopted the following as their fifth report to the Council, viz.:—

The Committee have to report that, having considered the several proposals of the Association of Members of the College, they do not recommend that, as therein suggested, the whole Council be elected every three years; nor that the number of the Council be increased to twenty-five; nor that the Members, as well as the Fellows of the College, should take part in the election.

The Committee have further to report that, in pursuance of the resolution of the Council of the 8th of January last, the President invited delegates from the Association of Fellows to meet the Committee on the 3rd instant, that at the meeting held on that date ten delegates from the Association attended at the College, and that the proposals of the Association and the report thereon of the Committee, dated the 10th of December, 1884, were fully discussed, the delegates stating their reasons for their several recommendations.

From this discussion it appeared that the recommendations of the Association, to which the delegates attached the most importance, were those relating (1) to the constitution, mode of election, and duration of office of the Court of Examiners and Board of Examiners; (2) to the proposal that six instead of three Members of the Council should retire from office annually; (3) to the election of the President by the Fellows instead of by the Council; (4) to the right of meeting by the Fellows and Members without the sanction of the Council; and (5) to the time and mode of making public the minutes of the Council: all of which recommendations the delegates urged upon the Committee with a view to their adoption by the Council, renewing the request, "that no steps should be taken by the Council to obtain a new Charter until the various alterations proposed or accepted by the Council, together with the recommendations of the Association of Fellows, shall have been submitted to a general meeting of Fellows and Members."

The Committee, having fully considered the arguments brought before them by the delegates in favour of the recommendations of the Association of the Fellows, have to report to the Council that they adhere to the conclusions arrived at in their fourth report so far as they relate (1) to the constitution and duration of office of the Court of Examiners and the Board of Examiners; (2) to the duration of office of a Councillor; (3) to the election of President; and (4) to the right of meeting of the Fellows and Members, excepting that in page 8 of such report, in the paragraph respecting the meeting of Fellows and Members, they propose to substitute for the words "*provided that the objects of such meeting be approved by*" the words "*with the consent of*," the Council.

With respect (5) to the publication of the Minutes of the Council, the Committee recommend that, in lieu of the confirmed Minutes being suspended in the hall, as proposed in their fourth report, the Council should revert to the practice formerly in force, in accordance with the following resolution of the Council of the 10th of February, 1870, viz.:—"That the Minutes of each meeting of the Council be posted in the hall of the College within five days of each meeting; those Minutes having previously been submitted to the President or Senior or Junior Vice-President for approval."

The Committee have, in conclusion, to report to the Council that they do not recommend that there should be any delay in submitting to the proper authorities the proposed alterations in the Charter, inasmuch as the several alterations in the Charter proposed by the Council were submitted to a meeting of the Fellows and Members on the 24th of March, 1884, and acceded to at that meeting, and as the only two further alterations in the Charter, subsequently proposed, relating respectively to the qualification of a Fellow for election to the Council and to the mode of nomination of candidates for the Council, have been adopted by the Council in accordance with the proposals of the Association.

March 19th, 1885. T. SPENCER WELLS in the chair.

THE LANCET.

LONDON: SATURDAY, APRIL 18, 1885.

THE lectures which Sir ANDREW CLARK has lately delivered before the Royal College of Physicians were, as was to be expected, couched in well-chosen language and full of closely-reasoned argument. Moreover, they contained clinical and pathological descriptions such as only a close and accurate observer could produce. That they will be widely studied is unquestionable, and the more so from the spice of polemics with which they are seasoned. For from one point of view they constitute a manifesto on the part of the lecturer against the prevailing tendency to regard the phthisical process as owning but one cause—viz., tubercular infection,—in that they bring into prominence the fact that the lung may undergo destruction by invasion of fibroid tissue originating in pleural inflammation. This is the underlying thesis of these Lumleian lectures, and although it may be thought to consist in little more than a restatement of a position which Sir ANDREW long since took up, it receives new significance at the present day, when the true nature of the tubercular virus has apparently been revealed, and for the most part generally accepted. Sir ANDREW CLARK anticipated that his advocacy of such doctrine would meet with much adverse criticism from the modern pathologist; but we fear he is doomed to be disappointed. For even had his position been less powerfully supported by facts than it was, there does not seem *primâ facie* to be any room for objection to the conclusions at which he arrived. Time was when the term "phthisis" included not only tubercular affections, but gangrene, malignant growths, and other destructive lung disease; and the exclusion of such conditions was later followed by the further distinction into tubercular and pneumonic phthisis. It is now generally admitted that the latter classes have the same etiology as the former, the difference being mainly one of chronicity. There still remain such conditions as those to which the lectures were devoted, and if the term phthisis must be retained for them, then there is no reason at all why we should hesitate to admit a tubercular and a non-tubercular phthisis, or, if it be preferred, a bacillary and a non-bacillary form. The only limitation that can rightfully be placed upon such a view is that the alleged non-tubercular character of any given case shall be clearly proved, and that it be not confounded with those undoubted conditions where tubercle undergoes fibrotic change. It would be unsafe to assert that any one of the instances quoted by Sir ANDREW falls under this last-named category, and therefore the question is narrowed to one of the comparative frequency of the two forms of chronic lung disease; that which commences in a simple "primitive" pleurisy, and that which begins with pulmonary tuberculosis, with secondary involvement of the pleura.

The manner in which Sir ANDREW CLARK developed his thesis was well chosen. He commenced by giving details of cases of dry pleurisy, of varying extent and intensity, leading up to cases which, after a number of years, succumbed, and proved to have most extensive pulmonary disorganisation, combined with equally extensive pleural changes. He then discussed at length the morbid anatomy of the process which has such destructive issues. It is somewhat difficult to follow him in the distinctions he lays down between the various forms of the pleural affection, based on a study of the nature of the exuded material. Indeed, one feels disposed to question the propriety of seeking to establish such distinctions; but, grounded as they are upon personal scrutiny, we would not venture to dispute their accuracy. That one form of exudation partakes of a fibrinous, another of a cellular (the term "croupous" is surely inapplicable) character, and that a third deserves to be called "proliferative" is perhaps justified, but the distinctions are often so blurred as to be wanting in those clear outlines which render them suitable for definition. Nor did the lecturer apparently allude to the cases which are obviously tubercular, where the portions of pleural membrane still free from adhesion exhibit undoubted granulations. To be sure, such a condition would have been foreign to his subject, but its recognition should have been allowed. The pulmonary parenchyma is liable to invasion by fibroid tissue spreading along the interlobular septa in the first place, causing thickening of the alveolar walls, peribronchial and perivascular tissue subsequently, and, in fine, so altering both the texture and nutrition of the lung that the organ becomes converted into a dense sclerotic mass, probably permeated by dilated bronchi, or else the seat of excavations, which may have proceeded from bronchiectasis, or been due to local necrosis of tissue from interference with the blood-supply, produced by the fibrotic invasion. The description of the manner in which this disorganisation proceeds, of the resemblance at certain stages to the appearances presented by fibroid tubercle, and of a differentiation of the issue into the fibroid lung, the bronchiectatic lung, and the fibroid phthisical lung, was given by the lecturer with ample detail, and the clinical recognition of such cases was exemplified in the third lecture.

The unilateral character of the affection, its extremely slow progress, the absence of pyrexia or emaciation, and the frequently entire lack of evidence of an inherited taint, coupled of course with the failure to detect bacilli in the sputa, are facts which strikingly differentiate such cases from ordinary tubercular phthisis. That, however, does not preclude the admission of the fact—a fact which comes so materially to dispel the gloom of the ordinary prognosis of phthisis—that tubercular disease may become quiescent, or may initiate fibrotic changes in which itself shares, and, by reason of them, progress with comparative slowness. The truly tubercular are, however, always prone to an outburst of the infection; for many such cases eventually terminate after an illness of a few weeks' duration, by no means sufficient to account for the extensive fibrotic lesions that occur in the lung. It would have been interesting to have learned whether the subjects of pleurogenic phthisis, or of the fibroid lung state resulting from simple pleurisy, ever become the victims of tubercular infection. In such a case the mingling of the characters of the two great factors in phthisis would add greatly to the difficulty of unravelling

the truth. Sir ANDREW CLARK has done good service in so pointedly showing the dependence of this class of case upon antecedent pleurisy; and we think we may go so far as to accept with him the notion that such pleurisy is neither tubercular in itself nor the necessary precursor of pulmonary tubercle. At the same time, the precise discrimination of the two forms of chronic lung disease, and particularly the possibility of tubercular pleurisy eventuating in changes similar to those ascribed by Sir ANDREW to non-tubercular inflammation of the serous membrane, are subjects which may still afford material for further investigation.

As may be inferred from the brief announcement which we made last week, and from the fifth report of the Committee on Charters and Bye-laws, republished in another column of this week's issue, the Council of the College of Surgeons of England has spoken what it would fain believe is the last word anent the alterations to be made in the Charters. The conclusion to which the Council has arrived is that it cordially approves the various alterations which itself initiated with a view of extending its own power, influence, and authority; and it has, after some pressure, expressed a willingness to revert to two Resolutions which it adopted over fifteen years ago—namely, first, to suspend a supervised copy of the Minutes in the hall of the College; and, second, to allow the holding of meetings of Fellows and Members in the College on requisition. It has yielded to the demand that an annual meeting of the Fellows and Members shall be held for the reception of the report of the Council, though it has given no undertaking that the report shall be *discussed;* and it has agreed to accept the proposal that the voting at the election of members of Council may be conducted in person or by voting paper. These, together with a suggestion made by the Association of Fellows, that any Fellow, who has been a Fellow for ten years or a Member for twenty years, shall be eligible for a seat in the Council, are all the material alterations that the Council purposes to introduce into the new Charter.

To those persons who have had actual experience of the inherent repugnance to alteration of any kind exhibited by the executive of all corporate bodies these changes may appear at once numerous and far-reaching. Nor can it be denied that some of them are real and fundamental and big with possibilities. Indeed, their only drawback is that they have come eighty-five years behind their due time; for it is a historical fact that there is scarcely a single important alteration (always excepting those that are strictly autochthonous in the Council), which was not repeatedly advocated by independent persons during the discussions and agitations which immediately preceded the original establishment of the College. But, considerable as the proposed alterations may be, they embrace only a part of the change which persons believe to be indispensable to the growing importance of the College and the professional and academic status of the Fellows and Members. Of this the report of the Committee on Charters and Bye-laws above mentioned contains unmistakable evidence. This report shows:—(1) The Board of Examiners is to remain unreformed; (2) the tenure of office of members of the Council will remain unabridged; (3) the Council will continue to elect the President of the College; and (4) the Members of the College shall have no part in the election of the members of the Council. The meaning of most of this must be sufficiently obvious. Examiners will continue eligible for seats in the Council, so that in the future, as in the past, one-half or more of the executive of the College may be persons who, as examiners, will absorb at least one-half of the ordinary revenue of the College. And as these examiners are elected by the Council, they may, to all intents and purposes, be self-elected; self-elected, that is, each to an emolument of between £400 and £500 per annum. And this happy privilege may be extended, as in the case of a late examiner, to a period of fourteen or fifteen years. A recommendation of the Association of Fellows was intended to render such an abuse of interest, power, and privilege impossible; but the Council, consisting largely of present and past Examiners, has a second time refused to accept it. Equally uncompromising is its rejection of the recommendation made by the Association of Fellows as well as by that of Members, that the tenure of office of members of Council shall be shortened from eight to three or four years. "With regard to any influence of the constituent over the conduct of the representative, there is little difference between a seat in Parliament for seven years and a seat for life," said JUNIUS; and, *mutatis mutandis*, the members of the Council of the Royal College of Surgeons of England are evidently of the same opinion.

Of the evils of leaving the election of President of the College in the hands of the Council it is unnecessary to say more than what has been advanced times without number. The custom of electing the senior member of the Council to the office of President may be a convenient and easy way of making things pleasant, but it is neither dignified nor discriminating. Through lack of courage the Council has more than once placed in the presidential chair a person notoriously unfit.

The Association of Fellows has cause to be dissatisfied with the reception that its recommendations have received. It is hardly likely that the Association will accept the decision of a bare majority of twenty-four Fellows as final. That the Association of *Members* is not disposed quietly to submit is sufficiently evident from the letter signed by its honorary secretaries which appears in another column. A public meeting is to be held in the Westminster Town Hall on May 4th, at 4 P.M., to discuss what further steps may be taken in order to obtain such reforms as are felt to be most urgently needed in the administrative department of the College. There may be, and doubtless are, difficulties in the way of carrying out the programme drawn up by the Association of Members; and the burden of showing how these difficulties may be overcome lies with the Association. But making full allowance for these and other considerations, it is impossible not to feel that the Council has treated the Association of Members somewhat cavalierly.

IN a paper recently communicated to the Society of Medical Officers of Health, Mr. HENRY E. ARMSTRONG of Newcastle-upon-Tyne deals at length with the subject of the status of his fellow-officers throughout the country, a matter to which we also adverted in our issue of the 4th inst.; and Mr. ARMSTRONG'S communication may be

taken as a summary of complaints which are very generally felt at the present time. First and foremost, it must be admitted that the position which the medical officer of health holds as regards the tenure of his office is most unsatisfactory; indeed, it is difficult anywhere else in the public service to find its counterpart. Sanitary authorities appoint their town clerks, treasurers, engineers, and surveyors to an office which it is understood they hold during good behaviour; but when it comes to the medical officer of health the appointment is for a limited period, often of one year's duration, and very seldom exceeding five years, and the officer is by this reason alone seriously hampered in his work, for he knows that he will have periodically to seek re-election at the hands of those with whom he is most concerned in his official capacity. It may be said that the difference between the officers referred to and the medical officer of health is due to the circumstance that, in the case of the latter, part payment of his salary is made out of a Parliamentary grant; but, as we have more than once pointed out, the same applies to the Poor-law medical officer, and yet his appointment is not so limited as to necessitate a frequent resort to the tactics involved in securing re-election. That the interests of the public are seriously hindered on account of the anomalous position in which the health officer is placed is a matter of common notoriety, for there are other authorities besides the one referred to by Mr. ARMSTRONG, who seek an officer who will carry out their determination to "do nowt that cost owt, and owt that cost nowt." In short, many an officer whose conscientious performance of his duties has involved some substantial expenditure has had to make way for one or more successors, who have consented at nominal salaries to take his place directly the expiration of his term of office has enabled the authority to replace him. So also, taking the large towns of England, it appears that the several officers of sanitary authorities to whom we have already referred have a maximum salary varying from £1200 to £3000 per annum; whereas the average yearly salary of medical officers of health in the sixteen extra-metropolitan cities and boroughs, having populations of 100,000 and upwards, who give their whole time to their official duties, ranges only from £400 to £900, and this notwithstanding the fact that none of the other appointments involve more preparatory training or a higher legal and scientific qualification than that which properly attaches to the post of officer of health. In other words, it is evident that the position of the officer having charge of the public health compares, in almost every respect, unfavourably with that of other professional public officers.

By way of remedy, Mr. ARMSTRONG proposes that health appointments should be more equalised, small and sparsely populated districts being combined for this purpose; that the Local Government Board should exercise a greater control over appointments made with their sanction; that local authorities should be made to learn that they cannot with impunity ignore the sound advice of their health officers; that the authority of the officer of health should be extended, and especially that he should always have a direct control over inspectors of nuisances; that the recompense and prospects of the officer of health should be improved; and lastly, that his tenure of office should be placed on a more satisfactory footing. Some of the details embodied in Mr. ARMSTRONG'S suggestions may be open to criticism, but the conclusions he arrives at are sound; and it is certain that unless the position of officers of health is soon placed on a different footing, it will be found that really skilled medical practitioners will not care to devote their time and energies to a branch of the profession from which they run the risk of being ejected whenever they perform their duties fearlessly and properly, and in which the salaries offered rarely compensate for the difficulties they have to contend with, and never make up for the want of security as regards tenure of office.

DURING the last quarter of a century the relations subsisting between families and their ordinary medical attendants have been growing less and less intimate. There was a time well within the remembrance of men still in active practice when no act of discourtesy to the family doctor would have been regarded as more marked than for any member of a household he attended to seek another opinion, or, as it is commonly called, "further advice," without first giving an intimation of the desire to the family attendant. The question as to who the consultant should be was decided by mutual agreement. It was not an uncommon rule for a family to settle on their consulting physician or surgeon once for all, and their relations became only second in intimacy to those held by the family doctor. A feeling of friendship and of mutual trust grew up very naturally between consultants and family practitioners under these circumstances, conducive alike to the welfare of patients and the comfort of their professional advisers. But all this is now changed. The members of a family feel themselves at liberty to consult whom they please, with or without the consent of their family attendant; nor are patients content with one opinion, but frequently seek one after another, obtaining what seems to the patient "a difference of opinion" in every instance, and often making a simple case appear a complication. Distrust of the judgment of the profession results. Instances occur of several opinions, each irrespective of the others, being obtained in this way. All this is much to be regretted, not as destructive to pleasant and useful professional relations alone, but in the interest of patients.

For the bringing about of these undesirable changes the consultant is chiefly responsible, though some of the blame must lie with the patient. There was a time when the consulting physician or surgeon would have regarded it as unbecoming his dignity to lend himself to any system which embodied discourtesy to a professional brother, and when he would have shrunk from aiding a course which in many instances enables a patient to seek his own injury under the delusion that he is finding the best means of relief. It is not uncommon for the consultant to be separated from the patient by long distances, which render frequent interviews impossible. A prescription is given, and general directions; but the patient as a rule depends on the former, which, if it gives relief, often travels the round of his friends supposed to be similarly affected, though a few hours after being written the prescription may cease to be well adapted to the case, and in some instances even hurtful. It is well worthy of the consideration of consultants and patients whether

a system so mischievous should not be abandoned. That it should be discouraged by the profession there can be no doubt, and each member should consider how this discouragement can best be given. Patients are free to seek the opinion of any medical man, but medical men who are not the regular attendants of the family should hold themselves equally free not to give this opinion, except in conjunction with or through the regular attendant of the family. Much heart-burning would be saved to doctors, and distress to patients, if this rule were more generally observed. It may not at all times be easy to refuse to advise when the patient has determined to seek what he regards as an unprejudiced opinion on his case. Under such circumstances the patient should be made to understand that an opinion thus given is not to be regarded as conclusive, but defective, in so far as it is not based on a knowledge of the family history, without which many a case must remain obscure. No diagnosis which ignores the family and personal history of the patient can be regarded as satisfactory, and this history as a rule can be best supplied by the family attendant; it is a factor in diagnosis which often enables a family practitioner to arrive at a right conclusion, when the highest talent and learning might be at fault.

The consulting surgeon or physician of the past is gradually merging into a specialist, and this fact has had something to do with these altered relations of practitioner, consultant, and patient. While specialism is a road to popularity and fortune, there is no prospect of its being abandoned; nor, while rightly used, is it desirable that it should be. But in proportion as a medical man's experience of a single disease and knowledge thereof increases, so his acquaintance with disease as a whole is liable to suffer diminution. Hence the greater need of the interposition of a family attendant between the patient and the specialist, for there are points for consideration besides those directly bearing on the cure of the localised disease, on which the specialist is too apt to concentrate all his attention, often to the disadvantage of the patient.

In country districts, where the advice of another general practitioner in the adjacent town is sought without the knowledge of the family attendant (if the fact oozes out, as is most likely), the relations between the two medical men are apt to become very strained, as well as those between the family practitioner and the family. If the town practitioner aspires to the position of consultant among his country brethren, he will need under such circumstances considerable tact. He will desire to avoid offence to a family, it may be of local distinction, whose good opinion he may wish to maintain. He may have to choose between offending a family whose friendliness is of importance to him, or a fellow practitioner. Yet his course is a plain one. He should endeavour by all means in his power to bring about a consultation between himself and his country neighbour, who has acted as the family attendant, in which attempt, if he is in earnest, he will seldom fail.

ADVERTISEMENT of a certain kind and degree is as essential to professional work as to trade. The mere presence of a professional man in any neighbourhood where he is known as such is an actual guide to those who may require his services. The most modest literal indication of a practised calling, even on the hall-door of a practitioner, is advertisement, though of a severely classic dignity. So much is necessary for recognition. A mark of some sort belongs to every office. Every order of society has a descriptive term allotted to it. Indeed, a more austere abstemiousness in the use of titles would lead to great public inconvenience, particularly in the case of our own calling, in which emergencies are common, and the best physician for the time being is often the one who can first be found. Let us, however, cross the line of necessary convenience and begin to expatiate in the language of recommendation, of advertisement properly so called, and we enter at once upon doubtful ground. Leaving the terms of plain proposal, we begin to traffic with popular fancy, and we take up a position which, never noble, is most unworthy of those who apply a teaching which has any claim to general acceptation. The difference between self-advancement in an honourable and a dishonourable sense is, therefore, a difference of degree. It is not on that account the less real. But where does fault begin? A certain reputation, over and above the mere working badge, belongs to each one in proportion to his ability and attainments. Is this to be demurely shadowed, or is it to be publicly set forth? We may say, in answer to this question, that so much prestige as naturally grows out of personal effort, without any attempt on the part of the person most interested to force its growth, is justifiable. Thus the publication of researches among fellow investigators is a fair reward of labour. The spontaneous recommendation of benefited patients is likewise a legitimate advantage. To parade the merit of the discovery, or of the applied skill, before the public eye in order to promote a private gain would be to make that gain the chief professional ambition, and would not be justifiable.

We may profitably compare the conduct of gentlemen in legal practice with that of our medical brethren in this matter, and also consider some of the inducements which are apt to influence the views of one or the other class with regard to it. We are probably right in saying that the great majority of the members of both professions are equally opposed to advertisement in its ordinary and offensive sense. Probably also the legal profession as a whole is less open to reproach on this head than our own. There is less emergency and urgency in legal than in medical work; litigants are usually content to occupy some time in selecting a good lawyer. Minutes or hours do not often mean life or death in the business for which they seek him. This may account for the absence of any signs equivalent to the private dispensary, open surgery, or the familiar beacon light of medicine about the house of the practising solicitor. Medical emergencies do not, we think, require the use of all this pretension; but we can imagine that some practitioners have been misled by thinking that they do. Advertisement by means of a circulated card, or of a door-plate or slab of sensational size and covered with credential titles, hours of consultation, &c., is another objectionable method. This practice is not unusual among members of both professions at the start or even in the later progress of their independent career. We admit that it is, on the whole, exceptional, as is fortunately the still

less excusable custom of systematic touting by means of agents—a custom, we believe, more common among the lower strata of legal practice than among those of the healing art. Heartily as we oppose these and all kindred methods of advertisement, we cannot but think that the temptation to resort to them is stronger in the case of our younger and poorer medical brethren than of the votaries of the law. We are comparatively straitened, for example, in the matter of remunerative appointments. The greater number of public offices with us are gratuitous. This cannot be said of lawyers. The fees of general practice, again, do not bear nearly the same ratio of emolument to the work done as do the charges of legal procedure. We are, moreover, expected in the name of common humanity to render many services as matter of charity even in our private medical capacity, and to some extent this is unavoidable. Resort to law courts to recover fees is, in the case of medical men, fraught with serious drawbacks, quite apart from the trouble and loss of time which they directly cause, while costs for the lawyer are part of the assignment of every verdict, and the assignment implies neither trouble nor loss of professional dignity. These various circumstances must greatly discount the value of medical work, and intensify the tendency to place considerations of pocket before those of duty and honour. We earnestly press upon all who are subject to such temptations as we have indicated, and first of all upon the younger members of our own body, to rely notwithstanding upon the regular methods of practice, even at the risk of early difficulties, since there is no other road so sure to final professional success and satisfaction.

Annotations.

"Ne quid nimis."

THE M.D. AND M.S. DEGREES OF THE LONDON UNIVERSITY.

AT the last meeting of the Senate of the University of London it was resolved, on the recommendation of the Conjoint Committee on Examinations, that "the subjects of Logic and Psychology should be withdrawn from the syllabus of the M.D. and M.S. Examinations, and that in lieu thereof questions should be substituted in Mental Physiology, especially in its relation to Mental Disorder." This formal withdrawal of such an obsolete mental gymnastic as Formal Logic will be so far satisfactory to candidates for the M.D. and M.S. degrees; but the real difficulty has always been to understand what is included in the term "Psychology." It is quite certain that different examiners have given a special significance to the term. We wish very much that "Mental Physiology, especially in its relations to Mental Disorder," were more closely defined, as we foresee the former difficulty arising under the new regulation. The Physiology of the Brain is within the range of the syllabus of the Intermediate M.B.; the treatment of its diseases is included in the Final M.B. Examination. We could have wished that so-called Psychology, which rests on no scientific basis whatever, and is only inferential from beginning to end, had been simply withdrawn, and that no such palpable compromise as the present regulation had been put in its stead; for it must always remain to the candidate that fatal possibility—an unknown quantity.

PUBLIC HEALTH (MEMBERS AND OFFICERS) BILL.

UNDER Section 193 of the Public Health Act, 1875, it is enacted that officers or servants of local authorities shall not be in any way concerned or interested in any bargain or contract made by those authorities, and this under pain of penalty and at the risk of being held hereafter incapable of holding office. This clause is found to act in certain instances with unnecessary severity, and hence a Bill, which bears the names of Sir John Kennaway, Mr. Long, and Mr. Cowen, has been brought in for the purpose of enabling officers and servants to be interested in contracts with local authorities as to the sale, purchase, leasing, or hiring of lands, rooms, or offices, and also as regards the insertion of advertisements in newspapers in which they are interested, provided the consent of two-thirds of the number of members of the local authority present at a meeting held seven days after a notice stating the nature of the contract has been sent to every member of that authority has been obtained. Another clause makes it unnecessary for any member of an authority to vacate his seat by reason of his having a share or interest in any papers in which advertisements relating to the business of the authority have been inserted. So far as advertisements are concerned, the Bill is unquestionably needed; and as to the other matters referred to, the precautions which will be necessary seem ample to cover any possible irregularities.

METROPOLITAN LOCAL DEATH-RATES.

THE disturbing influence of deaths in public institutions causes considerable difficulty in the calculation of trustworthy local death-rates in the metropolis. It is only a year or two since the insertion in the death register of the previous residence in entries relating to deaths in institutions first rendered possible the distribution of these deaths to the sanitary districts to which they belong. The last Weekly Return gives for the first time a table showing the corrected mortality in Registration London and in its thirty-nine sanitary areas. The period embraced by this return is the thirteen weeks ending the 4th inst. It is well known that in most large towns certain numbers of deaths of non-residents are recorded, but it has been held that these deaths are balanced by those of residents recorded outside. The new table given by the Registrar-General corroborates the trustworthiness of this assumption. The result of the correction of the recorded deaths in Registration London is to add 192 deaths of London residents recorded in the metropolitan asylum hospitals situated outside London, and to exclude 281 deaths of non-residents registered inside London. There can be very little doubt that if the deaths in the county lunatic asylums and in the metropolitan asylums for imbeciles at Leavesden, Caterham, and Darenth were also brought into account, the deaths of residents outside would fully balance those of non-residents inside. The corrected death-rate for the whole of London last quarter therefore differs but slightly from the uncorrected rate—it was 21·5 instead of 21·6 per 1000. This correction, however, leaves out of account the disturbing influence of an unknown number of deaths of domestic servants, shop assistants, and other town immigrants, who, when health fails, return to their country homes, where their deaths in many instances are recorded, although undoubtedly due to the effect of town residence. No attempt is made by the Registrar-General to calculate the death-rate in each of the thirty-nine sanitary areas within Registration London. This is probably due to difficulties in the way of satisfactorily estimating the present population of these areas. In the remarks on the table, however, the death-rates during last quarter in the five groups of registration districts are given as 19·4 in the West, 20·4 in the North, 20·8 in the South,

23·8 in the East, and 29·0 in the Central. These variations in the death-rates give useful indications of the principal slum localities of the metropolis. On the assumption that the increase of population since 1881 has been maintained at the same rate that prevailed between 1871 and 1881, it may be calculated that the death-rate in the first quarter of this year ranged from 27 to 31 per 1000 in St. Giles's, Holborn, St. Luke's, St. George's-in-the-East, Stepney, St. Saviour's (Southwark), and St. George's (Southwark). The death-rates from the principal zymotic diseases ranged from 1·52 per 1000 in the West, to 2·49 and 2·95 in the Central and East groups of districts. The rate from scarlet fever, which averaged 0·18 in London, was equal to 0·56 in East London, and was nearly six times as great as in the four other groups. It is also stated that 4 of the 7 deaths from typhus belonged to East London. These statistics call for the earnest consideration, not only of the metropolitan sanitary authorities, but also of all those interested in the health and social condition of the population of London.

"WIND AND WEATHER PERMITTING."

THIS condition, painfully familiar to the last generation of travellers by sea, but almost forgotten since the days of steam-power afloat, ought to be adopted as a general provision by all who are not of the very strongest and healthiest type of humanity, in respect to out-door engagements at this most trying season of the year, more particularly in London and other large cities. A glance at the obituary column in any leading newspaper will suffice to prove that the risks of life, especially to the weakly and the aged, just now are out of all proportion to the apparent natural vicissitudes of the Spring. The truth is, that the changes of *personal* temperature are so sudden and severe that few constitutions can suffer them with impunity. What we mean by personal temperature is this: The atmosphere generally may, as shown by the thermometer, be fairly mild, or at least not remarkably cold, but owing to the strong currents of icy wind which rush through doors and under archways, out of courts and alleys, round corners and across main thoroughfares from side streets, a pedestrian not able to bear being almost instantaneously deprived of a large proportion of his caloric, and endowed with such vigorous powers of heat-production as to be able to compensate for the loss with extraordinary rapidity, must in a walk of very short duration be thoroughly chilled. Take, for example, any ordinary main street in London of some quarter or third of a mile in length. It will probably have fifteen or twenty side streets on each side; so that, unless the wind chance to blow parallel with the main thoroughfare, a person walking through it will encounter, say in twenty minutes, fifteen or twenty blasts of cold air, which will catch him suddenly. Each of these blasts will do two things to him. First, it will rapidly take from his body as much heat as can be abstracted in the period occupied in crossing the side street, which is considerable; and, secondly, it will give an appreciable depressing shock to the nerve centres through the nerves of the skin. These fifteen or twenty successive abstractions of heat and nervous depressions, following each other at intervals of a minute or a little over, will produce an aggregate impression on the vital state—that is, the heat and the energy of the organism together—at the end of the twenty minutes, which cannot fail to be felt by a weakly or susceptible person. There is no time to recover between the attacks. When a man takes his bath in the morning he gets a reaction following the depression of the chill; but if he no sooner got out of one bath than he plunged into another, instead of benefiting his health, the "tubbing" would do him harm. It is far worse for the pedestrian to walk along such a main thoroughfare as we have supposed than it would be for him to walk on a cliff exposed to the steady blow of the same wind. The organism can much more readily accommodate itself to a prolonged low temperature, if it be not a crippling cold, than it can sustain without injury a rapid succession of little chills and shocks. These are like the rain of knock-down blows that exhausts the boxer. He has no time "to get breath" between the attacks of his opponent. We have not exaggerated this matter, and we venture to think it is one which the dwellers in cities, and particularly those who pass the earlier weeks of the season in London, will do wisely to bear in mind. It is often difficult to tell how a "cold" has been "caught"; but this we know too well, that what seem to be very slight colds are often productive of the most serious results. It is not heroic, but rash, to risk taking cold. The most robust and apparently the strongest may succumb to the consequences of such an attack. Healthy and hardy country folk, and even mountaineers who "live in the open," frequently take cold in London or some large city. It is the fusilade of deadly little chills they cannot bear. No one need feel humiliated in taking precaution against the strangely harassing attack which the enemy is wont to make on our vital forces in Spring, and particularly in April and May.

TOLERANCE AND ADVANTAGE OF LARGE DOSES OF POTASSIUM IODIDE.

DR. HUTCHINSON of Chicago, in the New York *Medical Record*, details a case in which he had given large doses of iodide of potassium with a curative effect. The case was one of a woman, aged fifty-four, married for the second time, with three children by the first husband and one by the second, all healthy, and with no history of syphilis. The disease from which she had suffered for twelve years was abscesses on the legs, over the tibia, and on the chest, over the sternum. They were slow and very painful in their course, being months in opening, while months elapsed before the sinuses closed. They left numerous and depressed scars. At the time of consulting Dr. Hutchinson the patient had two ulcers on the forehead, and one *cold* abscess on the arm. Tonics having failed, and there being great pain on pressure over the shins, the patient was put on iodide of potassium, eight grains three times a day, till she took thirty grains three times a day. An average quantity of one drachm a day was taken for four months, with the effect of a cure. Tonics were afterwards given. There is a suspicious suggestion of a specific factor in this case, both in its symptoms and its therapeutics. The iodide was not only well borne, but the patient's appetite improved, and she rapidly regained flesh and strength, as often happens to patients in whom mercury acts curatively.

THE CONVICT BRIGGS.

WE are glad to find that after mature consideration the Home Secretary has advised Her Majesty to remit the remaining portion of the sentence of twenty years passed on the prisoner Briggs. This is only justice; for, as we pointed out in November, 1884, the medical evidence, as reported, was not consistent with the teachings of scientific knowledge; and, apart from this, it has transpired that the prisoner was in all probability physically incapable of forcibly withholding food from the deceased. We do not advocate the wholesale remission of punishment; no one will be found more loyal in the support of justice equitably dispensed than ourselves; but the above was evidently an instance for the exercise of the clemency of the Crown. It is to be hoped that Sir W. Harcourt will see his way to investigate, and that early, the case of Dr. Bradley, for if ever a prisoner merited the benefit of the doubt it was the latter.

THE LATE LORD MAYOR.

WE learn that the late Lord Mayor had suffered for some years from diabetes. On Easter Monday he caught cold whilst supporting the Mayor of Brighton in his official capacity at the review on Brighton Downs. An attack of pleurisy supervened, but the fatal termination was caused by diabetic coma. Although so well recognised by the profession, it is hardly known beyond it on how fragile a thread a man's life depends when he is suffering from diabetes, even though the disease is not apparently progressive. The amount of sugar excreted may be stationary or even diminishing under medical and dietetic treatment, and yet by the slightest accident the balance may be destroyed and death rapidly result. A few weeks ago a bicycle accident of no very great severity caused the death of a diabetic patient; and here an attack of pleurisy, apparently also of an ordinary character, has determined the death of the Lord Mayor, not from the inflammation, but from diabetic coma. Cases in which the onset of blood-poisoning from a scratch on the hand, and infection by the acute exanthemata, have led to the death of diabetics almost before the diseases have had time to declare themselves are also not uncommon, and show what excessive care is necessary for the preservation of life against accident when a person is suffering from permanent glycosuria.

MICRO-ORGANISMS OF RHINO-SCLEROMA.

THE existence of micro-organisms in rhino-scleroma has been denied by Fritsch, Pellizari, Chiari, and others. M. Cornil has examined with M. Alvarez a certain number of specimens of the disease in question, and they have not once failed to find bacteria having a peculiar form, and presenting a well-defined capsule. The bacilli are short rods, having a length of from about two to three thousandths of a millimetre, and about ·4 to ·5 μ in diameter. Spore-like bodies have been seen in the interior of the little rods. The micro-organisms may appear in the form of regular ovoids, of which the periphery is formed by a well-defined capsule. In the centre of this capsule the little rod is seen either as a homogeneous and smooth structure or else formed by two, three, or four round or ovoid granules. A clear line always exists around the bacillus. The capsule is formed of a hard structureless colloid material. The bacteria may unite in pairs by fusion of their capsules. Many of the bacilli were observed to be free in the tissues, being situate between the fibrils of the reticulum, around the large cells, in the spaces of the reticulum, or in the lymphatic vessels of the superficial or deep parts of the skin.

THE WESTMINSTER UNION.

THE guardians of the Westminster Union who supported Mr. Bliss, the ex-master of the workhouse, in those irregularities which eventually deprived him of his appointment, undeterred by their rejection last year *en bloc*, again attempted at the last election to regain office. They were, however, rejected by an overwhelming majority of the ratepayers, whose public spirit, in polling so heavily as they did to prevent the return of the old members who on the last occasion of their holding office failed in so marked a degree to justify the trust reposed in them, cannot be too highly commended. At the last meeting of the Board of Guardians previous to the election, the following resolution was passed:—"That the best thanks of the Board be and are hereby accorded to Dr. Joseph Rogers, the medical officer of the workhouse, for the zeal and ability with which he has discharged the duties of his office during the past year, and for the confidence which the guardians have therefore been able to repose in him, and which they trust he will continue to deserve from their successors."

RESECTION OF CLAVICLE FOR SARCOMA.

AN interesting surgical case has been placed on record by M. Polaillon. The patient was a girl aged sixteen, in whom a swelling of the outer end of the right clavicle was first noticed eighteen months ago, and had gradually increased in size. There was not much interference with the movements of the arm, and but little pain. The tumour was about the size of the fist, of bony consistence, and lobulated in outline. The skin over it was normal. There were no signs of compression of the brachial nerves or vessels. The lymphatic glands were healthy. Careful examination showed that the tumour did not pass beyond the limits of the expanded clavicle in any direction. The operation was performed on Jan. 29th under the spray. A horseshoe-shaped incision was made through the soft tissues, and the flap turned inwards, its base being at the neck of the patient; the clavicle was cut through at the insertion of the sterno-mastoid in the inner third of the bone, and then disarticulated at its outer extremity. In order to isolate the tumour the fibres of the trapezius and deltoid were cut through at their insertion into the clavicle. Antiseptic dressings were applied. The patient did well, and left the hospital six weeks after the operation. There was but little deformity, and the movements of the arm were perfectly preserved.

POOR-LAW MEDICAL RELIEF IN BIRMINGHAM.

AN inquest in the Birmingham coroner's court on the 9th inst. resulted in a verdict of "Death from natural causes," with a rider affirming that the medical officer's conduct was very censurable. The facts lay in a small compass, and were substantially agreed upon. A poor man, aged forty-three, had suffered from bronchitis for three weeks, when, on March 28th, his son, aged fourteen, went to the parish offices and obtained an order from the relieving officer. The surgeon saw the patient the same evening, and several times afterwards, giving orders for medicine, which was duly supplied. But the poor man's circumstances were most wretched. His children having, according to report, deserted him, there was no one to attend to him; there was only a handful of fire in the grate, and some bags of flour did duty for a bed. In this state of things the medical officer strongly, and repeatedly, advised the patient's removal to the parish infirmary; but the advice was unheeded, until Saturday morning, the 4th inst., when deceased's brother called at the medical consulting-room in the parish offices, and obtained an order for removal from the surgeon, who signed it, though it appears he had not seen the patient for two days. The removal was effected with a plentiful supply of blankets, in a car-ambulance, and no one questioned that, on the patient's arrival at the infirmary, every possible attention was paid to him; but he did not survive many hours. The particular case derives special importance, from the exceptional circumstances in which Poor-law medical relief has for some time been administered in Birmingham. The infirmary at the workhouse is, by common consent, well regulated. The staff of resident doctors and nurses is good; cases of exceptional gravity are placed under the care of Dr. C. W. Suckling, one of the honorary physicians to the Queen's Hospital, and his recommendations are very liberally acted upon by the guardians. But the out-door medical relief has for many months been in an unsatisfactory state. An inquiry by the Local Government Board, during the summer of 1884, resulted in the resignation of the four medical officers, who had for several years ministered to the poor in the extensive parish of Birmingham. Projects of reform became the order of the day; but, pending their discussion, temporary medical officers were appointed, subject to a month's notice. Several at least of these

gentlemen have done their work in an unimpeachable manner; but the conditions of the permanent appointments are yet undetermined. The delay in effecting the reforms, which everyone admits are urgently called for, is supposed to be due to some differences on administrative details between the Poor-law authorities in London and Birmingham. This is a state of things demanding immediate attention. The present Board of guardians in Birmingham may plead indulgence, as they have only been just appointed. But though that be true collectively, they are individually, for the most part, old guardians. Their chairman has a very large acquaintance with Poor-law medical relief, and the Inspector for the district is one of the ablest and most humane officials in the service. The case seems one for inverting Talleyrand's famous maxim—"Above all, some zeal, gentlemen," and the work may be done soon and well. The cause we plead is no other than that of thousands of sick and helpless poor.

PTOMAINES IN CHOLERA.

AN original article contributed to the *Journal de Pharmacie et de Chimie*, by M. Villiers, gives an account of some investigations on the presence of alkaloids in the tissues of fatal cases of cholera. The tissues studied were the kidneys, intestines, liver, and the blood in the heart. The method of extracting the alkaloid was that of Stas. The alkaloid was obtained in fair quantity from the intestines, some traces were separated from the kidneys, but the liver and blood contained almost none. The alkaloid is liquid, possesses an acrid taste and has the odour of fresh hawthorn. It had the alkaline reaction, and its base could not be displaced by the alkaline bicarbonates. Iodide of mercury and potash causes a white precipitate in its solutions or those of its salts. Iodised iodide of potassium gives a brown precipitate even in very dilute solutions. Bromine water, picric acid, chloride of gold, tannin, and bichloride of mercury give precipitates, but chloride of platinum and bichromate of potassium do not. Pure sulphuric acid develops a slight and fugacious violet colouration. The hydrochlorate of the alkaloid is neutral in reaction, crystallises in long fine needles, and is extremely deliquescent. The physiological effects in frogs were ill defined; in guinea-pigs very marked, and consisted of remarkable periodic variations in the frequency of the cardiac pulsations; the anterior limbs were remarkably convulsed three-quarters of an hour after the injection, and afterwards the posterior limbs were affected in a similar manner; the convulsions passed away, and the animal remained ill and died in four days. After death there were found subpleural ecchymoses; the heart was dilated and full of liquid blood; the brain was a little congested. M. Villiers believes that the alkaloid is formed in the intestines and excreted by the kidneys.

THE CHELTENHAM APPOINTMENT OF MEDICAL OFFICER OF HEALTH.

WE have received several communications relating to the recent proceedings for the appointment of medical officer of health for the Borough of Cheltenham; and one which has just reached us from a disappointed candidate, and which is supplemented by accounts of the proceedings of the Town Council, places the whole matter before us. The election was to be made subject to the Order of the Local Government Board, which body requires that, unless it shall specially so decide, the candidate chosen shall be a fully qualified medical practitioner. The Cheltenham appointment had been held by a distinguished physician, and some thirty-five candidates sought to occupy the position which had been so ably filled by the late Dr. Wright, F.R.S. The candidates included practitioners of high and recognised standing, and men of scientific training, some of whom possessed certificates in hygiene; but amongst them was one who had a single qualification only, and he, though apparently a resident in Cheltenham, is stated not even to have been known to some of the medical profession of the town. This one candidate, therefore, failed to comply with the terms on which the advertisement declared that the appointment was to be made. But instead of his name being at once erased on the ground that he was disqualified, the corporation literally passed by all the qualified candidates and elected the only disqualified one amongst them. Then came the question as to the legality of his election on the ground of his possessing a single qualification only; but before this could be dealt with the candidate in question goes somewhere or other, and comes back within a few days fully fledged in so far as qualification is concerned. Now, the corporation submit that the man of their choice fully complies with the terms of the Order of the Local Government Board, and, according to an answer given by the Parliamentary Secretary of the Local Government Board in the House of Commons, this view is likely to be accepted by the Board. But another question is now being raised in the Town Council itself. Even if the Local Government Board choose to accept a qualification obtained after the election, and one the value of which can best be judged of by the circumstances under which it is procured, yet it is by no means clear that an election made subject to an advertisement which called for a duly qualified practitioner can be valid when the choice of the electing body falls upon a candidate who is not duly qualified, and this in the presence of a number of duly qualified candidates who had presented themselves for election. Mr. Onley, a member of the Town Council, has raised this point, and some at least of the rejected candidates intend to do the same. The question is one of extreme importance, for the Cheltenham election will form a precedent which is not likely to be forgotten, and we should like in the first instance to see it brought under the notice of the President of the Board, with a view of eliciting his official opinion on the subject. When that has been procured, the thirty-four duly qualified candidates who were passed by will know precisely how they stand with regard to future action.

HEREDITY AND TUMOURS OF THE EYE.

IN the *Revista Argentina de Ciencias Médicas*, a Buenos Ayres periodical, the typography and general "get up" of which we feel bound to say puts to shame most of the European medical monthlies, Dr. Juan Alba Carreras describes a case of cellular sarcoma of the choroid in a girl aged three years. An enormous eye protruded from the orbit, hard as an ivory ball, the pupil reaching to the edge of the cornea. The ocular conjunctiva was covered with numerous tortuous vessels, indicating great obstruction to circulation. The lens was quite opaque, and of a yellowish colour. There were severe shooting pains on the side of the head. After enucleation, a sarcoma of the choroid was found, of the size of a walnut, which had ruptured the sclerotic near the optic nerve, the sheath of which was two centimetres in thickness, and, instead of nervous tissue, contained only a white granular substance. The patient, though treated with antiseptic precautions, died of meningitis on the seventh day. As the question of the influence of heredity on ocular tumours had been raised, the relatives were examined. The father had a double external strabismus, caused by a coloboma of triangular shape, situated on the inferior and external aspect of each eye. In the brother, aged seven, was found in the left eye a dilated insensitive pupil and a detached retina, with complete loss of vision; the right eye being normal,

with the exception of some increase of tension. This child had received a blow in the left orbital region two months before, and for the last fortnight the parents had noticed that the fundus appeared white. The diagnosis was that a similar tumour existed to that from which the sister had suffered, and immediate enucleation was advised, which was refused, as, indeed, it had been when the other child was first seen. The conclusions drawn from this case are: 1. That predisposition to ocular tumours may be inherited, though in this instance the father's eyes have, up to the present time, shown no signs of malignant growth. 2. That coloboma in parents may serve to assist the diagnosis of a tumour in the fundus. 3. That there are conditions which serve to distinguish these tumours. 4. That it is necessary to insist on enucleation as soon as the existence of a tumour is recognised. If this had been permitted in this case, the extensive propagation along the optic nerve, which here existed, and which was doubtless the cause of death, would not have taken place.

VETERINARIANS AND FOOD INSPECTION.

THE veterinary surgeons of the province of Cordova having complained to the Spanish Royal Council of Health that the local authorities had appointed as inspectors of food two medical men, instead of members of their own body, whom they considered best fitted for such duties, the Royal Council replied that there was no doubt that veterinarians ought to be appointed to inspect meat, but that there was no law, and not even a uniformity of custom, concerning the appointment of inspectors of other articles of food. It was, however, a subject which ought to be settled, and therefore the Council resolved to advise the Government to make the following regulations:—(1) That the inspection of warm-blooded animals, alive or dead, fresh or preserved, should be exclusively in the hands of veterinarians; (2) that the inspection of all other articles of food sold in markets, including cold-blooded animals, should be committed indiscriminately to medical men or to pharmacists; (3) that both classes of inspectors be irremovable from their posts, except for grave cause. The Royal assent was given to the above-mentioned recommendations, which have just appeared in the *Official Gazette*.

AN ORTHOPÆDIC MARCH PAST.

GREATER triumphs than the artificial legs and arms invented by the Count de Beaufort civilisation has few to boast of. These limbs, at once thoroughly efficient and comparatively inexpensive, have been judiciously doled out by the "Assistance aux Mutilés pauvres," of which the Count is secretary, till not in Paris only, but throughout France, the soldier who in war, or the artisan who in work, has lost either extremity or both might now be mustered in their thousands to attest the blessings vouchsafed them by the rehabilitating invention. From France the charity has been extended to Italy, thanks to General H. H. Maxwell, C.B., R.A., who, wintering in Rome or *en route* through the Italian provinces, has now these six years been conferring the Beaufort limb on "deserving objects" with signal success. His experience, embodied in six reports addressed to those subscribing to the charity, has fairly and fully established the following:—1st, that the Beaufort leg, with its curved, solid, false foot, with which a man can walk like a carter for sixteen miles a day, is vastly more useful than any mere "peg-leg"; and, 2nd, that in many cases a Beaufort hand, with the fingers stiff and a spring thumb, is more serviceable than a mere hook, enabling its possessor to perform good penmanship, to pick up anything seizable, to hold knife and fork, to play chess, and, indeed, to do all the work of many a natural hand. Like all charities, that of the "Legs and Arms" must, however, be administered with circumspection. To quote the General (whose reports, by-the-way, always racy in style, are often romantic in interest):—"Giving a penny to a beggar, a shilling to a poor-box, or a cheque to a society are forms of charity which everyone more or less practises. Strong doubts, however, are apt to assail you at times as to whether you have done your alms in the most judicious way. You may have done right, and, with equal uncertainty, you may have done wrong. This state of mind paralyses your will to pull out your purse. But if you find a man with a wooden pin-leg sitting down breaking stones by the roadside; if the railway navvy or station porter has had his foot amputated, and you find him in hospital thinking of how he is to earn bread for himself and perhaps his wife and children; if, again, alongside of him there is a workman who has lost his hand, crushed by machinery or shattered by explosion,—in all such cases there is no reason for hesitation. You *must* be right in taking out pencil and paper and making notes of the case if you have time to spare; if not, in giving the sufferer your card. If you have not the necessary money yourself, it is to be had for the asking of others who are more fortunate." The General's practice has been to get the man into his own house after he has been completely cured and his stump and limbs have recovered their normal size, to measure him according to Count Beaufort's directions, which he reprints at the end of his first report, and to send these measurements to M. Werber of Paris (orthopædist to the "Assistance aux Mutilés pauvres"), who will promptly and for a very small sum confer on the amputated sufferer the means of earning his bread. What M. Werber has done so well is now equally performed by our own "Provident Surgical Appliance Society for the Relief of the Crippled Poor," which also takes orders for the Beaufort limb; while other great centres of population, not less than Paris, Rome, and London, will ere long be equipped with similarly appointed charities. In a country like Italy, where mendicancy has become an "institution," if not indeed one of the fine arts, General Maxwell's movement bids fair to fructify most beneficially; and in the files of rehabilitated and breadwinning cripples mobilised in his successive reports we congratulate him on a peculiarly efficient, not to say touching, "march past."

IRREGULAR PRACTICE IN CAPE COLONY.

THE great problem of ignorant and illegal practice is greater in remote and ill-provided districts than in settled countries and large towns. There are parts of Norway where people live thirty miles from the nearest surgeon. It must be still worse in many other countries, where educated advice and proper medicines are a luxury of the rich, and the great epochs of sickness and labour, and even the great event of death, have to be faced without the assistance or the amenities of medicine. Worse than the mere absence of medical ministration occurs in such countries. The quack and the pretender take the place of, and assume more than the airs of, the regular practitioner, and often gravely add to the danger of the disease. A case in point is before us. At the Uitenhage Circuit Court (Cape Colony), Adolph Frankenburg has been tried for culpable homicide, or for contravention of the medical ordinance. The facts are that he, having no legal authorisation to practise, administered medicines to Joseph Blommetje of Vervolf, a strong, hearty man, suffering from erysipelas, and that he introduced into the eye certain highly irritating drops, after which the "apple of the eye dropped out," and the patient languished and died. Dr. Arthur Vanes was of opinion that the patient's death was caused by the treatment. The prisoner had been previously convicted. The judge, finding him guilty on the second count, inflicted a fine of £50, and

was especially severe on the accused for venturing to treat so delicate an organ as the eye. Like other irregular practitioners, he took large fees from his dupes, to whom of course he promised a cure. The hardship is that at the Cape, as elsewhere, the chief odium of exposing the mischief worked by such characters as Frankenburg devolves on the medical practitioner who is called to see the victims. No good will be done till the law devolves on some public officer the duty of punishing illegal and ignorant practice.

MERCURIC CHLORIDE AS A DISINFECTANT.

DR. GEORGE M. STERNBERG, in his recent reports to the American Public Health Association, confirms the opinion arrived at of late years in more than one quarter as to the very powerful antiseptic action of perchloride of mercury. He relates experiments in proof of the inhibiting action of very dilute solutions upon the development of the bacilli of anthrax and other micro-organisms, and sums up his conclusions thus:—

"Mercuric chloride, in aqueous solution, in the proportion of 1 in 10,000, is a reliable agent for the destruction of micrococci and bacilli in active growth not containing spores; and in the proportion of 1 in 1000 it destroys the spores of bacilli, provided that the micro-organisms to be destroyed are fairly exposed to its action for a sufficient length of time. A standard solution of 1 in 1000 may be safely recommended for the disinfection of bedding and clothing which can be washed, for washing the floors and walls of infected apartments, for disinfecting the hands and instruments of surgeons and gynæcologists, and as a disinfecting wash for superficial wounds or mucous surfaces. For continuous application to wounds, &c., a solution of 1 in 10,000, or less, should be effective. A standard solution of 1 in 500, with the same quantity of potassium permanganate, may be safely recommended for the disinfection of liquid fæcal discharges, and other fluid material supposed to contain 'disease germs,' provided the time of exposure is not less than two hours, and the quantity of material to be disinfected is not in excess of that of the standard solution used."

WEST INDIAN FEVERS.

DR. A. W. REYES of Havana has published a pamphlet giving an account of the graver West Indian fevers, in which he says that owing to unusually severe meteorological conditions—intense heat followed by rain—fatal malarial fevers were very numerous last year. He advises medical men, when rain comes after great heat, to prepare for a treacherous and destructive enemy, and in general to treat all fevers with quinine; and he recommends mothers of families to be on the look-out for the first signs of fever and to call for medical aid immediately, suggesting that if they will "provide themselves with thermometers (for the detection of incipient fever), they will save many professional honoraria—and some tears."

PNEUMONIA IN NEW YORK.

A SUMMARY of 252 cases of lobar pneumonia is given in the form of a paper in the *Medical Record* for March 28th, by Dr. Edwin T. Doubleday, registrar of the New York Hospital, which was opened in 1877. In the earlier years the histories were not complete. The decades in which the largest number of cases occurred were from the ages of twenty to thirty, 70 males and 18 females; thirty to forty, 47 males and 13 females. In 199 cases there was no assignable exciting cause; in 47 cases there was exposure to wet and cold. There was an acknowledged alcoholic history in almost 50 per cent. of the cases, and where the history was marked the death-rate was 68 per cent. The complication most frequently noticed was pleurisy. The mortality was great. In the complicated cases, 85 died and 49 recovered; in uncomplicated, 33 died and 81 recovered. This high mortality is attributed by the author to the large number of complicated cases; the large number of those past treatment and moribund on admission to hospital; the patients being alcoholics as a rule; and the late day of admission, the fifth day of the disease. The remedies used were aconite (in a few cases) and quinine (extensively); when the case was seen before consolidation a dose of calomel (five to ten grains) was frequently given. For delirium, a very sparing use was made of bromides, chloral, and morphia. For heart failure, ammonia and tincture of digitalis (five to twenty minims) every three hours, with alcohol, were employed. Alcohol, in the form of whisky, was given early. Lately antipyrin had been given in 12 cases with the effect of reducing the temperature from 1° to 3°, and causing slight sweating and slight cardiac depression. The individual remedies, excepting perhaps the calomel, are not open to much criticism; but the result is certainly not satisfactory, and contrasts very unfavourably with the result in Dr. F. Hughes Bennett's series of cases to which we referred last week.

EXPERIMENTAL EPILEPSY.

A COMMUNICATION has been made by M. Vulpian to the Académie des Sciences on the results of excitation of the white matter in the neighbourhood of the sigmoid gyrus. He asserts that the convulsions of epilepsy are manifested not only in the voluntary muscles, but also in those of organic life, as witnessed in the modification of the secretions, the dilatation of the pupils, and the like. He has sought to determine the influence of excitations of the cerebral white matter on the secretion of bile, pancreatic juice, and urine. Cannulæ were placed in the bile-duct, pancreatic duct, and ureters of the animals employed. Electrical stimulation was employed. The secretion of bile was found to be augmented; that of the pancreas was not influenced either way; that of the kidney was arrested. By curarising a dog and keeping up artificial respiration he has determined that excitations of the surface of the gyrus in question gave rise to a genuine attack of epilepsy of the involuntary muscular tissue. M. Vulpian believes that the last-mentioned experiment has not hitherto been carried out.

HONEST CRITICISM.

WE congratulate our contemporary, the *Grocers' Gazette*, on having vindicated the undoubted right of the press to point out tricks of trade which are injurious to the health of the public. If it were not permissible to put the community on its guard against adulteration and the selling of impure or bad goods as fit for use and of excellent quality, it would be useless to touch the subject of sound and unsound food at all. It seems strange that any manufacturer should have had the temerity to go before a court with so poor a plea as that urged against the *Grocers' Gazette*. Simple justice has been done, and the public interests have been secured. Our contemporary has done good service.

THE PIGMENTARY SYPHILIDE.

IN the April number of the *Monthly Journal of Cutaneous and Venereal Diseases* an excellent chromolithograph illustrates a brief original article by Dr. R. W. Taylor on the Pigmentary Syphilide. Many authorities, both at home and abroad, now recognise the existence of a certain chromatogenous affection peculiar to syphilis, which is variously designated the pigmentary syphilide and syphilitic leucoderma. Dr. Taylor comes to the conclusion that syphilis frequently causes a deep cutaneous pigmentation, which

occurs in spots without any affection of the skin between the maculæ; he believes, also, that syphilis may cause pigmentation and leucoderma in the same case, as well as an abnormal distribution in the amount of pigment normally present in a given area of skin, so that there is a preponderance of the leucodermatous changes as compared with the pigmented maculæ.

"SIMULO" IN EPILEPSY.

IN the *Boletin Médico*, published at Trujello, Peru, Dr. Larrea y Quezada describes the treatment of his own case of epilepsy, when a boy of thirteen, by simulo, which is the fruit of a plant of the hyssop family—Capparis coriacea. The dose was forty-five grammes of the powder in wine night and morning. Though he had suffered from fourteen attacks, preceded by a distinct aura, his cure was immediate and complete. Since he has been in practice he has employed the drug in all cases of epilepsy, and also in nervous and hysterical cases, with the best results.

A CORRESPONDENT has written to us calling attention to the condition of the Salvation Army in the barracks at Clapton. He states that small-pox is now, and has for some time past been, very prevalent among the persons resident in the building; in fact, lately, scarce a day has passed without some patient being removed, and yet these people are allowed to hold meetings and to march through the streets, to say nothing of their going into the homes of the poor in the neighbourhood. If our correspondent's statements are correct—and we have no cause to doubt them,—the proceedings of the Clapton Salvationists, as a means of spreading small-pox, should engage the attention of the medical officer of health.

WHILST recently partaking of luncheon in a restaurant at Portsmouth, Retired Staff Surgeon Augustus Slight, R.N., died apparently in a fit. A post-mortem examination showed that the deceased, who was seventy years of age, had been suffocated by a piece of meat which was lodged in the throat. The inquest was held on the 9th inst., when the jury returned a verdict of accidental death. The deceased was assistant-surgeon of the *Wasp* at the storming of Sidon and the bombardment of St. Jean d'Acre in 1840, for which he was awarded the medal.

A MADRID medical journal of April 8th says:—"In Jativa the cases of 'suspicious disease' continue. This is a modern denomination for diseases which we are not able to classify, and for which a special column should be opened in our health bulletins. Up to the 6th inst. the official statement is as follows:—'Suspicious diseases (?) attacked, 6; cured, 4; died, 7; still on the sick list, 25. Of these 25, 8 are seriously ill, 2 are getting better, and 15 are convalescent.'"

THE member of the Rochester Town Council who recently stated that he believed there were nearly sixty cases of small-pox in Gillingham has written to the Gillingham Board of Health, saying that he had found he had overstated the total, and that he regretted having done so; but the statement was not made in public or at a council meeting, but in committee, and was not intended to appear in the newspapers.

THE prize for the best essay on the Prevention of Blindness, offered by the English Society for the Prevention of Blindness, has been awarded to a German physician, Dr. Fusch.

DR. and MADAME BRACHET have had the honour of being presented to the Queen during her Majesty's visit to Aix-les-Bains; and Madame Berthier, widow of the late Dr. Berthier, who attended Princess Beatrice during her stay at Aix two years ago, has had the honour of being received by her Royal Highness.

THE statement that small-pox had attacked the inhabitants and employés of the Japanese Village at Albert-gate has been contradicted by an inspector sent to inspect the building by the Local Government Board and by the Sanitary Committee of the Board of Works for the Westminster district.

A TELEGRAM from Marseilles to the Paris *Temps* states that orders have been given to the French authorities to impose three days' quarantine on all arrivals from Spain, on account of the suspicious disease prevalent in some parts of that country.

SIR ROBERT LOYD-LINDSAY, chairman of the National Society for Aid to the Sick and Wounded in War, has received from Mr. Kennett Barrington, its Commissioner at Suakim, a highly satisfactory account of the work done by the representatives of the Society in Egypt.

THE Academy of Medicine of Lima, Peru, is endeavouring to organise chemical and physiological laboratories and an anatomical and pathological museum. At present an especial study is being made on several important questions relating to prophylaxis and hygiene in infancy.

Pharmacology and Therapeutics.

BROMIDE OF ZINC.

THE following conclusions have been arrived at by M. Testa. Bromide of zinc in small doses diminishes sensation; in large doses it diminishes motility; finally, it may cause complete sensory and motor paralysis. The motor and sensory disorders may gradually pass away if the dose given be not too large. Bromide of zinc stops the frog's heart in diastole, but this effect takes some time to appear: its action is more like zinc than bromide of potassium, since zinc disorders sensation first and motion later, whilst bromide of potassium affects both sensation and motion at the same time, though the latter more than the former. Zinc in the bromide ought certainly to be modified in its action by the presence of bromine, and in mammals a certain degree of somnolence was observed. Bromide of zinc acts first on the peripheral terminations of the sensory nerves, and afterwards on the spinal centres, without, however, passing over the nerve trunks. An effect on the cerebrum cannot be denied seeing that somnolence has been observed after the administration of the drug, but the disorders of sensation and motion are independent of its cerebral effect.

BOLDO AND BOLDINE.

Boldo, either as an infusion or extract, which grows in Bolivia, has been employed for a long time in diseases of the liver. The essence and tincture were experimentally investigated by MM. Dujardin-Beaumetz and Vernes in 1874: diuresis and somnolence were the chief effects observed in animals. Boldine appears to be a glucoside, and is extracted from the leaves of boldo; it is obtained as a concentrated solution of an orange-yellow colour, and has an aromatic odour. In animals—guinea-pigs, dogs, rabbits—boldine given by the stomach, under the skin, or into the veins, causes marked drowsiness, which lasts a variable time, and passes into a condition of apparent death. A fatal dose causes death without exhibiting any reaction, and without convulsions. The fatal dose is ·2 centigramme per kilogramme of body weight. In physiological doses the induced sleep passes away without causing any disagreeable

effects. In frogs, injections of boldine induce loss of sensation, and the instillation of some drops of boldine into the eye causes insensibility of the cornea like that produced by cocaine. The hypnotic action of boldine is exerted through the intermediation of the cerebral centres, for the somnolence does not appear if the brain be removed or the bulb be divided. In man, boldine administered to the extent of five or six grammes in divided doses has twice been followed by calm and profound sleep. M. Laborde is the author of these new experiments.

COLCHICINE.

M. Laborde has restudied the physiological effects of colchicine. In animals the subcutaneous injection of colchicine into a leg produces at first paralysis of the limb. The general symptoms observed were disorders of the circulation and respiration; digestive disturbances in the form of vomiting of food, next of bile, and finally of blood, were observed; diarrhœa, both of fetid and bloody stools, may occur, whereby a dog may lose a kilogramme of its body weight in the course of a few hours. Death may supervene as the result of paralysis of respiration. A dose of forty centigrammes given to a man caused a feeling of oppression at the epigastrium, violent headache, vomiting, diarrhœa, and fainting. A dose of from five milligrammes to one centigramme gave rise to nausea, some vomiting, and a little diarrhœa; the salivary and urinary secretions were also augmented.

THE ACTIVE PRINCIPLE OF SENNA LEAVES.

A paper which has been published in full in the *Pharmaceutical Journal* gives an account of some original investigations made by Dr. Ralph Stockman on the cathartic principle contained in senna leaves. The cathartic acid was separated after a good deal of trouble by means of baryta. The separated principle was proved to be a powerful cathartic by experiments on rabbits. Experiments made by injecting the cathartic acid, which has been proved by Dr. Stockman to be a coloured glucoside, into the subcutaneous tissues and jugular vein of rabbits, appear to show that the principle cannot cause purgation when introduced into the circulation. Very large doses were thus administered, and the animal simply appeared to be out of sorts for a few days, probably as the result of the operation. In all these cases the urine gave the caustic potash reaction, showing that the cathartic acid had been decomposed in the blood.

DETECTION OF ALKALOIDS.

The graphic method now so extensively adopted by physiologists working at the action of drugs on the heart has been used by M. Laborde in some researches on alkaloids. He states that a twentieth of a milligramme of aconitine in the blood suffices to give a graphic tracing of the beats of the heart which is absolutely characteristic of the action of aconitine. In a dog dead from the ingestion of a substance of doubtful nature, veratrine or aconitine, for example, if an extract of the vomited matters be injected into the system of an animal the heart gives tracings which M. Laborde asserts may be correctly assigned to this or that alkaloid.

THALLINE.

According to MM. Brouardel and Loye, thalline diminishes the respiratory capacity of the blood by destroying its hæmoglobin. Its action is said in this respect to resemble that of kairin and to differ from that of antipyrin, which, according to Henocque, has no deleterious influence on hæmoglobin. MM. Laborde and Rabuteau consider that the physiological effects of the different antipyretics cannot be regarded as properly worked out because of the variable chemical composition. M. Henocque states that his results with antipyretics have been uniform and characteristic, so that if the antipyrin be impure, the impurity is always of the same nature.

SULPHATE OF CINCHONAMINE.

Cinchonamine is an alkaloid found by M. Arnaud in the remigia Purshiana (rubiaceæ), which is indigenous in Brazil. MM. Sée and Bochefontaine have investigated the physiological action of the soluble sulphate of cinchonamine on frogs, guinea-pigs, and dogs. The chief effects observed were progressive enfeeblement of the physiological functions of the central nervous system, convulsive phenomena, and weakening and slowing of the heart's action. Large doses cause rapid death by arrest of the heart in diastole, in frogs as well as mammals. Atropine is powerless to restore the movements of the heart after they have been stopped by cinchonamine. The toxic effects of the sulphate of cinchonamine are about six times greater than that of quinine, cinchonidine, and cinchonine.

BENZOLE IN RODENT ULCER.

The application of pure benzole to rodent ulcers is recommended, and has been practised, by Dr. Sherwell of New York. It does not cause pain, but destroys the sensibility of the parts, giving them a blanched appearance and causing a kind of mummification. After a time a scab is formed, which should be removed and more benzole applied. He suggests also the employment of benzole in cases of cancer of the os uteri, but it may be doubted whether its application to this site would prove efficacious.

PARALDEHYDE.

Dr. T. Suñol states in the *Independencia Médica* that he has used paraldehyde hypodermically in doses of half a drachm to one drachm in bronchitis, tuberculosis, jaundice, typhoid, rheumatism, gastritis, heart diseases, pleurisy, neuralgia, and alcoholic delirium, generally inducing a sleep of from two to six hours, a sleep calm and untroubled, and not followed by headache on awakening. He has only observed excitement in febrile patients. As it does not affect the beats of the heart, it is better than chloral in cardiac cases with much debility, and especially where there is fatty degeneration.

SYNTHESIS OF CONIINE (?).

The *Pharmaceutical Journal* states that M. de Coninck has synthetically prepared a liquid alkaloid isomeric with coniine. Six atoms of hydrogen were introduced into the molecule of β-collidine derived from the decomposition of cinchonine. This artificial alkaloid has been named "isocicutine;" M. Bochefontaine asserts that its physiological properties are like those of the alkaloid obtained from hemlock.

ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

THE Association of Members of the Royal College of Surgeons has recently forwarded a circular to each member of the College, in which is contained a brief account of the work done by the Association during the first year of its existence for the purpose of obtaining certain reforms in the projected new Charter of the College. After detailing the proceedings taken up to the time the requests of the Association were laid in writing before the Council of the College, the two main points in the requisition being (1) that Fellows and Members shall elect an equal number of representatives to constitute the Council, and (2) that in addition to a poll election at the College, voting by voting papers, to be sent to all Fellows and Members resident in the United Kingdom, shall be allowed, the committee of the Members' Association state that the Association of Fellows appear somewhat liberal in their views; they have proposed, amongst other things, that there shall be an annual general meeting of Fellows and Members, at which the annual report of the Council shall be presented, discussed, and, if approved, adopted; also that no alteration in the constitution and relations of the College shall be effected without the consent of the Fellows and Members, specially convened to discuss such alterations; and that on receipt of a requisition signed by thirty Fellows or Members the president shall convene a general meeting. These proposals, with the addition of representation of Members and election by voting papers, embrace nearly the whole of the preliminary question as far as the Members are concerned; but whether the Council will accede to the requisition is doubtful unless great pressure be brought to bear upon them, and the committee consequently conclude by urging all members of the College who have not already done so to join the Association, in this manner establishing a powerful and influential Association for the protection of the interests of the medical practitioner.

AT the quarterly meeting of the directors of the Naval Medical Supplemental Fund held on the 14th inst., Sir N. W. E. Smart, K.C.B., M.D., Inspector General, in the chair, the sum of £67 was distributed among the several applicants.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.[1]

Typhoid Fever at York, by Dr. AIRY.—The medical officer of health for the city of York reported last autumn an outbreak of enteric fever which had already caused 27 deaths. The cause did not appear to lie in the drinking-water nor in the milk-supply, but, according to his view, was dependent in some way on the condition of the subsoil water. Some obscurity, however, attached to the circumstances of the prevalence. Mr. North had made some lengthened investigation into the subject, and he found that from January to the middle of November there had been 315 attacks with 50 deaths, thus giving a high rate of mortality. The total population of York, according to the last census, was 49,530. According to Dr. Airy, York is divided into three registration sub-districts—Bootham, Micklegate, and Walmgate,—and the annual average "fever" death-rates for the ten years ending 1883 were 2·8 per 10,000 for Bootham and for Micklegate, and 3·8 for Walmgate. Fever has also fluctuated in the city; it was specially prevalent in 1875 and in 1881, whereas 1877 was distinguished for its comparative absence. The mortality had been at its height during the autumn months, culminating in October, and thus corresponding with general experience throughout the country at large. York, then, may be regarded as being habitually liable to fever in an endemic form, and this especially in the Walmgate district; and also to epidemic prevalences at occasional intervals. Dr. Airy then proceeds to describe in detail the physical circumstances affecting these three districts severally, to point out in what respects they differ, and to indicate the various localisations of the fever in the different portions of the several districts referred to. He next proceeds to discuss such questions as the water-supply, milk-supply, &c. The water-supply cannot be regarded as a satisfactory one, it being derived from the Ouse at a point below which it receives the drainage of many villages and much agricultural and other land. It is also dammed up below York by means of a weir and lock, and hence during periods of drought such as occurred last year any pollution might become concentrated and lead especially to affect the source near the intake. Dr. Airy is, however, inclined to think that at all times during the year the flow in the river was sufficient to enable him to eliminate the special source of danger which the backing up of sewage would have caused. Then, again, the water-supply being the same for the whole of the city, any injurious property it possessed would presumably affect the whole city impartially, whereas, as a matter of fact, the incidence of the fever was markedly upon three separate spots in the city. Local water pollutions in the mains or otherwise might have occasioned this special incidence; but after all the conditions likely to have led to any such occurrence had been thoroughly sifted, no ground could be found for any suspicion of the kind. Milk and other beverages as a cause of the disease had also to be set aside. Coming next to privies, &c., it would appear that York is not favourably placed, and there seemed no doubt but that infection had been spread by means of faulty structures; but the actual cause of the epidemic did not lie here. A good deal of attention has also been paid in York to disconnecting house drains, especially in the poorer parts of the city, and such connexions are hence eliminated as a cause of disease. The sewers were laid in 1854-56; they have their outfalls below the summer level of the Ouse; they have no intentional means of ventilation, and there is hardly any provision for their systematic flushing. The only means of relief from pent-up foul air which they have lies in untrapped street gullies, rain pipes directly connected with the sewers, and defectively trapped house connexions. Frequent complaint is made of the habitual sewer stink, and, according to Dr. Airy, York is from this cause in a state of chronic infection that probably accounts for its habitual fever prevalence. As one sewer chances to be more impregnated with infection than another, so one region or another would suffer most, and the specially foul conditions connected with the Foss sewer appeared fully to explain the habitual incidence of fever upon the Walmgate district. So much for the general fever prevalence in York. As to 1884, it deserves notice that the fever mortality for the third quarter of that year in the whole of the East Riding was more than double the average of that for the preceding five years. The summer was remarkably warm, the rainfall was much below the average, and so accumulation of sewage in drains and sewers would be specially favoured, and the offensiveness at certain outfalls is well remembered by many inhabitants of the city. Indeed, Dr. Airy is of opinion that throughout August there was a ripening of conditions exceptionally favourable to the development of typhoid poison in the York sewers, and he inclines to the view that such a gradual ripening must, sooner or later, have culminated in an outbreak of fever, even without the occurrence of any signal event that could be recognised as the determining cause. As to the ground air, it is highly probable that the special conditions of the autumn of 1884 may have led to the expulsion from the soil, by means of a rise in the subsoil water and otherwise, of foul air, and that such occurrences may materially have aided in the special prevalence from which York has suffered. The drawing-off of the Foss water and its subsequent rise had doubtless an influence in this direction; but such influences were probably local only, and would hardly account for the simultaneous outbreaks such as occurred in some large districts. How far meteorological conditions may have aided in this result is uncertain—we know too little about their influence to judge; but there was very little change of atmospheric pressure in the month of August. The report is an interesting one, and well deserves study. We are glad that it is one of those which have been placed on sale.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Kettering Urban District.—This town has in recent years effected substantial sanitary improvements, and during the past eight years there have been only five deaths from enteric fever in a population now reaching some 14,250. Last year there was but little infectious disease of any sort. The deaths under one year of age are, however, unsatisfactorily high. Last year they amounted to nearly 18 for every 100 births, a rate which is excessive. Mr. Dryland attributes it mainly to ill-feeding, soothing syrups, and neglect, conditions which are all but invariable in towns where female labour is employed. Some diarrhœa was brought about by the extreme drought, which caused a scarcity in the public water-supply, and in the effort to remedy this the supply became so muddy that people resorted again to old disused wells. Common lodging-houses and slaughter-houses are well looked after, the bakehouses are inspected with regularity, the system of public sewerage is being added to and perfected, vaccination is efficiently performed, and sanitary work in general would appear to be carried out under a system of regular supervision.

Chester-le-Street (Rural).—The Rural Sanitary Authority of Chester-le-Street has divided their district for public health purposes into two parts, each of which is co-extensive with a registration sub-district. The report for Chester-le-Street sub-district shows that during 1884 the death-rate from all causes was comparatively low, although both the mortality from zymotic diseases and the death-rate of children were excessive. Dr. Morris estimates the population of his district in the middle of 1884 at 24,500, but he omits to state on what basis the estimate is calculated. Based upon the rate of increase that prevailed between 1871 and 1881, the estimate would be considerably more; and judged by the birth-rate, which is given as 43·3, it would appear certain that the present population is not over-estimated. The death-rate last year was 19·3, slightly below the rate in the whole of England and Wales, and 1 per 1000 below the mean rate in the county of Durham. The deaths from the principal zymotic diseases were 69, which included 26 from scarlet fever (so constantly fatal in mining populations), 23 from diarrhœa, 9 from typhoid fever, and 2 from small-pox. These 69 deaths were equal to a rate of 2·9 per 1000. With regard to child mortality, it is stated that of the 472 deaths in the year, 241, or 51·1 per cent., were of children under five years of age, an undoubtedly excessive proportion, but giving no real clue to the true rate of child mortality, which can only be calculated upon the number of children living at the same ages. Infant mortality—that is,

[1] To be purhased of Knight and Co., 90, Fleet-street; Shaw and Sons, Fetter-lane; Haddon, Best, and Co., West Harding-street; and P. S. King and Son, King-street, S.W.

the deaths of infants under one year—was equal to 15·8 per cent. of the births registered, showing a marked excess. Dr. Morris appears to have debited the whole of the deaths in the union workhouse to his sub-district; if this be the case, it is an obvious oversight. Twenty-six cases of small-pox were reported in the district, but only two deaths were referred to this disease, and with regard to one of those cases the medical officer is "disposed to think that the cause of death was malignant scarlet fever." The authority, which has not yet seen the necessity to provide any hospital accommodation for infectious diseases, is to be congratulated at having at present escaped an epidemic outbreak of the disease. It is, however, impossible to say how many of the 26 deaths from scarlet fever might have been avoided if such accommodation had existed. It appears from the report that 67, or 13·7 per cent., of the deaths during the year were uncertified, in most cases because the deceased persons had been attended by unqualified, or at any rate unregistered, medical practitioners. One of these uncertified deaths was attributed to typhus; and with regard to this case the medical officer satisfied himself that, "whatever was the cause of death, it certainly was not typhus." Such a state of things is as bad for our national mortality statistics as it is for the public.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5804 births and 4271 deaths were registered during the week ending the 11th inst. The annual death-rate in these towns, which had been equal to 23·5, 23·2, and 23·1 per 1000 in the preceding three weeks, rose last week to 25·0, and exceeded the rate in any previous week of this year. During last quarter the death-rate in these towns averaged 21·9 per 1000, and was 2·3 below the mean rate in the corresponding periods of the nine years 1876-84. The lowest rates in these towns last week were 20·0 in Brighton, 20·5 in Leeds, 20·9 in Derby, and 21·2 in Norwich. The rates in the other towns ranged upwards to 33·8 in Preston, 35·8 in Huddersfield, 36·0 in Manchester, and 41·9 in Newcastle-upon-Tyne. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had steadily increased from 377 to 465 in the preceding six weeks, further rose to 478 last week; they included 164 from measles, 127 from whooping-cough, 49 from diarrhœa, 40 from small-pox, 35 from "fever" (principally enteric), 34 from scarlet fever, and 29 from diphtheria. No death from any of these diseases was recorded last week either in Leicester or in Bolton, whereas they caused the highest death-rates in Manchester, Sunderland, and Newcastle-upon-Tyne. The greatest mortality from measles occurred in Huddersfield, Sunderland, and Newcastle-upon-Tyne; from whooping-cough in Sheffield and Bristol; from scarlet fever in Sunderland and Wolverhampton; and from "fever" in Halifax and Norwich. The 29 deaths from diphtheria in the twenty-eight towns included 15 in London, 4 in Cardiff, 3 in Birmingham, and 2 in Portsmouth. Small-pox caused 69 deaths in London and its outer ring of suburban districts, 2 in Sunderland, 1 in Manchester, and 1 in Leeds. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had increased from 830 to 879 in the previous two weeks, further rose last week to 910; the admissions also rose to 185 last week, from 179 and 141 in the preceding two weeks. The Highgate Small-pox Hospital contained 91 patients on Saturday last, 22 having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 448 and 478 in the previous two weeks, further rose last week to 512, and exceeded the corrected average by 2. The causes of 109, or 2·6 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Portsmouth, and in four other smaller towns. The largest proportions of uncertified deaths were registered in Halifax, Sheffield, Hull, and Sunderland.

HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 23·3 and 25·0 per 1000 in the preceding two weeks, declined again to 23·4 in the week ending the 11th inst.; this rate was 1·6 below the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 5·0 and 17·5 in Perth and Aberdeen, to 27·3 in Paisley and 29·0 in Glasgow. The 570 deaths in the eight towns included 24 which were referred to measles, 17 to whooping-cough, 10 to "fever" (typhus, enteric, or simple), 8 to diarrhœa, 6 to scarlet fever, 3 to diphtheria, and not one to small-pox; in all, 68 deaths resulted from these principal zymotic diseases, against 73 and 84 in the preceding two weeks. These 68 deaths were equal to an annual rate of 2·8 per 1000, which was almost identical with the rate (2·9) from the same diseases in the twenty-eight English towns. The 24 cases of measles, of which 22 occurred in Glasgow and 2 in Dundee, showed a further increase of 1 upon the numbers in the previous two weeks. The deaths from whooping-cough, on the other hand, declined to 17, from 35, 32, and 34 in the preceding three weeks; 10 occurred in Glasgow, and 2 each in Dundee, Leith, and Paisley. The 10 deaths referred to "fever" showed an increase upon recent weekly numbers, and included 6 in Glasgow and 2 in Greenock. The 8 deaths attributed to diarrhœa were 12 below the number in the corresponding week of last year. The 6 fatal cases of scarlet fever, of which 4 occurred in Glasgow, showed a decline of 5 from the number in the previous week. It appears that in Scotland chicken-pox is still classed as small-pox; this is contrary to the classification adopted in the English and Irish returns since 1881. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 122 and 130 in the previous two weeks, further rose to 134 last week, and were 22 above the number returned in the corresponding week of last year. The causes of 77, or nearly 14 per cent., of the deaths in these Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 40·4 and 33·6 per 1000 in the preceding two weeks, further declined last week to 32·2. During the thirteen weeks of last quarter the death-rate in the city averaged no less than 34·0 per 1000; whereas in London and in Edinburgh the rate did not exceed 20·8 and 20·0 respectively. The 218 deaths in Dublin last week showed a further decline of 9 from the high numbers in the preceding two weeks, and included 29 which were referred to the principal zymotic diseases, against 32 and 24 in the previous two weeks; 19 resulted from measles, 4 from diarrhœa, 2 from "fever," 2 from diphtheria, 1 from scarlet fever, 1 from whooping-cough, and not one from small-pox. These 29 deaths were equal to an annual rate of 4·3 per 1000, the rates from the same diseases not exceeding 2·7 in London and 0·8 in Edinburgh. The fatal cases of measles in Dublin, which had been 16, 12, and 13 in the preceding three weeks, rose last week to 19, and exceeded the number in any previous week of this year. The deaths referred to "fever," on the other hand, showed a further decline from recent weekly numbers. The 2 deaths from diphtheria were above the weekly average. Nine inquest cases and 5 deaths from violence were registered; the 54 deaths in public institutions were considerably below the average in recent weeks. The deaths both of infants and of elderly persons somewhat exceeded the number in the previous week. The causes of 30, or nearly 14 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

Dr. Doyle Glanville has gone to the Soudan with the New South Wales Contingent as Staff Surgeon. Dr. Glanville was attached to Colonel Durnford's column, consisting of 2000 men, the whole of whom, including Colonel Durnford and the 1st 24th Regiment, were massacred with the exception of some thirty survivors only. Dr. Glanville escaped, having been ordered to march out the night previously with a party of reconnaissance, and was three miles away from camp when it was attacked. He was then placed on the medical staff of General Wood's column, and served with the flying column, and was present at the battle of Ulundi, when he was mentioned in Sir Evelyn Wood's despatches for distinguished conduct, published in the *London Gazette*, August 21st, 1879. After the battle of

Ulundi the column was disbanded, and Dr. Glanville was then attached to the 1st King's Dragoon Guards, Lord Wolseley's military escort, and proceeded with them through the Transvaal.

WAR OFFICE.—Army Medical Staff: Surgeon-Major Albert Benjamin Robinson is granted retired pay, with the honorary rank of Brigade Surgeon. Surgeon-Major James Henry Ussher, M.B., has retired on temporary half-pay.

MILITIA MEDICAL STAFF.—Surgeon Thomas Dodson Palmer, 8th Brigade, North Irish Division, Royal Artillery, to be Surgeon-Major.

ADMIRALTY.—The following appointments have been made: Staff Surgeon Alexander Flood, to the *Forward;* Staff Surgeon Stewart F. Hamilton, to the *Dolphin;* Staff Surgeon Charles W. Maynard, to the *Penelope;* Staff Surgeon Michael Fitzgerald, additional, to the *Hibernia;* Staff Surgeon T. D. Gimlette, to the *Euryalus;* Fleet Surgeon Edward Meade, to the *Iron Duke;* Staff Surgeon William F. Spencer, to the *Triumph;* Staff Surgeon Henry J. Madders, to the *Duke of Wellington;* Surgeons Henry F. Kiewiez and C. L. Nolan, to the *Iron Duke;* Surgeon Robert F. Yeo, to Sheerness Dockyard; Surgeon Justin F. Donovan, M.D., to Malta Hospital; and Mr. Samuel Hamill, to be Surgeon and Agent at Burnham, Brancaster, and Thornham.

The undermentioned Surgeons have been promoted to the rank of Staff Surgeons in Her Majesty's Fleet—viz., Richard Dormer White, M.A., M.D.; John Wilson, M.A., M.D.; Henry John Madders, M.D.; Alexander Flood, Michael Fitzgerald, Stewart Frazer Hamilton, and Charles William Magrane.

In accordance with the notice appearing in the *London Gazette* of May 21st, 1884, Surgeon Thomas Desmond Gimlette has been promoted to the rank of Staff Surgeon in Her Majesty's Fleet.

In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Staff Surgeon Henry Scanlan has been placed on the retired list of his rank.

ARTILLERY VOLUNTEERS.—2nd East Riding of Yorkshire: Acting Surgeon Arthur Henry Robinson, M.D., resigns his appointment.

RIFLE VOLUNTEERS.—3rd Hampshire: Acting Surgeon Arthur Vernon Ford, from the 4th Volunteer Battalion, the Essex Regiment, to be Acting Surgeon.—2nd Lanarkshire: Lieutenant Robert Thin Craig Robertson, M.B., is appointed Acting Surgeon.

Correspondence.

"Audi alteram partem."

THE MEDICAL BILL AND THE SCOTCH UNIVERSITIES.

To the Editor of THE LANCET.

SIR,—I read with some surprise in your leader of April 11th that Sir Wm. Jenner, in his address at the College of Physicians, attributed the withdrawal of the Medical Bill of last year to the "determined opposition of Scotch universities." Now, I yield to no one in my respect for the personal character and high professional attainments of our President, but he has been led into error in this case by an imperfect consideration of the subject, and his position in Trafalgar-square and as an ex-Royal Commissioner does not entitle him to override the facts of the case. I happened to hear every word that was spoken on the three occasions when the Bill was under discussion, and can remember nothing which would imply determined hostility on the part of the Scotch universities, whose adverse influence, if exerted to the full, would no doubt have been disastrous, if not fatal, at any period of legislation. If you will refer to Hansard, you will find that after two full debates on the second reading a further stage was reached on June 30th, when Mr. Mundella moved "that the Speaker do now leave the chair." This was agreed to after some wrangling from quarters not usually favourable to the unobstructed work of the House, and it was further arranged that the Committee should be taken in not less than a week, so that amendments might be put down and duly criticised. Then came the collapse. The action of the House of Lords suddenly paralysed legislation, and Mr. Gladstone announced that he should withdraw all Bills which had not passed through the grand Committees. As the Medical Act Amendment Bill came under this hard-and-fast rule, it had to be ruthlessly flung overboard without reference to popularity, or opposition, or stage of progress, and neither Mr. Mundella nor the House, nor any university or corporation, nor influence, however powerful, could save it from a fate which it shared with many others. The general impression was that if accident had not thus abruptly checked its career, the Bill had a good chance of passing; but the opinion was equally unanimous that Sir Lyon Playfair's amendment would have materially smoothed the way to the ultimate goal of success, and would certainly have saved the licensing bodies from damage, and possibly from ruin. I have always been surprised at the equanimity with which universities and corporations seemed to view their future prospects as affected by the Bill, and by the small amount of alarm which they showed at its destructive tendencies. It is surely utopian to believe that the ordinary rank and file of medical students, whose time and money are not too abundant, will wish to obtain anything beyond the simple right to practise conferred by the Conjoint Board, and the purveyors of fancy qualifications would soon perish from sheer inanition under the provisions of the Bill. Sir Lyon Playfair's amendment would have prevented these risks, and his able advocacy of his views contributes, if that were possible, to increase the estimation in which he is held in the House as an able and eloquent exponent of all that is soundest and best in education and science.

I am, Sir, your obedient servant,

Reform Club, April 14th, 1885. ROBERT FARQUHARSON.

*** Dr. Farquharson's views are entitled to much respect; but he will not shake the general opinion, as well as Sir William Jenner's, that the Scotch Universities, represented in Sir Lyon Playfair's amendment, really sealed the fate of the Bill which they had previously assented to. The other opposition was unreal and confessedly obstructive; that of Sir Lyon Playfair was subtle, but fundamental and serious. We are sorry that it should have the countenance of Dr. Farquharson, who, as a most worthy alumnus of the University of Edinburgh, should not be so fearful of the interests of his *alma mater*. Does he carry his admiration of Sir Lyon so far as to justify the way in which he misled the House by conjuring up a community with an inadequate supply of medical men, by largely overstating the waste of the profession, which, on the contrary, is overstocked and underpaid?—ED. L.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS AND THE ASSOCIATION OF MEMBERS.

To the Editor of THE LANCET.

SIR,—May we be permitted through the medium of your columns to protest, on behalf of the Association of Members of the College, against the unconstitutional course of action which has been adopted by the Council of the Royal College of Surgeons of England with regard to the new Charter.

In March of last year, at the general meeting of Fellows and Members, a resolution was passed requesting "that no alteration in the constitution or relations of the College should be effected without the consent of the Fellows and Members convened to discuss such alteration." This request has recently been repeated at the College by the delegates of the Association of Fellows, but has been ignored by the Council, who have determined to forward without delay to the proper authorities the proposed alterations in the Charter, on the ground that they were, in part, submitted to the general meeting in March, 1884. If the proposed form of the new Charter had been acceptable to the profession, the Associations of Fellows and Members would not now be in existence. The Fellows and Members collectively may be said to constitute the College, and they are agreed that no Charter should be presented to the Home Secretary without their united approval. It would appear, therefore, that the Council are attempting to legislate in direct opposition to the wishes of their whole constituency.

Furthermore, according to the present Charter no meeting

of the Fellows and Members is permitted, unless the Council *approve the object of such meeting*. This monstrous infringement of the liberty of the subject has been embodied in the draft of the new Charter with only a slight alteration in the wording. It seems hardly credible in these days of freedom of the press and liberty of action that a large, intelligent, and educated body of Englishmen should be debarred from holding public meetings for the discussion of questions relating to their government, their dignity, and their interests in a country which has been immortalised by the Poet Laureate as

"The land where, girt with friends and foes,
A man may speak the thing he will."

Since the Council of the College have persistently refused to consider the interests of its Members, and have turned a deaf ear to their appeals, the Association of Members have come to the conclusion that the only remedy for the unsatisfactory state of affairs which now exists is for Members of the College to obtain the right of electing their own representatives—either Fellows or Members—to sit upon the Council. In order to effect this reform, they have determined, much as they regret the necessity for such a step, to petition the Home Secretary to refuse to grant any Charter which does not provide for the representation of Members on the Council. A petition has been drawn up, and has already been signed by nearly a thousand Members. The Association of Members have, furthermore, determined to invite all Members of the College to attend the annual general meeting of the Association for the purpose of discussing what further steps must be taken in order to obtain such reforms as are felt by the profession to be most urgently needed in the administrative department of the Royal College of Surgeons. The meeting will be duly advertised in the medical journals, and will be held on May 5th, at 4 P.M., in the Westminster Town Hall.

Trusting to the ready manner in which you have always advocated any measure for promoting the interests of the medical profession, we take the liberty of transmitting to you this protest against what we consider to be a most unconstitutional measure on the part of the College authorities.

We beg to subscribe ourselves, Sir, your obedient servants,

WARWICK C. STEELE,
J. NIELD COOK,
W. ASHTON ELLIS,
Hon. Secs. to the Association of Members of the Royal College of Surgeons.

Western Dispensary, Westminster, April 13th, 1885.

INFECTIVE PHTHISIS.

To the Editor of THE LANCET.

SIR,—With reference to that part of Dr. Weber's Croonian lecture which appeared in your impression of March 14th, which implies that the power of imparting their own properties to outsiders inherent in the infective changes that take place in the lungs of phthisical patients "has been surmised long ago, even before the history of inoculation, which dates back at least as far as 1843," allow me to observe that this "surmise" is entitled to a far higher ancestry or antiquity than is claimed for it here. I published in THE LANCET of Dec. 4th, 1880, a short note of an occurrence in point which I took from a little brochure, entitled "Cardinal Allen's Defence of Sir William Stanley's Surrender of Deventer," Chetham Society's publications, p. 69, and I find from that very accessible compilation, Copland's Dictionary, article "Tubercular Consumption," p. 1125, that "although the occasional transmission of this disease by infection was believed, not only by Galen, but also by ..... several other writers [whose names he gives], yet that 'it' [the question of transmission by infection] still remains in doubt." Whether this doubt will survive the recent discovery of a special bacillus I will not here stop to inquire. What I wish to do is to point to the fact that a belief in the infective character of "pulmonary phthisis"—be the same acute or chronic—has existed from a much earlier date than that given above. Smollett, I think it was, showed that such was the impression, in his day, in Italy and elsewhere in the south of Europe.

"There was," says Ennemoser,[1] "a universally accepted belief in ancient times that living together and breathing upon any person produced bad as well as good effects ..... and pure virgins and young children were supposed able to free persons from diseases by their breath." He quotes the case of David from the Book of Kings, Bacon, Galen, and several others in this direction, and adds that "Rudolph of Hapsburgh is said, ... when very old and decrepit, to have kissed, in the presence of their relatives, the daughters and wives of princely, ducal, and noble personages, and to have derived strength and renovation from their breath. The Emperor Frederick Barbarossa, near the end of his life, was advised by a Jewish physician to have young and healthy boys laid across his stomach instead of using fomentations; and Johannes Damascenus, or Rabbi Moses, relates that for lameness and gout nothing better could be applied than a young girl laid across the affected part."

Discussing this question from this very standpoint in 1666, Gideon Harvey, M.D., whose book, called "Morbus Anglicus, or the Anatomy of Consumption," gave rise to the name "English disease," for this ailment, after observing that "the spring is bad for consumptives," adds (p. 3) that, "considering its malignity and catching nature, it may be enumerated with the worst epidemicks, since, next to the plague, pox, and leprosy, it yields to none in point of contagion, for it is (he says) no rare observation here in England to see a fresh-coloured, lusty young man yoked to a consumptive female, and him soon after attending her to the grave. Moreover, nothing we find (he continues) taints sound lungs sooner than inspiring the breath of putrid, ulcered, or consumptive lungs, many having fallen into consumptions only by smelling the breath or spittle of consumptives; others by drinking after them; and, what is more, by wearing the cloaths of consumptives, though two years after they were left." There was, of course, exaggeration here, but even that tends to show the current of educated thought in his time, and many of his professional contemporaries held similar views.

William Salmon, whose book, entitled "A Complete System of Physick," appeared in 1686, and who was, moreover, a firm believer in the hereditary transmission of this complaint, says in his "Chapter of a Consumption," p. 278, that "contagion may also be referred hither—i.e., as a cause for sufficient security cannot (he thinks) be given for them who live familiarly with consumptive people; as we have an instance in a woman that was no way predisposed to a consumption, and yet by lying with a consumptive husband she died of one. You may (he continues) find also other instances in Riverius"; and James, whose ponderous "Dictionary" is dedicated to Dr. Mead, does not hesitate to affirm that "if the miasma of this disorder is not sufficient to induce a phthisis, it is nevertheless capable of promoting it, if there is already a disposition to it." He adds that "this doctrine is confirmed to us by some of the most celebrated physicians," and he quotes several of these in point.

I am, Sir, yours obediently,

Auriol-road, West Kensington, March, 1885. WM. CURRAN.

[1] The History of Magic, Bohn's Library, vol. i., pp. 117-18.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

THE LATE SMALL-POX EPIDEMIC IN DURHAM.

DR. BARRON, the medical officer of health for the city of Durham, refers in his report to the late small-pox visitation. A very severe epidemic of small-pox occurred during the past year; about 400 cases came to the knowledge of the sanitary authority, of which 31 proved fatal. Dr. Barron remarks: "So far as I have been able to discover, the majority of those who died from the disease had never been vaccinated, and of the rest none have been vaccinated since infancy." "One result of the epidemic," Dr. Barron says, "has been to show that a large proportion of the community escaped vaccination," which points to a more stringent carrying out of the Vaccination Acts as a necessity in the future. Dr. Barron says that the epidemic, which began early in March, caused little alarm until the end of September, when it began to assume serious proportions. There was no hospital for the isolation of cases. The sanitary authority and the people themselves seemed blind to the impending danger; it was not until the alarming spread of the disease in October began to cause a wide-spread panic that the county magistrates came forward with the offer of the barracks as a temporary hospital, and the good that has resulted from this public-

spirited step no one will venture to deny. Dr. Barron, in his valuable and timely report, urges upon the authority to no longer hesitate in providing a permanent hospital for the reception of infectious cases, and he points out that the free gift by the Chapter of Durham of a site whereon to build this hospital lessens the difficulties which formerly stood in the way, and he further points out that it would be a great assistance in the stamping out of infectious diseases if the authority provided themselves with a disinfecting chamber fitted with the necessary apparatus for the disinfection of bedding, clothing, and other articles, and urges also the need of providing a mortuary, which he has frequently recommended to their notice.

MIDDLESBROUGH DISTRESS AND THE DEATH-RATE.

At the last meeting of the Middlesbrough Town Council the high death-rate of the borough came under consideration and the medical officer of health, Dr. Malcolmson, said that the death-rate of the town was increased in a marked degree by illness amongst young children, to a great extent having its origin in destitution. He said that in many of the houses there was not a single blanket, and many of the children had not a single article of flannel underclothing, besides being very insufficiently fed. He was asked if he could suggest any remedy, and he at once said that providing each child with a quart of milk daily, some flannel underclothing, and a blanket at night would tend more than anything else he could suggest to a diminution of the death-rate.

MUNIFICENT BEQUEST OF A DURHAM COAL-OWNER.

I have before mentioned the benefactions of Mr. John Eden of Beamish-park, Durham, to the Durham County Hospital Building Fund. This gentleman, who was an extensive owner of coal royalties, and possessed of immense wealth, died on the 4th ult. at his town residence, Winlaton-crescent, London, at the advanced age of ninety-one, and it has transpired that he has left a legacy of £10,000 to the Durham County Hospital.

THE MEASLES EPIDEMIC AT SUNDERLAND.

The medical officer of health for Sunderland, in his fortnightly return of the mortality in the town, states that during the past fortnight there were 193 deaths, or a rate of 40 per 1000 per annum, against 216 deaths in the preceding fortnight. He (Mr. A. E. Harris) further states that during the past two weeks there were 63 deaths from measles and 33 from diseases of the respiratory organs, or a total of 96.

ALNWICK INFIRMARY.

The many friends of Dr. Brown, late house-surgeon of the Alnwick Infirmary, left in the north will be happy to know that he has obtained the appointment of surgeon to the Red Cross, or National Aid Society for the Sick and Wounded in War. Dr. Brown is already on his way to Cairo, to enter on his duties; and it is certain that he will be accompanied in his mission and work with the best wishes of all who had the pleasure of his acquaintance.

Newcastle-on-Tyne, April 14th.

EDINBURGH.

(From our own Correspondent.)

A NEW LABORATORY.

AT a recent meeting of the Royal College of Physicians it was decided to establish a laboratory for experimental work in connexion with the College Library and Hall in Queen-street. The plan that is to be carried out will certainly place great facilities for original work at the disposal of the Fellows. The laboratory is to be fitted with all modern improvements in the way of scientific apparatus and the usual requisites, and the services of a skilled assistant are to be constantly at the disposal of any intending workers. This arrangement will afford, even to those engaged in busy practice, the opportunity of working up cases of special interest, for a few hours' notice to the assistant will suffice to place every requisite in readiness for their use; and the sacrifice of time usually necessary for the arrangement of minor details will thus be entirely obviated. The project is an admirable one, and will doubtless be carried out in a manner not unworthy of a body which maintains one of the largest and best appointed medical libraries in the world; and it can apply the large fund at its disposal to no more beneficial and praiseworthy purposes than these.

ERECTION OF A BOARD SCHOOL AND PUBLIC BATHS.

One of the oldest and most sacred objects of medical interest in Edinburgh has suddenly and silently vanished. The old infirmary of Monro Primus and of Provost Drummond, which till within the last few weeks has stood empty and forlorn, though very picturesque, has succumbed to the reforming efforts of an energetic Town Council and is making way for a large Board-school and handsome public baths. The latter especially have long been a great desideratum in Edinburgh, and the proposed structure will do much towards satisfying the requirements of the city in this respect. Commodious swimming and plunge baths are to be provided, and two extensive public laundries are to be attached to the premises; these will be a great boon to the crowded population of the district in which the building is to be constructed. Although one is bound to rejoice in the material advantages which the alterations will effect, one can but feel a pang at parting with the quaint old building where the fame of Edinburgh as a medical school was made, and where the vivid recollections of so many find a centre. Nor is it only to old students of the Edinburgh school that this building has a special interest: an even wider circle think with a touched interest of the scene where the saddest and most thrilling part of "Rab's" career was enacted. It is fortunate that in this case the hand of change brings with it little of a real desecration.

WORK AT THE MEDICO-CHIRURGICAL SOCIETY.

At the meeting of the Medico-Chirurgical Society held on April 1st several cases of considerable interest were exhibited. Mr. Joseph Bell showed a patient from whom he had removed the whole of the os calcis and a portion of the astragalus subperiosteally, the insertion of the tendo Achillis being preserved. The whole of the removed bone has been replaced by osseous growth from the periosteum, and a useful foot with normal movement at the ankle has been the result. Mr. A. G. Miller exhibited a patient suffering from ununited fracture of the scapula. The case was one of a severe railway injury, and there were complications in the shape of a dislocation of the shoulder joint and fractures in other parts of the body. The fracture of the scapula was recognised at the time of the accident, but the patient absolutely refused to submit to any retentive treatment. The symptoms which are present furnish some points of great interest in regard to a differential diagnosis. In one position of the parts the fracture closely simulates subcoracoid dislocation; there is flattening of the shoulder, and a slight forward bulging is seen immediately below the coracoid process. The distortion can, however, be completely removed by drawing the elbow upwards, and during this movement the tip of the coracoid process itself is felt to glide in an upward and inward direction. Whether the limb be in the distorted or in the natural position, the patient can perform all normal movements at the shoulder-joint. The movement of the coracoid process shows that it is involved in the fracture, and the diagnosis arrived at is that of a fracture of the surgical neck of the scapula, with stretching of the coraco-clavicular ligaments; the line of the fissure running through the supra-scapular notch and separating the coracoid process along with the glenoid cavity, as was described by Sir Astley Cooper. Mr. Joseph Bell showed a number of gall-stones removed by operation from an ulcerated gall-bladder, which communicated by a sinus with the external abdominal wall. Dr. Littlejohn, the president of the Society, exhibited a preparation of the air passages from a case of carbonic oxide poisoning, which illustrated the great congestion of the mucous surfaces present in that condition. Dr. R. Milne Murray then read his paper on the "Cessation of Respiration under Chloroform and its Restoration by a New Method." The paper was based on some important observations that he has made recently upon the administration of chloroform to rabbits. By means of an ingenious contrivance, Dr. Murray was able to regulate exactly the strength of the chloroform vapour which the animals inhaled. The effects on the respiration were recorded by a new method, in which a manometric recorder, indicating equal increments of pressure by equally increased excursions of the recording style, was substituted for the ordinary tambour recorder, which, after a certain degree of pressure is arrived at, fails in that respect. The readings from the recording apparatus were neatly mounted

for exhibition, and by passing them round amongst the members present many of the most important parts of the paper obtained remarkably clear illustration and confirmation. One point of great practical importance indicated by these graphic methods was that in deep narcosis the respiratory heavings of the thoracic walls may go on to all appearance perfectly, and yet absolutely no vapour enter or leave the chest. Dr. Murray considers this condition to be one of respiratory incoördination, the motor coördinating centre being affected, resulting in a "respiratory stammer," in which, although the thoracic walls rise, there is no depression of the diaphragm, but a contraction of the abdominal muscles, which nullifies the effect of thoracic expansion. As a result of his experience in cases of suspended respiration from the use of chloroform, Dr. Murray strongly insists on the importance of withdrawing the chloroform vapour from the lungs before commencing to introduce pure air. He advocates the introduction of a tracheal catheter in the human subject in such cases, and the removal by suction of as much of the vapour as possible before inducing artificial inspiration by the ordinary means. In rabbits he found that where this method was adopted resuscitation could be achieved even after a prolonged suspension of respiration, whereas were the ordinary means adopted, a successful issue was rarely attained.

IRELAND.

(From our own Correspondent.)

VISIT OF THE PRINCE OF WALES.

THE honorary degree of Doctor of Laws of the Royal University of Ireland was conferred on His Royal Highness last week; and on the same occasion the Princess of Wales received the honorary degree of Doctor of Music. At the University of Dublin an illuminated address was presented by the Senate of the University, and, at the request of His Royal Highness, the provost granted the undergraduates a term. Of the numerous addresses presented, I shall merely allude to those from the Royal College of Surgeons, the College of Physicians, and the Academy of Medicine. The address from the College of Surgeons alluded to the foundation of that institution by Royal Charter granted by George III., and stated that the College, unswerving in loyalty, uninfluenced by political or sectarian feeling, had never relaxed its efforts efficiently to discharge the trust confided to it by improving the profession, and thus promoting the welfare of the nation at large, and particularly by providing a sufficient number of properly educated surgeons, as well for the public in general as for the army and navy. The College of Physicians in their address referred to the satisfaction the visit of the Royal Family had produced, and alluded to the favour the Prince had always extended to their profession, as shown by the interest he had displayed in its efforts for the advancement of medical science and the preservation and improvement of the health of the nation.

HONOURS FOR THE MEDICAL PROFESSION.

It has been suggested that during the visit of the Prince of Wales to Ireland an opportunity will arise for the recognition of the long-deferred claims of the medical and surgical members of the profession in Dublin to the bestowal of honours by the Crown. Since the days of Sir Philip Crampton and Sir Dominic Corrigan, no surgeon or physician in this country has received a share of the numerous baronetcies bestowed by the Government; and this neglect has been a grave source of regret, as appearing to mark their inferiority as regards their English and Scotch brethren. It would be invidious for me to mention names, but there are several, both medical and surgical, who are eminently qualified for the honour in question.

RICHMOND DISTRICT LUNATIC ASYLUM, DUBLIN.

In the report of this asylum for the past year, Dr. Lalor, the resident physician, states that he has been enabled lately to carry out a useful measure in the separation of the epileptic from the general insane, and the grouping of a comparatively small class, consisting of them and the very aged and infirm, in a building to themselves, with access to the recreation rooms. Although the arrangement has only been a short time in operation, the beneficial results of the change have been acknowledged. The total cases under treatment during 1884 were 1519, the daily average being 1068; and it is interesting to note as an indication of the method of treatment that the daily average of patients employed in one way or another was 860.

RETIREMENT OF DR. BRODIE, LOCAL GOVERNMENT BOARD INSPECTOR.

At a meeting of the Poor-law medical officers of the Cork district, held on the 4th inst. at the Royal Cork Institution, Dr. Wycherly, J.P., High Sheriff, in the chair, the following resolution, proposed by Dr. O'Callaghan and seconded by Dr. Golding, was adopted:—"That the Poor-law medical officers of the Cork district cannot permit Dr. Brodie to sever his connexion with them without testifying in a proper manner their appreciation of his character as an inspector; that the necessary steps be taken to present Dr. Brodie with an address and testimonial on his retirement; and that Dr. Donovan be requested to act as secretary, and Dr. O'Connor, jun., as treasurer." Several who were unable to be present at this meeting have expressed their intention to co-operate in the movement.

ALEXANDER MEMORIAL PRIZE.

The triennial prize, founded in memory of the late Dr. Alexander, Director-General of the Army Medical Department, consists of a gold medal value £10, with £50 in money, and is open to competition by officers of the Army Medical Staff. This year it was gained by Surgeon John Martin, who is now in Egypt, for his essay on "Antiseptic Surgery, and its Application in Military Hospitals and in the Field." It is very creditable to Surgeon Martin, who is a native of Cork and received his professional education at the Queen's College, that this is the second occasion upon which he has obtained this distinction, the subject of his former essay having been "On the Influence of Drinking-water in causing Enteric Fever and Cholera."

Dublin, April 14th.

PARIS.

(From our Paris Correspondent.)

DEATH OF A LADY DOCTOR.

THE death of Mrs. Emilie Bovell-Sturge, Doctor of Medicine of the Faculty of Paris, and Officier d'Académie, occurred at Nice on the 2nd inst. Mrs. Bovell-Sturge began to study medicine at Edinburgh in 1871, but finding the way to successful study barred there, she went to Paris in 1873, where she took her degree in 1877. The subject of her thesis was "Les Phénomènes congestives consecutives aux Attaques de l'Epilepsie et de l'Hystéro-Epilepsie," for which she was highly complimented. After having obtained the Doctorate of Paris, she went to London to commence practice, and there married Dr. Allen Sturge. Soon after this she was appointed physician to the new Hospital for Women in the Marylebone-road, which post she held till she was compelled to leave London on account of her health, in October, 1881, when she was accompanied by her husband to Nice, where they both settled in practice. She has read papers at the Congrès d'Hygiène at Paris in 1878, on the Improved Industrial Dwellings in London; at that of the Hague last year on the method employed in England for dealing with the question of Pauper Children; and before the Société Médicale de Nice on "Some Points in the Pathology of Fibroid Phthisis." Mrs. Bovell-Sturge very modestly limited the sphere of her work to the diseases of women and children, without disconnecting herself from questions of general professional interest.

THE FRENCH SURGICAL CONGRESS.

The first Congrès Français de Chirurgie, which took place at Paris from the 6th to the 12th inst., was presided over by Professor Trélat. Before entering into the technical objects of the meeting, a discussion took place as to whether other cities than Paris could not be selected in rotation for the seat of the meeting. It was decided that Paris should be the constant *locale* of future congresses. Another question arose as to the period of the annual meeting, as that at which it has just taken place has for many reasons been found to be particularly inconvenient. It has therefore

been decided that it should be held in the second fortnight of October of each year. M. Trélat then addressed in neat terms a welcome to the foreign visitors, and passed in review the various discoveries which have actually renovated surgery, and given it an impetus which has been taken advantage of for the last twenty years. In doing this he recalled the discoveries of anæsthesia and of antisepsis, with which he connected the honoured names of Pasteur, Lister, and Alphonse Guérin. He showed that, thanks to these conquests, the limits of surgery have been considerably extended, and that the rightful claim of surgery to be an art based on science has been fairly established. He then inquired as to whether in this renovation and rapid extension, in which nations and individuals have made such gigantic strides, French surgery has in any way lost the high reputation it has hitherto held among other nations. The answer of course would be in the negative. In looking over the subjects that were discussed at the Congress, I cannot say that there has been anything particularly new or important brought forward.

THE INTERNATIONAL CONGRESS OF HYDROLOGY AND CLIMATOLOGY.

To your note in THE LANCET of last week on the International Congress of Hydrology and Climatology, which is to be held at Biarritz in October, 1886, I may add that for the sum of 12 francs anyone may become a member. Application should be accompanied by a post-office order for the above sum, which will entitle each member to—(1) the documents relative to the different sections of the Congress, to the subjects that will be brought before it, and to a detailed plan of the excursions; (2) a card giving members the right to travel by rail to Biarritz at a reduced fare of 50 per cent.; (3) a memorandum giving a detailed account of the price of lodgings, &c. The Committee of Organisation particularly requests that those desirous of becoming members should make known their intention as soon as possible. Further information may be obtained from Dr. Durand-Fardel of Paris, or from Dr. Garrigou of Toulouse.

Paris, April 14th.

MEDICAL NOTES IN PARLIAMENT.

The Lunacy Acts Amendment Bill.

OWING to the absence of the Lord Chancellor from the House of Lords this week, in consequence of the decease of the Countess of Selborne, the second reading of the Lunacy Acts Amendment Bill has been postponed until Tuesday next.

On Monday, the Burgh Police and Health (Scotland) Bill was read a second time.

Over-pressure in Elementary Schools.

In the House of Commons on the 13th inst., Mr. Talbot moved an address to the Crown praying that a larger proportion of the grant now given to public Elementary Schools should be allotted in the form of a fixed payment on average attendance. By this distribution of the grant he contended that over-pressure in elementary schools would be prevented. Mr. R. Paget seconded the motion, which was strongly opposed by Sir L. Playfair, who asserted that its effect would be to increase the remuneration of bad schools and to decrease the payments for good schools. After some remarks from Lord G. Hamilton, Mr. Forster, and Mr. J. A. Campbell, Mr. Mundella maintained that to secure good teaching there must be some testing of results, and this could only be done by individual examination. There was no new departure in the Code, and no Code had ever been so threshed out as this. It had received universal assent, and, whatever its defects, more thorough work was being done and better grants were being earned under it than under any previous code. In like manner, he contended payment by results had secured good teaching without interfering with freedom of action on the part of teachers and managers. He dwelt upon the large and increasing sums annually spent on education, and contended that State aid must be administered under State control. As to over-pressure the weight of evidence was, he stated, all the other way. On a division the motion was negatived by 117 to 53.

The Contagious Diseases Acts.

On the 14th inst., in reply to Mr. Bulwer, who asked the Secretary for War whether it was a fact that the number of soldiers serving at home admitted to hospital for venereal disease had during the past year largely increased and was still increasing, and whether he had any objection to lay upon the table of the House a return similar in form and detail to, and in continuation of, that presented to the House on the 3rd of March, 1884, showing the number of soldiers admitted to hospital for venereal disease since the end of the year 1883, Sir A. Hayter stated that there has been an increase of admissions to hospital for the cause referred to in the districts formerly protected from 110 per 1000 in 1883 to 135 per 1000 in 1884. The return in continuation of that presented in 1884 would be given if moved for.—Mr. Cavendish-Bentinck asked whether in the return about to be laid upon the table the War Office will distinguish between the various forms of venereal disease, so as to show the proportions in which the soldiers have been affected during the past year, and on this point Sir A. Hayter promised to make inquiry.

Medical Officer of Health for Cheltenham.

On Thursday, Mr. J. Campbell having asked the Secretary of the Local Government Board if he could state the result of his inquiries into the circumstances of the recent appointment of a medical officer of health by the Town Council of Cheltenham, Mr. G. W. E. Russell said he had obtained further particulars as to the appointment of Mr. Roch. It was true that when he was appointed he had a surgical qualification only. The regulations of the Board require that unless they dispense with the requirement, a medical officer of health shall possess both a medical and surgical qualification, and in the case of a borough such as Cheltenham they would not have consented to the office being held by a medical man with one qualification only; but Mr. Roch, about three weeks before the date when he was to enter upon his duties, obtained the requisite medical qualification. The Town Council, when this further qualification had been obtained, ratified the election by formally applying to the Board to dispense with the requirement referred to, so far as was necessary, in consequence of Mr. Roch not actually possessing at the time of the election the double qualification. The Board had complied with their request, and have sanctioned the appointment.

Obituary.

EDWARD WELLS, M.D. OXON.

WE regret to have to record the death of Dr. Wells of Reading, senior physician to the Royal Berkshire Hospital. Till three weeks ago Dr. Wells was fully engaged in the active duties of his profession, and it was hoped that a change to the Isle of Wight and rest from arduous duties would restore his broken health. He graduated at Oxford in 1840, and was Radcliffe travelling fellow of the University. After three years' professional study on the Continent he settled at Reading, in succession to the late Dr. Smith, father of the well-known Goldwin Smith. As physician to the Reading Hospital and Dispensary he was much beloved by the poor. Among his professional brethren he was highly esteemed, not in the town only but throughout Berkshire, and had accorded to him very rightly the honourable position of the principal consulting physician in the county. His education at Winchester and Oxford gave him many friends of position, but it was chiefly his gentle and pious nature which endeared him so much to his professional brethren and all who had the advantage of his acquaintance.

EDWARD DAVY, M.R.C.S.

ON January 26th, the death occurred at Malmesbury, Australia, of Mr. Edward Davy, whose name has been recently before the public as the discoverer of the "relay" system, which had an important influence in the development of the electric telegraph. Born at Ottery St. Mary, Devon, in 1806, he studied at St. Bartholomew's Hospital, obtained the licence of the Society of Apothecaries in 1828, and became a Member of the Royal College of Surgeons in 1829. He then commenced the practice of his profession; and it was not until 1836 that he first experimented in electric telegraphy. Mr. Fahie's articles in the *Electrician*

in July and August, 1883, and his "History of Electric Telegraphy," published by Spon (London) last year, do ample justice to Mr. Davy's early inventions and their importance in developing the practical use of electric telegraphy. In 1839 Mr. Davy emigrated to South Australia, going out in medical charge of an emigrant vessel. He contemplated pastoral pursuits, but soon abandoned the idea, and in 1843-45 was engaged as editor of the *Adelaide Examiner*. In 1848 he undertook the management of the Yatala smelting works. In 1852 he took charge of the Government Assay Office in Adelaide, and in 1853 he organised and took the management of a similar establishment in Melbourne. The Assay Department was at the end of the following year abolished, and Mr. Davy removed to Malmesbury, where the remainder of his life was spent. He took an active part in local affairs, was for many years a member of the borough council, was several times mayor, and was for more than twenty years an active justice of the peace.

GEORGE SANKEY, M.R.C.S., L.S.A.

WE regret to record the death of Mr. George Sankey, one of the most honoured and respected members of the profession in Maidstone. Mr. Sankey had been in failing health for some months, and was advised to take a voyage to Australia to recruit his strength. He started from Gravesend in the *Chimborazo* on January 8th, and experienced very rough and cold weather, owing to which an attack of pneumonia demonstrated itself, and death resulted during the passage of the ship through the Red Sea.

Mr. Sankey received his medical education at St. Thomas's Hospital. He became a member of the Royal College of Surgeons and licentiate of the Apothecaries' Society in 1854. He was appointed senior surgeon of the Army Works Corps in the Crimea, and on his return to England settled in Maidstone, where he rapidly acquired a large practice. In 1870 he was appointed surgeon to the West Kent General Hospital, and after holding this important office for twelve years became consulting surgeon, which post he held till his death. His sterling integrity won for him a large circle of friends amongst his professional brethren and the general public.

Medical News.

PRINCESS CHRISTIAN, of Schleswig-Holstein, paid a visit on the 15th inst. to the London Hospital.

THE fund raised up to the present time for the erection of a hospital at Port Said, as a national memorial to General Gordon, amounts to between £14,000 and £15,000.

NORTH-EASTERN HOSPITAL FOR CHILDREN.—The Princess of Wales will open a bazaar on behalf of the funds of this hospital on June 24th next, at the Cannon-street Hotel.

VACCINATION GRANTS.—Dr. Newham, of Winslow, (ninth time), and Dr. P. L. Benson, of the Buckingham Union, have received the Government grants for successful vaccination.

MR. FRANCIS WICKSTEED, M.R.C.S., L.S.A., Consulting Surgeon to the Weston-super-Mare Hospital, has been elected by the ratepayers a Member of the Weston Local Board of Health.

ROYAL COLLEGE OF SURGEONS.—The Library of this institution will be closed on Tuesday next, the 21st inst., owing to the large number of candidates who have entered their names for examination for the diploma of Membership of the College, amounting, we are informed, to 270.

THE WATER-SUPPLY OF LINCOLN.—An exhaustive report in reference to the water-supply of Lincoln has been presented to the corporation of the city by Dr. Harrison, the medical officer of health. The conclusions at which he arrives are:—(1) That the water, after filtration, as supplied, contains an excess of organic matter, making it only a second-class water. (2) That the sources of the water are polluted by drainage from land highly cultivated and occasionally manured with nightsoil; water from such a source is dangerous. (3) That the quantity available is not sufficient for the wants of the city. (4) That the filter-beds are capable of filtering more than a million gallons daily. (5) That it is not advisable to take the water from the River Witham for the supply of the city.

LARGE BEQUESTS TO HOSPITALS.—A bequest of £10,000 has been made to the Durham Infirmary by the late Mr. J. Eden, of Beamish-park, near Durham.—The late Captain Perry, of the Wergs Hall, has left £5000 to the Wolverhampton and Staffordshire General Hospital, and £250 to the Wolverhampton Eye Infirmary.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.—The Prince of Wales has consented to open the new building attached to this hospital during the month of June next. The new hospital, of which the west block forms a memorial to the late Duke of Albany, has been erected at a cost of nearly £80,000, of which all but a balance of £6500 is provided.

SEWAGE WORKS AT BUXTON.—On the 9th inst., the new sewage works, which have been recently erected at Buxton at a cost of about £4000, were formally opened. The works have been constructed for the purpose of treating the town sewage by precipitation with iron-water and lime, the iron-water being conveyed from a disused colliery at the foot of the Axe Edge hills.

GLASGOW UNIVERSITY MEDICO-CHIRURGICAL SOCIETY.—At the annual business meeting of this Society, the following were elected office-bearers for next session:—Honorary President: Professor Leishman, M.D. President: John Macphail. Vice-Presidents: Senior, John H. Carslan, M.A.; Junior, Basil J. Adam. Secretaries: Corresponding, William H. Fergus; Minute, Henry J. Younger, M.A. Treasurer: Arthur D. Hughes. Librarian: William B. Leishman.

SEAMEN'S HOSPITAL SOCIETY.—At a recent quarterly court of the governors of this Society, the Committee reported that the drainage works, now being carried out for the purpose of placing the building in a sanitary condition, are progressing favourably, while the chapel is completed externally. To meet this expenditure the committee have been obliged to sell a further £2000 worth of stock, and contributions in aid of the special fund for drainage improvements and the chapel are urgently needed.

NEW WORKHOUSE FOR THE HOLBORN UNION.—On the 14th inst., the foundation-stone of a new workhouse for the Holborn Union was laid by Mr. Garrod, chairman of the Board of Guardians. The building will accommodate 1000 able-bodied poor, and is to take the place of the recently demolished workhouse in the Farringdon-road, and the institution in Gray's-inn-road, which it is expected will in a short time be condemned. The new erection is situated near Tooting, and is estimated to cost £65,000, which will include the furnishing.

IN MEMORIAM: SAMUEL RABBETH.—A handsome brass tablet to the memory of the late Samuel Rabbeth, M.B., was on Saturday last placed by the Committee of Management in the inquest-room of the Royal Free Hospital. The tablet bears the following inscription:—"This tablet has been erected by the authorities of the Royal Free Hospital (Gray's-inn-road) and the medical staff to the memory of Samuel Rabbeth, M.B., M.R.C.S., senior resident medical officer of this hospital, who sacrificed his own life in the endeavour to save that of a little child, a patient under his care. Died October 20th, 1884; aged twenty-six years."

UNIVERSITY OF OXFORD.—The Regius Professor of Medicine has given notice that Examinations for the degree of Bachelor of Medicine will commence in the Medical Department of the Museum as follows:—The second (or final) examination, Monday, June 8th, at 10 A.M.; the first (or scientific) examination, Friday, June 19th, at 10 A.M. Candidates for either of these examinations are requested to send in their names on or before May 23rd, to "the Regius Professor of Medicine, Medical Department, Museum, Oxford." Candidates for the Scientific Examination are to state whether they have passed the Preliminary Honour Examination in the School of Natural Science; and, if not, whether they desire to present themselves for Physics and Chemistry only at this examination, or for all the subjects thereof.

DEVONSHIRE HOSPITAL AND BUXTON BATH CHARITY. At a meeting of the Committee of Management of this institution held on the 4th inst., it was stated that during the three months ending the 31st ult., 336 in-patients were admitted, or within two of the number admitted during the corresponding quarter of the previous year. The number of out-patients treated was twenty-two. The receipts were larger than in the corresponding quarter of last year, but it was found necessary to draw £500 from the reserve fund to defray the cost of the reconstruction and repairs of the inadequately completed works of the hospital extension.

SHOCKING OCCURRENCE IN A FRENCH HOSPITAL.—On the 7th inst., one of the fever patients at the Tenon Hospital was suddenly seized with a fit of raving madness, and escaped on to the roof of the building, whence an attendant who had followed him endeavoured to compel him to return. A desperate struggle ensued, but the patient broke away and jumped to the ground, where he was afterwards found frightfully mutilated and inanimate. The attendant only saved himself from the same terrible fate by clinging with one hand to the stack-pipe until he was rescued by his companions.

LUNACY IN LANCASHIRE.—From a return just issued by the clerk to the Rainhill Asylum, it appears that there were on January 1st last 8178 pauper lunatics, idiots, and persons of unsound mind in Lancashire. Four classes of persons furnish very nearly one-fifth of the whole number of asylum inmates viz., factory operatives 268, labourers 243, domestic servants 184, and housekeepers 456, making a total of 1151. The highest percentage of lunacy occurs in the Manchester Union, being 4·025 per 1000 of the population on the census of 1881; and the lowest occurs in Barrow, where it is 740.

INFIRMARY NURSES AND MEDICAL TEACHING.—A few months back, at the request of Dr. Neale, the Board of Guardians for the Wandsworth and Clapham Union voted a sum of money for the purchase of a skeleton and physiological diagrams, in order that the nurses of the infirmary might receive physiological instruction. On the 9th inst., at the close of the ordinary business of the board, Dr. Neale stated that he had given some twenty demonstrations to the nurses, who had attended well and taken an intelligent interest in the lessons. He had held a written examination, and both himself and Dr. Wilson were surprised at the proficiency shown by the pupils. The examination was a severe one, and both in that and practical work, such as bandaging &c., the nurses had made remarkable progress. Prizes were then presented to the four candidates who were most successful in the examination.

NORTH-WESTERN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—At the monthly meeting of the members of this Association, held on the 9th inst., a resolution was proposed by Dr. Vacher (hon. sec.), seconded by Dr. Kenyon (Chester), and carried, expressing regret that the medical officer of health of St. Pancras (Mr. Murphy) had felt himself compelled to resign his post "in consequence of the hostility of certain members of his vestry rendering it impossible for him to carry out his duties conscientiously and impartially," and asking for the intervention of the Local Government Board, to prevent the loss of this gentleman's services.—Dr. Hime then delivered his inaugural address, which was mainly devoted to the subject of cholera bacillus. He illustrated his remarks by mounted specimens of the bacillus placed under the microscope, and a short discussion followed.—A paper on "The Tenure of Office by Medical Officers of Health" was afterwards read by Mr. J. E. Phythian.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

ABBOTT, C. E., M.R.C.S.E., L.K.Q.C.P.I., has been reappointed Medical Officer of Health for the Braintree Rural Sanitary District.

ALLOTT, JAMES H. L., M.B., C.M.Ed., has been appointed House-Surgeon to the Dewsbury and District General Infirmary, Dewsbury.

ASHE, WM. CONYNGHAM, L.R.C.S.I., has been appointed Medical Officer to the Newcastle Hospital, New South Wales.

BATTEN, JOHN, L.F.P.S.Glas., L.R.C.P.Ed., has been appointed Medical Officer for the Church Eaton District of the Cannock Union, vice Baddeley, resigned.

BROWN, JAS. WM. H., L.R.C.P.Ed., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the West District of the Holbeck Union, vice Dobson, deceased.

CLIFFORD, WILLIAM, L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer to the Adare Dispensary, vice Shanahan, resigned.

COOPER, ARTHUR, M.R.C.S., has been appointed Surgeon to the Westminster General Dispensary, vice Barron, resigned.

FORBES, ARMITAGE, L.R.C.P.Ed., L.R.C.S.I., has been appointed Government Medical Officer and Public Vaccinator for the Tweed River District, New South Wales.

HAWKINS, FRANCIS HENRY, M.B.Ed., &c., has been appointed Assistant Physician and Registrar to the Hospital for Epilepsy and Paralysis, Portland-terrace, Regent's-park.

HEATH, JAMES, M.B.Ed., has been appointed Senior House-Surgeon to the Torquay Hospital, Torquay, vice Thistle, resigned.

MURRAY, CHAS. STORMONT, F.R.C.S.I., L.S.A.Lond., has been appointed Administrator of Anæsthetics, Samaritan Free Hospital.

O'REILLY, WALTER W. JOSEPH, M.D., M.Ch.Dub., M.R.C.S., has been appointed Honorary Physician to the Sydney Hospital.

WARDLE, MARK ANTHONY, L.R.C.P., L.R.C.S.Ed., has been appointed Medical Officer for the Bishop Auckland District and Workhouse, Auckland Union, vice Hutchinson, deceased.

WHITTON, THOS. BAIN, M.D., L.R.C.S.Ed., has been appointed Surgeon to the Reefton Hospital, New Zealand.

YARROW, GEO. EUGENE, M.D.Heid., M.R.C.P.L., M.R.C.S., has been appointed Medical Officer for St. Luke's Parish, Holborn Union.

Births, Marriages, and Deaths.

BIRTHS.

BREWER.—On the 11th inst., at "Cairn," Richmond-road, E., the wife of A. H. Brewer, L.R.C.P.L., &c., of a daughter.

DUKE.—On the 10th inst., at Locksley, Freshwater, Isle of Wight, the wife of Edgar Duke, M.R.C.S.Eng., L.S.A.Lond., of a daughter.

DUNCAN.—On the 11th inst., at 6, Harley-street, Cavendish-square, W., the wife of William A. Duncan, M.D., F.R.C.S.Eng., of a daughter.

FINLAY.—On the 1st inst., at Montagu-street, Portman-square, W., the wife of David W. Finlay, M.D., M.R.C.P., of a daughter.

PEARCE.—On the 8th inst., at The Manor House, Brixton-rise, S.W., the wife of Chaning Pearce, M.D., of a son.

POWELL.—On the 10th inst., the wife of R. Douglas Powell, M.D., F.R.C.P., of a son.

UHTHOFF.—On the 7th inst., at Western-road, Hove, Brighton, the wife of John Caldwell Uhthoff, M.D., of a daughter.

MARRIAGES.

BRUCE—COLLINGRIDGE.—On the 8th inst., at St. Mary's, Hornsey, by the Rev. F. H. Dalby, M.A., brother-in-law of the bridegroom, assisted by the Rev. J. Jeakes, M.A., Rector of the Parish, Robert Bruce, M.R.C.S., of the City-road, E.C., to Emma, the second daughter of William Hill Collingridge, of Hornsey, N.

DEANE—PLANCK.—On the 2nd ult., at Holy Trinity Church, Allahabad, India, by the Rev. A. O. Hardy, M.A., Andrew Deane, M.D., F.R.C.S.I., Surgeon-Major Bengal Medical Service, Civil Surgeon, Cawnpore, N.W.P., to Lilian Annie, only daughter of Chas. Planck, F.R.C.S.E., Deputy Surgeon-General Bengal Medical Service, Sanitary Commissioner and Inspector-General of Vaccination, North-west Provinces and Oudh.

HUMPHREYS—SPOTTISWOODE.—On the 8th inst., at St. Mary's, Oatlands, Francis Rowland Humphreys, L.R.C.P., &c., of Queen's-crescent, Haverstock-hill, to Cecilia Mainie Spottiswoode, youngest daughter of the late Major-General Spottiswoode, 37th B.N.I.

PENNY—TAIT.—On the 7th inst., at St. Mark's, Tollington-park, Dr. Charles Hall Penny, of Enfield, to Emily Mary, daughter of the late Greville Ewing Tait, M.R.C.S., and granddaughter of the late Rev. A. S. Acheson, Rector of Teigh, Oakham.

PLUCKER—KIRKPATRICK.—On the 7th inst., at the Church of the Resurrection, Brussels, Theodore Plucker, M.D., Professor of the University of Liège, to Mary Eliza Caroline, eldest daughter of W. H. Kirkpatrick.

STORRY—SCOTT.—On the 8th inst., at St. Thomas's, Haverfordwest, by the Rev. G. C. Hilbers, assisted by the Rev. J. Popkin Morgan, cousin of the bride, Frederick William Storry, M.R.C.S., of Stroud, Gloucestershire, eldest son of Edwin Storry, of Howden, Yorkshire, to Beatrice Eliza, second daughter of the Rev. William Scott, Vicar of Slebech and Minwere, and late Head Master of Haverfordwest Grammar School.

TIRARD—BELOE.—On the 8th inst., at Holton St. Peter, by the Rev. Henry Ryder Ware, uncle of the bride, Nestor Isidore Charles Tirard, M.D.Lond., Professor of Materia Medica, King's Coll., Lond., to Helen Mary, second daughter of the Rev. Robert Seppings Beloe, Rector of Holton St. Peter, Suffolk.

DEATHS.

SMITH.—On the 12th inst., at Greenhill, Weymouth, William Johnson Smith, M.D., aged 72.

TIBBITS.—On the 14th inst., at Bradford, Yorkshire, E. T. Tibbits, M.D., London, fourth son of Thomas Tibbits, 29, Burlington-road, Clifton, aged 45.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

BOOKS ETC. RECEIVED.

APPLETON & Co., New York.

The Story of My Life. By J. Marion Sims, M.D., LL.D. Edited by his Son, Dr. H. Marion Sims. pp. 471.

A Manual of Dermatology. By A. R. Robinson, M.B., &c. pp. 647, with 88 Illustrations.

BAILLIÈRE ET FILS, Paris.

Nouveau Dictionnaire de Médecine et de la Chirurgie Pratiques. Tomes xxxvi., xxxvii. pp. 847—907.

Leçons Cliniques sur les Maladies des Voies Urinaires. Par Prof. Félix Guyon. Deuxième Edition, revuée et augmentée. pp. 1084, avec 49 Figures.

BAILLIÈRE, TINDALL, & COX, London.

On Bronchial Asthma (Lettsomian Lectures.) By J. C. Thorowgood, M.D. Second Edition. pp. 91.

The Student's Guide to the Medical Profession. By C. B. Keetley, F.R.C.S. Second Edition. Edited by the Author and Robt. Wharry, M.D. pp. 122.

BLAKISTON, SON, & Co., Philadelphia.

Transactions of the American Surgical Association. Edited by J. Ewing Mears, M.D. Vol. II. pp. 531, with Illustrations.

CHURCHILL, J. & A., London.

The Student's Guide to Clinical Medicine and Case-taking. By Francis Warner, M.D.Lond., F.R.C.P. Second Edition. pp. 211.

The Pharmacopœias of Twenty-five of the London Hospitals. By Peter Squire. Fifth Edition, revised by P. W. Squire and A. H. Squire. pp. 317.

Operative Surgery in the Calcutta Medical College Hospital. By Kenneth M'Leod, A.M., M.D., F.R.C.S.E. pp. 351, with Plates.

Endemic Goitre or Thyreocele. By Wm. Robinson, M.D., M.S. pp. 66.

HAMILTON, ADAMS, & Co., London.

Lateral Curvature of the Spine. By Wm. J. Tivy, F.R.C.P. Ed. pp. 72.

HIRSCHWALD, A., Berlin.

Klinische Beiträge zur Kenntniss der Aktinimykose des Menschen. Von Dr. J. Israel. S. 152.

KEGAN PAUL, TRENCH, & Co., London.

The Common Sense of the Exact Sciences. By the late W. Kingdon Clifford. pp. 271, with 100 Illustrations.

LEA BROTHERS & Co., Philadelphia.

Lectures on Diseases of the Nervous System, especially in Women. By S. Weir Mitchell, M.D. Second Edition, Revised and Enlarged. pp. 287, with 5 Plates.

LONGMANS, GREEN, & Co., London.

Transactions of the National Association for the Promotion of Social Science. Birmingham Meeting, 1884. pp. 783.

Transactions of the Obstetrical Society of London. Vol. xxvi. pp. 375, with Illustrations.

Civilisation and Progress; being the Outlines of a New System of Political, Religious, and Social Philosophy. By J. Beattie Crozier. pp. 453.

LONDON LITERARY SOCIETY.

Darius the Median identified, or the true Chronology of the Ancient Monarchies recovered. By Charles Fulkes Watson. pp. 249.

PUTNAM'S SONS, New York & London.

The Social History of the Eighth International Medical Congress. By D. B. Delavan, M.D. Second Edition. pp. 36.

SMITH, ELDER, & Co., London.

A Practical Treatise on Fractures and Dislocations. By Frank Hastings Hamilton, M.D., LL.D. Seventh American Edition. pp. 1005, with 379 Woodcuts.

ULLASTRES, EVARISTO, Barcelona.

Tratado Iconografico de las Enfermedades Externas del Organo de la Visión. Por el Dr. Juan Gelpí y Jofre. Contiene 20 láminas con 108 oleografias.

Help at Hand; by Countess Cowper.—Deutsches Archiv für Geschichte der Medicin und Medicinische Geographie VIII.; herausgegeben von H. Rohlfs. (Hirschfeld, Leipzig.) — De las Fiebres de Borras ó Calenturas Malas de las Antillas; dor el Dr. A. W. Reyes.—Typhoid Fever in the Young; by A. Jacobi, M.D.—The Spinal Arthropathies; by A. Sydney Roberts, M.D.—Du Traitement Rationnel de l'Affection Furonculeuse; par le Dr. Gingeot. — Etudes Thérapeutiques sur l'Antipyrine; par Henri Huchard. (Doin, Paris.)—Die Thatsuchen der Vererbung in Geschichtlich-Kritischer Darstellung; von Dr. Emanuel Roth. (Hirschwald, Berlin.) — Vorwort und Einleitung zum Bericht über die Allgemeine deutsche Ausstellung auf dem Gebiete der Hygiene und des Rettungswesens unter dem Protectorate I. M. der Kaiserin und Königen; herausgegeben von Dr. Paul Boerner.—Indexes of Patents and Patentees in Victoria, Vols. XIII. & XIV. — Beiträge zur Kenntniss der Micrococcencolonien in den Blutgefässen bei Septischen Erkrankungen; von Dr. J. Ziemacki.—Sanitary Inspection of Houses and Premises. Illinois State Sanitary Survey.—Force v. Work; by Wm. Pepper, M.D. — Die Spaltzpilze; Die Pilzthiere oder Schleimpilze; von Dr. W. Zopf. (Trewendt, Breslau.)—Zur Theorie der Heilwirkung des Franzensbader Moores; von Dr. C. Reinl.—Man: Whence and Whither? by H. J. Hardwicke, M.D. — Unusual Cases of Vesico-vaginal and Vesico-uterine Fistula; The Use and Abuse of Battey's and Tait's Operations; by W. H. Baker, M.D. (Boston, Stanley and Usher.)—Aneurysms of the Aorta; by Oswald Browne, M.B.

Medical Diary for the ensuing Week.

Monday, April 20.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Mitchell Banks: On the Treatment of Gangrenous Intestine in Strangulated Hernia, with a successful case of Resection of the Small Bowel.—Dr. Herbert Snow: On the Free Use of Caustic Potash in the Treatment of Cancer of the Cervix Uteri.

Tuesday, April 21.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

ROYAL INSTITUTION.—3 P.M. Prof. Gamgee: Digestion and Nutrition.

PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Lane: Three cases of Displacement of the Lumbar Vertebræ.—Dr. Turner: (1) Tumours in Adrenals (card); (2) Suppuration of Simple Fracture of the Hyoid Bone (card).—Dr. Goodhart, for Dr. Handfield Jones: The Cerebral Arteries in states of Congestion.—Dr. Willcocks: A case of Hypospadias.—Dr. Percy Kidd: Destructive Disease of the Lung.—Dr. Allchin: Acute Ulceration of the Colon.—Dr. Silcock: Entero-colitis (card).—Dr. Goodhart: Specimens of Enteritis and Colitis (card). — Mr. Battle: Cyst growing from the Wall of the Intestine. — Mr. J. Hutchinson, jun.: Hydrocele of the Cord.—Mr. Bruce Clarke: Two cases of Gastrostomy.—Dr. Hebb: Aortic Valvulitis, with Embolism of a Coronary Artery and Middle Cerebral (card).—Mr. Shattock: Fracture of the Superior Cornua of the Thyroid Cartilage (card).—Dr. Chaffey: Solitary Kidney (congenital) (card).—Dr. Hale White: (1) Enormous Hypertrophy of the Heart (card); (2) Large Triple Phosphate Renal Calculus (card).—Dr. Pitt: (1) Sarcoma of Petrous Bone, Cerebellum, and Naso-pharynx (card); (2) Syphilitic Ulceration of Larynx and Trachea (card).—Dr. Hadden: (1) Broad Ligament Cyst containing Coagulated Albumen (card); (2) Ulceration of Intestine originating in Hæmorrhage (card).

Wednesday, April 22.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department: 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.

ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Conversazione.

BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens will be shown by Dr. More Madden (Dublin), Mr. Reeves, and Dr. Fancourt Barnes.—Dr. More Madden: On some Points in the Treatment of Fibro-myomata.—Dr. Chalmers: Gangrene of the Vulva.

Thursday, April 23.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Tyndall: Natural Forces and Energies.

THE PARKES MUSEUM OF HYGIENE.—8 P.M. Sir Spencer Wells, Bart.: Cremation.

Friday, April 24.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

QUEKETT MICROSCOPICAL CLUB.—8 P.M. Papers by Dr. Burch and Mr. F. Cheshire.

CLINICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Sidney Phillips: A case of Sporadic Cretinism.—Mr. Walsham: Ligature of the External Iliac Artery, with two Kangaroo-tail Ligatures and Division of the Artery between them, suppuration of the sac, ultimate recovery.—Dr. Dickinson and Mr. Rouse: A case of Renal Lithotomy.—Dr. Hadden: A case of Obstruction of Arteries and Veins extending over many years. — Mr. J. R. Lunn: Four cases of Osteitis Deformans (living specimens). — Mr. R. W. Parker: A case of Thyrotomy with Preservation of Voice (living specimen).—Dr. Stephen Mackenzie: (1) A case of Osteitis Deformans; (2) A case of Hereditary Multiple Tumours (living specimens).

ROYAL INSTITUTION.—9 P.M. Mr. W. Carruthers: British Fossil Cycads.

Saturday, April 25.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. W. Carruthers: Fir-trees and their Allies.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, April 16th, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
Apl. 10	29·55	N.W.	42	40	...	45	40	·02	Raining
,, 11	29·64	N.E.	43	41	80	51	41	·07	Cloudy
,, 12	29·85	E.	45	42	89	56	40	...	Cloudy
,, 13	29·97	N.E.	41	40	70	51	39	...	Overcast
,, 14	29·92	E.	41	40	78	51	38	...	Cloudy
,, 15	29·80	E.	43	40	88	55	40	...	Overcast
,, 16	29·73	E.	44	44	...	...	42	·70	Raining

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

WAR WITH NATURE.

AT the commencement of the war in the Soudan we called attention to the uselessness of a contemplated occupation of the Soudan by Europeans. In the House of Commons on Monday, the 13th, Lord Randolph Churchill repeated this fact, stating that from a personal visit he had gathered that our troops were suffering terribly from the effects of the climate. This will prove *our* conqueror, even if we should succeed in "smashing the Mahdi."

Publicity.—The discreditable practice is one with which the corporations alone can effectually deal.

"OVERWORK IN TELEGRAPH OFFICES."

To the Editor of THE LANCET.

SIR,—I read with interest an annotation under the above heading in your issue of the 28th ult.

A few days before the late Postmaster-General expired I had written to him stating the case of my daughter, who was in the service in a provincial city, and drawing his attention to the hours of labour at that office—9 A.M. to 5 P.M. or 10 A.M. to 6 P.M., with only an uncertain fifteen minutes between those hours for lavatory and a scrap refreshment, and in the twelve months a fortnight's holiday. She was admitted into the service after receiving a medical certificate of good health. Mental strain to excel in the various complicated systems continuously cropping up in the service often caused complainings of debility. To have gone on sick-leave meant half salary, with no private resources to fall back upon; so she continued at work till ultimately she broke down, and for weeks lay between life and death. She is still in the service, but suffers much from impaired health and broken constitution. Some initiatory step was the result of my letter to Mr. Fawcett, and inquiries were at once instituted in the office at which my daughter was employed. I did not hear officially on the matter, and suppose the sudden death of the Postmaster-General broke the thread of my appeal for amelioration of the rule in that office—fifteen minutes for hasty refreshment and half salary when stricken down, or when rest is deemed a necessity to put off a total breakdown. I am, Sir, yours obediently,

April 4th, 1885. FATHER.

"CONSCIENCE MONEY."

To the Editor of THE LANCET.

SIR,—The following is probably a rare, if not a unique, experience in these hard times. My partner amongst his letters found an envelope with a five-pound note enclosed in a sheet of writing-paper, on which was written, "Conscience Money." There were some initials in the corner of the paper, but they were so minute that they could not be deciphered even under a "high power."

I am, Sir, yours truly,

Fyfield, near Andover, April 11th, 1885. W. J. H. LUSH, M.D.

PUBLIC GARDENS AND PLANTATIONS OF JAMAICA.

THE annual report of the public gardens and plantations for the year 1884 has just been issued by Mr. Morris, the director of these plantations. It contains much valuable information, and shows the state of the experimental cinchona plantations carried on by Government for the purpose of the scientific culture of different species of cinchona and for supplying seeds, seedlings, and plants to private planters. As regards the present position of cinchona cultivation, the market would appear to be in a very depressed state, and the prospects of the cinchona planter not of a very encouraging character. It should be remembered, however, that the whole history of the quinine market is one of numerous fluctuations.

Qualified Assistant.—There are legal points to be considered by the practitioner, though they are more or less at the discretion of the presiding judge, who might see fit to dispense with the presence of the qualified assistant as a witness.

P. W. M.—The paper is marked for early insertion.

"AN EL DORADO FOR MEDICAL MEN."

To the Editor of THE LANCET.

SIR,—We of the profession here derived considerable amusement from the perusal of the sensational annotation with the above heading, which appeared in your issue of Jan. 24th. But in case the brilliant and dazzling array of fees therein contained should tempt some rash and adventurous spirits to plunge into the unknown wilds of the Argentine Republic in search of patients, practice, and *pesos* (dollars), perhaps you will allow me to correct some of these figures and to sound a slight note of warning. The only correct figures are 8*s.* for a consultation at the doctor's house, 16*s.* for a visit to the patient's house, and £20 for a confinement without operations (midwifery fees are high, because midwives are universally employed, and but a small proportion of cases are attended by doctors). The other tremendous fees tabulated I happen to know were actually paid, but it was in solitary and particular cases only.

An item also much exaggerated is that of £20 and upwards for consultation, the consultation fee fixed by law being £4 for each doctor at each consultation. As the people here are more nervous and apprehensive, consultations are much more indulged in than at home. In fact, the ordinary routine work of the general practitioner is so badly paid for that without consultation it would be difficult for the doctor to make both ends meet. The man who is thoroughly appreciated here and whose work is always well paid, is the skilled operating surgeon; £100 would be an ordinary tracheotomy fee, and £150 or £200 the fee for excision of the breast. Eye specialists also command good practice and good fees.

Per contra, we have the expense of living, which is very high in this city. A small house in the centre will cost from £250 to £300 per annum, and a couple of servants another £100; food is cheap, but everything else extremely dear. Again, there is a large and flourishing medical school here which turns out some forty or fifty medical men every year, and, although the native doctors are uniformly most courteous and tolerant, still they invariably call in their own set to consultations, except the family insist on the presence of a foreign doctor. Besides this, a thorough knowledge of Spanish is necessary before starting, and the candidate must have a university degree, M.B. or M.D., as the Faculty here will not accept the ordinary double qualification; diplomas must also be revised by the Argentine Consul in London before you come out.

Fulfilling all these conditions, and with a good medical education to fall back upon, a steady English gentleman will find here a hearty welcome, a hospitable land, and a warm-hearted and generous people. But let him beware of the thousand pound gentlemen, and let him be cautious about taking gratuitous advice from even such a highly respectable journal as the *South American Journal*. Apologising for this lengthy communication, I remain, Sir, yours very truly,

Buenos Ayres, Feb. 28th, 1885. VERITAS.

M.B.—If a police-surgeon is called to attend a prisoner at the instance of the police, he is clearly justified in demanding the usual fee. If his advice is sought at the instance of the prisoner, he has no legal claim against the authorities. It behoves a medical man to satisfy himself of the facts before rendering professional aid to a person in charge of the police.

IRON HOUSES.

To the Editor of THE LANCET.

SIR,—I should be obliged if any of your readers could give me any definite information with regard to iron houses from a hygienic point of view. The advantages are obvious; durability, economy, rapidity of erection, and portability, if I may use such a term concerning what is commonly considered a fixture, it being understood that the houses meant are of the cottage or bungalow type and of small size. Theoretically, of course, a residence with iron shell is not healthy, being hotter in summer and colder in winter than brick or stone; *per contra*, no damp or wind can penetrate. Again, are there means of avoiding the extremes of temperature induced by the non-conductor, such as felt or wood lining, or coating of composition, or the like? Many such additions are recommended by builders, but are they really trustworthy? Some practical hints from men who have lived in these houses will be useful to myself, and probably others. I am, Sir, yours faithfully,

April 7th, 1885. COUNT.

PROFESSIONAL EDUCATION IN CUBA.

THE condition of science and education generally in Cuba is, according to the *Eco Cientifico de Las Villas*, most flourishing. All the faculties exist in the University, and studies can be carried on there in all branches up to the degree of Doctor. Each province has an institution for secondary education. The clinical and obstetrical departments of the hospitals are most satisfactory, and there are numerous practitioners of ability. Surgery has of late made rapid strides, all the most serious operations being now skilfully performed on the island. There are also numerous scientific and professional societies in a flourishing state.

A. K. C.—1. The charges appear perfectly reasonable.—2. Whether the result is to be regarded as quite satisfactory is a question which must depend upon the whole of the circumstances of the case, and these are not given.

THE BRUSSELS DEGREE.

To the Editor of THE LANCET.

SIR,—The M.D. degree is now so frequently sought by British practitioners, owing to the close regulations in regard to residence in force at our English and Scotch universities, that I am induced to give a short account of the last examination.

As is generally known, English medical men have the privilege, on presentation of their diplomas, of taking the three "Doctorates" at once, instead of at a year's interval between each. Candidates must be prepared to spend a fortnight, or even more, from the Saturday specified, in Brussels, although sometimes ten days are sufficient. The time may be shortened by deferring arrival until Monday or Tuesday, if special leave be obtained. There were sixteen candidates on the last occasion, all English. Of these, five were rejected at the first Doctorate, and one each at the second and third; so that nine, or little more than one-half, passed for the complete degree. This is about the usual average of late years. Probably two-thirds of the candidates were recently qualified; the rest had been in practice for some years.

The examination is entirely *vivâ voce*, unless by special arrangement. All the candidates are usually present in the room, although four only are taken on one evening. A little knowledge of French is helpful, although an interpreter is provided.

The First Doctorate is by far the hardest of the three, and will, in my judgment, for thoroughness and fairness compare well with most English examinations. Medicine, Therapeutics, Pathology, and Mental Diseases each occupy a quarter of an hour. As a rule, a subject—e.g., Pleuro-pneumonia, Dysentery, "Chronic Myelitis," Cancer of the Stomach, &c.—is taken, and the candidate is kept on that subject during the time specified, unless he shows marked ignorance, when a second subject is given him. One is expected to expound in detail the symptoms and course of the disease, "as if you were giving a lecture," and the causes for the various phenomena. "Go on," "And then?" and "Why?" are repeated at frequent intervals.

In Therapeutics also the test is a thorough one. The examiner, who is very gentlemanly in his manner, expects a full knowledge of the physiological action of the better known drugs, is especially particular as to the *modus operandi* of purgatives, diuretics, &c.; he is also well acquainted with recent discoveries and views, and asks often the properties of drugs which are only to be found in our most recent text-books, such as cocaine, nitro-glycerine, &c. Such a work as Mitchell Bruce's Materia Medica (Cassell) is, however, quite sufficient.

Pathology is the rock on which most make shipwreck at the First Doctorate. It is no secret that this examiner is the terror of candidates, partly because of the minute knowledge of morbid anatomy and of microscopic work he requires, and partly because of his manner of examining. Mere cramming of the subject is quite useless. Such a book as Green's Pathology must be studied repeatedly, until the various morbid appearances are graphically present to the mind's eye of the candidate, and he must not be put to confusion by rapid cross-questioning and frowning looks. Parasites form also a favourite topic.

Mental Diseases are but lightly treated. The examiner for this subject asks also on general medical science, methods of diagnosis, &c. On the whole, the First Doctorate is a fair, though rather difficult, test, at which many men fall on their first attempt.

The Second Doctorate embraces Surgery, Medical Jurisprudence, Midwifery, and Hygiene. The first of these is not generally difficult; it is, however, unequal. There is little or no surgical pathology; general and regional surgery must be familiar to the candidate. Midwifery is thoroughly, and rather scientifically, entered into. Besides one of our best text-books, some acquaintance with a French manual would be helpful. Such questions as the different kinds of fœtal movements, external and internal ballottement, &c., are required in some detail, and the variations in the fœtal pulse according to sex is a favourite point. For Medical Jurisprudence and Hygiene it is almost impossible to prepare. A general acquaintance with these subjects is undoubtedly required; but the questions asked must be answered by common sense. Cremation, the general effects of climate in their widest sense, the effects of wind on soil, the period of incapacity for work after injury, &c., are not subjects to be found in English text-books, and, as a fact, common sense and a little medical experience suffice to answer the questions.

The Third Doctorate is entirely practical. Clinical Surgery is under M. De Roubaix, Surgeon to the King, a veteran whose eye and hand are quick and steady as ever in his art. He practises antiseptics in a modified form. Both in Surgery and Medicine cases have to be examined in the hospitals, two in each subject. There is no difficulty in this to men accustomed to practise. Little of the minuter methods of diagnosis is required. Operative Surgery is rather hard. Three operations have to be performed: one ligature of artery, such as the radial, femoral, or lingual; one amputation of finger, or a Chopart, &c.; and, lastly, catheterism, castration, resection of middle third of clavicle or of part of a rib. Dissections are also required; and here a pretty accurate knowledge of the regions is needful—the cutaneous nerves, order of tendons, especially the lymphatic glands and vessels, also cranial nerves, &c. The severity of the recent anatomical test was unlooked for by most of the candidates. Practical Midwifery with the mannequin is fairly carried out. Some ordinary facility in operations is required.

Thus it will be seen that a fair all-round test is applied. At the same time it is the Medicine and Pathology examiners who reject the men. Those who pass MM. Crocq and Wehenkel will most often somehow get through the remaining Doctorates. Many men go over to Brussels with little idea of what they will find; and I heard bitter complaints from some who had put faith in advertisements which had appeared in England.

I hope the day is not distant when one or more of our own universities will give to English students an examination something like this. Let it aim at a high standard in all branches, let the fee be a substantial one, but let it not require that one condition which to the busy practitioner is unattainable—residence. Is it no loss to the British Universities (if they be deaf to any higher motive) that so large a number of our own men, and men not slothful or ignorant of their profession, should be driven to spend their money for a foreign degree?

I am, Sir, yours faithfully,

Finsbury-circus, April 4th, 1885. HINGSTON FOX.

*** We are frequently asked about the examination for the degree of Brussels. The above letter will supply the information desired. It cannot be considered that the ordeal quite realises that which an examination for a degree should be. There is no examination in Arts; none in Anatomy and Physiology proper. There is no written examination, and no thesis. Even in Medicine, which seems to be the subject in which the examination is most severe, it appears to be by no means exacting.—ED. L.

Virtus vincit invidiam.—Our correspondent is thanked for his letter; but we think it would be better to postpone any remarks on the subject for a short time, till we see what steps are taken to remedy the grievance.

Dr. Horace Swete's (Worcester) letter will appear next week.

"IMPROVED FRACTURE BOX."

To the Editor of THE LANCET.

SIR,—In your issue of the 11th inst. a special form of splint is described by Mr. Foley, Medical Officer for Midleton Hospital, as a new invention. Permit me to state that I have used a splint similar to his for two years, but with an addition, which I consider important—viz., the use of plaster straps, attached to the fractured limb, and to the end of the splints, to act as a counter-extension, extension being made by plasters, below the seat of fracture, and attached to a ratchet at the lower end of the splints. The apparatus is simply box splints, with the addition of plasters and a ratchet for extension. In shape my apparatus is similar to Mr. Foley's, without having perforations in the pieces, which is an improvement. My idea was to have a box splint, able to keep up extension and counter-extension, in oblique fractures of the leg, and for compound fractures. At the time I carried out my ideas I mentioned the fact to Professor Chiene of Edinburgh, who may, however, have forgotten about the matter.

I am, Sir, yours faithfully,

Fife, April 13th, 1885. T. GOODALL NASMYTH, M.B., C.M.

THE BIRTH-RATE OF ILLEGITIMATES IN PRAGUE.

AMONG 7031 births in Prague there are 3762 legitimate and 3329 illegitimate. It is a noteworthy fact that the death-rate among the illegitimate does not greatly exceed that which prevails among the legitimate.

A CORRECTION.

To the Editor of THE LANCET.

SIR,—Allow me to point out a slight clerical error in my letter of the 4th inst. As it stands in your issue of the 11th inst. I am made to say that the Lieut.-Governor of Guernsey, the bailiff of Guernsey, the chief constable of Guernsey, *and* Dr. Le Page *each* received a copy of the *Journal*. The clause should run:—"and the following officials: the Lieut.-Governor of Guernsey, the bailiff of Guernsey, the chief constable of Guernsey. Dr. Le Page received a copy of the *Journal*." I am anxious to prevent any possible misunderstanding on this point.

I am, Sir, your obedient servant,

Guernsey, April 13th, 1885. J. AIKMAN.

DISINFECTING CHAMBERS.

To the Editor of THE LANCET.

SIR,—I shall be glad if any of your readers will be good enough to inform me which are the best disinfecting chambers now in use and where to be seen. I am, Sir, yours faithfully,

April 14th, 1885. MEDICAL OFFICER OF HEALTH.

HAMILTON COUNTY, KANSAS.

A CORRESPONEENT at Aubery, Hamilton County, Kansas, writes to us pointing out the advantages which the county affords as a place of residence for dipsomaniacs who are wishful to get rid of their craving. It is against the law of Kansas to sell, or for the railways to carry, any intoxicating liquor, of which, our correspondent states, there is not a pailful in the county. Land is cheap, and there are many methods of employing capital, in the raising of stock, &c.

Haslingden.—We have no further information on the subject.

Mars.—The question was answered in our issue of March 21st, p. 547.

A WARNING.

To the Editor of THE LANCET.

SIR,—I learn that an impostor is going about the country bearing a card and recommendation from me. He has victimised members of the profession by representing himself as a doctor's son. Let me warn your readers against anyone showing a card in the name of

Southborough, April 13th, 1885. E. PAGET THURSTAN, M.D.Cantab.

To the Editor of THE LANCET.

SIR,—I should like to warn my professional brethren against an impostor who says he is the son of an Indian surgeon. He is about 5 ft. 8 in., thin, with light-brown hair and mutton-chop whiskers. He professes great piety, and cannot get a situation as photographic operator as he refuses to work on Sunday. I unfortunately gave him a frock-coat and some blue and white shirts with turn-down collars, and entrusted him with some money, which he stole, together with an overcoat which he begged another person to lend him. He imposed on me by means of a visiting-card of Dr. Thurstan, who knows nothing of him. I am, Sir, yours truly,

Woolwich, April 14th, 1885. T. MAXWELL.

THE PARASITIC NATURE OF MELANOSIS.

To the Editor of THE LANCET.

SIR,—A reference to the "Medical Digest," Section 1670 : 3, will show that in your pages in 1867 the experiments of M. Gorgon upon the inoculability of melanosis were commented upon. Since that time, until your note upon M. Bard's discovery in THE LANCET of April 4th, p. 633, no observations upon the subject have caught my attention.

I am, Sir, yours obediently,

South Hampstead, April 4th, 1885. RICHARD NEALE, M.D. Lond.

GLYCERINUM ACIDI CARBOLICI IN DIABETES MELLITUS.

To the Editor of THE LANCET.

SIR,—A patient of mine suffering from diabetes mellitus in which the thirst was very excessive, I tried every known remedy to alleviate it without effect. I ordered glycerinum acidi carbolici in five-minim doses, and it relieved the patient at once. At present he is in good health, the urine being almost free from sugar.—Yours faithfully,

Rathfriland, March 31st, 1885. J. McAVOY, M.D.

"AN OLD MEDAL."

To the Editor of THE LANCET.

SIR,—Is it not probable that the medal referred to by your correspondent, "M. U.," was struck previously to the enclosure of the gardens, which, to avoid inconvenience, was postponed until a sufficient number were circulated? I am, Sir, yours faithfully,

April 14th, 1885. M.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Surgeon-General Stewart; Mr. Henry Lee, London; Mr. Reginald Harrison, Liverpool; Dr. Geo. Oliver, Harrogate; Dr. Eben. Watson, Glasgow; Dr. Farquharson, London; Dr. Taylor, Anerley; Messrs. Cassell and Co., London; Mr. Blok, London; Mr. Brown, Cardiff; Dr. Joseph Bagdanik, Biala; Mr. E. Shoesmith, Rochdale; Mr. Radley, London; Mr. J. G. Thomson; Mr. Rawlings, London; Mr. Carmalt Jones, London; Mr. Mumford; Dr. H. Swete, Worcester; Mr. Wale, Maidstone; Mr. T. G. Nasmyth, Foulford; Dr. Thurstan, Southborough; Mr. Blackett, London; Mr. Aikman, Guernsey; Mr. J. W. Beck, London; Mr. A. J. Cook, London; Mr. A. G. Auld, Wick; Mr. W. C. Steele, London; Mr. J. N. Cook, London; Mr. H. B. Hewetson, Leeds; Mr. W. G. Lacy, London; Dr. Casey, New Windsor; Mr. C. Morris, Chester-le-Street; Mr. Drew, Wellington, N.Z.; Dr. Acland, Oxford; Dr. Sinclair, Dundee; Mr. N. C. Dobson, Clifton; Dr. Brett, Watford; Dr. Althaus, London; Deputy Surgeon-General Fowler, Bedford; Mr. Berdoe, London; Mr. Haggard; Mr. C. N. Williamson, London; Mr. Hutchinson; Mrs. Bourchier, Sheffield; Mr. Edwards, Chester; Mr. Cardew, Teignmouth; Messrs. Brown, Davis, and Co., Glasgow; Dr. S. C. Griffith, London; Mr. Maythorn, Biggleswade; Mr. Hulme, Birmingham; Mr. Selwood, Winchester; Dr. Weaver, Southport; Mr. Spitzty, Canonbury; Messrs. Norman and Co., Cheltenham; Mr. Twyford, Hanley; Mr. Bigg, London; Dr. Chafer, California; Dr. Hickie, Birmingham; Messrs. Grinley and Co., London; Mr. Jenne, Halesowen; Mr. Hill, Clifton; Messrs. Riddle and Co., London; Mr. Beloe, King's Lynn; Mr. Clark, Bristol; Mr. Heywood, Manchester; Messrs. Whitehead and Co., Manchester; Mr. Crews, Truro; Messrs. Wilson and Stockholme, Bury; Mr. Negan, Canterbury; Mr. Oldham, Monsall; Dr. Burham, Surat; Messrs. Clay and Sons, Manchester; Mr. Carmody; Mr. Gravatt; Dr. Buchanan, Glasgow; Miss Smith, Plymouth; Mr. Beckton, London; Mr. Giles, London; Messrs. Kegan Paul and Co., London; Mr. Birchall, Liverpool; Mr. Sloane, Bradford; Mr. Faberner, Wigan; Mr. Sharpe, Walsall; Mr. Bluett, Brighton; Mr. Hodgson, London; Mr. Freeman, London; Mr. Paul, Liverpool; Mr. Sargent, London; Messrs. Bell and Co.; Mr. Craske; Mr. Hammond, Clifton; Messrs. Shanks and Co., London; Dr. Money, Rickmansworth; Messrs. Hawkes and Co., London; Mrs. Tillett; Quæstor; Mechanic; Rest; H. C.; Mutare Sperno; Mars; An M.D. of New York; Haslingden; J. G.; The Matron, Eston; W. C., Bath; Sanitas, Hyde; G. S. D.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Hind; Mr. White, Bayswater; Mr. Cane; Mr. Peirson, Ipswich; Mr. Deane, Cawnpore; Dr. Hawkin, Manchester; Mr. Bird; Dr. Adam, West Malling; Mr. Vines, Shepton Mallet; Messrs. Dickson and Russell, Edinburgh; Mr. Kinder, Leicester; Mr. Reynolds, Derby; Mr. Young, Hawkhurst; Mr. Watson, Glasgow; Mr. Brown, Pimlico; Mr. J. Barker, London; Mr. Skinner, Winchelsea; Mr. Cotterell, Bicester; Mr. Stack, Dublin; Mr. Parker, Sidmouth; Mr. Micharlescue, New York; Miss Wade, Chorley; Mr. Symons, Dumfries; Mr. Dolby, Cannock; Mr. Morris, Swansea; Mr. Duke, Freshwater; Mr. Hunter, Turnham-green; Miss Bretherton, Preston; Mr. Sloane, Bradford; Mr. Bridgman, Barnstaple; Mr. Eberle, Thirsk; Dr. Harding, Wigglesea; Mr. Smallman; Mr. Shepherd, Putney; Mr. Stilliard, Birmingham; Dr. Gledhill; Z., Newcastle-on-Tyne; Medicus, Halifax; G., Southport; Surgeon, Buckfastleigh; Delta, London; Lady Superintendent, Bangor; M.D., Wigan; F.S.A., Wye; Omega, Pontnewydd; M.B.; Medicus, Glasgow; Beta, Frisington; T. W. L. B., Great Yarmouth; Boon, Hulme; C. F. D., Bury; H. O. M.; Medicus, Leicester; D., Cradley Heath; H. B. G.; Drax, Dublin; The Secretary, Carmarthen; W. G., London; M.D., London; Physician, St. Lawrence; B. B.; Medicus, St. John's Wood.

Scotsman, Aberdeen Herald, Hertfordshire Mercury, Burton Advertiser, Southport Visitor, Stirling Reporter, &c., have been received.

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Croonian Lectures

ON THE

HYGIENIC AND CLIMATIC TREATMENT OF CHRONIC PULMONARY PHTHISIS.

Delivered at the Royal College of Physicians,

By HERMANN WEBER, M.D.,
PHYSICIAN TO THE GERMAN HOSPITAL.

LECTURE III.

(*Concluded from page 695.*)

Duration of stay, and season of the year.—The time during which an invalid ought to stay in elevated regions varies greatly, according to the nature of the case, from four and six months to as many years, and general rules can scarcely be laid down. He ought to remain until he is cured, or until it is seen that the climate does not suit him. An additional advantage of these climates is that the majority of patients can remain throughout a whole year, with occasional changes to allied, not to distant, localities. The winter season is the best in the Alps; spring is the time of general melting of the snow, and soil and air are damper than in winter, so there is more risk of chills and possibly of microbic infection than in winter, but this risk is not greater than in lower regions, where the air at the same time is more relaxing. The descent to lower regions ought therefore not to be the rule, as it is at present, but the exception, and this only after careful consideration, and with all due precautions as to travelling, selection of locality, rooms, &c. In summer it is desirable to select mountain places which are rich in pine forests, in order to have shade from the sun and the additional benefit of the exhalation of the pines. The first part of autumn is very good, while the second forms a transition stage to winter, and is often unfriendly. Where it can be arranged, the stay in the European Alps ought to commence in August or the beginning of September, in order that the acclimatisation can take place before the changeable transition stage begins.

You will ask me which elevation is required to bestow on a locality the character of a mountain climate. This varies greatly according to the degree of latitude, distance from the sea, and other circumstances on which I cannot enter at present. The character of the vegetation is to some degree a good criterion. In the flat regions of Northern Germany an elevation of 1500 feet is sufficient to produce a vegetation which somewhat resembles that of the Swiss Alps at an elevation of nearly 5000 feet, and of the Peruvian Andes at 10,000 or 11,000. The isothermal lines are likewise a help in this question. We may perhaps say, but only roughly, that in Europe north of 50° an elevation of about 1600 feet has already some characteristics of mountain climates; while between 50° and 48° latitude about 1700 feet to 2500 feet are required; and between 47° and 46° latitude from 3000 to 5000 feet. I need, however, scarcely tell you that I think all the climatic characters of a mountainous region in North Germany or Northern France at an elevation of 1600 to 2000 feet are the same as those of 5000 or 6000 feet in the Swiss Alps. The average air temperatures may be similar, and also the time during which the ground is covered with snow, but the rarefaction of the air must be less great at the lower elevations. The air is heavier, the light and sun-heat are less intense, and the moisture is mostly greater. About the microbes I am not yet sure; their distribution is likely to be unequal; but where there are only few human habitations, and few sources of organic decay and putrefaction, where the soil is dry and especially where it consists of granite and gneiss, with absence of stagnating water, there the microbe element will probably be scantily represented.

From what I have said you will expect me to recommend altitude climates in hereditary and acquired tendency to phthisis, and especially in cases with imperfect expansion of the thorax and the so-called "phthisical habitus"; and further, in all conditions comprised by the term phthisis, excepting those which I must describe as non-suitable—viz., (1) consumptive patients, who belong to what I have termed the erethic constitution, whether the affection is early or advanced; (2) phthisis in a very advanced stage; (3) phthisis complicated with emphysema; (4) phthisis complicated with albuminuria; (5) phthisis complicated with disease of the heart; (6) phthisis with ulceration of the larynx; (7) phthisis with rapid progress and constant pyrexia; (8) phthisis with great loss of substance; (9) phthisis with considerable empyema; (10) phthisis in persons who cannot sleep or eat in high elevations, or who feel constantly cold. Some of the conditions are not permanent, but only temporary and removable obstacles. Tendency to hæmoptysis was formerly regarded as forbidding mountain climates, but experience has shown that this is incorrect; that, in fact, hæmoptysis occurs much less frequently in high than in low regions, and is often prevented and checked by a stay in high regions (Archibald Smith, Brehmer, Spengler, Unger, Dettweiler, C. T. Williams, Denison, Solly, Ruedi, Peters, and Hermann Weber).

After having discussed the general characters and influence of the climates of elevated regions, I must limit myself to a few remarks only on the principal health resorts, as time compels me to do so; and as there already exist numerous descriptions in the English language by professional and non-professional authors, I need not tell you that the difference between the different localities included in this class of climates is very great, and is only yet partially known and appreciated; that even in the same Alpine valley, and in the same place, there are great differences between different situations, and that the climate of the same place is by no means uniform in different years.

We naturally begin with the Swiss Alps, as they are nearest to us, and with Davos Platz about 5100 feet above the sea level, as it was the first place resorted to just twenty years ago, when two patients migrated there from Gorbesdorf, Dr. Unger and Mr. Richter, who there regained their health and are still living at Davos in active occupation. They were encouraged to give a prolonged trial to the place by Dr. Spengler, who had already written on the absence of scrofula and phthisis in the Davos Valley. As I had been on the look-out for a suitable place in the Alps for some years previously, in consequence of some encouraging experiences which, I might say, accident had thrown in my way, I soon afterwards began to send patients there. When I first directed attention to Davos Platz in 1867 it was still a charming primitive Swiss village; now numerous large and small hotels and villas stretch along the high road for more than a mile, and Davos Dörfli, a little higher up in the valley, may almost be considered as a suburb of Davos Platz. Waters, Spengler, Frankland, Unger, Clifford Allbutt, Addington Symonds, C. T. Williams, Burney Yeo, Peters, Marcet, Otter, Jaccoud, Sée, Symes Thompson, and others have amply described the peculiarities of Davos. The presence of good physicians, the more and more improving arrangements in the hotels, including sunny terraces and verandahs, the means of varied exercise and amusement, the comparative nearness to the railway, a good road thence (from Landquart or Chur) to Davos without an intervening high pass, are accessory, though very important, to the general climatic characters of Davos Platz and Dörfli. A drawback is that its reputation has of late years increased so rapidly that too many, frequently ill-suited, cases are sent to Davos; that the number and size of the hotels and health establishments increase at an alarming rate, so that there is actual danger that Davos may be ruined by its own original advantages; *for purity or aseptic quality of the air is incompatible with the crowding together of a large number of invalids.* Mr. J. Addington Symonds, the author of "Davos in Winter," has written on this subject in the *Pall Mall Gazette* of Jan. 14th, 1882; and I have likewise already mentioned this matter in a paper on Climate and Health-resorts in the "Book of Health." If Davos were to be ruined, the calamity would not be confined to the inhabitants of the valley, but would be shared by many invalids all over Europe.

Lower down in the Davos Valley, at Davos Frauenkirch, a small hotel offers fair accommodation to a limited number of invalids; and further down, but high above the bottom of the valley of the Landwasser on the sunny southern slope of the Rothornstock, lies Wiesen, of about 4770 feet of which Dr. Tucker Wise has given an attractive description. It is well sheltered from N. and N.E., but is rather more exposed to S.W. wind than Davos, and the snow does not lie quite so long. The hotels and the social attractions are not so advanced as those at Davos, but the stay is less expensive

and under the guidance of Dr. Buol, an intelligent Swiss doctor, who is a licentiate of the London College of Physicians, results can be obtained in suitable cases, even with limited arrangements.

The Upper Engadine is a fair rival to the valley of Davos, and the village of St. Moritz, about 6000 feet above sea level and 280 feet above the lake, with the well-known Kulm Hotel and the houses of Kaspar Badrutt, represents the Davos Platz of the neighbouring valley. St. Moritz has been so well described by Dr. Burney Yeo, Mr. Lionel Tollemache, Drs. Ludwig, Biermann, and many others, that I must confine myself to a very few remarks. Davos is somewhat more sheltered and is slightly warmer than St. Moritz, and is nearer to the last railway station for those coming direct from England or the North. St. Moritz lies 900 feet higher, has the advantage of the snow somewhat longer. has decidedly more wind according to the observations of Mr. Waters, has a skating rink and a good lawn tenis court in the immediate neighbourhood of the hotel, and more opportunities for exercise. On the whole, Davos has some advantages for more serious invalids; St. Moritz for hardier cases. The best sites in the Upper Engadine would probably be found in the neighbourhood of Pontresina on the south western slopes of the Muraigl on the Munt Della Bescha; they would have the largest share of sunshine during the shortest days of the winter, would be in the immediate neighbourhood of pine and larch forests, and out of the way of the Maloija wind; but the hotel proprietors of Pontresina are as yet hostile to the scheme of a winter cure, fearing that their summer guests would leave them if they were to open that favourite spot for the treatment of phthisis. They are apparently strong contagionists. But there are sites, for instance, near Acla, about 6000 feet above sea level, to the right of the road from Pontresina to Samaden, over a mile from the former, where one or two health establishments might be placed without prejudice to the visitors of Pontresina.

Samaden has been for many years used by some consumptive patients as a winter resort, and the excellent fare and service at the Hotel Bernina make to some degree good what the absence of open and covered verandahs and balconies and terraces leave to be desired. Above Silvaplana and Campfer, on the southern slopes of the Piz d'Albana and Piz Valaschin, good sites could be found. The establishment of the Kursaal Maloja is rather exposed to wind, and not high enough above the upper end of the Lake of Sils to be perfectly free from damp and mist at all times of the year; but the Kursaal itself is dry, and the large corridors for indoor exercise, the arrangements for constant and abundant supply of warmed air to the rooms and passages, and the good cuisine make atonement for some defects in the position. Dr. Tucker Wise, who is the resident medical officer, has given an encouraging description of these arrangements; and such improvements as sheltered out-door seats and pavilions were in the course of erection when I was there on a visit during the autumn of 1884. Independently of permanent residence the Maloja Hotel can do good service as a place of transition—for instance, during the melting of the snow when out-door exercise is difficult. A few weeks at this place will occasionally be an advantage to visitors at St. Moritz or even Davos, as they can walk for hours every day in the well-aired corridors without exposure to draught or dampness. The localities mentioned, and Zuz in the Upper Engadine, are all the winter health-resorts in the High Alps which are open to us at present. There would be some satisfactory places in the Dolomites, as above Cortina, and perhaps San Martino di Castrozza and Campiglio, but there are no arrangements for the winter as yet.

In a much lower situation is St. Beatenberg, above Lake Thun (3766 feet), quite sheltered from the north and east, quite open to the south, and very sunny. It is only lately that the proprietors of the Kurhaus have commenced to keep the hotel open, and I cannot therefore speak of the results. The Hotel des Avants (3212 feet above sea level, and 2000 feet above the Lake of Geneva) has a very sunny situation, and is already out of the region of mists in winter. The arrangements of the hotel are good, but the snow does not lie so long as at Davos and St. Moritz; and although preferable in many ways to the lower localities on the lake, it is not as bracing as the health resorts in the Grisons. Seewis, (2986 feet), above the road from Landquart to Davos, has a cheerful sunny and sheltered situation. Such localities will probably, by degrees, take an important place as *intermediate health resorts* for intermediate cases; for such, to use an instance in which the usefulness of higher localities is doubtful, or in which they are certain to be unsuitable, where, however, a surrender to the low level places is undesirable; or as temporary places—viz., as steps to or from the higher health resorts. Seewis, for instance, is well adapted as a stepping-stone to Davos and St. Moritz. In order, however, to become really useful, they must, as Seewis has done, provide themselves with good resident medical men, as without this it would be wrong to entrust to them cases requiring special care.

I must now name two localities in Germany which deserve your attention, although I can mention them only in a cursory manner: these are Görbesdorf in Silesia, and Falkenstein in the Taunus. Görbesdorf, about 1740 feet above the sea level, is the cradle of the mountain health resorts, and of the hardening open-air treatment in Europe, with a judicious admixture of hydro-therapeutics. Dr. Hermann Brehmer has the merit of having introduced this combination in a systematic manner, coupled with the strict supervision of the patients, essential in the hygienic as well as therapeutic management. Brehmer's establishment lies in a beautiful park, with a pine-clad hill belonging to it, arranged for graduated climbing. The establishment is provided with covered walks of great length, and with a winter garden, suitably warmed and ventilated. Falkenstein, about 1500 feet above the sea level, has become, under the judicious as well as energetic guidance of Dr. Dettweiler, a health resort where not only many invalids have been improved and cured, but where they have learned how to manage themselves afterwards. The results obtained at this establishment show how much can be done in phthisis by carefully arranged hygienic management, even with imperfect climatic elements.

During the last few years several other establishments have been formed which are likely to become useful, and to lead to further imitation. Aussee, in Styria (2150 feet), St. Blasien (2500 feet), in the Black Forest, Reiboldsgrün (2257 feet), in the midst of a forest near the railway station of Auerbach, in Saxony, and Badenweiler (1380 feet), in a beautiful position on the south-western slopes of the Black Forest, deserve to be specially mentioned.

In Norway the Gausdal sanatorium, about 3000 feet above sea level and 2500 feet above Lake Mjosen, and twenty-four miles from Lillehammer, has been mentioned to me as a probable health resort for consumptives.

More important to us in the treatment of phthisis are the health resorts of America. In the Peruvian Andes and the Rocky Mountains of the United States they possess indeed an endless variety of mountain climates. Near the equator, elevations of 6000 and 8000 feet have winter temperatures similar to our summer temperatures, and we must go still higher to find localities suitable to the treatment of phthisis. But at greater distances from the equator we come at elevations of about 6000 or 7000 feet, to climates somewhat similar to those in the Alps at about 5000 to 6000 feet. In the neighbourhood of Jauja and Huancayo, at elevations varying from 8500 to 10,500 feet, several of my patients have recovered from rather advanced affections of phthisis, after I had learned the character of these climates, and had been encouraged in sending patients there by my late friend, Dr. Archibald Smith of Lima, whose papers on these subjects are well known to you. How different, however, these climates are from the Swiss Alps, you may see from the following statement of Archibald Smith:—"At Huancayo, 12° south latitude and 75° 12' west longitude, the annual range of temperature in the shade may be taken as ranging from 8° or 9° to 14° R.; while at the cooler town of Jauja, with from 10,000 to 15,000 inhabitants, the range during one whole year has been observed not to exceed from 8° to 12° R., or from 50° to 59° or 60° F., with the sky always clear and sunny, and an atmosphere pure and bracing, which invites to outdoor exercise and enjoyment." From no other localities have I seen such good results as from Jauja; but also from Santa Fe de Bogota (about 10,000 feet), Quito (about 10,000 feet), La Paz (12,000 feet), and Cuzco (11,250 feet), I have occasionally received good reports. Areguipa, in Peru, 16° south latitude, has lately been recommended by Dr. Dixon Hunter, with an equable temperature, averaging about 65° summer and winter within the house and outside in the shade during the day. I have no doubt that this climate is infinitely better than many others, especially the hotter regions along the sea-shore, and that consumption can be cured there; but it is somewhat too warm.

The Rocky Mountains in the United States of America have only been used as health resorts in phthisis, so far as I

know, during the last fifteen or sixteen years, and they seem to have met likewise at first with much opposition; at all events, during the last ten years the advice I have given to several American consumptive patients to settle at Denver or Colorado has been rather severely criticised by New York and Philadelphia doctors, especially in two cases of hæmoptic tendency, and yet these patients did well when they afterwards carried out the advice. Manitou springs (6315 ft.), Colorado springs (5775 ft.), and Denver (about 5000 ft.) are the best known localities, and have been repeatedly described by Drs. Denison and Solly; but numerous other resorts of the future are mentioned in Dr. Denison's instructive work on "The Rocky Mountains Health Resorts." Dr. Frankland has quite lately mentioned to me in this territory a locality which is likely to become an important health resort—Yellowstone National Park, accessible by the Northern Pacific Railway. It is situated on the eastern slopes of the Rocky Mountains, between 44° and 45° N. lat. "The park abounds in magnificent geyzers and boiling springs on a most gigantic scale, and there are plenty of mineral waters. The boiling water and steam might be made available for warming hotels, but there is also an abundance of wood fuel. There is so much room in Yellowstone that there need be no overcrowding, as at Davos."

Mexico, too, possesses good health-resorts, especially the town of Mexico and Puebla, about which the well-known works of Jourdanet and Guilbert contain valuable information.

The South African altitudes have been described by Symes Thompson and the late Harry Leech and by several non-professional writers—Trollope, E. F. Sandeman, and Otter. The most important health-resorts are contained in the Orange Free States, Griqualand West, and the Transvaal. Bloemfontein (4700 feet) is the best known place; but among others equally suitable are Christiania, Bloemshoff, Potchefstroom, Witwater Rand, Pretoria, Heidelberg, Utrecht, Standerton, and Wakkerstroom. Everywhere the climate is dry, and often in summer very hot, and in winter cold. I have seen some good from these localities, but the promise of "the absolutely perfect cure" held out many years ago by some inhabitants of the Free States has not been fulfilled. Whenever we recommend these regions we must bear in mind that a sea voyage and a long land journey are implied. Those who are good sailors will not regret the former, and the latter can be rendered beneficial if the invalid is not too weak and does not mind expense. The best mode to reach the high regions is still a well-supplied ox waggon from Graham's Town or Wynberg. "Waggon travelling with the traveller's own oxen," Mr. Otter justly says, "is very slow work, not averaging more than ten to twelve miles a day, but as such an expedition is only made for the sake of health, the rate of travelling is not material, and when once a traveller has got into a district which is suitable to him he is in no hurry to get out of it."

Many of the great mountain chains of Asia contain, no doubt, useful health resorts, but our dependable knowledge is almost confined to the Himalayas, which enclose, you may say, all varieties of climate, stretching along as they do for about 2000 miles, with an average width of 180 miles and elevations ranging from 1000 to 23,000. There are, besides, the Neilgherry range, the Pulneys, the Aravulli or Aravelli Mountains, the Vindhya range, the Western and Eastern Ghauts, and several other ranges. There are health resorts varying from 4000 to 8000 feet elevations. In considering these stations we must always bear in mind the nearness to the equator, and, further, that the peninsula is surrounded, excepting its broad base, by enormous masses of warm water. The periodical winds coming from these seas are saturated with vapour, which on reaching the cooler mountain ranges is partly deposited as rain. The emanations from the damp soil are probably laden with microbic life. The majority of the Indian Hill stations have therefore very different climatic conditions from those of the Peruvian Andes, the Rocky Mountains, and Swiss Alps. These circumstances may explain the contradictory views of Anglo-Indian medical men regarding the influence of their hill stations on phthisis. The carefully drawn up report, however, of Dr. Kellett on consumptive soldiers, who spent six months (April to November) at the convalescent station of Landour, shows results which are not unsatisfactory. Very different must be the climates on the northern slopes of the Himalayas, for the atmosphere before reaching them has lost the greater part of its moisture; on the southern slopes and highest ridges the climates must be drier and cooler, and very possibly Thibet (9000-11,000 feet) and Cashmere (5000-6000 feet) contain most healthy climates.

I had intended to survey with you, gentlemen, the climates of Nubia and Egypt, of Algiers, Italy, Spain, the Riviera, and south-west of France, of Australia, New Zealand, Madeira, Teneriffe, and the high seas, in their applicability to the treatment of phthisis; but time fails, and I hope you will pardon me for having spent so much time over other matters, and that you will not think I regard the regions which I pass over as useless. They have been so often and so well described by others as well as elsewhere by me, that my present omission can scarcely be regretted. Many of the localities included in these climates possess very useful qualities for the treatment of phthisis, and especially for those conditions and constitutions which are either temporarily or permanently debarred from the benefits of the altitude climates; but I regret to say that as yet the arrangements are nowhere perfectly satisfactory, even at the most favourite places, supplied with all the modern comforts, such as Cannes, Mentone, and San Remo; the majority of invalids are in the habit of acting almost independently of their medical advisers, and many perish who under strict guidance might have been saved. The personal character and professional superiority of a Dr. Frank, a Bright, a Charles, a Siordet, or of one of the other physicians practising there, may in some, even in many, cases exercise so powerful an influence as to command a willing obedience; but the whole system of this looseness of tie between doctor and consumptive patient is deplorable, and the results obtained are very inferior to those which might be obtained by judiciously arranged health establishments, under strict medical guidance in every point of general and personal hygiene. This, however, is by many invalids not yet regarded as the principal sphere of the physician's work, but more or less as everybody's business, for which no doctor is required, and which each individual must find out for himself.

I also regret very much that I cannot properly discuss the climates of Great Britain and Ireland. These islands contain on their different coasts and in their interior a great variety of climates, which have been well described by Sir J. Clark, Thorowgood, C. T. Williams, Tripe, Buchan, and others, and I have likewise given short sketches of them. With all the differences, great as they are, between the east and west, south-east and south-west coasts and the different inland localities, there are certain traits of character more or less common to all of them—viz., a high degree of humidity; greater warmth than is due to the geographical latitude; comparative equability with regard to seasons and periods of the day; an analogous degree of sunlessness and dulness of atmosphere; and considerable movement of the air, almost amounting to windiness. All these localities as a set-off possess hygienic arrangements which are superior to anything which is to be met with abroad, good food, and good accommodation; they are of easy access, and do not require a complete separation of the invalid from his family. The physiological influence on the constitution compared with foreign localities of a similar elevation may be designated as more or less tonic and health-giving, though not exhilarating, and as requiring a certain degree of energy and integrity of constitution. We possess in these islands good climates for preventive treatment; but we are not so well provided with localities assisting the treatment of developed phthisis, where the lungs and the constitution have partially lost their integrity and energy. We ought therefore to do everything to mend the defects of these our climates, and to render the good qualities available, and concentrate them if possible. Is this done at our health resorts for the treatment of phthisis? No, gentlemen, there are no such arrangements, or almost none, on the coasts of Devonshire, Hants, Sussex, and even the Isle of Wight, excepting the few sanatoria. Let us use our influence with our local professional brethren, who are neither deficient in knowledge nor in insight, and with the local proprietors and public, to obtain well-placed and well-arranged houses for the invalids, with suitable balconies on which light couches and shelters for open-air treatment can be placed, good large verandahs with movable glass doors; open and covered walks and winter gardens for exercise in windy and rainy weather; seats of different nature with turnable shelter; quadripartite glass-covered seats, like those at Hastings and St. Leonards, for which these places deserve commendation; walls for shelter from wind, and for reflec-

tion of the sun when it shines. We must induce our patients to place themselves under the entire control of their local doctors during their whole stay at one of our health resorts, and to learn that the guidance of the doctor is as important as the climate, and in many cases more so. By judicious management the doctor is often able to counteract the disadvantages of an indifferent climate and to bring into action all its good points, while without the guidance of an intelligent physician the natural and social attractions associated with a satisfactory climate may become sources of failure. There is no doubt in my mind that it would be a very great advantage to many invalids, especially those who are not very rich, if there were well-arranged health establishments under the supervision of good medical men, and that through them better results could be obtained from our home climates.

And once more, gentlemen, let me plead for the multiplication of small hospitals in good situations for the consumptive poor, such as I have sketched in the second lecture. You have always treated me with so much kindness and consideration since you have, so to say, adopted me as one of yourselves, that I am hopeful you will give your countenance to the plans I have suggested, and that through you they may lead to some good; then, gentlemen, the recollection of the hours which I have had the pleasure of spending with you in these lectures will belong to the brightest of my life.

CASE OF

BULLET WOUND (PENETRATING) OF THE ABDOMEN, WITH NUMEROUS PERFORATIONS OF THE INTESTINES, TREATED BY ABDOMINAL SECTION.

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A NOTE of the following case will, I trust, be considered of general interest, and also of special interest in connexion with the recent discussion at the Royal Medical and Chirurgical Society.

T. R——, aged fifteen, was admitted to the Edinburgh Royal Infirmary, under my care, on the 9th of March of this year. One hour before admission he was standing in front of a companion at a distance of about two feet, when a loaded revolver which was in his companion's hand was accidentally discharged, and the bullet struck him in the abdomen. The patient did not fall, but, placing his hand on his abdomen, he walked about a hundred yards into the nearest house, where he was carefully attended to, made to lie down, and a temporary dressing applied over the wound. He was then conveyed to the infirmary, where he was at once seen by me. On inquiry it was ascertained that the bullet was conical in shape, a quarter of an inch in diameter at its base, and a little more than half an inch in length.

On admission there was slight general shock, and the patient complained of a little pain in the region of the abdomen and pelvis; but he was perfectly sensible, and gave an intelligent account of the accident. The clothes had been slightly disarranged in applying the dressing, but on examination there was seen to be a round hole in the double fold of the trousers in front, a similar hole through the flannel drawers, three distinct holes in the flannel shirt, which was in folds at this point, and, lastly, an opening in the flannel jacket worn next the skin. The textures for a short distance round the holes in the clothes were scorched. The temporary dressing having been removed, there was found a rounded opening in the abdominal wall, with ragged and scorched edges. The position of the wound was an inch and a half below and half an inch to the left of the umbilicus, its diameter being rather more than a quarter of an inch. A probe was carefully introduced into this wound, but, as its point became obstructed in the substance of the left rectus muscle, it was not further employed.

Operation.—Chloroform having been administered, an incision an inch and a half in length was made in a longitudinal direction, the bullet wound being included in its centre. The various tissues of the abdominal wall were carefully incised until the peritoneum was reached, when a narrow slit was seen in the latter membrane, and protruding through it there was a small piece of bruised omentum. This portion of omentum having been carefully pushed aside, a small knuckle of uninjured small intestine presented itself. The peritoneal wound having been slightly enlarged, another knuckle of small intestine with three distinct perforations in it at once protruded. Two of these openings were situated within a quarter of an inch of each other, the third at a distance of about an inch and a half from the others, on a different aspect of the gut. These three openings were stitched by means of a continuous suture of fine catgut after Lempert's method. Both the external and peritoneal wounds were now enlarged upwards and downwards, so as to allow a more complete search of the abdominal contents. When this was done a considerable amount of blood oozed up from the deeper part of the abdominal cavity, and on drawing aside some folds of intestine this hæmorrhage was seen to come from a large vein in the mesentery, which had been perforated by the bullet; this vein was seized and ligatured with catgut. A further examination of the intestines showed two more perforations in the small intestine—two in the descending colon, and two in the pelvic portion of the rectum; all these were sutured with catgut, as in the case of the first three wounds. A careful search did not discover the bullet, and no injury to the bones of the pelvis or to the vertebræ could be found. No extravasation of fæcal matter was observed, but there were several large clots of blood lying in the pelvis. During the operation the exposed intestines were carefully protected by towels soaked in a warm solution of corrosive sublimate (1 in 2000), and the whole cavity of the abdomen and pelvis having been sponged out with the same solution, the external wound was closed by means of deep and superficial sutures. After the operation the patient's pulse and strength were good, and a half-grain morphia suppository was introduced. In the evening the patient expressed himself as feeling comfortable, and his pulse remained good. Early on the following morning he became restless, complained of pain in the abdomen, and showed symptoms of exhaustion. He did not rally from this, but died about 12 o'clock, twenty-four hours after the accident.

Necropsy.—On opening the abdomen the intestines were seen to be much distended with gas, and the abdominal cavity contained about six ounces of brick-red serum. The first three wounds in the small intestine were situated about three feet and a quarter below the duodenum, and the other two wounds about two feet two inches below this point. The other wounds, as mentioned, were situated in the colon and pelvic part of the rectum. On passing a powerful stream of water through the intestines, they were found to be perfectly watertight, except that there was a slight leakage where the three intestinal perforations were situated close together. After considerable search the bullet was found lying on the right side of the pelvis immediately in front of the ischial spine. There was no injury to the bones or other structures.

Remarks.—This case is an interesting example of the deviation of a bullet, which, having entered the abdomen a little to the left of the middle line, perforated the small intestine, the descending colon, and the rectum, and, passing across, lodged low down in the right side of the pelvis. In order to diagnose the exact nature of the wound in this case, the principle of carefully incising the abdominal wall so as not to divide the peritoneum in the first instance was carried out, the bullet wound being kept in the centre of the incision as a guide. The gentle use of the probe gave no satisfactory result, except to prove that the bullet had passed into or through the rectus muscle. Had the wound been a non-penetrating one, my incision would have been attended with little risk, and it would in all probability have allowed the bullet to be detected and removed if it had lodged in the abdominal wall or any other accessible place. Although this case terminated fatally, the result of the operation, as proved by the post-mortem examination, is, I think, encouraging, and should another case of this kind come under my observation I would not hesitate to carry out the same principles of treatment. The very important and suggestive papers published in 1882 by the late Dr. Marion Sims, and the experiences and suggestions of distinguished American and other surgeons as the result of their large experience in military practice, form material and considerations worthy of the careful attention of all practical surgeons; and a study of them and of other facts in connexion with abdominal surgery, together with a

knowledge of the fatality of these injuries, had prepared me to carry out active interference should a suitable case present itself. The complete staying of the hæmorrhage from the wounded mesenteric vein was an important result of the operation, and the entire absence of fæcal extravasation was also a most satisfactory point. The slight leakage which took place when a stream of water was passed with some force through the intestinal canal after death would not, I think, have led to any injurious effects during life. It can be readily understood that it was difficult, if not impossible, to ensure a perfectly aseptic condition in such a case; and I am inclined to think that drainage of the abdominal cavity would be advisable under similar circumstances. I did not employ drainage in my case because the abdominal cavity after the operation appeared to be perfectly free from blood-clots and fæcal or other extravasation; and I had hoped that the free use of the corrosive sublimate solution would have counteracted any septic mischief.

Edinburgh.

A CONTRIBUTION TO THE

CLINICAL STUDY OF THE LIVER VIEWED THROUGH THE URINE.

BY GEORGE OLIVER, M.D. LOND.

No. I.—THE TESTS FOR THE BILE SALTS, WITH DEMONSTRATION.

(*Concluded from page 701.*)

The peptone test solution.—Having got out the fact that bile salts when present in the urine precipitate a proteid from an acid solution, it was an easy matter to discover how to apply it as a practical test. On substituting for the acidified albuminous urine an acidulated antiseptic solution of peptone, I obtained a test solution much better in all respects, being readier and more delicate, and withal a preparation devoid of all objectionable qualities.[1]

The reaction.—When twenty minims of urine, containing bile salts in pathological quantity, are run into sixty minims of the test solution, an opalescence appears proportionate to the amount of the bile derivative. [Experiments shown.] It differs from all other urinary precipitates induced by an acidified reagent, in dissolving up completely on adding a drop or two of acetic acid or a citric test-paper;[2] and in diminishing, but not disappearing, on boiling.[3] The opacity is not affected by such warmth as suffices for the solution of urates, or even by a higher temperature than this implies. You observe that when the test solution is run upon urines containing an excess of bile salts, an immediate and very distinctive reaction takes place where the fluids meet—namely, a sharply defined white band of precipitated peptone; and on oscillating the tube, so as to mix up a little of the urine with the test solution, the upper part of the column presents an opacity, the density of which is proportionate to the amount of the bile derivative present, in marked contrast with the transparency of the urine below. On further agitation, a limit is reached when the opalescence diminishes, and perhaps finally vanishes; then it is restored on adding more of the test solution.

Delicacy of the test; objections.—The test is undoubtedly a very delicate one, for I have readily determined by it the presence of one part of bile salts in at least from 18,000 to 20,000 parts of a solution of chloride of sodium. The question will naturally be asked, Is there anything besides bile salts in the urine that will react in like manner with an acidified solution of peptone? So far I have failed to put my finger on any such constituent; and I have tried several, among them kreatin, kreatinin, leucin, tyrosin, hippuric acid, and fatty acids (monatomic and diatomic).[4] Besides this failure to discover in the urine a non-biliary substance that can precipitate the peptone, all the positive evidence hitherto obtained undoubtedly supports the position that it is a liver-derived product present in the urine which reacts with the test. The testimony of the facts is cogent in this direction. (*a*) The biliary salts extracted from the bile produce an identical reaction. (*b*) The liver is the sole organ that furnishes a secretion which precipitates a proteid from an acid solution. All the secretions except bile either do not act on the proteids at all, such as saliva, or they dissolve them, such as the gastric and pancreatic juices; and, furthermore, the biliary salts are the only constituents of the bile that possess the property of throwing a proteid out of solution. (*c*) Then I must refer you to the physiological and clinical data which I hope to bring forward in my next communication. These definitely show the connexion that subsists between the proportions of the substance which the peptone test detects in the urine, and the varying degrees of activity of the liver, as well as the diseases and disorders of this organ. I have checked mucin and urates—the fallacies to which all acid urinary tests are liable. The *mucin* of urine of normal reaction is in acid solution. I have elsewhere[5] shown that when this albuminoid body is thus dissolved it is not precipitated by the addition of further acid. So that when this constituent is thrown down in urine of acid reaction, it seems highly probable that the acid added is not the reagent, but merely supplies the requisite degree of acidity to enable the precipitant already present to operate—as in the case of the bile salts and albumen. If so, a mucin precipitate merely indicates the presence of bile salts. Furthermore, on running the test solution on the muciparous mixture of normal urine and clear saliva, the reaction is rather diminished than intensified, and it is *nil* when a solution of chloride of sodium is substituted for the urine. Then, again, the methods of observation requiring a uniform low specific gravity obviate a liability to error from this cause.

Urates.—Inasmuch as the modes of testing—both qualitative and quantitative—require the uniform dilution of the urines to the specific gravity of 1008, a condition is provided which secures the solution rather than the deposition of urates; so that all observations may be trusted without the necessity of resorting to warmth as a corrective. Even when testing the urine undiluted, I have not once observed a precipitation of urates.

The mode of preliminary testing.—In every case the urine to be tested must be quite clear. If turbid from urates, it should be clarified by warmth; if from phosphates, very small pieces of citric test-paper should be added and shaken up with the urine until it becomes transparent, special care being taken not to acidify beyond this limit. It is, upon the whole, best to filter turbid urines; and this proceeding is necessary if the cause of the opacity is organic or doubtful. When the urine is cloudy from blood, it should first be boiled[6] and then filtered, for filtering alone does not clarify it. The specific gravity of the urine is to be reduced to 1008.[7] The object of this direction is to obviate fallacious inferences apt to be drawn from reactions with urines of varying densities: concentrated urines often reacting as if there were present an excess of bile salts; and urines of low specific gravity, though sometimes affording a reaction similar to that of normal samples, actually containing an increased proportion. Twenty minims of urine are added to sixty minims of the solution. If the bile salts are present in excess a distinct milkiness appears, which develops somewhat further in the course of a minute or so; and the depth of the opacity is proportionate to the amount of the bile

[1] The following is the formula for the solution:—Pulverized peptone (Savory and Moore), thirty grains; salicylic acid, four grains; acetic acid (B.P.), thirty minims; distilled water, eight ounces. Perfect transparency is obtained after repeated filtration.

[2] When, after dropping in the test-paper, the tube is set aside for a minute or two without shaking, the observer will find the portion below quite transparent, and that above still opaque; and on shaking up the contents he will disperse the opalescence throughout.

[3] When the test solution is precipitated by bile salts, the precipitate has the same peculiarities; dissolving when further acidified, and lessening—certainly not vanishing—when boiled.

[4] It is well known that a concentrated solution of chloride of sodium in the presence of an acid will precipitate a proteid. When the chlorides of the urine appear in excess, will they react with the test solution? Experiment shows that when the peptone solution is run upon a solution of salt of any specific gravity less than 1050 no precipitation whatever appears. Therefore the urinary chlorides are not a source of error, and more especially when it is called to mind that a condition of the testing is the reduction of all urines to the uniform specific gravity of 1008.

[5] Bedside Urine-testing, 3rd edition, pp. 110-11.

[6] Boiling the urine does not destroy the bile salts. It is true, if any taurocholate of sodium is present it is broken up, the products being taurin and cholate of sodium; but the peptone test reacts with the cholate as well as with the liver-secreted salt.

[7] This is done very readily by taking the specific gravity of the urine according to the method I follow (see Bedside Urine-testing), a bead of the specific gravity of 1008 being dropped into a measured portion of the urine contained in the tube graduated from 1008 to 1018, and water being added until the bead ceases to rise and remains stationary at any part of the column of fluid.

derivatives. If the urine contains the average proportion found in the majority of healthy urines—or, of course, less than that proportion—the reaction is a mere tinge of milkiness, which is, moreover, not immediate.

The contact method.—When the test solution is gently run over a urine (reduced to the specific gravity of 1008) containing bile salts in pathological amount, an immediate reaction takes place; but when the quantity is normal or subnormal, the reaction is not instantaneous—it gradually appears in the course of a minute as a delicate thread-like line, which may undergo a little further development during the lapse of a few minutes.

Quantitative estimation.—Clinical observation demands something more definitely comparable than can be derived from the mere qualitative testing; for it should decide as accurately as possible the quantitative variations of the urinary elimination of the bile salts observable in different pathological conditions, in the various stages of disease, and in the effects of treatment. I have therefore devised the following procedure to meet this requirement. A permanent standard of opacity is needed to represent the small average discharge of bile salts in healthy urine. For this purpose I have selected alumina precipitated by ammonia, because the permanency of this form of opacity has been proved by the alumina standard, which over twelve months ago I devised for quantitative albumen. The opacity of the fluid contained in this small tube is that provided by mixing together in equal proportion (sixty minims) the urine, reduced to the specific gravity of 1008, and the test solution. To sixty minims of the test solution the urine, of the specific gravity of 1008, is added, in ordinary cases ten or twenty minims at a time, and allowing a minute to elapse after each addition, until the opacity induced is seen to be exactly equal to or to slightly overstep that of the standard, the tubes being held to the light, *shaded by a dark background*, such as that of the coat-sleeve. If fifty or sixty minims of the urine bring up the opacity merely to that of the standard, the proportion of bile salts is not outside the normal range in the direction of increase. But any smaller quantity of urine required indicates an excess of the biliary derivatives over the physiological variations. The smaller the amount of urine needed, the larger the proportion of bile salts present, according to the following table:—

Urine.				Percentage increase of bile-salts over the normal maximum.
Minims.		Drops.		
1	or	2	=	3000
2	,,	4	=	1500
3	,,	6	=	1000
4	,,	8	=	750
5	,,	10	=	600
10	,,	20	=	300
15	,,	30	=	200
20	,,	40	=	150
25	,,	50	=	120
30	,,	60	=	100
35	,,	70	=	83
40	,,	80	=	66
45	,,	90	=	50

Charges of bile-salts beyond 700 per cent. increase over the normal maximum amount are only met with now and then; but they may be encountered in isolated samples of even non-jaundiced urine; as in a specimen I show you which I lately met with containing 1500 per cent. increase of biliary salts, but quite free from bile pigment.[8]

The peptone test-paper.[9]—I have arranged the peptone test in the form of test-paper, so as to serve the convenience of observers in the preliminary testing. The test-paper is permanent and reliable, and is best used in the following manner: The peptone test-paper along with half a citric paper is dropped into fifty or sixty minims of water in the larger test-tube or a wine-glass; after the lapse of a minute or so the solution is slightly agitated, and on being set aside for another minute[10] is ready for use. The solution thus prepared is taken up by the pipette and carefully run over the transparent urine, when, if bile salts are present in larger amount than the normal average, an immediate reaction is observed, as a pearly-white thread or band; but, with urine devoid of this excess, a delicate zone may appear, but only in the course of from one to two minutes. The test may likewise be employed equally well in the following ready way: The test-paper along with half a citric paper is dropped into sixty minims of water, and twenty minims of urine reduced to the specific gravity of 1008 are added. The contents of the tube are oscillated for half a minute, and then set aside for a minute, so as to allow time for the clearing away of gaseous particles and the development of the reaction. If bile salts are present in excess a distinct milkiness is apparent, but if in normal or subnormal amount there is only a slight haze, or no obvious change.

[8] Pettenkofer's test afforded at once a beautiful reaction with this sample.

[9] These test-papers, the apparatus for taking the specific gravity, the standard opacity, suitable test-tubes, pipette, &c., as well as the peptone solution, are supplied by Messrs. Wilson and Son, Harrogate.

[10] The solution thus left at rest for a short time becomes quite transparent.

CHRONIC CHOREA OF FORTY-ONE YEARS' DURATION; NERVE-STRETCHING FOR RELIEF OF PAIN.

BY AYMER R. MACDOUGALL, M.B. EDIN., M.R.C.S.

THE LANCET of November 29th and of February 21st publishes papers by Dr. Saundby of Birmingham and Dr. J. C. McLearn, treating of the subject of Chorea in the Aged. While the matter is still fresh in the minds of your readers the following notes of a case of chronic chorea in a person of somewhat advanced years on whom nerve-stretching was performed will, I trust, prove interesting. At the outset I may state that the nerve-stretching was not performed with the primary object of curing the chorea, but was necessitated on account of severe and intractable pain, limited to the regions supplied by the anterior crural nerve. I hoped, however, not only that the pain would be removed, but that a favourable influence, even though slight, might be exerted on the chorea. As the sequel shows, in this I was not disappointed, for, though the chorea still continued, the movements were much less severe than they had been, while the pain itself was completely removed, and remained absent for rather more than two years.

The patient, Mary A——, aged fifty, an inmate of the Border Counties Home for Incurables, had suffered from choreic movements for the last forty-one years. Her family history was good; no evidence of nervous disease in any of the other relatives could be obtained. Up to the age of nine the patient was strong and healthy. At that time she received an injury to the lumbar portion of her spine, followed by partial loss of power in the lower extremities. Shortly afterwards spasmodic involuntary movements commenced in the muscles of the left calf. These, at first slight and localised, gradually became more diffused and severe. The left thigh became affected, then the right lower limb, and subsequently the trunk, arms, and head. This extension occurred very slowly, many years elapsing before the movements became general. During the last two years, even when assisted, she has been quite unable to walk. Prior to this when walking she frequently suffered from retropulsion.

At the time of operation the condition of the patient—a pale, feeble, emaciated woman—was as follows:—Her extremities, head, and trunk were in constant motion, save when she was asleep. Then the movements ceased entirely. The muscles of the face were affected. The arms were less involved than the other parts of the body. She could seize a large object and hold it for a second or two. The tongue could be protruded straight and held out steadily; but so severe were the general movements that the patient was quite unable to rest in bed or to sit on a chair. The only posture in which she could find partial relief was by kneeling on the floor and resting the upper portion of the body on some support. Her sleep was thus much interfered with, and, to add to her misery, a constant shooting pain in the inner and anterior aspects of the right thigh had tormented her for the last three or four months. The muscular power was diminished; her grasp was feeble, but that with the right hand was stronger than with the left. Power in the lower limbs was also markedly impaired. Sensation was everywhere normal save at the inner and anterior aspects of the right thigh, where it was increased. Knee reflex was present on both sides; no ankle clonus. The spine on inspection appeared normal; but, when percussed,

pain was complained of over the seventh and eighth dorsal and also over the lumbar vertebræ; when a hot sponge was passed along the spine she felt it much more keenly at those spots. The action of the bladder and rectum was normal, as were also the special senses. The patient was irritable and childish in manner.

As many local and general remedies had been tried without effect, and as her general health was suffering sadly from the constant pain and want of rest, I offered her the chance of such relief as nerve-stretching, from what I had read of it, seemed to give. This chance she eagerly grasped at, and on March 31st, 1881, assisted by Mr. Page and Dr. Barnes, I stretched the right anterior crural nerve. The incision, an inch and a half long, was made half an inch to the outer side of the femoral vessels. The nerve was easily found, and, having been cleared from the surrounding parts, a blunt hook was gently passed under it. On this the nerve was raised sufficiently to allow of its being grasped between the thumb and forefinger, when it was twice pulled strongly from above downwards and from below upwards. The nerve was then replaced, the wound washed with carbolic lotion, the edges brought together with silver sutures, and a small horsehair drain inserted. When the patient recovered from the anæsthetic, she was absolutely free from pain and from the choreic movements; the latter did not return until the evening, some seven or eight hours after the operation. On subsequent examination, sensation in the parts supplied by the anterior crural nerve was discovered to be almost *nil*, especially as regarded pain. There was no power of flexing the thigh or raising the limb from the bed.

April 1st: The patient had had a good night. Wound dressed, looking well; no pain. The choreic movements are exceedingly slight, those of the right leg not so marked as the left. Had "jumping" in the right limb during the night. Sensation on the right side much the same as yesterday. The right thigh felt somewhat warmer than the left.—2nd: Choreic movements not increased. Sensation and motor power somewhat better. Can feel the prick of a pin when inserted deeply.—4th: Sensation returning much more rapidly than motion. She can feel the touch of a finger placed on the anterior part of the thigh; perception, however, seems somewhat delayed when compared with the left. Pain is distinctly and rapidly felt. She can flex the thigh a very little to-day, but cannot raise the limb from the bed. The right thigh to the touch still feels warmer than the left. Sutures and drain removed. Wound healed, save in the line of the drain.—6th: Sensation seems equal on both sides. No apparent delay in the transmission of impressions. She can now flex the thigh more strongly and rapidly, and can raise it a few inches from the bed. Her general condition has much improved since the operation. She is more cheerful, and eats and sleeps well.—By April 25th the patient was able not only with slight assistance to walk about the ward, but she could sit easily in a chair, which she had not been able to do for many months. There had been absolutely no pain, and the motor power had increased; the right limb, however, was not so strong as the left.

When the patient was examined in February, 1883, nearly two years after the nerve-stretching, the chorea was found to be rather more severe than at the last report, though not nearly so much so as before the operation. She was still able to lie in bed or to sit upon a chair. Power in the right limb was found diminished, both in flexing the thigh and in pushing against obstacles. Her walking was also worse, and more support was required to be given. She had had no return of the pain. Fourteen months later she stated that the old pain had returned, and, though not nearly so severe as prior to the operation, her sleep was a good deal disturbed by it. The choreic movements appeared to be in much the same state as in February, 1883. Sensation was apparently equal in both thighs, and there was no delay in the transmission of impressions. When the spine was percussed the first and second lumbar vertebræ were found to be more tender than the others, and here also the hot sponge was more clearly felt. When measured two inches below the great trochanter, the right thigh was found to be 13½ in.; the left, at the same level, 14¼ in. As the limbs were not measured before the operation, no importance can be attached to this difference in the circumference. The muscles of the right thigh seemed not only smaller, but felt softer than those of the left.

So far as I know, no case of chorea has been recorded in which nerve-stretching has been tried. Nor would one, considering the pathology of the disease, expect much good to follow such a procedure. Few, however, will doubt that in this case the operation, undertaken for another condition, was followed by marked improvement in the chorea. Three years had elapsed when I last saw the patient, and even then the benefit had not entirely passed away. Signs, however, were not wanting to show that the disease, though slowly, was steadily resuming its old characters.

Chesterfield.

IS ALCOHOL A FOOD?

By T. W. THOMPSON, M.R.C.S.,
LATE SURGEON 1ST LIFE GUARDS.

IT is perhaps a little surprising that in this age of scientific energy a subject of such intrinsic importance and universal interest as the one I now propose to reopen should remain in the region of uncertainty. The importance of the subject becomes evident when we remember that the position occupied by alcohol in the civilised world, both as a staple article of diet and as a therapeutic agent, rests to a great extent on its supposed nutritive properties. The uncertainty with which the matter is still surrounded is sufficiently evidenced by the opposite opinions that continue to prevail, not alone among the general public, but even in the ranks of the scientific. These differences of opinion are often attributed to individual prejudice; I cannot but think, however, that, among the scientific at least, prejudice would ere this have succumbed to demonstration had this been forthcoming.

Without for a moment under-estimating the importance of the experimental researches of Anstie, Parkes, Dupré, Thudichum, and others, my contention is that, though the facts accumulated by those distinguished observers furnish a strong presumption in favour of the view that alcohol is a food, they nevertheless fall short of the requirements of proof. So much was admitted by Parkes himself, who said "the experimental evidence is incomplete (chiefly on account of the difficulty of collecting the amount given off by the lungs and skin)." In this sentence Parkes certainly points out the proximate cause of the failure of previous investigators to reduce the matter to demonstration, but as the difficulty of collecting all the alcohol given off by the lungs and skin (and we may add, bowels) amounts practically to an impossibility, I venture to suggest that the ultimate cause of their failure was that the logical arrangement of their experiments was unsuited to the peculiar conditions of the inquiry.

To explain my meaning more fully I must call attention to the plan upon which they proceeded, which was as follows:—Having administered a measured dose of alcohol to a subject, they endeavoured to collect the absolute amount eliminated by all the possible channels, with the view of comparing the amount administered with that eliminated, the difference between the two being assumed to represent the quantity that had been split up in the system and utilised as food. Now, if this method were practicable it could hardly fail to be conclusive; but, as already said, the difficulty of estimating the amount eliminated by the lungs, skin, and bowels with any degree of accuracy is, and probably always will be, insurmountable. This method, then, is never likely to furnish more than presumptive evidence, which must ever remain a prey to the criticisms of the sceptic. If we would reduce the matter to anything like demonstration, it would seem evident that we must resort to a different method.

I now propose an alternative line of investigation, which, in my opinion, is capable, if properly worked out, of yielding a positive result. The problem being to ascertain whether alcohol is or is not a food, we should endeavour to ascertain whether it is to any extent capable of taking the place of other foods. We cannot, unfortunately, proceed upon the simple plan of trying whether it is possible to sustain life for an indefinite period on a diet of alcohol alone, for since alcohol contains no nitrogen we know such a result to be impossible; it may, however, be a food nevertheless. The simplest and most conclusive method would seem to be the following:—

Ascertain, by a series of experiments arranged strictly in accordance with the Method of Difference, whether, of measured doses of alcohol administered, the amount elimi-

nated is or is not influenced by the amount of other food taken. For instance, supposing alcohol to be a food, then, other things being equal, we should anticipate that the amount eliminated when the demand of the body for nourishment had already been amply supplied from other sources would be greater than when the reverse was the case, as in starvation. This difference would be observable equally by all the channels of elimination; it would, therefore, be sufficiently conclusive of the connexion of cause and effect if the elimination by any one channel was carefully studied under these different conditions. The difficult and uncertain channels might thus be neglected, and the more workable one (the urinary) adopted for observation.

To bring out still more prominently the connexion of cause and effect, this line of investigation might be pushed further by proceeding to the nicer distinctions exhibited by the Method of Concomitant Variations. If we could show that, other things being equal, of measured doses of alcohol administered, the amount eliminated by the kidneys always varied *proportionately* with the amount of other food taken, the fact of alcohol being capable of taking the place of some of the other nutritive elements would be established by all the weight of evidence that the inductive methods are capable of affording.

Acting upon the views above expressed, I have, in conjunction with Dr. G. A. Hamerton, worked out a few experiments, which I record below, and which, as far as they go, point unequivocally to the conclusion that alcohol is a food. I say as far as they go, because, inasmuch as they are of limited extent, and were performed under considerable practical difficulties, I should not wish to attach too much importance to them in the absence of corroboration. When I first entertained the idea of working out this subject I hoped to be able to carry it through, but I soon found that the time and facilities for experimentation afforded by a straggling country practice were altogether inadequate to the requirements of the inquiry. I have therefore been obliged to abandon the notion of working it out more thoroughly myself, and I have come to the conclusion that under the circumstances the best course is to put my view of the matter (with such experiments as we have already made) before the profession, feeling sure that if that view is a sound one it will certainly be worked out by others who are fortunate enough to be possessed of the required opportunities. I must, however, point out that, while admitting the possibility of our results being modified by more extended observations, I have no want of faith whatever in the method I have suggested, but hold confidently the opinion that, if carefully worked out, it must settle the question of the food value of alcohol one way or the other.

Coming next to our experiments, I may say first that, with the view of avoiding unnecessary sources of error, they were worked out only upon ourselves and one friend, in whom we have the greatest confidence. The test employed was the chromic acid colour test used for a similar purpose by Anstie, Thudichum, and Dupré, and all the precautions suggested by those distinguished observers were carefully adopted. For the information of those who may not be conversant with the *rationale* of this test, I should perhaps explain that it depends on the power of alcohol to reduce free chromic acid, when well diluted with sulphuric acid, into sulphate or oxide of chromium, which reaction is evidenced by a change of colour from red to green, the intensity of the change corresponding to the amount of alcohol present in the suspected fluid. Our general plan was as follows:—

Two experiments were to be made on the same individual. In Experiment 1 a demand for nourishment was to be created by exercise and starvation; in Experiment 2 the demand for nourishment was to be reduced to a minimum by rest and feeding. All the other circumstances were to be, as far as possible, identical in the two observations. On each occasion the same quantity of alcohol was to be taken, in the same doses and at the same hours. The relative amount of alcohol eliminated by the kidneys in the two cases was then to be compared. In anticipation of the possible criticism that in the first observation the skin elimination would be favoured by the exercise, I must point out that the first dose of alcohol was not taken till an hour after the exercise was completed, and that every precaution was taken to reduce the skin elimination to a mimimum. Still, should this objection be seriously pressed, it would be easy, and perhaps more strictly in accordance with the Method of Difference, in any repetition of these experiments to vary the circumstance of food alone.

Experiment 1. — A. having abstained from alcohol for one week, the urine was examined on the evening of July 7th, 1884, and proved to be free from alcohol. The only food taken from 7 P.M. on the 7th till 9 A.M. on the 9th—an interval of thirty-eight hours—was, on July 8th, for breakfast, one egg, one small piece of toast (less than an ounce), and one cup of tea without sugar and milk; for lunch (1.30 P.M.), two ounces of beefsteak and one ounce of toast. On this day A. did an ordinary day's work, and, in addition, played two sets of tennis. At 7 P.M. he had a cold bath, put on cool comfortable clothes, and sat out of doors for the remainder of the evening. At 7.15 P.M. he passed urine, and at 7.30, feeling considerably exhausted, took the first dose of alcohol, which consisted of one-fourth part of a mixture consisting of an ounce and a half of Scotch whisky and two ounces and a half of water. The remaining three doses were taken at intervals of an hour. At eleven o'clock he retired to bed. All the urine passed between 7.15 P.M. on the 8th and 9 A.M. on the morning of the 9th was collected. Of this, 50 c.c. were put into a retort, with a little tannic acid to prevent frothing, and distilled to one-half through an air-tight Liebig's condenser into a receiver fitted with a mercurial valve. The distillate, to which was added a little caustic potash, was then redistilled. This second distillate was next distilled to one half with a little sulphuric acid. By these means the fluid was concentrated to one-eighth, and all the volatile alkalies and acids were removed. The final distillate was then put into a large test-tube which was connected by glass tubing on the one side to a continuously acting bellows, and on the other to a U-shaped tube containing a mixture of one part of dichromate of potash to three hundred parts of sulphuric acid. The U-shaped tube was again connected with a second test-tube containing the same acid mixture. Air was now pumped through the apparatus in a continuous stream for half an hour, and no change of colour occurred in the test solution either at the time or after standing.

Experiment 2.—After an interval of a fortnight, during which time A. had of course abstained from alcohol, the experiment already described was repeated on him, the only difference in the conditions being that on this occasion he ate as much and as often as he could, and exerted himself as little as possible. The whisky (out of the same bottle as before) was taken in the same doses and at the same hours, and the remaining details of the experiment were identical with those of the previous one. This time, when air was pumped through the urine distillate, a slight change of colour was soon observed in the test solution, which at the expiration of half an hour was of an evident greenish hue, which deepened after standing.

These two experiments were then repeated on B. and C., special care being taken to ensure that the conditions were identical with those of the previous experiments. In both of these cases the results obtained were exactly the same as those just described in connexion with A. While the subjects were creating a demand for nourishment by exercise and starvation there was no ascertainable elimination of alcohol by the kidneys. When, on the other hand, the demand for nourishment was reduced to a minimum by rest and feeding the elimination of alcohol by the kidneys was easily demonstrated, even after so small a dose as an ounce and a half of whisky, or probably about six drachms of absolute alcohol.

It will be seen that we only carried our experiments to the Method of Difference, and did not extend them in accordance with the Method of Concomitant Variations. The obvious reason was that, apart from want of time &c., a colour test is not sufficiently accurate for the nicer distinctions of the latter method, while the quantitative tests for alcohol are extremely difficult, and could hardly be worked out of a regular laboratory. Admitting that the case would be very much strengthened if corrobated by the Method of Concomitant Variations, I must at the same time express my belief that unless our results have been rendered fallacious by errors of practical manipulation, which I can hardly think probable, our experiments certainly indicate in the clearest manner that alcohol in small doses, at all events, is a source of nourishment—i.e., a food.

In conclusion, I must express my indebtedness to Dr. Hamerton for his valuable help in the practical working out of the experiments, without which, indeed, it would have been impossible for me, situated as I was, to have undertaken the inquiry at all.

Potter's Bar.

CASE OF

CARIES OF THE SPINE, WITH PARTIAL PARAPLEGIA, TREATED BY THE APPLICATION OF SAYRE'S JACKET;

RECOVERY OF POWER OF LOCOMOTION IN TWENTY-FOUR HOURS.

BY MARTIN OXLEY, M.D.,
CONSULTING PHYSICIAN TO THE LIVERPOOL INFIRMARY FOR CHILDREN.

MARY D——, aged ten years, came under notice on June 1st, 1883. There was disease of the fourth, fifth, and sixth dorsal, also last dorsal and first lumbar vertebræ, there being two distinct angular curves, the upper the more marked. She had been four months in the Aberystwith Infirmary under treatment. When discharged she had lost the use of her legs, and could not stand or walk. When seen by me she was unable to walk, although she could stand with assistance. She cried out suddenly with pain, caused by spasmodic jerking of her right leg. I applied a Sayre's jacket and a jury-mast while she was suspended, putting on extension enough to straighten the body, but without attempting to open out the two angular curves. The feet were flat on the ground, and she grasped the cross bar with her hands, an assistant giving her support and steadying her during the application of the jacket. She was then placed in bed. The next day, on my visiting her, I was told that she had been out of bed,[1] and had walked without difficulty. On hearing this I tested her walking powers, and found that they were quite restored. She went to her friends in Liverpool until November 10th, 1883, when she returned to have a new jacket. She was then in excellent health, and I exhibited her at a meeting of the Medical Institute. In June, 1884, she had a new jacket applied, and was able to walk about without any support. Now (April, 1885) the patient is again in Liverpool,[2] and has had a new jacket and jury-mast applied. She is able to go about quite comfortably without the support; but having seen bad results follow when the corset has been given up too soon, I intend to keep a light jacket on for some years.

Remarks.—The relation of this case will, I hope, convince those who doubt the efficacy of Sayre's mode of treating spinal caries—viz., by the application of a well-fitting plaster corset, which allows the patient at once to walk about and behave like a healthy individual. I consider the above as good an instance for testing Sayre's method as one could have. 1. The patient is old enough to speak for herself, and is highly intelligent. 2. She had previously been under treatment in hospital, under a skilful surgeon, by rest in the recumbent position. 3. She had disease of two separate portions of her spine—viz., the fourth, fifth, and sixth dorsal and the twelfth dorsal and first lumbar vertebræ. 4. She was unable to walk when she came under treatment. Further, a few days after the application of the jacket she was sent out into what we know too well as squalid Liverpool; and when she came to see me again, six months after the first application of the jacket, her dirty condition told very plainly how little care had been bestowed upon her.

Liverpool.

[1] This was contrary to my orders, as I always keep my Sayre's cases in bed between the blankets for three days after the application.

[2] I again showed her to the members of the Medical Institute at one of their meetings, this time without the jacket.

A NEW REMEDY IN GOUTY OBESITY AND DYSPEPSIA.

BY J. MORTIMER GRANVILLE, M.D.

I HAVE been obtaining some very good results of late in cases of gouty obesity and dyspepsia with a remedy which, although familiar and based on the simplest physiological principles, is, so far as I am aware, new as I use it. It occurred to me some time ago, as indicated by the physiological state in gout, chronic and irregular; and having now had ample opportunities of trying it, I venture to suggest it to practitioners generally, to whom I think it will at once commend itself as essentially *likely* to be of service.

One of the earliest, if not a primary, error of function in gout, whatever may be the real *cause* of that malady, is failure of the liver to secrete sufficient, or normally constituted, bile. The product of liver function is, as we know, excremento-recrementitial, the greater part of the bile being re-absorbed in the intestines; and among other uses in the economy, such as helping to hold the cholesterin, *and perhaps the uric acid*, in solution, it is destined to facilitate the proper digestion and assimilation of fats. If fat be not duly assimilated, it will be deposited crudely, as in the omentum and elsewhere, with the result of obesity, coupled with deficiency of heat production and maintenance; which is a very different thing from obesity with full or even excessive powers of calorification. I think it is important to make this discrimination between two distinct and totally different classes of cases. In the former class—common in persons with an inheritance of gout, in which there is obesity with a low grade of heat-force,—I am giving the biliary salts, extracted from ox bile, in the form of a pill, to be taken as pepsine is taken, with food. The results are very striking. The stools are rendered characteristically rich in bile without purging, the food is readily digested, and the accumulations of fat seem to melt slowly away. The taurocholate of soda with the glycocholate of soda are readily obtained from ox bile by evaporating to dryness and pulverising, making an alcoholic extract, filtering, and precipitating by small successive additions of ether. The deposit is non-crystallisable so far as the taurocholate of soda is concerned, while the glycocholate of soda appears, if the deposit be left to stand, in acicular crystals, forming themselves into rosettes. With any suitable excipient the mass may be readily made into pills, each containing about four grains of the taurocholate, and coated *so as not to dissolve in the stomach*. One should be given with each meal or immediately after food. The effect of this new remedy, both for defective digestion and assimilation, and for obesity in cases in which fat is accumulated instead of being burnt off in the system as nutritive fuel, will, I think, be found highly satisfactory.

Hanover-square, W.

AN INSTRUMENT FOR THE TRANSFUSION OF DEFIBRINATED BLOOD.[1]

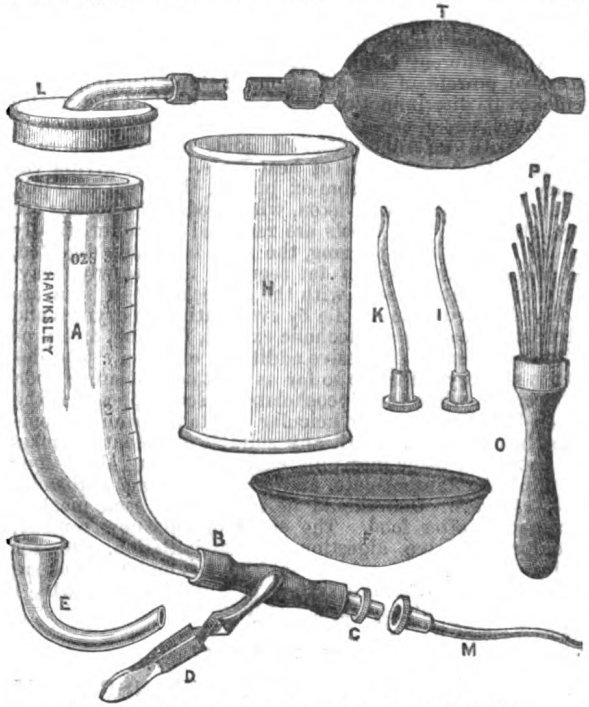
BY T. W. CARMALT JONES.

THIS instrument is intended to be used for transfusing defibrinated blood. It could be equally well used for injecting milk or any other fluid into a vein. It consists of a holder (A), into which the defibrinated blood is to be poured; a tight-fitting metal cap (L), in the centre of which is a hole, a pipe leading from this hole communicates by means of an indiarubber tube with a valved handball (T). When the cap is in position on A, air can pass easily to A, but pressure on the handball will force air into A and compress it on the surface of the fluid in A. At the lower end of A is a piece of indiarubber tubing (B), which can be compressed by the clip D, and at the other end of the tubing is a hollow coned metal plug (C), which fits into the silver nozzle (M). The instrument with its accessories, as supplied in the case, provides all that is required for the performance of the operation of transfusion of defibrinated blood, with the exception of a clean ordinary tumbler, or, preferably, a small milk-jug and a basin of hot water. The steps of the operation are as follows. 1. Bleed the donor, in an adjoining room if possible, to five or six ounces into the measured vessel (H). 2. Whip the blood with the whip (P), and strain through the strainer into the tumbler or milk-jug. 3. See that the indiarubber tube (B), plug (C), and clip (D) are in place. Pour the defibrinated fluid into the holder (A), and put the cap (L) on firmly, then place the holder in the basin of water at 100° F. 4. Open a vein in the patient's arm, and insert the silver nozzle (M, K, or I)—three sizes of nozzles are provided—and block up the open end of the nozzle with the finger. 5. Have the holder brought to you; ease the clip until the fluid flows out of the plug, then tighten the clip again, take the finger away from the end of the nozzle, and insert the plug and remove the clip. Note the height of the fluid in A. The fluid in the holder is now in free and direct communication with the blood in the patient's vein. If any force is required, squeeze

[1] A paper read before the Harveian Society of London, March 5th, 1885.

the handball gently. 6. After the operation is over again note the height of the fluid in A, remove the short piece of indiarubber tubing (B) and burn it. The other parts can then be easily and thoroughly cleaned.

The instrument is very simple in action, has no delicate or complicated parts that can get out of order so as to cripple it, has no taps to puzzle the operator, and can be thoroughly cleaned and inspected. Supposing anything were to happen to the handball, an assistant could supply all the force required by blowing, though



H, Vessel marked in ounces for donor to be bled into. P, Whip to be used in H. F, Strainer of lawn muslin on wire frame. A, Holder to receive defibrinated fluid. B, Indiarubber tube about three inches long. C, Coned plug (hollow). D, Clip. L, Metal cap for A. T, Handball. M, Nozzle. K, I, Additional nozzles. E, Blood director.

not so conveniently as by the handball. The piece of indiarubber tubing at B is to be a clean new piece each time the instrument is used, and is to be burnt directly after use, so that no danger may arise from dried blood not removed after previous use. The inside of indiarubber tubing is rough and not easily cleaned, and cannot be inspected to see if it is clean. This piece of tubing allows sufficient play and breaks the rigidity, but is purposely kept short. The amount of blood taken from the donor and the exact amount injected into the patient will be known. The instrument is made for me by Mr. Hawksley of Oxford-street, to whom I am indebted for several practical suggestions.

ANTHROPOLOGICAL INSTITUTE.—At a meeting held on April 14th (Professor Flower, F.R.S., Vice-President in the chair), Dr. J. G. Garson read a paper on the "Inhabitants of Tierra del Fuego." Three tribes inhabit the Archipelago of Tierra del Fuego: they are called the Onas, who occupy the north and east shores, and resemble the Patagonians in being a tall race, chiefly living by hunting, but supplementing their food with shellfish and other marine animals; the Yahgans, who live on the shores of the Beagle Channel and Southern Islands—a short, stunted race, subsisting almost entirely on the products of the sea and birds; the Alaculoofs, who dwell in the Western Islands, and are closely similar to the Yahgans. These last two tribes lead a very degraded life, wandering from place to place; they possess no houses, but construct shelters out of the branches of trees; they build canoes of bark, and wear very little clothing. In stature they are short, the men averaging about 5 ft. 3 in., and the women about 5 ft. In cranial and osseous development they resemble the other wild native tribes of America, but by isolation have assumed certain characters peculiar to themselves. The population of the Fuegoan Islands appears to be about 3000.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

THE following two cases of hernia are of considerable interest. In the first, where hæmorrhage from a deeply-seated vessel complicated the operation for strangulated femoral hernia, we have an example of a condition which is very uncommon, and which, when it does occur, is usually due to an abnormal position of the obturator artery, the hæmorrhage arising from a wound of which is apt to be very troublesome. The second case is one in which the removal of the sac was carried out as an essential part of the treatment, and Mr. Hulke pointed out to his class the importance of closing the peritoneal cavity, and so preventing drainage backwards of discharges from the wound into the abdomen, a frequent cause of fatal peritonitis.

For the reports of the cases we are indebted to Mr. Ernest E. King, house-surgeon.

STRANGULATED FEMORAL HERNIA; OPERATION; RECOVERY.

(Under the care of Mr. J. W. HULKE.)

M. R——, aged forty-five, a washerwoman, was admitted on Jan. 29th, 1885, complaining of swelling in the upper part of the right thigh, accompanied with pain in the abdomen and retching. The patient states she has had a swelling in the right thigh since her last confinement, eight years ago, but it has never given her any inconvenience, and she has never worn a truss. Five days ago she got a "chill" and began retching, and, the retching continuing, she noticed the swelling in her thigh was larger than usual, and somewhat tender. Thirty hours before admission the symptoms became aggravated; bowels not open for three days. She describes the vomited matter as "clear, watery, and frothy."

The patient's state on admission was as follows. In the upper part of the right thigh, external to and below the spine of the pubes, was a swelling about four inches long by two and a half wide, its long axis being from below upwards and outwards. On palpation the swelling was fluctuating, and a thrill of fluid could be distinctly felt. The lower border was much better defined than the other. It extended beyond Poupart's ligament, and was superficial to it. No impulse on coughing; dull on percussion, except on a very small area close to the spine of the pubis. It was irreducible. She had also an umbilical hernia. The disease was diagnosed to be strangulated femoral hernia, probably both gut and omentum.

Two hours after admission the patient was placed under ether, and an incision was made over the inner border of the swelling until the sac was reached. On opening the sac a large quantity of bloody serous fluid escaped (roughly estimated at two ounces). The finger was then passed in, and the gut was found to be surrounded by adherent omentum in places; consequently the wound was enlarged upwards and downwards; one or two vessels were divided, but easily controlled. The finger was then passed to Gimbernat's ligament, which was divided. As the hernia was still irreducible, the omentum was isolated as far as possible, and the pedicle transfixed with an aneurysm needle and double ligature, and the omentum carefully snipped away with scissors. There was no further hæmorrhage at this stage. The gut was then returned, and two or three little oozing points ligatured. After they had been stopped it was noticed that there was still bleeding from the bottom of the wound, and a ligature was passed with an aneurysm needle beneath it and tied, and the hæmorrhage being apparently checked, the closing of the wound was proceeded with; but again blood welled up, and the wound was freely opened and large retractors introduced, and at once a comparatively large atheromatous artery was seen spouting away freely. From its position it was evident that this was a large communicating artery between the deep epigastric and the obturator, lying just behind Gimbernat's ligament; it gave

very great difficulty in securing, which was only accomplished by making a still freer incision and picking up both ends and tying. The wound was then washed with a strong solution of chloride of zinc, dusted with iodoform, a long drainage-tube inserted, closed with sutures, and dressed with antiseptic gauze. The portion of omentum removed, when spread out, was as large as the palm of the hand.

Jan. 30th.—The patient passed a fairly good night, although troubled by cough at times, which was treated with an occasional dose of linctus morphiæ. She had some little pain in the wound, and took three half-grain opium pills during the night and a little milk and lime-water.—9 A.M.: Pulse 104; temperature 101·4°. Some slight abdominal tenderness.—2 P.M.: Wound dressed; looking well; a little blood-coloured inodorous discharge.

31st.—9 A.M.: Pulse 96; temperature 100·2°; the temperature during the night had reached 102·2°; has a little bronchial catarrh. Ordered an ounce of compound draught of senega every four hours. Wound again dressed; looking well, but had some slight tenderness over abdomen.

Feb. 2nd.—9 A.M.: Pulse 100; temperature 100·8°.

3rd.—Pulse 100; temperature 100°. From this date the patient improved, the wound granulating well. The drainage-tubes were removed, and on March 17th she was walking about the ward wearing a truss and in good health.

STRANGULATED UMBILICAL HERNIA; OPERATION; REMOVAL OF THE SAC AFTER LIGATURE OF THE NECK; RECOVERY.

(Under the care of Mr. J. W. HULKE.)

E. O——, a man aged sixty-one years, was admitted at 9 P.M. on March 3rd, 1885, complaining of some vomiting and constipation, and a large swelling about the umbilicus. He stated that for five years he had suffered from hernia, but that he could always reduce it easily; for the last two years he had worn a belt, and there had always been more or less swelling. On March 1st, without any apparent cause, he experienced pain in the abdomen, and noticed that the swelling was larger; he vomited after taking any food. On the 2nd he placed himself under medical treatment. Ice was tried, and an attempt at reduction made, but this failed, and, the vomiting and constipation continuing, he was advised to come to the hospital; but twelve hours previous to admission he took a large dose of castor oil and fomented the rupture on his own responsibility. This failing to act, he sought admission.

On admission there was a large swelling about the size of the clenched fist in the umbilical region. Its upper surface was almost entirely denuded of epithelium from the application of poultices, ice, &c. On palpation the swelling was found to extend some distance beneath the skin, more than was apparent to the eye. It was very hard, gave no impulse on coughing, was irreducible, but only very slightly tender on manipulation. It was diagnosed to be strangulated umbilical hernia.

Mr. Hulke, being in the hospital, decided to place the patient under ether at once, and if taxis failed—which it did—to operate at once. The parts were first washed out with carbolic solution, and iodoform dusted into the umbilicus. A semicircular incision was made at the upper and left outer margin of the swelling, with the intention of dissecting down to the constriction, and reducing, if possible, without opening the sac; but after carrying the dissection down a considerable distance, it was found impossible to do this, and another incision was made, running outwards and upwards from the centre of the umbilicus, and cutting the previous one at right angles. The strictures were then very carefully divided until a deep red and congested tissue, which looked and felt exactly like the bowel, came into view, but the finger could not be passed round the swelling; and the incision was further increased by two diverging ones, and then beneath this thickened membrane a bubble of air and fluid could be seen, showing evidently that this was the sac, and it was consequently picked up and pricked, and a large quantity of blood-coloured watery fluid escaped, showing the sac had been opened. It was freely divided, and a large piece of omentum deeply congested came into view; this was pulled forward, and numerous double ligatures passed through and firmly tied; the mass was then cut away (it weighed twelve ounces). The finger was next passed down to the constriction, which was found to be very tight and fibrous, and was divided with a hernia knife; a few bleeding points were ligatured. The whole surface was then thoroughly washed with carbolic solution (1 in 20), and there being no bleeding whatever, the stump was pocketed. The sac was next dealt with, and was found to be adherent nearly throughout its entire outer surface to the abdominal wall; it was freed by stripping it away, pulled well forwards, and the finger introduced to its own base inside; a ligature was tied round at this point as the finger was withdrawn, and the upper portion entirely cut away. Drainage-tubes were inserted, the edges of the wound brought together with waxed silk sutures, iodoform dusted over, and gauze dressing and a binder applied. The operation lasted one hour and a quarter. Temperature at 12 (midnight) 97°; pulse 84.

March 4th.—9 A.M.: Pulse 90; temperature 96°. The patient has not been sick; expresses himself as feeling quite comfortable. Has had a few teaspoonfuls of wine, water, and milk. Fifteen ounces of urine were drawn off; sp. gr. 1025, acid, no albumen.—3 P.M.: Bowels acted, a copious semi-solid motion being passed.—8 P.M.: Bowels acted again.

5th.—12.30 A.M.: Pulse 96; temperature 99° in mouth. He complains of great thirst; liquids increased, and to take a little barley-water as well.—8.30 P.M.: Temperature 98·8°. Slept several hours. Pulse 100. He has some bronchial catarrh, probably due to ether. Ordered steam inhalations.

6th.—Wound dressed. Total absence of inflammatory swelling; slight serous, inodorous discharge; no tenderness. Evening temperature 100°.

15th.—The patient since last note has steadily improved; temperature normal; pulse 84; bowels acted well, and wound granulating freely. Drainage-tubes have been considerably shortened, and the patient is sitting up in bed, going on remarkably well.

CITY OF LONDON INFIRMARY.

CARCINOMA OF THE LIVER WITH GREAT CONTRACTION OF THE STOMACH, PRODUCING NO SYMPTOMS; NECROPSY; REMARKS.

(Under the care of Mr. W. GEM.)

GEORGE K——, aged fifty-six, a porter, was admitted into the infirmary on October 29th, 1884, suffering from fistula in ano. His condition on admission was pale and anæmic, with great debility and weakness, although no emaciation was apparent; there was a rather copious discharge from the fistula, which was situated an inch and a half up the bowel. He had faint dulness on deep percussion over the left apex of the lung, but no complaint as regards the abdomen, which was enlarged. The liver dulness somewhat exceeded the normal, and was slightly irregular on the surface, but with no pain or uneasiness. He had a little diarrhœa, which was soon stopped by an astringent mixture. He was placed on a nutritious diet and got slightly better of the discharge and debility, but still complained of lassitude. Operation on the fistula was deferred until his condition became more favourable. Not having improved after being under treatment for a month, he was again thoroughly examined, and on percussion over the liver complained of pain over the right hypochondrium, with irregular masses slightly increased. All through there was no vomiting or jaundice. The bowels again became free, but were stopped by lead and opium pills. His history, by the way, indicated no hereditary cancer; he was of temperate and regular habits, and had always done his work as a porter without any feeling of illness except the fistula, which troubled him at times. About a month before his death he complained of pain over the right hypochondriac region, increasing slightly, but not to any extent, and a sense of weight and fulness over the epigastrum, but still no vomiting or jaundice occurred. It was only a few days before death that he showed the unmistakable cachexia of cancer, and emaciation became very great, though he still took his food up to the last, without any trouble or vomiting. He gradually got worse, and sank on January 14th last.

The autopsy was made twenty-four hours after death, and revealed the following. The liver appeared double the size of normal in outline, weighed nine pounds, was nodulated on the surface, with flat tuberous masses of cancer of the encephaloid type, and was soft in consistence. The gall-bladder was normal in appearance, and contained four drachms of bile. There was, of course, great displacement of the neighbouring viscera. The stomach was contracted so as to be a mere tube of half an inch in diameter. The kidneys

were slightly atrophied and granular. The left apex of the lung contained some tuberculous masses. The heart was normal, likewise the other organs and viscera. The abdominal cavity contained a small amount of bile-stained fluid; the fistula was slightly cartilaginous half an inch above the anus, and there was a small cancerous nodule of the head of the pancreas of the same type as the liver.

Remarks by Mr. GEM.—The above is interesting inasmuch as cancer of the liver usually gives rise to pain, jaundice, and gastric disturbance, or symptoms of various import, which were conspicuous by their absence here, and usually causing a patient to seek relief before they have caused such great destruction and reached such a stage as in this case. There were nominally no symptoms suggestive of cancer until two or three weeks before death, although it was suspected all through, and no jaundice or vomiting, although the stomach was so contracted and the liver substance so destroyed. The case also shows that it is not incompatible with life for the organs to be in this state. The query arises, How were the functions of the liver and stomach carried on under such conditions?

LEICESTER INFIRMARY AND FEVER-HOUSE.

ACUTE HYDROCELE; PLEURISY AND PERICARDITIS; DEATH; NECROPSY; REMARKS.

FOR the following case we are indebted to Mr. C. J. Bond, house-surgeon.

George W——, aged sixty-five, a hedge-cutter, first felt sharp pain in the right tunica vaginalis five days before admission; this was followed in a few hours by rapid swelling, so sudden indeed that the patient thought he was ruptured. Two days later he complained of pain in his chest, with some shortness of breath, and gave up work. On his admission, three days later, there were loud friction-sounds over both sides of the chest, with signs of consolidation of the lower part of the left lung. The right tunica vaginalis was distended with fluid, and very tender. No enlargement of the testicle could be detected. The patient died three days later from the pneumonia and rapid pericarditis.

At the autopsy both pleuræ were found covered with thick layers of recent lymph, but containing very little fluid. The left lung showed consolidation of the lower lobe in the stage of red, passing in parts into that of grey, hepatisation. The pericardium contained two ounces of semi-turbid serum, and both surfaces were covered with recent lymph. The right tunica vaginalis contained about two ounces of clear serum, and the surfaces were coated with a layer of recent lymph, a quarter of an inch thick, and having the same naked-eye characters as that on the pleuræ—tough, white, and adherent. The testicle itself was neither swollen nor altered in colour or consistence, and the cord appeared normal. The other organs were healthy, as were also the serous membranes of the peritoneum and arachnoid, and the synovial membranes.

In this case a healthy man (his only previous illness had been an attack of rheumatism one year previously) suddenly suffered, without any blow, inflammation of the testicle, or apparent exciting cause, from a rapid and acute inflammation of the right tunica vaginalis. In forty-eight hours the pleuræ had commenced to take on inflammation of a like nature, and in eight days from the onset of the symptoms the man died from acute pericarditis. No record can be found of inflammation of the tunica vaginalis arising thus in cases of this kind; neither Bransby Cooper, Velpeau, nor Syme mention it in their comprehensive lectures on the subject in the years 1852, 1854, and 1855; so that it would seem to be a rare complication, and the etiology and exact pathology of the hydrocele in this case seems obscure. We are of course familiar with the ordinary hydroceles of children and adults, with the hydrocele arising after inflammation or disease of the testis called by Velpeau acute, but really secondary, and the cases of hydrocele following injury without the testicular implication. But in this case there was a general inflammation of the serous membranes of the body, and in this inflammation the tunica vaginalis takes part. The naked-eye characters, too, of the products of the inflammation, the thick white lymph, and the scanty, almost clear, fluid are alike. Moreover, the somewhat large round organisms described by Friedländer as characteristic of pneumonia were found not only in the pneumonic lung, but also in the pleural fluid, and, what is noteworthy, in that of the hydrocele. Are we, then, to regard the inflammation of the tunica vaginalis as a part of the general inflammation having a common cause with it, a view rendered probable by the absence of any other cause, by similarity of appearance, and the presence of the organisms? If so, in what relation does the pneumonia stand to this inflammation? Was it really the primary affection, and the others secondary, due to an escape, as it were, of the organism? But, supposing this view of the hydrocele to be correct, is it not strange that, with so many cases of pleurisy, the tunica vaginalis is so rarely, in fact never, affected. It might be supposed that the man was suffering from some form of septic poisoning, and that the hydrocele was really a secondary process or pyæmic abscess; but this is unlikely, because there were no symptoms of septicæmia, the temperature was the continuously high temperature of pneumonia, there were no rigors, and especially because the fluid in all the cavities was clear serum, and the lymph white and tough, quite unlike the appearance of any septically-inflamed serous membrane or pyæmic abscess.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Displacement of Lumbar Vertebræ.—Cerebral Arteries in States of Congestion.—Hypospadias.—Destructive Disease of the Lung.—Acute Ulceration of Colon.—Cyst growing from the Wall of the Intestine.—Cases of Gastrostomy.

AN ordinary meeting of this Society took place on Tuesday last, Dr. J. S. Bristowe, F.R.S., President, in the chair. The number of card specimens exhibited was very large.

Mr. ARBUTHNOT LANE read a paper on the Modifications which the Lumbo-sacral Articulation undergo as the result of transmission of superjacent weights through it to the pelvis in labourers. He found that the changes varied within broad limits, having at one extreme those cases in which the centre of pressure fell behind the body of the fifth lumbar vertebra; in the other extreme the centre of pressure fell somewhat in front of the body of the last lumbar vertebra, so that there was a marked tendency to forward displacement of it, which was opposed by the articular processes of the vertebra. In this case the spinous processes did not share as they did in the first set of cases in supporting or transmitting the weight to those of the sacrum, which were proportionately to the bodies but slightly developed. Mr. Lane has now found two remarkable modifications of the lower part of the spinal column resulting from pressure. The first of these presented most of the changes characteristic of the first group referred to above. The spinous processes and laminæ of the sacrum were enormously enlarged and were very dense. The bodies were small and cancellous in structure. The body of the fifth lumbar vertebra was displaced backwards, producing a condition diametrically opposite to that called spondylolisthesis. The second specimen, although appearing to belong to the second class of pressure changes, was perceived on vertical median section to belong to the first class. The subject from whom it was taken was a man who had carried heavy burdens on the left shoulder, back, and neck. The lumbar spine was very convex and presented the appearance of spondylolisthesis. On section the last fibro-cartilage was seen to be increased in depth, so that the weight had been transmitted to the sacrum chiefly through the spinous and articular processes, which were very much thickened and increased in strength. The sacrum had yielded transversely about its centre, the upper part going forwards and downwards, so much so that if the plane of the upper surface of the sacrum were continued forward it would pass one inch below the lower margin of the symphysis. The diameters between the angle of the sacrum and the upper and lower margins of the symphysis were three inches and a half. The spinous processes of the sacrum were much enlarged, as were the laminæ. The sacrum had during the later period of life been acted upon by an upward pressure, probably due to a continuous sedentary position. This position had served to increase the anterior concavity of the sacrum still further.

Dr. HANDFIELD JONES showed specimens of Cerebral

Vessels in states of Congestion. Some of the specimens were taken from cases of meningo-cerebritis, but others came from subjects who died from no special disease. He described capillaries obstructed by large leucocytes which were not nuclei of the capillary wall, for they were more numerous and rounded, and changed shape under pressure and stained better than these. The leucocytes probably collected during the last hours of life, and this appearance was well seen in a specimen of omentum; the red corpuscles were not to be seen in the area of aggregated leucocytes. He also described specimens in which there were many more and bulkier corpuscles than those above referred to. Growth of pre-existing cells or accumulation of white corpuscles might explain the appearances. In some specimens cells $\frac{1}{1800}$th of an inch long were to be seen elongated, with their long diameter placed parallel to, across, or obliquely with the vessel; some were free in the channel of the vessel; these might occur in large groups. He did not think that they were endothelial particles, but looked on them as proliferating muscular nuclei. Other corpuscles which appeared to be quitting small arteries, capillaries, and veins were described, and the amœboid qualities of corpuscles were referred to as having been manifested in tissues outside the vessels of the pia mater. Again, rounded or short ovoid corpuscles which were probably overgrowths of portions of muscle nuclei were described. Dr. Jones thought we should distinguish between the muscle fibre and the muscle nuclei; the former may disappear whilst the latter hypertrophy. He then made some remarks on these states of corpusculation, and gave the different views which might be held to explain the occurrence of masses of similar corpuscles. In some of the specimens the capillary walls were sometimes very indistinct. These changes could be witnessed in inflamed areas, where the capillaries appeared fluffy and granulous at times. It seemed as though the vessels were converted into soft granulous matter. Mention was made of small films of unstained protoplasm which could be detected in the neighbourhood of the vessels. Other appearances of a wide meshed plexus of fibrin were described as to be seen in arteries and veins of the cerebral tissues. He considered that many of the appearances were best explained as overgrowths of muscle nuclei with detachment and escape owing to denudation of the vessel wall. There might be a formation and accumulation of corpuscles within the vessels as well as overgrowth of corpuscles. These changes had been met with in cases of meningitis and typhoid fever and other states of cerebral congestion, but they were not necessarily morbid, as they might be found in subjects dead from any cause.

Dr. WILLCOCKS exhibited a specimen of Hypospadias in a seven months' child. The sex of the child was supposed at first to be feminine, and she was christened "Rebecca." There was a slight depression, which was a sort of a rudiment of a vagina, situate between the urethra and the anus. Nodules, which were obviously testes, were felt in the apparent labia. Mr. Symonds drew back the central preputial fold and exposed a minute glans penis. The penis gradually increased in size. The patient died at the age of ten months from the sequelæ of measles. At the autopsy, the male organs of generation were readily recognised, and there was no uterus or vagina. The left obliterated hypogastric artery could not be found. This was a case of mistaken sex. Another was mentioned as having been under Mr. E. Owen's care at the Hospital for Sick Children, Great Ormond-street; this child up to the age of sixteen months was regarded as a girl. Another case of Dr. George Buchanan's was referred to.—Mr. R. J. GODLEE said that he had seen an almost similar case at the North-Eastern Hospital, but there were no testicles on the apparent labia, and there did appear to be a rudimentary vagina.—Mr. J. H. MORGAN had seen cases of the kind under discussion, Sometimes the external organs were those of the female and the internal organs those of the male. Otto had described in the sheep a case of genuine combination of male and female parts, but he was uncertain whether this mixture had ever been observed in man.—Dr. WILKS believed John Hunter had pointed out that when the testes did not descend the physical frame had a feminine configuration.—Dr. BRISTOWE narrated the case of a supposed Welshwoman who became a nurse at St. Thomas's Hospital. She had a beard and moustache, and walked and talked like a man; the parts concerned were preserved in St. Thomas's museum. He doubted whether any genuine combination of sexes ever existed.

Dr. PERCY KIDD exhibited two specimens of Destructive Disease of the Lung from Obstruction of the Main Bronchus, and gave the following history of the patients. In Case 1, a man, aged thirty-eight, who had had syphilis twenty-three years previously, came into the hospital with signs of aneurysm of the aorta and consolidation and excavation of the left lung; the left radial pulse was smaller than the right. He had a paroxysmal cough, and expectorated nummular purulent sputum. His left arm was noticed to become œdematous. At the post-mortem examination a large aneurysm was found involving the descending aorta and compressing the left bronchus and, to some extent, the trachea. The aneurysm was very thin-walled, and contained a small thrombus at the posterior aspect, where it was attached to the spine. The right lung was healthy. The left lung was large and of equal size with the right, riddled throughout with cavities situated in pigmented fibroid tissue, and intersected by numerous bands of a similar tissue. The cavities had a bronchiectatic appearance in some instances, and all contained reddish puriform liquid and some soft caseous material. The liver, spleen, and intestine were slightly amyloid. In Case 2, a married woman, aged twenty-five, had cough, pain in the chest, dyspnœa, night sweats, and wasting; she had no kind of sore-throat or skin eruption; her fingers were clubbed; there was a large circular ulcer on the left thigh, with scarring and pigmentation over the leg. The left chest was dull and almost motionless, vocal fremitus weak, and bronchial breathing and pectoriloquy were noted. There was a paroxysmal cough, and the sputa were nummular. Puncture gave a negative result. She died from albuminuria and general dropsy. At the autopsy there was extensive scarring of the trachea involving the left bronchus, which was much constricted. The left lung was riddled throughout with trabeculated cavities, separated by fibroid lung; the lung was bronchiectatic in some parts. The contents of the cavities consisted of a reddish fluid and some putty-like material. There was recent tuberculosis in the other lung. The other viscera showed amyloid changes. In both cases the sputum was examined for tubercle bacilli without success. He referred to Dr. Pearson Irvine's cases, and thought the specimens shown supported the views put forward by that gentleman, that the breaking down of the lung was due to the pressure on the bronchus, and stagnation of air and secretion in the bronchi.—Dr. CREIGHTON inquired for a history of syphilis in either case, and suggested this agency as a cause of the pulmonary disease.—Dr. GOODHART spoke of the ulceration of the bronchus at the seat of pressure. He thought there were stages in the disease of the lung from fibrous and solid down to caseation and destruction. He suggested that the presence of ulceration might have led to some infection of the pulmonary tissues.—Dr. EWART said that in cases of collapsed lung as the result of pressure on a bronchus he had found no trace of ulceration. Causes might act from within and produce destruction, for inside the air-tubes there might be retention of secretion followed by decomposition and ulterior changes.—Dr. F. SEMON said that Pearson Irvine, as well as he himself, had always found ulceration of the bronchus opposite the seat of pressure of an aneurysm.—Dr. EWART said that was true, but he referred to ulceration from pressure of the pulmonary tissues, and thought that Dr. Goodhart spoke of these tissues, but the last-named gentleman said that he had spoken of the bronchus.—Mr. GODLEE asked whether there was any analogy between the changes and those observed after "cut throat" where it was probable that the accumulation of secretions was the efficient cause of the pulmonary disease.—Dr. HALE WHITE considered that the amount of pressure on the bronchus might explain the differences observed in different cases.—Dr. BRISTOWE did not feel certain that the destructive changes were not antecedent conditions to the pressure on the bronchus. In a case of meningitis in an adult supposed to be tubercular there were signs of cavities in one lung; the autopsy showed no tubercle, but the cavities in the lungs, smooth lined as they were, had no doubt originated early in life. Again we must be sure that no pressure existed on the vessels before attributing the destructive changes to pressure simply on the bronchial tubes for these might communicate later on with cavities formed as the result of vascular obstruction.—Dr. PERCY KIDD, in reply, said that the aneurysm was probably of four years' duration in the first case, and the stricture had lasted one year and a half in the second case. Pressure on the vessels could not be excluded in the first case, but could be in the second. He did not

think there was primary syphilitic disease of the lung though, as he had stated, syphilis was mentioned in the history of each case. The mechanical effects of obstruction of the tubes he believed should be charged with the chief part of the causation; there was no collapse of the lung in either case.

Dr. ALLCHIN showed a specimen of Acute Ulceration of the Colon. The patient was a middle-aged woman, admitted into Westminster Hospital on Jan. 4th. 1885, where she died eleven days later. She had been married nine years, and had had five children; had worked hard as an ironer. She had suffered much from constipation, and had passed blood occasionally. Acute symptoms began on Dec. 27th, 1884, about six weeks after confinement; there were pains and diarrhœa of distressing character. On admission she looked very ill and was emaciated. There was a white furred moist tongue. The pulse was 112, soft and dicrotous; the temperature was 101°. There was total suppression of urine, with anorexia and thirst. The pulse gradually became more rapid, and the excessive diarrhœa continued; the temperature varied between 99° and 102°. There was much pain and tenderness about the colon and some tympanites; the urine was not albuminous. The motions varied much in appearance; the colour of them was grey and yellow, and mixed with blood, and sometimes they looked like dark fluid blood, but small globules of mucus were always present. At the necropsy, made twenty-six hours after death, Dr. Allchin found the colon to be the only part diseased; it was slightly congested externally, but there was no peritonitis. There were numerous large ulcers with their long diameters transverse to the axis of the bowel; they had a clean base which was not thickened; the edges were thick and vascular, and in places undermined. The ulcers varied in size from an inch and a quarter to one line in length, and were extensively distributed over the large intestine. The subjacent muscular tissue was laid bare in many of them. No dilatation or hypertrophy of the intestine existed. The case belonged to that class which had been described as "follicular ulceration of the colon." Reference was made to many points of clinical and pathological importance. The symptoms may be very slight in such cases, and the only symptom present may be great irregularity of the bowels. He considered that the cases were not quite like those of acute dysentery. The question as to why the solitary glands were the primary seat of inflammation was broached; as the same structures exist in the small intestine, it is difficult to see why they should not be affected also. Dr. WILKS made reference to the medico-legal aspect of such cases, and said that Dr. Copeland and others had expressed the opinion that such cases could not occur in this country, and so, when such changes were seen, an irritant poisoning would be diagnosed. He did not share that opinion.

Mr. BATTLE exhibited a Cyst removed from the wall of the Small Intestine. The patient was a married woman, aged thirty-five. Eight years before admission to St. Thomas's Hospital under the care of Dr. Bristowe she had had an attack of jaundice, accompanied by ascites and swelling of the legs; the jaundice disappeared in two years, but the dropsy endured five or six years. The swelling of the left side of the abdomen was observed when the dropsy subsided. She had suffered for eight years from periodical bilious attacks. The tumour was tender at the menstrual periods. The patient was anæmic and well nourished. There was a rounded swelling in the left hypochondrium, immediately below the costal arch, the size of a large egg, movable, but not with respiration; it was tender and painful. In the hypogastrium was another swelling, hard, also tender and somewhat movable, smooth, and extending from the left side of the middle line into the right iliac fossa. Three months after admission Mr. Sydney Jones removed the cyst by abdominal section; it was found to be attached to the small intestine, being sessile, and occupying a considerable section of the intestinal wall, to which it was firmly attached, and from which it was carefully peeled. A few vessels required ligature, but the thermo-cautery was required to arrest the general oozing from the intestine. There was a varicose and dilated condition of the lymphatics on the surface of the intestinal folds. The pelvic tumour was a uterine fibroid. The operation was performed antiseptically, and the patient made a good recovery, leaving the hospital thirty-seven days later free from pain and in improved health. The tumour was smooth on the surface and the size of a small orange, white and glistening. It had a laminated wall, but there was no evidence of glandular structure nor of epithelial lining. The fluid was thick and looked like yellow paint. Cholesterine crystals, fat, and molecular matter were found by the microscope, and fat and albumen by chemical examination. —Dr. BRISTOWE did not think it was a hydatid tumour.

Mr. BRUCE CLARK showed two specimens removed from two cases of Gastrostomy. In one case the obstruction was situate low down at the cardiac end of the œsophagus, and in the other it was situate high up in the gullet. A successful operation had been performed in both. In the first case the stricture was pervious and the stomach was not contracted. This contrasted with the other case, where the stomach was greatly contracted and the stricture was impervious. In the latter case bile was discharged from the gastrostoma. This proved to be due to the opening having been made to the duodenal side of the pyloric orifice; the incision was made well to the left of the rectus, but the contraction of the stomach no doubt caused the awkward position of the opening. One patient lived seven weeks and the other six weeks; both died from asthenia.

The following card specimens were shown:—Mr. Godlee: a recent specimen of Acute Necrosis with Pericarditis and Large Patches of Softening of the Left Ventricle. Dr. Norman Dalton: Multiple Angiomata of the Liver. Dr. C. Turner: (1) Tumours in Adrenals; (2) Suppuration of Simple Fracture of the Hyoid Bone. Dr. Silcock: Enterocolitis. Dr. Goodhart: Specimens of Enteritis and Colitis. Mr. J. Hutchinson, jun.: Hydrocele of the Cord. Dr. Hebb: Aortic Valvulitis with Embolism of a Coronary artery and Middle Cerebral Artery. Mr. Shattock: Fracture of Superior Cornua of Thyroid Cartilage. Dr. Chaffey: Solitary Kidney (congenital). Dr. Hale White: (1) Enormous Hypertrophy of Heart; (2) Large Triple Phosphate Renal Calculus. Dr. G. N. Pitt: Syphilitic Ulceration of Larynx and Trachea. Dr. Hadden: (1) Broad Ligament Cyst containing Coagulated Albumen; (2) Ulceration of Intestine originating in hæmorhage. The patient was leucocythæmic.

MEDICAL SOCIETY OF LONDON.

Treatment of Gangrenous Intestine in Strangulated Hernia.

AN ordinary meeting of this Society was held on Monday last, Dr. W. Miller Ord, F.R.C.P., President, in the chair. A well sustained discussion followed the reading of the paper.

Mr. MITCHELL BANKS read a paper on the Treatment of Gangrenous Intestine in Strangulated Hernia. The author dealt with two main propositions. The first was the consideration of the question whether the surgeon should leave the gangrenous gut where it was, merely incising it and awaiting the formation of an artificial anus. The second was the consideration of the question of excision of the sloughing bowel and restoring the continuity of the intestine. A case illustrative of this second method of procedure was narrated. On Nov. 7th, 1883, a cook on board ship, aged twenty-five, was admitted into the Liverpool Royal Infirmary for strangulated inguinal hernia of the right side, which came on three days before as the result of exertion; the strangulated bowel could not be returned, and when admitted all the symptoms of strangulation were well marked. Previous attempts at reduction had been made and the hernial tumour had been aspirated, but without avail. On the third day of strangulation the pulse was 80, and there was no fever; the scrotum was livid, swollen, and tense, with bullæ under the skin; the penis was œdematous, and the parts had the appearance rather of rupture of the urethra than of strangulated hernia. An incision was made and the sac dissected out. The hernia was found to be a congenital one. A great deal of dark bloody fluid and a long loop of the small intestine, which was swollen and black, with a few flakes of lymph thereon, were found in the sac; the peritoneal coat was dull, and an offensive sanguineous fluid drained away. The removal of the dead intestine was decided upon, and division of the stricture was practised. An ulcerated aperture, due to a stricture higher up, was found, but no blood was extravasated into the peritoneal cavity. In the operation a wedge-shaped piece of mesentery was removed, and gave rise to profuse bleeding, which was controlled by the application of a score of fine catgut ligatures. The peritoneum of the mesentery was united by a continuous suture of catgut, first on one side and then on the other.

Then the edges of the gut were turned inwards for a third of an inch, so that peritoneum should come against peritoneum; the mucous coats were united by interrupted sutures, and continuous sutures were used outside these and through the peritoneum only. The method was that of Czerny-Lambert. The inguinal canal was freely divided to allow of the reduction of the intestine. Then the sac was secured by two catgut ligatures and divided between and excised, the lowest part being left to form a tunica vaginalis. The operation lasted altogether two hours, and antiseptics, with drainage-tubes, were used. The collapse passed away in a few hours, and the patient passed flatus ten hours after the operation. The temperature seldom rose one degree above normal, and was for some time after the operation several degrees below normal; a temperature of 100° was the highest reached; the tongue was moist throughout, and the abdomen flat. The portion of the sac left became slightly sloughy, where it formed the tunica vaginalis, but this soon healed. Sponge dressings were used. The man was of placid temper, and showed great fortitude, lying quietly on his back without restlessness for one week. For four days only ice was sucked by the mouth; then some twenty minims of meat-juice were allowed, and the dose of this was increased slowly. Nothing more was given by the mouth until the twelfth day, except a little opium. Absolute rest and warm clothing were insisted upon, and served to prevent waste of tissue. On the twenty-third day the bowels acted after an enema. At the end of six weeks the man was well, and ate plain food. He was in robust health some months later, and seventeen months after the operation he was in a situation in Canada, and there was no reasonable fear of stricture of the intestine supervening. The author then gave an account of statistics, and quoted especially a paper of Mr. Makins, in which 55 cases of gangrenous intestine were tabulated; 45 of these were resected, and gave a mortality of 29 deaths, or about 52 per cent. Death was generally attributed to septic peritonitis. Most of the cases were operated on by German surgeons. A few had been recorded by English and American surgeons. Of 40 cases of resection of the bowel for the relief of artificial anus, there was a mortality of 38 per cent., as against 52 per cent. above mentioned. With regard to the first question, he narrated 6 cases of gangrene which had been under his care, and in which the gangrenous gut was simply laid open, the stricture being left untouched. Of these 3 lived and 3 died; two of the latter were moribund when operated on, and the third died as the result of rupture above the stricture. He thought that there could be no doubt as to the propriety of slitting up the bowel, but it was another question whether the surgeon should interfere with the stricture. Sir Astley Cooper and others advised division of the stricture, but he believed that the best method was to leave the stricture alone. He said the cases did not die from general septic peritonitis, but from absorption of septic material from the peritoneal cavity. He likened the stricture to a rigid ring on the finger, and thought the methods of treatment should be the same in the two cases. As to drawing down a fresh piece of intestine into the abdominal opening, he thought it could be done without dividing the stricture, but would wait for practical experience to say whether the drawing down of fresh intestine was a good mode of procedure. He concluded by asserting his belief that the number of cases in which primary resection of the gangrenous gut could advantageously be performed would be found to be comparatively few.

Mr. FREDERICK TREVES thought that primary resection should be performed in a large series of cases, and he failed to see what great surgical difference there was between excision and incision of the gangrenous gut. There were two methods of dealing with the case after excision had been performed. The surgeon might leave the case till an artificial anus had formed, and then attempt to close the false anus or resect the bowel later on, or he might restore the continuity of the bowel immediately after the excision of the gangrenous portion. The length of time required for the latter operation was a serious element in the case. From a series of experiments on resection of the intestines in dogs, he had come to the conclusion that there was great risk of the parts sloughing if the mesentery were cut so that the main arteries going to the loops of vessels in the mesentery were divided. He preferred Chinese twist to catgut for sutures. In Littré's hernia the stricture ought not to be divided.

Sir WM. MAC CORMAC agreed with Mr. Banks that immediate excision of the gut was not likely to be performed in a large series of cases. He also concurred in the view that the stricture should not be divided.

Mr. MORRANT BAKER also thought that excision and immediate union of cases of gangrenous gut could be but rarely carried out. He narrated a case of acute gangrenous strangulated hernia. He had not yet made up his mind as to the question of division of the stricture, although, following the teaching of his seniors, he had usually carefully divided the stricture. He did not regard with favour the pulling down of fresh bowel.

Mr. JOHN H. MORGAN referred to the difficulty of being sure of removing all the gangrenous gut, for the parts around the actual slough might be in a state of incipient gangrene. He considered that the best practice was the ordinary one of leaving the gangrenous gut *in situ*. An artificial anus could be dealt with later on.

Mr. MAKINS still held to the conclusions at which he had arrived in his paper to which reference had been made. He still thought that a clamp was an advantage in resecting the intestine, which should, however, be a secondary and not the primary operation.

Mr. A. PEARCE GOULD was of opinion that any further drawing down of the intestinal loop would, by increasing the thickness of the stalk of mesentery, lead to a further spread of the gangrene to the fresh bowel drawn down unless the stricture were divided.

Mr. BERNARD PITTS considered that the duration of the strangulation was an important element in deciding on primary or secondary resection; where the strangulation had lasted a long time resection at the time would be most unfavourable.

Mr. WALTER PYE spoke of an increased strain on the mesentery due to a further drawing out of bowel. He referred to a case of gangrenous intestine in which he had established an artificial anus. During exertion the open bowel slipped into the abdomen and caused the death of the patient from peritonitis.

Dr. ORD spoke of the valuable practical discussion which the excellent paper had brought forth.

Mr. M. BANKS, in reply, said that Mr. Treves' recommendation of cutting off the sloughing part, dividing the stricture, and pulling down fresh bowel was practically what Mr. Spence used to advise.

OBSTETRICAL SOCIETY OF LONDON.

A MEETING of the above Society was held on Wednesday, April 1st, Dr. J. B. Potter, President, in the chair.

The following specimens were shown:—Dr. Galabin: Fibro-sarcoma of the Chorion; Dr. John Williams: Papilloma of the Peritoneum; Preparations of the Injected Uterus, showing the Circulation; Microscopic sections.

The following papers were read:—

Sequel to a Case of Ovariotomy.—Dr. MURPHY removed a large cystoma of the left ovary from a multipara on January 16th, 1882, and, finding the right ovary enlarged and the seat of cystic disease, he passed a double ligature underneath it, and, having firmly secured the ligatures, punctured the cysts and removed portions of the ovary. The patient made an excellent recovery, menstruated on the third day after the operation, and was regular for nine months, when she became pregnant and gave birth to a healthy male child on June 9th, 1883. The possibilities of a third ovary and the slipping of ligatures were considered and rejected. Attention was directed to the erroneous drawings of the relative positions of tubes and ovaries usually given in the text-books. The author believed that the ovary was usually found superior and posterior to the tube, and hence the tube escaped being ligatured, and the ovary survived (as does the distal portion of the stump) and was able to perform its functions in that diseased and mutilated condition. At the date of the report there is no appearance of a cystoma of the right ovary.—Dr. HERMAN said that there were two points of interest in Dr. Murphy's paper. One was the position of the ovary in relation to the Fallopian tube. The arrangement described by Dr. Murphy had been also described by Mr. Doran in his recent book, and Dr. Herman had himself seen this arrangement. The other point was the effect on the blood-supply of the ovary

produced by ligature without removal of the ovary. Professor Simpson had done this in a case recorded in vol. ix. of the Edinburgh Obstetrical Transactions, but as this was followed by an attack of peritonitis three months later, it was less instructive than Dr. Murphy's case, which seemed to prove that simple ligature could not be depended on to arrest the function of the ovary.

On the Circulation in the Uterus, with some of its Anatomical and Pathological Bearings, by Dr. JOHN WILLIAMS.—The author remarked that although the blood-supply to the uterus is well known, the circulation in the uterus has been less minutely studied, though its importance, both physiologically and pathologically, is great. After briefly sketching the course of the ovarian and uterine arteries as they approach the uterus, the author remarked that all the primary branches enter the uterus on the side; they do not enter deeply into its tissue, but run a somewhat superficial course, being separated from the peritoneum by only a thin layer of muscular fibres. They run in a distinct and even a considerable layer of connective tissue, which is more distinct in the fœtus and infant than in the adult. The muscular stratum between it and the peritoneum is thin, while that between it and the canal forms the greater part of the thickness of the uterine wall. The branches run towards the mucous surface in a perpendicular direction to that surface, anastomosing freely, and ending under the mucous surface in capillary loops, which are often visible even in organs which have not been injected. The veins in the organ are arranged in a similar manner, and convey the blood into the venous plexuses which lie with the arteries in the layer of connective tissue already mentioned, and which communicate freely with the venous trunks outside. The return of blood is said to be effected principally through the ovarian veins; but both these veins can be (as is well known) tied without appearing to materially affect the return of blood from the uterus; indeed, the whole of the pelvic venous system can be injected through any one of its larger trunks. The following conclusions were drawn:—1. The layer of connective tissue in which the arterial circles run, and in which the venous plexus lies, is the submucous tissue of the uterus. 2. The whole thickness of the wall between the layer of connective tissue and the uterine cavity is the mucosa uteri, and the thin layer of tissue shed at the menstrual period and reproduced (the menstrual decidua) is only a very small portion of the uterine mucous membrane. 3. The vascular arrangements are such that the circulation in the uterus can hardly be disturbed by mechanical causes. The entrance and exit take place at numerous points at the sides of the uterus, and in the uterus the direction of the current is transverse to its length and perpendicular to its surfaces; so that a ligature might be placed around the uterus at any point above the vaginal insertion without affecting the circulation above or below. The only ligature which could materially interfere with the flow of blood into or out of the uterus is one surrounding each broad ligament, including their upper borders, together with a portion of the uterus. Conditions like these are found when the uterus forms a hernia in the inguinal canal or in Douglas's pouch in the condition usually, but inadequately, spoken of as retroflexion or retroversion. Both conditions are those of true hernia, and the symptoms are largely due to constriction at the neck of the sac, formed, in posterior hernia, by the sacro-uterine ligaments. In procidentia, again, stretching of the vessels may produce considerable narrowing of their calibre. These two conditions, hernia of the uterus and great procidentia, appear to be the only displacements of the uterus which can give rise to congestion of that organ. The author also described the following experiment to test the influence of flexions in causing congestion. He stitched the fundus of the uterus closely to the cervix, thus securing the acutest flexion possible, and then injected a coloured fluid into one of the veins of the broad ligament; immediately the veins of the other side of the uterus became distended with the injection. On making a section, the whole of the veins in the uterus were found injected. This proves what the arrangement of the vessels has already shown, that the acutest flexion does not interfere with the flow of blood from the uterus. The paper was largely illustrated by diagrams and specimens.—Dr. GRAILY HEWITT was not surprised at the elaborate arrangements existing in the uterus for providing for free circulation when the organ was flexed. Flexions were doubtless common, and the vascular arrangements were secure against temporary or slight flexions. But in severe or sudden flexions there would be much danger of congestion at the two ends of the uterus. Such congestion occurred in the limbs when bent. His experience was that congestion in cases of flexion was relieved by straightening the uterus, and hence the explanation suggested itself that compression at the central part produced the congestion. He believed incarceration of the fundus by the sacro-uterine ligaments to be extremely rare. Even if it were commoner, it had no bearing on anteflexion, in which there were no ligaments to cause incarceration. Swelling of one lip of the cervix often indicated flexion on the side of the swelling, and argued for the production of congestion by flexion.—Dr. HERMAN pointed out the great frequency of flexion without any symptoms. That flexion was often combined with congestion depended on the frequency of flexions, and must be the case unless flexions prevented congestion. There were cases of sudden backward displacement with acute symptoms, quickly relieved by replacement, which had no analogy in anteflexion. There were also cases of retroversion without flexion, attended by congestion, and relieved by elevation of the fundus. Such cases were not explained by any theory of flexion, while they were explained by the action of the sacro-uterine ligaments; they were not common, and incarceration in Douglas's pouch was rare, because the ligaments were seldom tense enough and close enough together to be capable of incarcerating the uterus; when they were, they were generally high up and hard to reach.—Dr. GALABIN said that the author had proved that the vascular arrangements in the uterus were such as to prevent as much as possible congestion in cases of flexion. He thought the influence of the sacro-uterine ligaments was overrated by Dr. Williams. It was rare to find them constrict the fundus in retroflexion, and rare to find the uterus go up suddenly on reposition, as ought to occur in such cases. There is often evidence of congestion in excessive menstruation in cases of retroflexion, and the symptoms were often relieved by a pessary. In most cases the utero-sacral ligaments had only a minor effect; the stretching and twisting of the broad ligaments, and possibly the flexion itself, ought to be considered. The transverse arrangement of the vessels might be expected to prevent congestion everywhere except opposite the bend. He thought that in the section of the fœtal uterus shown by the author he saw some longitudinal as well as transverse vessels. In procidentia, as the cervix was extruded it became congested, even without any apparent constriction at the vulva. He did not agree with Dr. Herman that the frequent occurrence of anteflexion without congestion proved that flexion could have nothing to do with congestion. Acquired flexion might possibly produce congestion for a time, but the circulation would soon re-establish itself.—Dr. CHAMPNEYS pointed out that the arrangement of the vessels in the uterus was very similar to that in the intestines, which the uteri of many animals greatly resembled. The intestines were marked by acute flexions every few inches, but no harm to the circulation resulted from them in the case of the intestines, and it was unlikely that the result would be different in the case of the uterus. He thought that congestion was often diagnosed on insufficient grounds, and, indeed, in most cases congestion of the fundus was impossible of verification. Careful examinations made him think that the influence of the sacro-uterine ligaments was rare. In cases of retroflexion with profuse menstruation the influence of descent had to be remembered; it had repeatedly happened to him to lift up the fundus with a pessary, to find the symptoms relieved, and the uterus, high up, indeed, but as much flexed as ever.—Dr. AUST LAWRENCE (Clifton) said that very few cases of displacement were uncomplicated. He could only remember three such cases of retroflexion of this nature; all these went to prove that the displacement was competent to produce profuse menstruation, and therefore congestion. The first case was that of a single woman aged twenty-two, who was thrown from a cart; the next period was excessive, and he found acute retroflexion and incarceration by the sacro-uterine ligaments. It was replaced, and the bleeding ceased, the next period being normal. The other two cases were similar, with the exception of incarceration.—Dr. MURRAY agreed with Dr. Williams; although there are cases of congestion with flexion, there are many flexions without congestion. Menorrhagia may occur without flexion. Prolapse of the uterus would tend to produce congestion by impeding the circulation.—Dr. W. DUNCAN thought that congestion of a retroflexed uterus was not un-

commonly due to incarceration by the sacro-uterine ligaments, especially when thickened and shortened by inflammation. Thickening of the posterior cervical lip did not prove an impediment to circulation by flexion, as it was common without any flexion. Many cases of congestion in flexed uteri can be cured without treating the flexion.—Dr. WILLIAMS regretted that there had been no discussion on the doctrine enunciated in the paper that the whole thickness of the uterus within the connective tissue in which the vessels ramify (described above), should be considered to be mucous membrane, this connective tissue being the submucous coat. The muscular layers inside this, therefore, are really the "muscularis mucosæ," into which the uterine glands penetrate. The submucous coat is plainly seen in the fœtus, and also in some conditions in the adult, as the specimens shown illustrate. Dr. Hewitt's illustration from a flexed limb presents no analogy; a flexed finger would have been more apposite, and a finger is often permanently flexed, but no congestion results. Dr. Hewitt believes that congestion will not result from a temporary but from a permanent flexion; Dr. Galabin believes exactly the opposite. Dr. Hewitt's argument from clinical observation requires careful examination of crucial cases, disturbing influences being excluded, such as pregnancy, which is itself capable of producing congestion. Only cases where no pregnancy or disease has ever occurred will serve as arguments. In such cases Dr. Williams had never found congestion follow flexion. Dr. Aust Lawrence's first case confirmed the views stated in the paper; the other cases were not related in sufficient detail to use as arguments. In some cases replacement of the uterus arrests, in others it produces, hæmorrhage; indeed, as Dr. Robert Lee pointed out, a simple vaginal examination in a healthy woman may produce hæmorrhage.

Note on a Case of Absence of the Uterus and Occlusion of the Vagina, by Dr. BOUSQUET (Marseilles).—The patient, aged twenty, had never menstruated, but had suffered from hæmorrhages at the usual periods, sometimes from the rectum, sometimes from the gums, lasting four or five days. When seen, the hæmorrhage had lasted two days; the gums were swollen, painful, and bled on touch. The hymen was very hard; from a small hole in its centre flowed whitish mucus. The hole was enlarged upwards and the finger inserted, but only penetrated two centimetres, where it met a second membrane, tympanitic on percussion. This was incised and the finger penetrated three centimetres further, but no cervix could be felt. Combined examination by vagina and rectum discovered no uterus. The author then cited a very similar case of Dr. John Clarke's in St. George's Hospital, followed by an autopsy in which ecchymoses were found in the skin, pleuræ, and pericardium, together with old endocarditis. The author regarded these cases as proof that the ovarian nisus is sufficient to cause vicarious menstruation when the natural channel is absent.—Dr. JOHN WILLIAMS did not think either of the cases were examples of vicarious menstruation, but of purpura in women without uteri. Histories of periodical bleedings or periodical fits were to be received with much caution. He had watched several such cases in hospital for four or six weeks, and found either no bleeding or fits, or bleeding or fits at irregular intervals.—Dr. ROUTH related a case in which the vagina was too short, and the introduction of the whole hand into the rectum proved the absence of a uterus. This was the only certain way of making the diagnosis. He agreed with Dr. Williams that the case was one of purpura in a malformed woman, rather than one of vicarious menstruation.—Dr. CHAMPNEYS said that women were apt to attribute any unusual hæmorrhages, whether with amenorrhœa or not, to some menstrual influence. It was his habit to make such patients keep a diary of their hæmorrhages and monthly periods. Such an exercise was often sufficient to effect a cure, and in his experience it had invariably sufficed to explode the theory of vicarious menstruation. He agreed with the former speakers as to the nature of this case.—Dr. AMAND ROUTH related the case of three sisters, aged twenty-five, twenty-two, and twenty, who had never menstruated. In the two younger the vagina was only two inches long; in one, recto-abdominal examination proved the absence of uterus and ovaries, in the other the uterus was a nodule the size of a filbert. There was no vicarious menstruation. The breasts and pudenda were childlike. A younger sister, aged seventeen, was quite healthy and menstruated regularly. All the three sisters were very anæmic, and were said to be consumptive.

ACADEMY OF MEDICINE IN IRELAND.

AT a meeting of the Pathological Section on February 13th, Mr. WHEELER read notes of a case of Gangrene of the Leg and Occlusion of the Popliteal and Tibial Veins in a man aged forty-six, of intemperate habits, who had twisted his leg whilst wrestling. When admitted to hospital the leg was swollen, hot, much discoloured, and with large sanguineous bullæ. He was quite free from pain. The specimen exhibited showed well-formed thrombi occluding the interior and posterior tibial veins, there being the several example of the "obliterating," the "valvular," and the "parietals thrombus; the wall of the vein in the first case being much thinned. Allusion was made to some of the recent theories of coagulation of blood.—The PRESIDENT remarked that the specimens being so dry, it was impossible to tell whether or not there had been any inflammation, but his intemperate habits and the bruise or twist went a long way to explained what occurred.—Dr. M'ARDLE said the twist would have sufficed to tear the inner coat of the vein, which would have led to the formation of a clot sufficient to cause occlusion.

Mr. BROOMFIELD exhibited and explained a specimen of Endocardial Concretion which was taken from an old woman aged seventy-eight. Being a dissecting-room specimen, he had no history of the case. The specimen was of a calcareous character and interesting from its exaggeration, extending round four-fifths of the mitral orifice and running three-quarters of an inch into the ventricular wall. At one point there was complete rigidity. The endothelial lining was perfectly healthy, and the valves were comparatively healthy. It was curious that such a calcareous zone should have formed round the valves without implicating them or causing incompetence. There was no appearance of any other cardiac lesion.

Dr. M. A. BOYD exhibited a Colon removed from a man aged thirty, who died in the Mater Misericordiæ Hospital with all the symptoms of tropical dysentery of a month's duration, having had the usual fetid stools, containing mucus, blood, and shreds of lymph and mucous membrane, with most distressing tenesmus; a dry, brown tongue, dryness of the throat and difficulty of swallowing, vomiting, and hiccough. The temperature throughout, except in the beginning, when the attack came on with shivering and hot skin, was either normal or subnormal. There was tenderness over the liver; no enlargement of spleen and no peritonitis. The descending colon could be felt through the abdominal wall, round, resisting, and tender. The autopsy revealed not ulceration of rectum and colon, but general thickening of the mucous coat of the colon throughout, with exudation upon it of an adventitious lymphy membrane. From the close resemblance of the symptoms to dysentery, many of the so-called cases of dysentery were in reality cases of croupy or diphtheritic disease of the colon.—The PRESIDENT regarded the specimen as a good example of diphtheritic enteritis. There was an absence from it of the fetor which was characteristic of dysentery. Sometimes casts of the entire bowel formed by the membrane were passed.—Dr. LENTAIGNE inquired if there was much superficial tenderness, and if any member of the man's family had similarly suffered.—Dr. HENRY KENNEDY, referring to his extensive opportunities of seeing cases of dysentery in 1847-48, said he had seen the whole bowel from the stomach to the rectum covered with croupy exudations, giving rise to symptoms analogous to those produced by ulceration. A physician to the Queen, who had published an account of a violent epidemic of dysentery in Millbank prison, had recommended mercury as a most effectual remedy.—Dr. BOYD, in reply, said tenderness of the abdomen was absent, except along the descending colon. The family history was good, all the patient's family being healthy.

Dr. LENTAIGNE exhibited an example of Aneurysm at the Base of the Brain, which was taken from a woman who, whilst putting a postage stamp which she had just bought on a letter, fell dead in the shop, as if struck by lightning. Up to the time of her death she had been apparently in perfect health. On post-mortem examination he found a large quantity of blood, effused at the base of the brain, which had come from an aneurysm about the size of a pea, formed in the middle cerebral artery at its junction with the posterior. The artery was split open with a large rent. There was no disease elsewhere, save that the kidneys were small and

contracted. Almost all the vessels of the brain were atheromatous, but the aorta was perfectly free from atheroma. A great deal of blood was wedged in below the medulla and spinal cord. The stomach was full of tea and undigested potatoes.—The PRESIDENT observed that the compression of the medulla by the effused blood was no doubt the cause of death

Mr. ABRAHAM read a paper for Dr. NIXON on Pericarditis in a Horse, showing a specimen. The principal features were enormous hypertrophy and an extraordinarily extensive fibrinous exudation covering the whole pericardial surface. The usual weight of the horse's heart was 6 or 7 lb., but this specimen weighed 21 lb. The notes of the case were taken by Mr. J. Kenny, V.S., under whose care the horse had been for pleuro-pneumonia, which had yielded to treatment. A week after the animal was brought back with high pulse and friction-sounds over the heart, subsequently becoming dull. At the post-mortem examination four gallons of yellow fluid were obtained from the pericardium. The hypertrophy of the heart was of long standing, and caused chiefly by the heavy work which the animal had to perform. The pericarditis appeared to be secondary to the pleuro-pneumonia. The immediate cause of death was the enormous pericardial effusion.

After a short discussion the section adjourned.

The opening meeting of the Sub-section of Anatomy and Physiology was held on February 19th, when the President, Dr. D. J. Cunningham, expressed his sense of the honour done him in electing him to the chair for the session; an honour which he prized highly, not only in being considered worthy of succeeding such men as Dr. Macalister and Dr. Purser, but also on account of the great interest which he had all along taken in this department of the Academy.

Mr. BROOMFIELD exhibited his patent Eustachian valve, also a model for showing to a class the changes in the crystalline lens during accommodation.

Dr. BENNETT exhibited a facile method of demonstrating Alternation of the Sectors of the Crystalline Lens of the Eye to a class by injecting ether into the posterior side of the capsule of lens, or between the vitreous humour and retina, a small quantity of mercury which formed a bright reflecting surface, the shape of which depended on the surrounding tissues. The results obtained by the mirror posterior to the vitreous humour appeared to give the best results. He stated that for a successful demonstration an eye not too fresh and a top light are desirable.

Mr. M'ARDLE read a paper on a case of Anomaly of the Arch of the Aorta. The branches derived from the transverse portion from right to left were: right carotid, left carotid, left vertebral, left subclavian, and right subclavian. The only ones having a peculiar course were the right carotid and right subclavian. The former at its origin was somewhat to the left of the trachea. After ascending for half an inch it passed directly to the right, in front of the sixth and seventh rings of the trachea, and then upwards on the right side of that structure. The subclavian came off from the posterior aspect of the arch on a level with the remains of the ductus arteriosus; thence it passed in from off the second and third dorsal vertebræ, and behind the trachea and œsophagus, so that these structures were compressed between it and the foregoing vessel. The only other peculiarity of this trunk was its cone-shaped origin, where it was at least half as large as the aorta. It diminished to the normal size before giving off a single branch.—The PRESIDENT said the case which Mr. M'Ardle had so well described was one of the commoner varieties met with in the dissecting-room of the anomalous arrangement of the aortic branches. It was one of the most interesting of all the anomalies, because at first sight it appeared to be very difficult of explanation. The difficulty, however, at once disappeared on close examination. It had been shown lately that the anomaly was associated with the transference or transposition to the right side of the thoracic duct. This was explained by supposing that the thoracic duct, like the aorta, was laid down in the form of two lateral tubes, which afterwards fuse. It was interesting to notice the relation of the laryngeal nerve, because the fourth arch, counting from above, was obliterated, and therefore it was not recurrent at all, having nothing to hook round. There were about five cases on record of the transference of the thoracic duct to the right side. These were given by Drs. Crookshank, M'Donnell, Brown, and Arthur Thomson of Edinburgh.

Dr. BROOKS gave a description of an Anomalous Coronary Branch arising from the Pulmonary Artery. The case occurred in an old female subject in the dissecting-room of Trinity College, Dublin. The abnormal branch arose from the left anterior sinus of Valsalva of the pulmonary artery; it was rather under an eighth of an inch in diameter, and its branches ramified chiefly on the infundibulum of the right ventricle, a few small ones supplying the coats of the pulmonary artery. Both the normal coronary arteries were present, and were rather large.—Dr. PURSER observed that as there was free anastomosis it must have carried arterial blood, and must have acted as a vein. The blood must have flowed from the point of high to the point of low pressure.—Dr. BROOKS, in reply, said the anastomosis was tolerably defined in one part. He had no doubt some of the arterial blood must have travelled on account of the high pressure. Still the communication did not seem to be sufficiently free for the whole of the blood to go that way.

The PRESIDENT communicated a paper which he received from Professor SHEPHERD, of Gill College, Montreal, on Musculus Sternalis in an Anencephalous Fœtus. In six such specimens Professor Shephord had found the anomalous muscle, and in five of these he had been able to make out its nervous supply to be the same as that of the pectoral group of muscles.

Dr. BROOKS related a case of the Vena Azygos Major ascending on the Left Side, and discussed the bearing of this Anomaly on the Development of the Azygos Bloodvessels. It occurred in a male subject, and appeared to be a transposition from right to left of the normal arrangement. The vein ascended on the left side of the bodies of the dorsal vertebræ, receiving the left intercostal veins, with the exception of the first and second, and also a branch from the right side, which entered it at the level of the eighth dorsal vertebra, and was formed by the confluence of two veins, which lay on the right side of the bodies of the vertebræ; the superior of these two received the sixth, seventh, and eighth intercostal veins; the inferior collected the blood from the ninth, tenth, and eleventh intercostal spaces. The left azygos thus formed attained to the size of an ordinary azygos major; it crossed the junction of the transverse and descending portions of the aortic arch, and opened into the left innominate vein. A small vein opened in the ordinary position of the (right) azygos major; it was formed by the confluence of four intercostal veins, but the trunk lay not in the ordinary position of the azygos major on the bodies of the vertebræ, but on the ribs external to the gangliated cord of the sympathetic. This peculiar position was interpreted as representing a larger portion of the posterior cardinal vein persisting than usual. A remarkable bend in the course of the left azygos, whereby a portion crossed the necks of the tenth and eleventh ribs, was explained in the same way. Reference was made to the symmetrical condition of the venæ azygos in the embryo as affording a ready explanation of the transposition—the right, instead of the left, azygos system having been broken up.—The PRESIDENT remarked that this anomaly was also of interest from a comparative anatomy point of view, because in some of the lower animals it was the normal arrangement for the vena azygos major to pass up the left side, the opposite to that in the human subject. In the sheep this was the case. In marsupials it sometimes chooses the one side and sometimes the other. The Tasmanian wolf was an example of its passing up the right side, as with ourselves.

The PRESIDENT gave a description of an Andaman Skeleton, and compared it with those of other races. He referred to the two elaborate papers which had been communicated by Professor Flower to the Anthropological Institute upon the osteology and affinities of the Andaman islanders, and showed how closely the skeleton in his possession bore out the many remarkable facts described by that author. He especially directed attention to the lower jaw, vertebral column, and the sternum. He compared the lower jaw with that of a European child of five years old, and showed how closely they resembled each other. In both the feebly marked chin, the poor development of the basal or subdental part of the body, the low ascending ramus, and shallow coronoid notch were very manifest. The cervical vertebræ were distinguished by their spinous processes exhibiting very little tendency to bifidity. The bodies of the lumbar vertebræ were not moulded in such a fashion as to give any assistance in the formation of the lumbar curve: in fact, the sum of their anterior measurements was considerably less than the sum of their posterior measurements. The sternum

was remarkable for its extreme narrowness, but this is a feature which the author considered might possibly be an individual peculiarity, as he had had no opportunity of examining this bone in other Andaman skeletons, and Professor Flower had not mentioned it in either of his papers. The author concluded by stating that Professor Flower had unquestionably put his finger upon the salient point in connexion with the Andaman skeleton when he called attention to the many infantile characters which it exhibited.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

A MEETING of this Society was held on March 12th.

Leucocythæmia.—Dr. DYSON introduced a patient with Splenic Leukæmia. He was about forty years of age, married, and a blade-forger. He says he was healthy up to his present illness. There was no history of alcoholism, syphilis, or ague. The illness commenced five months ago, with wasting, loss of strength and appetite. There was no pain, and no history of hæmorrhage. He lost 2 st. in weight. Since his admission to the public hospital there has been pyrexia, the temperature ranging from 99° to 102° F., and quick pulse. The abdomen is half filled with the enlarged spleen, which presents the usual characteristics. Bronchitis was present on admission, and there were profound anæmia and œdema of the legs. Systolic hæmic murmurs were heard at the base of the heart, and white corpuscles were greatly in excess in the blood; red, paler, and forming rouleaux imperfectly; also smaller corpuscles, very highly refractive and spheroidal. One observation of the urine gave in twenty-four hours 62 oz. and 446·4 grs. of urea; no albumen or sugar. The treatment pursued had been quinine, iron, and arsenic, internally, and the constant galvanic current externally.

Aortic Stenosis. — Dr. BANHAM introduced a boy aged eleven years, suffering from aortic stenosis. There was some hypertrophy of the left ventricle, and indeed the compensatory changes in the heart were complete, so that no cardiac symptoms were complained of. The chief peculiarity in the case was the exaggerated character of the systolic murmur and thrill, both of which had been noticed by the child's parents. The murmur could be heard not only all over the chest, but throughout the whole length of the spine and over the occipital bones, and also when the ear was withdrawn an inch or two from the front of the chest wall. The thrill, which was excessive over the upper part of the chest and in the large vessels, was recognised the moment the hand was placed on the boy's shoulder. There was no evidence of aortic dilatation, the second sound of the heart was not generally audible.

Epilepsy.—Dr. PORTER read a paper on Epilepsy. After reviewing briefly the theories which had been put forward to explain the phenomena of an epileptic fit, he quoted from notes of twenty cases which had come under his treatment among a total of 841 out-patients at the Sheffield Public Hospital and Dispensary last year. Of these, eleven were males and nine females; in three cases there was a family history of epilepsy, in two of insanity, and in four of other nervous disorders, making a total of nine out of twenty cases in which there might be inferred hereditary tendency to brain affections. The fits occurred for the first time, in a very large proportion of these cases, either between ten and twenty years of age, or after thirty. As the exciting cause, two cases were attributed to head injuries, four to sudden shock or mental troubles, one to onanism; two originated with pregnancy, one at the commencement of menstruation, and one at the menopause. In reference to the connexion between epilepsy and uterine neuroses, Dr. Porter referred to Prof. Charcot's description of so-called hystero-epilepsy, and contended that in those cases at all events in which the hysterical and epileptiform paroxysms occurred together, the epileptic characters were more simulated than real; he deprecated the use of the term "epilepsy" in the nomenclature of this class of affection. In six cases out of twenty Dr. Porter met with a distinct aura, and in four more there were distinct premonitory symptoms. In enumerating the drugs he had found most serviceable, he laid special stress on hydrobromic acid in drachm doses; sodium nitrite he considered a very dangerous drug, from what he had seen of it in epilepsy. Dr. Porter considered that the proposal to introduce such an operation as the ligature of the vertebral artery in epilepsy should be received with the greatest caution.

Reviews and Notices of Books.

The Local Government and Public Health Orders relating to Urban and Port Sanitary Authorities, &c. By R. CUNNINGHAM GLEN, Barrister-at-Law. London: Shaw and Sons.—It is well known that the Local Government Board have, in their Poor-law and sanitary capacity, issued a considerable number of orders, circulars, memoranda, and sets of instructions, and that a number of the former have the force of law; some also have been repealed or cancelled; and as regards others, it is not always easy to decide whether they are or are not the ones which remain in force. Under these circumstances, the issue by Mr. R. C. Glen of a volume containing all such valid documents, arranged in proper order and carefully indexed, supplies a real want, and the work cannot fail to be of considerable service. Every subject as to which orders have been issued will be found to be included, and some of the orders, such as those relating to the constitution, &c., of joint hospital boards, cannot, without a great deal of trouble to those seeking them, be found elsewhere than in such a volume. In short, as a work of reference Mr. Glen's book will doubtless find a place in the libraries of many who are engaged in administering sanitary and Poor-law matters in this country.

Eczema and its Management: a Practical Treatise based on the Study of Three Thousand Cases of the Disease. By L. DUNCAN BULKLEY, A.M., M.D., Physician to the New York Skin and Cancer Hospital, &c. Second Edition. New York: G. P. Putnam's Sons. London: J. and A. Churchill.—The perusal of the second edition of Dr. Bulkley's considerable work on Eczema shows that he has spared no pains to make his views quite clear, and the work generally a thoroughly practical one. The previous edition was received with much favour, and in this second issue the author, whilst not altering in any way the principles of theory or practice, has made considerable additions and revisions with excellent judgment. General practitioners, for whom the work is more especially intended, will find in it a clear and trustworthy guide in the treatment of a very common and often embarrassing disorder. We may mention that Dr. Bulkley's views closely correspond with those held by Wilson and Fox in this country.

The Hunterian Oration delivered at the Royal College of Surgeons of England, Feb. 14th, 1885. By JOHN MARSHALL, F.R.C.S., F.R.S., LL.D., Past President of the College. London: Smith, Elder, and Co. 1885.—Our readers are already familiar with Mr. Marshall's excellent Hunterian Oration, for it was published in full in our columns immediately after its delivery; but we are confident that they will welcome this reprint, especially as it is enriched by some useful references and notes. The Hunterian orator has a difficult task, for he addresses a critical audience familiar with the many excellent deliverances of past orators; but Mr. Marshall undoubtedly succeeded in imparting freshness to the theme in his discussion of the connexion between recent advances in surgical and histological knowledge and the views of John Hunter. Often as the Hunterian festival comes round, we feel afresh that the life and labours of this great father of scientific surgery are worthy of far more attention than they have yet received, and we welcome any addition to our knowledge of the man and his work.

The Asclepiad. No. 6, Vol. II.—Readers of the *Asclepiad* are now familiar with the general construction of this periodical, and we believe that not the least welcome feature is the account, always interesting and faithful, of some man of mark. The current number is rich in illustrations, and a portrait is introduced with the object of

adorning the biographical notice of the anatomist, Vesalius. In the Opuscula Practica Dr. Richardson brings forward a new remedial agent which he believes will play as useful a part in surgery as the ethylates and colloids have already done. This agent is oxalic ether, which is too heavy to be administered by inhalation, though it may be applied hypodermically. It coagulates the albuminoid structures and produces a "free and dry eschar," without any marked constitutional disturbance. It promises to be of service in the removal of morbid vascular growths. The other contents of this number are—the Hygienic Treatment of Pulmonary Consumption; Measures of Vital Tenacity; the Prescription for Alcohol in Disease, a chapter in which we find ourselves almost in complete accord with Dr. Richardson; Researches on Resuscitation from States of Suspended Life. Altogether the present number is a very good one.

Nature's Hygiene: a Systematic Manual of Natural Hygiene. Containing also an account of the Chemistry and Hygiene of the Eucalyptus and the Pine. By C. T. KINGZETT, F.I.C., F.C.S., late Member of Council, Institute of Chemistry of Great Britain and Ireland, &c. Second Edition. London: Baillière, Tindall, and Cox.—Mr. Kingzett, in his second edition, has revised and enlarged his interesting and useful book. He has now divided it into two parts, of which the first deals with general considerations, such as the chemistry of natural oxidation, theories of disease, water-supply, sewage-disposal, antiseptics, and the like; while the second is devoted to the branch of chemistry which the author has made peculiarly his own—namely, the oxidation of the essential oils, particularly those of the pine and the eucalyptus, and the efficacy of their products of oxidation as antiseptic agents. Naturally a considerable portion of this part of the book is given to the consideration of the "Sanitas" preparations invented, or we might more properly say discovered, by Mr. Kingzett, but the treatment throughout is strictly scientific, and there is no trace of the trade puff. There is, indeed, great scientific importance in the facts which Mr. Kingzett has brought to light in regard to the development of peroxide of hydrogen during the oxidation of essential oils. It explains the hygienic value of pine and eucalyptus forests, and, we may add, of "Sanitas," which now enjoys general favour as a disinfectant, safe, pleasant, and useful, although, perhaps, not very powerful.

Syllabus of Lectures on Physiology delivered at Guy's Hospital. By P. H. PYE-SMITH, B.A., M.D. Pp. 110. London: Churchill. 1885.—This little work contains a large amount of information admirably adapted for the students of Guy's Hospital in attendance on Dr. Pye-Smith's lectures, but of less value to those who are taught elsewhere; nevertheless, there is much that is suggestive not only to students, but to teachers. The text consists of a series of short notes such as a lecturer might bring into the lecture-room with him, or which an intelligent student might jot down, when studying his text-book, for the purpose of refreshing his memory. The notes do not, and are not intended to, give details, but simply supply headings which the student might advantageously think and write out at length. The diagrams, of which there are many, are quite original and well worthy of study.

Zigzag Ramblings. By R. T. MANSON, M.R.C.S.—This little volume consists of a republication of a series of papers contributed to the *Darlington Times*, and they well deserve the wider circulation they are likely to enjoy by being issued in a separate form. The book reminds one of Gilbert White's "Natural History of Selborne," containing as it does descriptive sketches of the physical aspects and features of Darlington and its vicinity, given in an easy and attractive style. To the residents of the locality, especially, the *brochure* cannot but prove an agreeable coompanion during a stroll along the hedgerows and through the lanes and copses of that part of the north of England. Familiar lessons in botany and geology, interspersed with entomological and meteorological facts and references, with the introduction here and there of quaint axioms and moral reflections, make up a very readable little book, which is worthy of a somewhat better dress than that in which it is presented to the public.

SUPPOSED POWER OF ACCOMMODATION IN AN APHAKIC EYE.

To the Editor of THE LANCET.

SIR,—I think that the facts reported in Mr. Bickerton's case, published in your issue of March 21st, can be explained without supposing that the eye possesses any power of accommodation. It is well known that the retinal images need not be formed with absolutely mathematical accuracy in order that vision may reach the standard which is usually accepted as the normal one; it is also an accepted fact that the larger the retinal image, the less do the circles of diffusion interfere with vision. A difficulty in choosing between lenses differing from each other by less than 1 D is, I should say, rather the rule in testing the distant vision of cataract patients after operation. In testing the near vision, also, there is always a range extending on either side of the point for which the glass employed adapts the eye, which extends, I believe, further on the proximal than on the distal side of that point. I have no precise data as to its extent, but am convinced that it usually comprises several inches. In the present instance, the refraction, being 10·5 D + 14 D, would adapt the eye for a point 11·3 in. from the glass; the range, therefore, was slight on the distal side, but reached 4·8 in. on the proximal.

I fail to understand Mr. Bickerton's meaning when he says that "on either side of our strictly mathematical focus for near objects (p.p.) there is a small range of space in which we can see." The *punctum proximum* (p.p.) is the point for which the eye is adapted when using its maximum accommodation; the range, therefore, on the distal side of this extends to the "far point" (p. r.)—i.e., in the normal eye to infinity. The range on the proximal side of p.p. is greater when, as in Mr. Bickerton's case, there is a lens before the eye, because the images are then somewhat larger. As long as the distance of the lens from the eye is insignificant as compared with the distance of the object, as is the case in distant vision, the difference in the size of the retinal images is inappreciable, but when the object is brought within a few inches it becomes considerable. I think that Mr. Bickerton fails to appreciate the fact that the power of reading 1 Jaeger at 9 in. does not indicate a very high degree of visual acuity. The height of the letters being 0·75 mm., they would have to be held at a distance of 16 in. to give the same size to the retinal image that occurs in seeing $\frac{2}{20}$. The really extraordinary point in Mr. Bickerton's case, as reported, is that his patient had a visual acuity which was double the normal standard. I have not referred to this earlier because I suspected the statement that vision was $\frac{2}{10}$ to be a misprint. If Mr. Bickerton really intended to convey this, the case is, as far as I know, unique; and it is to be hoped that he will publish further particulars in reference to it, stating particularly the exact height of the letters used, their exact distance from the eye, the number employed, and the number read correctly.

I am, Sir, yours truly,

Wimpole-street, March 23rd, 1885. W. ADAMS FROST.

P.S.—Since writing the above I have examined a patient, aged thirteen, on whom I operated, in January for lamellar cataract in one eye. With + 11 D the visual acuity is $\frac{1}{5}$. With + 15 D he reads 1 Jaeger over a range extending from 11·4 in. to 5·75 in. (measuring from the lens). Of course he reads best at the distance for which the glass adapts the eye—viz., 10 in. This, for some unexplained reason, was not the case with Mr. Bickerton's patient. I do not think that this range is in the least usual; were it so, many patients would in some respects be better off before the operation than after the most brilliant result.

THE LANCET.

LONDON: SATURDAY, APRIL 25, 1885.

A VERY important financial experiment is at this moment threatening, the effect of which, if it were successfully carried out, would materially tell upon the profession of medicine. It is said that a Life Assurance Company is about to be formed the leading feature of which is to be that all necessity for a medical examination of the insured shall be dispensed with. The statement of the person about to insure will be put to a severe test. He or she will have to affirm the state of health, at the moment of commencing the contract, on a form so explicit and binding that anyone who intentionally deceives will inevitably have to forfeit all benefit. It is thought, we must assume, that each insurer will himself take care, by a medical examination, that he is certain before he insures; and that in this way the usual fee paid by the companies for a private medical report, as well as the fee paid to the medical officers of companies, will be entirely saved.

There is about this proposed experiment just sufficient plausibility to induce many men to give it a trial. There is no part of human action so truly and so rashly experimental as the financial. Men of business, as they are called—those who pride themselves on being called men of business, and who chide everybody who does not come up to their rigid standard of business ability and punctuality,—are often amongst the first to enter on a speculation which to them seems certain, because, on the surface, it presents no irregularities which they care for. It is well known, too, that on all insurance boards there are directors who are ready to accept every case that comes before them, and who would, on the doctrine of chances, accept every case, barring those which were self-condemned, if their more cautious colleagues did not keep them in check. It is therefore anticipated that a sufficient number of capitalists may be found to embark on the new project, and, "throwing physic to the dogs" in the most open fashion, take the risks of life against money into their own hands.

There is yet another reason for supposing that this scheme may for a time float. It is well known that of late years the existing companies have one and all, as if by unconscious unity of action, become more and more particular in their selection of lives. There exists, as a consequence, at the present time an enormous uninsured community, the members of which have tried to insure and have failed to carry out their wishes. These still wish to insure, and a new company starting, as it were for their benefit, would find a constituency ready to its hand. At first, too, the scheme might seem to be financially sound, and for one or two years a fair balance of profits might reward the enterprise.

It is well to take a calm survey of all these matters, and so, from its very inception, look the project fairly in the face. It is well, also, on the principle "forewarned, forearmed," to endeavour to detect what fallacies lie at the root of the new proposal. There are so many fallacies that we have no space in one article of this kind to bring even a moiety of them forward; but one or two should be named at once. It would, then, be a fallacy to assume that the design could be possibly successful with any capital that is at present represented by even the richest of the existing assurance offices. If all the companies were to club together into one great society, we think it doubtful if the plan would or could, in the long run, succeed. The value of medical examinations and of medical services does not rest on rough-and-ready statements as to the general health of would-be insurers, but on those refinements of examination which the people in general do not even think of. On the one hand, there are numbers of nervous people who imagine they are about to die, or, at best, will not live long, though they have little organically wrong with them, but who, if they were left to themselves, would never insure in any company to which they had to make a solemn declaration of health. On the other hand, there are multitudes who are ready at any moment to insure, and, disbelieving all statement as to their danger, would insure at once, if they had the power to do so, with nothing but their own evidence to help them into the insurance. Broadly we might divide all who insure into these two classes, and it is in regard to them both in this broad or general sense that the profession comes in most usefully for the protection of certain of them, and for the protection and advantage of all the companies. The doctor, in fact, as things now are, is the man who insures the mere nervous insurer, while he is the man who does not insure the bad reckless insurer, who at all risks would offer himself if he knew that he must be accepted. This point in favour of the present system carries with it in practice the greatest confidence in those offices which maintain the principle of selection of the fittest most determinately. An office that has the credit, or discredit, of accepting all fish that comes into its net is the office most distrusted. Such an office has been, as a general rule, the office that has most frequently failed; and where it has tried the plan and found it wanting, it has been the one which has had most trouble in disposing of its policies and in freeing itself from its troubles.

We content ourselves at this stage with what we have said above. We have given the profession the earliest intimation of a project which affects its honour, its integrity, and its interests. We have indicated the conditions under which the project may find means to offer itself for trial upon the public, and we have noticed the first grounds on which the project is likely to fail. For whatever else may come of the design we shall watch and wait.

"WHAT is the meaning of this mysterious dispute between the coroner and the doctors? It has been going on, as occasional indications have shown, for a long time—a sort of smouldering fire, sparks glowing here and there in a heap of wood ashes. Yesterday it broke out in a blaze in the coroner's court, and flamed so fiercely that we almost wonder nobody sent for the fire-engines. What does it all mean? There is something about post-mortem examinations—so much we know; and something about fees; and something, too, about hospital doctors, between whom and the coroner there appears to be a deadly feud of some unexplained character." With these words the *Birmingham*

Daily Post, one of the best conducted and most influential provincial journals, commences one of its leading articles on the 18th inst.

The mere fact that in so populous and important a community as Birmingham the relations of Her Majesty's coroner and the medical profession are, on good authority, said to be in a state of chronic conflict, points to a condition of things deeply affecting the public interest. So grave is the actual and possible issue, that we have instituted careful inquiries on the subject.

The office of coroner in Birmingham has a remarkable history, only one vacancy having occurred in it in something more than half a century. For upwards of forty years Dr. JOHN BIRT DAVIES, then senior physician to the Queen's Hospital, was the Birmingham coroner; leaving a record of enlightened and laborious industry almost unparalleled. He only retired on reaching fourscore years; and his merits were somewhat lightly passed over, in the heat of the discussion which attended the appointment of his successor. The relative claims of medical and legal coroners were not seriously discussed, and the Town Council of Birmingham, with whom the appointment rested, decided to bestow it on a distinguished member of their own body, Mr. Alderman HAWKES, a solicitor in leading practice, who had twenty years previously filled the office of Mayor, and had given abundant proof of intellectual attainment and public spirit. He had not long been in office before he instituted two most important and beneficial reforms—the establishment of public mortuaries, and of a central coroner's court, where inquests have ever since been held, instead of at public-houses, as was previously the practice. Unfortunately, at a very early stage in his new career, matters did not run smoothly between the coroner and some of the members of the medical profession, especially so in the case of juniors on the resident staffs of the local hospitals. The sore has not healed with friction; and the contest of the other day appears to have been a test battle between the coroner and a junior of exceptionally high qualification, so placed as to give him apparently some technical advantage over paid residents, who, one after the other, have had to succumb. Dr. WILLIAM ARTHUR FOXWELL, the gentleman in question, having held the offices of pathologist and resident physician to the General Hospital, was recently raised by the committee of governors to the position of assistant physician, and is now in practice as a physician in Birmingham. Under these circumstances he seems to have been under the impression that, in appearing before the coroner, he was no longer compelled to give unpaid evidence, as he was, by law, during his residence in the hospital. When called by the coroner to state the cause of death, Dr. FOXWELL asked for his fee, whereupon an altercation ensued, which we summarise from *Aris's Birmingham Gazette* of the 18th inst., the report in which is in substantial agreement with those of the other localpapers:—

"Dr. Foxwell asked for his fee, and said he was not now on the resident staff.—Mr. Hawkes: Do you decline to give evidence?—Dr. Foxwell: I am not resident in the hospital. —Mr. Hawkes: I ask you again, do you decline to give evidence?—Dr. Foxwell: I am not now resident in the hospital. I have travelled all the way from Alvechurch to give evidence at this inquest, and think my expenses should be paid."

If in expressing this opinion the physician was in error, it was open to the coroner to correct him; and everyone who frequents the superior courts knows with how much kindliness and suavity judges always direct professional juniors, whether in their own or the medical profession. But this seems to have been an occasion for severity and not suavity.

"The coroner then called upon Inspector Willis to prove that he served a summons upon Dr. Foxwell at the General Hospital to give evidence at the inquest.—Mr. Hawkes (handing Inspector Willis a paper): Is that my precept?—Inspector Willis: It is, sir.—Mr. Hawkes: Does it include the name of Arthur Foxwell, assistant-physician at the General Hospital.—Inspector Willis: It does, sir.—Did you serve a summons on the doctor?—I did, sir. On Wednesday afternoon last I received the precept, and I served the summons personally.—What did he say?—He said he was resigning his office the following day, but he would attend."

It was surely rather early to call in the police inspector; but Dr. FOXWELL preserved his equanimity, and requested to be allowed to make a remark. So reasonable a request, if met in the same spirit, might have put an end to the difficulty, but the coroner seems to have considered that his court was not the place for explanations.

"Mr. Hawkes: You may make any remark you like before the Queen's Bench.—Dr. Foxwell: The statement is not correct.—Mr. Hawkes then asked Inspector Willis to call upon 'Arthur Foxwell to come forth and save his peril.'—Inspector Willis did so in a loud voice three times.—Dr. Foxwell: The officer did not serve me as stated."

Apart altogether from the merits of the question immediately at issue, it surely was an extraordinary proceeding to meet a physician's request for permission to make a remark by threatening him with the Court of Queen's Bench, and directing a police inspector to call upon him in open court, while he stood there, "to come forth and save his peril." The coroner probably felt that the witness should have stated his objection before he was sworn, and that once he had taken the oath he was bound to answer to the best of his knowledge, protecting himself if he chose by submitting under protest; but the fee question having become the subject of a long altercation, this point was reached.

"Mr. Hawkes: Is your objection to state the cause of death because you have not had a fee for the post-mortem examination?—Witness; I have no authority to do so.—Mr. Hawkes: I must commit you for wilful contempt of the authority of the Queen and this court.—Dr. Foxwell: I am sorry you take things in this way.—Mr. Hawkes (sternly): Officer, take this man in charge.—Dr. Foxwell (wavering): Am I to be detained?—Mr. Hawkes: Certainly. You will be sent to Winson Green [the common gaol].—Dr. Foxwell: Have I no right to speak to anyone outside?—Mr. Hawkes: You can speak to whom you like, so long as you remain in the custody of these officers.—Dr. Foxwell: Can I not obtain legal advice on the matter?—Mr. Hawkes: You can send for a lawyer if you like. I shall be most happy to see him. You must not begin to make extortions in Birmingham merely because you have been practising in London. [To the jury:] If I owed him a guinea he could sue me in the County Court for the money. Did you (the jury) ever see such a miserable exhibition as this on the part of an educated man in a struggle after a guinea. Thank heaven, he is not a Birmingham man."

Dr. FOXWELL interposed—"I beg your pardon, sir"; and, after a few more questions and answers, these followed:—

"Mr. Hawkes: Can you tell the jury the probable cause of death?—Dr. Foxwell: Yes; shock. I did not understand

what you meant; I could have told you that at any time.—Mr. Hawkes: The cause of death was shock?—Dr. Foxwell: No, sir; I did not say that. The "probable" cause of death was shock.—Mr. Hawkes (sarcastically): After half an hour's trouble we have got this much from the witness—that the probable cause of death was shock.—Dr. Foxwell: That is not——Mr. Hawkes: Pray don't interrupt, sir; don't interrupt me again.—Mr. Hawkes was proceeding in his remarks when Dr. Foxwell again interrupted.—Mr. Hawkes (to Sergeant Gosling): Remove this man from the court.—Dr. Foxwell: That evidence is worth nothing. Shock might be caused by anything.—Mr. Hawkes: Remove him; take him away. We will not be bothered with him any longer. I must resent these insults to the court from members of hospital staffs.—Dr. Foxwell: And I hope that the hospital staffs will resent the insults of the court.—Sergeant Gosling and Police-constable Twigg then escorted Dr. Foxwell to the door."

This is certainly one of the least creditable altercations we ever remember as having occurred in a coroner's court. Conceding that the Birmingham coroner may have been annoyed by the demeanour of the juniors at a particular hospital, it can scarcely be doubted that, on proper representations being made to its managing committee, they would have assisted Her Majesty's officer in the discharge of his highly important duties. But it is not easy to see how such an altercation as that above recorded can conduce to the protection of life or to the dignified administration of justice. An old legal practitioner may naturally have little sympathy with the aspirations and worldly inexperience of a distinguished young scientist, who, even if injudicious (we do not say he was so), yet did not deserve to be treated as a *quasi*-felon. Above all, it behoves legal coroners, if not exceptionally informed on medical matters, to be very careful to obtain accurate medical evidence, and to avoid anything approaching to a conflict with medical witnesses.

MR. MITCHELL BANKS read an important and valuable paper at the Medical Society on Monday last on the Treatment of Gangrenous Gut in the operation for Strangulated Hernia; and it was successful in initiating a good discussion. Many months ago Mr. BANKS was called upon to operate for a scrotal hernia which had been subjected to considerable violence by the patient's efforts to reduce it. The coverings were greatly swollen and livid in colour, and on opening the sac there was an escape of clot and bloody fluid, and a coil of gangrenous intestine was exposed. In view of the absence of putrid suppuration in the sac and of the good general condition of the patient, Mr. BANKS drew down the intestine until he exposed healthy bowel, and then proceeded to excise several inches of the gangrenous intestine with a wedge-shaped piece of mesentery, and to unite the cut ends of the bowel, which he finally returned within the abdomen. The man made a good recovery, and is now well and able to follow his occupation as a cook. This appears to be the first recorded case in which this operation has been successfully performed, and Mr. BANKS is to be warmly congratulated upon the success which rewarded his skill and care. This case formed an excellent text for a consideration of the line of treatment to be carried out in similar cases.

The patients who present themselves with gangrene of the strangulated bowel may be roughly grouped into three classes. There are, first of all, those who are in a moribund condition, dying from exhaustion consequent upon the unrelieved strangulation, the vomiting, &c. In these all the surgeon can do is to afford the relief that is to be obtained by a free incision into the bowel and an evacuation of its contents, with the removal of obstruction. In such cases no further treatment can for a moment be considered. Then there is the small class of cases, of which Mr. BANKS's is an instance, in which both the local and the general conditions are favourable, where the coverings of the hernia and the sac are not infiltrated with putrid serum or pus, and where the patient's strength is not exhausted by incessant vomiting. The conditions are favourable for recovery, and where assistants and the necessary appliances are at hand, the operation performed by Mr. BANKS is indicated. This procedure requires considerable time, and no little skill and care in the complete arrest of hæmorrhage from the divided vessels in the mesentery and in the bowel, and in the careful adjustment and closure of the bowel. A septic condition of the wound will also with almost absolute certainty be attended with a fatal result. The after-treatment requires to be conducted with the greatest care and judgment. Even under the most favourable circumstances, this operation will always involve considerable risk, and it is only the fact that it affords the quickest means of restoring the patient to the best possible condition that justifies the procedure. Between these extremes of cases are others in which the general condition is such as to admit of recovery if the obstruction be relieved, but in which both it and the local condition are such as not to admit of the resection and union of the bowel and its return within the abdomen. In these cases the practice of surgeons has varied, and it was Mr. BANKS's object to elicit opinion in such a manner as to make the practice more uniform. One course open—and it was strongly advocated by Mr. TREVES—is to excise the gangrenous bowel, and, gently drawing down the ends of the bowel, to unite them to the skin wound and make an artificial anus. Subsequently, when the conditions are all favourable to the operation, this anus can be excised, the ends of the bowel united, and the parts replaced within the abdomen. The argument in favour of this plan is that it at once removes the sphacelus and securely fixes the bowel to the skin, preventing its slipping back and causing fæcal extravasation. The subsequent resection of the anus is a much less dangerous operation than when performed primarily for the gangrene. On the other hand, it is alleged that when the dead bowel is freely incised the sphacelus very quickly melts down and separates; that the disturbances at the neck of the sac may be the means of allowing septic matter to pass into the peritoneal cavity; and, further, that the cutting off of the intestine, if done beyond the sphacelus, must be attended with hæmorrhage; while yet another objection to this plan arises in those cases where the extent of the gangrene is doubtful at the time of the operation.

The alternative plan is to make a free incision into the gangrenous bowel, to evacuate its contents and the fluids infiltrated in its walls, and to make a free passage for the contents of the bowel above, and, having done this, to leave the parts to nature. The slough is very quickly thrown off and a fæcal fistula remains. This may close spontane-

ously, or may be made to close by such a device as has been described and successfully practised by Mr. BANKS or by some similar means. Or the surgeon may subsequently resect this portion of bowel and restore the continuity of the bowel within the abdomen. The simplicity and success of this procedure will no doubt commend it to the majority of surgeons, and make it the usual course to be adopted in these cases. But in connexion with it the questions arise—whether the stricture should be divided, and whether it is well to draw down obviously healthy intestine into the neck of the sac. Each of these queries should, it would seem, be answered in the negative. The parts about the neck of the sac should be left as undisturbed as possible, for not only may the bowel be greatly thinned and weakened just where it has been nipped by the stricturing band, but the adhesions formed on its inner surface which shut out the peritoneal cavity from the wound may be broken through, and a path opened for the passage of septic matter into that serous sac. As Mr. BANKS rightly stated, septic poisoning, and not peritonitis, is *the* cause of death after operations for strangulated hernia; and in cases where the contents of the sac are septic, as they usually are in gangrene of the gut, no pains should be spared to preserve the adhesions which may have formed about the hernial ring. The surgeon will also, of course, take all the steps that seem to him advisable to cleanse the external wound, and to render the escape of the intestinal contents and effused fluids absolutely unimpeded. If the discussion of this subject result in rendering more certain and clear the lines of practice in this serious condition, which may arise suddenly in the practice of any surgeon, it will have been abundantly justified, and such we believe will be the case.

IT is, we think, imperatively necessary that attention should be at once directed to one most urgent matter in connexion with the public provision for the care and cure—or cure and care, as it ought to be—of the insane. The need of small hospitals for the prompt and active treatment of mental disease is very plain and very pressing. In 1877 the following plan was suggested:—To provide in every district a hospital, properly so called, thoroughly furnished with all necessary appliances for the physical and moral treatment of insanity. Attached to this hospital, so far as the conduct of its general arrangements is concerned, to construct an institution—or if necessary more than one—to which patients not either requiring or likely to be benefited by active personal treatment, but still needing medical care, may be removed when in the course of each individual case it becomes apparent that this transfer will not prejudice the final chances of recovery. In connexion with the workhouse, or in some appropriate institution—for example, a "workhouse asylum"—to provide suitable wards for the senile and infirm, whose recovery is impossible, and who tarry only for death. It was contended that this threefold system being efficiently organised, the necessary circulation of cases might be readily maintained without either indefinitely multiplying costly buildings, or allowing the curative establishment to become blocked against recent and curable cases by the stagnation of chronic cases. There would, moreover be this great advantage in the plan suggested—the capacity of the hospitals required in any district could be determined, not on a vague conjecture as to the probable rate of increase in the total number of pauper lunatics, but upon the more definite, and though neglected not impracticable, basis of the number of persons *becoming insane*. This general scheme was then worked out in detail from the statistics available as follows:—In Middlesex the admissions to the asylums at Hanwell and Colney Hatch during the year 1875 amounted to 1054. The discharges and deaths in the same year were 1044. It was estimated that about 30 per cent. of these case-endings, as they may be called, either by removal or death, occurred *within six months of their admission*. This is a most important consideration. The average number resident in the Middlesex county asylums for the period was 3906, and it was calculated that the actual accommodation required for *new*—that is, recent—cases would not exceed 1000 beds for the whole county. The rest of the accommodation provided was, in fact, devoted to the *care* of the insane, as distinguished from their *cure*. In Surrey, the total admissions in 1875 at Wandsworth and Brookwood numbered 834. The discharges by death or recovery were 568, of which some 30 per cent. took place within six months. The average number resident in the two public asylums of Surrey at that time was 1699. A hospital with 600 beds would therefore, it was urged, suffice for the cure of insanity in that county. Some addition to these computations was made for the new cases sent direct to licensed houses, and then the general inference was drawn thus: One curative establishment—or, better still, two—in Middlesex and one in Surrey, not exceeding the manageable proportion of 600 beds, with an ample medical staff and a sufficiently large number of attendants, would do more to keep down insanity *by curing the highest proportion of curable cases* than the most energetic and skilful use of the machinery at present employed could accomplish. In these small curative establishments it would be possible to make the treatment of each patient an object of special care. The progress of the malady might be watched, the exhibition of appropriate remedies at specific periods would be possible, and *the same clinical observation and research might be brought to bear on the work of cure which are now practicable only in hospitals.*

We reproduce this proposal as meeting the full requirements of the case, and affording an opportunity for the solution of the great difficulty of the moment with regard to the temporary custody of those who are alleged to be insane, but whose actual condition is doubtful. At each of the hospitals provided there would be receiving wards, and to these magistrates might remand cases for observation Attached to such hospitals, also, there would be wards for sleeping purposes only, allowing patients who were sufficiently recovered to "work for their living" to remain under supervision for awhile, going to their homes by day and returning at night, until they were quite fit to be discharged. "Out-patient" departments also would be practicable. In short, there would be the nucleus of a complete development of the hospital system with facilities for the clinical pursuit of mental disease by students of medicine; the net results being to place disease of the mind, so-called, on a footing of equality with disease of the body. This would at once bring

the light of day to bear strongly on the subject of insanity and on the care of the insane. We again commend the consideration of this scheme in its entirety to the attention of the Legislature and the profession.

AT a recent meeting of the Obstetrical Society of London Dr. JOHN WILLIAMS related his researches on the circulation in the uterus. Briefly told, the arrangement of the vessels is the following: The ovarian and uterine arteries run along the sides of the uterus and give off numerous branches, which proceed horizontally inwards and form circles round the organ; from these vessels run towards the uterine cavity in a direction perpendicular to the surface. It results from this that each portion of the uterus has its blood supply secured to it at its own level, and is not dependent upon any segment above or below it. The paper was illustrated by numerous specimens of injected uteri, both fœtal and adult. The arrangement of the veins is similar, and secures a free return of blood; the venous anastomoses of the veins outside the uterus are numerous and free, and it is an almost everyday observation that the ovarian vessels may be tied without embarrassing the return of blood from the uterus in any serious or permanent manner. The paper enunciated new views as to the real nature of various layers in the uterus. According to Dr. WILLIAMS, the primary branches of the vessels run in a layer of connective tissue near the peritoneal surface, which is more plainly seen in the fœtus than in the adult, and is really the submucous layer, usually said to be absent. The muscular layer outside this, which is very thin, is the true muscular wall of the uterus, while the whole thickness within the submucous coat is the mucous coat, and the muscular layers in it, forming the chief thickness of the entire wall, constitute the "musculares mucosæ," into which the glands dip. The "mucous membrane" affected by the menstrual cycle is the "decidua," and is only a very small portion of the mucous coat. These observations derive additional force from a study of the uteri of many of the lower animals, which are thin. The chief practical importance of the paper, however, lies in the assertion of the author that a ligature may be tied completely round the uterus at any point above the vaginal injection without affecting the supply of blood either above or below, and that therefore flexions of the uterus can have no effect upon the blood supply, in the way of causing congestion. The mechanical theory of uterine pathology has been subjected to a series of searching scrutinies of late. The researches of VEDELER and HERMAN, already quoted in these columns, have shown that displacements are extremely common, and that their effect on the production of dysmenorrhœa and allied disorders can no longer be maintained. They are now subjected to another ordeal; it is here contended that flexion pure and simple cannot conceivably produce congestion. In the discussion which followed the paper, Dr. GRAILY HEWITT, the champion of the mechanical system, acknowledged that the vascular arrangements were probably competent to secure an equable supply and return of blood in temporary and slight cases, while in severe and sudden cases congestion was very likely to ensue. Dr. GALABIN subsequently took the exactly contrary view that although there might be some obstruction to the circulation at first, collateral circulation would probably soon equalise matters. Dr. HEWITT fell back on his personal experience of cases of anteflexion as well as retroflexion complicated by congestion. Associations of this sort require to be subjected to the most severe and sceptical criticism by the observers who make use of them as arguments. The sense of the meeting appeared to coincide with that of the writer of the paper, and to agree with him that it is still to be explained how a flexion of the uterus pure and simple can conceivably be a cause of congestion. Displacements appear to be getting at a discount. Judging from the results of debates on the subject, our rising teachers neither teach them nor believe in them. When the "spur at the angle of flexion" cannot be produced in the flesh when repeatedly asked for (though figured freely in text-books); when the idea of flexion has been divorced from that of dysmenorrhœa; when the circulation in the uterus is demonstrated, and a theory of the possibility of congestion being produced by flexion is not forthcoming in the face of actual specimens—what remains? We may at least hope that the rising generation will henceforth be fed with facts and allowed to judge for themselves.

Annotations.

"Ne quid nimis."

THE COUNCIL AND THE FELLOWS AND MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

WE understand that a meeting of the Committee of the Association of Fellows was held on Wednesday last, to consider the latest decision of the Council respecting the alterations proposed to be made in the College Charters. Great disappointment—to euphemise—is felt at the continued rejection of several of the fundamental recommendations of the Association, and at the resolution of the Council not to submit the draft of the new Charter to a general meeting of the Fellows and Members. Indeed a rumour is current that the Committee of the Association regard this decision as directly contrary to a general understanding with the deputation of the Association that such a meeting would be held. Steps are, we believe, about to be taken to arrange a programme and a plan of action which will enlist the sympathy and receive the joint support of the two Associations of Fellows and Members. There should be little difficulty in discovering a *modus vivendi* for the two Associations. If this can be accomplished, the speedy defeat and overthrow of the anti-reform league in the Council is certain. It is important that a combined course of action should, if possible, be agreed upon without delay. The annual election is rapidly approaching, and the Fellows will have an opportunity of giving practical effect to their convictions by refusing to re-elect those who are known to have resisted every movement for the reform of the Council, and only by attacking the strongest cases will the Fellows be able to break through the compact body of obstructives.

TESTIMONIAL TO MR. SHIRLEY MURPHY.

IT is with great pleasure we find that it has been decided to raise a testimonial to Mr. Shirley F. Murphy, late medical officer of health of St. Pancras. This gentleman has been compelled, out of self-respect and in the interest of the public, and particularly that portion of it most dependent on the conscientious and judicious discharge of duty by the sanitary authorities, to resign his office. Mr. Murphy has, during a

period of nearly seven years, displayed a self-sacrificing devotion in prosecuting with unusual zeal very difficult problems of sanitary reform, and always with unvaried success. His investigations into the epidemic of typhoid fever in St. Pancras were carried out with rare acumen and scientific precision; and it is not too much to say that probably some, at least, of those members of the vestry who have earned an unenviable notoriety for obstructing his researches owe their continued existence to his disinterested services. There can be no doubt that the widespread feeling of sympathy for Mr. Murphy that has burst forth in so many quarters will do much to prevent a recurrence of what may justly be termed a grave social evil, and will serve to accentuate the wisdom of the saying, "out of evil good shall come." It is not enough, however, to affirm a principle in order to secure its adoption and practice; and for this reason we heartily join in the hope that the intended testimonial may meet with ready and substantial support from the public and the medical profession. The object is a worthy one, and deserving of recognition and support. Mr. Murphy's resignation represents a cause that should not be allowed to fail at the instigation and action of those who prefer personal advancement to the national weal. Subscriptions may be sent to the treasurer; the secretaries, Mr. J. W. Gandar, 157, Camden-road, and Mr. J. A. Heaton, 8, St. Bartholomew's-road, N.; or any member of the executive committee, which is at present constituted as follows:—His Honor Judge Chalmers, Hon. Sec., London Fever Hospital; the Hon. Lady Henry Somerset, 16, Albert Mansions, S.W.; Dr. J. G. Glover, 33, Compton-terrace, Highbury, N.; Rev. Mark Wilks, 12, St. Bartholomew's-road, N.; J. H. Badcock, Esq., M.R.C.S., 126, Gower-street, W.C.; John Hamer, Esq., Hon. Sec., Mansion House Council on Dwellings of the Poor. _____.

PARASITES OF THE DOG.

As the seasons come round various ideas as well as things crop up, and of late we have had a plentiful supply of parasitic scares. Last year we had the entozoa of the mackerel wherewith to frighten poor and uninstructed people. Not long before that we were warned of the danger of eating pike and other fish, it having been alleged that trichinæ were found in a jack caught in the harbour at Ostend. This year the scare concerns the dog; and since a F.R.S. lends his name to the movement, let us see what he states. As an anatomist dealing with the vertebrata Mr. Mivart's reputation stands high, but we are not aware that he has made a single experiment or contributed a solitary new fact in relation to the parasites of the dog. He tells us that the "eggs" of the Tænia cœnurus "pass into the sheep's blood." That is ridiculous. The eggs do not pass; but their contents, in the form of six-hooked embryos, having been liberated in the true or fourth stomach, bore their way into the organs of circulation, and are at length carried to the brain. This was experimentally proved by Küchenmeister. Mr. Mivart next tells us that the hydatid, or "bladder-worm stage of existence" of the Tænia echinococcus "is passed, *not in the body of any domestic animal*, but in that of man himself." The italics are ours. This is too bad. One would think Mr. Mivart had never dissected a pig, a sheep, or an ox, in which animals these hydatids are remarkably prevalent, much more so certainly than they are in man. There is not a veterinary surgeon of experience living who has not encountered them. No doubt in Iceland, Australia, and India they are more abundant than in this country. At the Health Exhibition last year Dr. Cobbold showed drawings illustrating the pathological changes produced in the lungs and liver of English sheep and swine, and perhaps it may interest Mr. Mivart's friends to know that one liver of a pig there drawn displayed several hundred of the bladder-worms which, he says, do "not live in the body of any domestic animal." They will also be further interested to learn that "six pigs of the same litter, four months old, were similarly affected, all of them having been sent to market and sold as food." In the shilling pamphlet on the Parasites of Meats, "issued by authority," and published by Messrs. Clowes and Sons, the whole subject in relation to infection is fully explained. Another kind of evidence will perhaps better show the misleading nature of Mr. Mivart's dictum. We allude to the evidence to be derived from statistics. By a report received from the executive commissariat officer at Mooltan, it appears that so far back as 1868, during a period of fifteen months, commencing in October, 2109 animals were slaughtered in the district for the purpose of supplying rations to our troops. Of these cattle no less than 899 were affected with hydatids—that is to say, with those bladder-worms which Mr. Mivart has the temerity to inform the public do not pass this stage of their existence in the body of any domestic animal! Sanitarians are greatly indebted to Dr. Cleghorn for publishing these statistics; and, now that we are on the subject, it may be added that the majority of the animals were affected in both liver and lungs. The cysts occupied the liver in 829 instances, and the lungs in 726 instances. The kidneys and spleen were infested in a few cases. In regard to the questionable practice of fondling pet dogs and allowing them to lick the hands and face, we are inclined to agree generally with Mr. Mivart. The act of licking, however, would not be likely to communicate tapeworm, as the readers of the letter in question might be led to suppose, but such action would in certain cases readily convey the germs or eggs of a totally distinct kind of entozoon, which the late Professor Frerichs showed to be very common in the human liver in Germany. We allude to the Pentastoma tænioides, better known in its larval stage as P. denticulatum. It is a comparatively harmless entozoon, but, as Dr. Landor has shown (*Berliner Klin. Wochenschrift*, 1878), it may prove fatal to man in the adult condition. It has also been known to prove destructive to the dog itself.

INDUSTRIAL INSURANCE.

THE abuse of what is known as industrial insurance, especially of infantile insurance, is effectively dealt with in a supplement to a Lecture on Life Assurance recently issued by Mr. Arthur J. Cook. The subject is one the importance of which can scarcely be insisted upon too often or too strongly, in order to secure the further legislative action which the recent notorious cases at Liverpool show to be imperatively necessary. The reckless competition among agents of rival companies and the manner of their remuneration have led to gambling in life policies, which obviously affords inducement and facility for the crimes brought home to the women Flannigan and Higgins. Mr. Cook, from knowledge personally acquired in many parts of the country, is assured "that tens of thousands of husbands have been insured by their wives for sums up to the limit for which a medical examination is not required." The proposal forms for membership of Industrial Companies and Burial Clubs contain certain questions which ought to be answered, and signed by the person whose life is to be insured. There is every reason to believe, however, that in a large proportion of cases the supposed signatures or marks of the husbands upon the proposal forms are those of the wives, when they have not been written by the agents themselves. However this may be, there is no disputing the fact that insuring lives without the knowledge of the insured is one cause of the recent great extension of industrial insurance business.

The system of industrial insurance, and the way it is worked by competing and often unscrupulous agents, calls for a Government inquiry, with a view to further legislation for the protection of the public. Although insurances made by persons having no interest in the life insured are null and void, it is evident that this enactment should be supplemented, as Mr. Cook suggests, by making the effecting of an insurance by an uninterested person a legal offence. The present competitive traffic in small policies constitutes a grave social danger, profitable as it unfortunately is to industrial companies and agents.

THE DIRECTOR OF PUBLIC PROSECUTIONS.

A DRAFT report has just been issued of regulations under the Prosecution of Offences Acts, 1879 and 1884. This is to be submitted to the Lord Chancellor and the Secretary of State for the Home Department for their approval. The codification of the regulations drawn up for the guidance of the Public Prosecutor will do much to remove the uncertainty that has hitherto prevailed with regard to that official's duties. We have several times had to call attention to the unsatisfactory way in which criminal investigations have been instituted and conducted, notably in the case of Messrs. Bower and Keates. It is to be hoped that the reforms now under consideration will entirely remove the opprobrium that has undeniably been thrown upon a very important judicial institution. The first clause of the draft regulations defines the cases in which it shall be the duty of the Director of Public Prosecutions to "institute, undertake, or carry on a criminal proceeding in respect of an offence. These are: (1) where the offence is punishable with death; (2) where the offence is of a class the prosecution of which has been undertaken by the Solicitor of the Treasury; (3) where an order is given to the Director by the Secretary of State or the Attorney-General; and (4) where it appears to the Director that the offence, or the circumstances of its commission, is or are of such a character that a prosecution in respect thereof is required in the public interest, and that owing to the importance or difficulty of the case, or to other circumstances, the action of the Director of Public Prosecutions is necessary to secure the due prosecution of the offender." It will be seen that, whilst the conditions under which the Public Prosecutor is to act are more or less closely defined, a very wide discretionary power will still be vested in him. The tenth and last clause, though a short one, will be received by the public and the profession with unqualified approval, seeing that it contains a guarantee against frivolous and vexatious actions, and neglect or misconstruction on the part of the Public Prosecutor. It runs as follows: "The action of the Director of Public Prosecutions shall in all matters, including the selection and instruction of counsel, be subject to the directions of the Attorney-General." So that in cases of difficulty or doubt the opinion and advice of the latter official can be sought, and he it is who will be to a great extent responsible for the proper carrying out of the regulations. Even where the interference of the Attorney-General is not required, the knowledge of the fact that the Public Prosecutor is subject to his directions and answerable to him for any action he may have taken on his own authority will serve as a wholesome check against irregular procedure. The second clause gives to the Public Prosecutor the power of directing investigations which in his opinion are necessary to secure the due prosecution of the offender. The third clause enables the Public Prosecutor, either on application or on his own initiative, to give such advice and assistance as he may deem requisite to clerks of justices of the peace, and to chief officers of police, &c. The fourth clause enacts that where a case has been reserved for the opinion of the High Court of Justice, and counsel has not been instructed for the prosecution, the Public Prosecutor shall, at his discretion, or on the fiat of the Attorney-General, issue such instruction. Clause 5 refers to the powers of the Public Prosecutor, as to authorising "the preparation of scientific evidence, the remuneration of scientific witnesses, the payment of extra fees to counsel, the preparation of plans and models, &c.," on the sanction of the Attorney-General. Clause 6 confers upon the Public Prosecutor the power to cause the chief officers of every police district to furnish him with such information as is required by the Prosecution of Offences Act, 1870 and 1884. Clause 7 relates to the production of documents and other things. Clause 8 provides the Public Prosecutor with the power of obtaining documents, &c., from clerks of justices of the peace, whenever he finds that actions or prosecutions which should have proceeded have been allowed to drop. Clause 9 bears on the employment and payment of solicitors engaged by the Director of Public Prosecutions. From a perusal of these proposed regulations, it will be found that an earnest endeavour has been made to put the appointment of Public Prosecutor on a creditable and well-defined basis, and to furnish the country with a judicial department worthy the name. It remains to be seen how far these principles will be exemplified in practice.

MULTIPLE XANTHOMA.

WE have been favoured by Dr. Hardaway with a reprint from the *St. Louis Courier of Medicine* of an account of an interesting case, in a man aged forty-four years, of multiple xanthoma, exhibiting the plane, tubercular, and tuberose varieties of the eruption. The lesions were perfectly symmetrical, except for a remarkable corymbose band on the right side of the trunk in the trajectory of some cutaneous nerves. Such an occurrence has been, hitherto, unrecorded, and was, possibly, determined by a zona. The eyelids, upper lip, chin, elbows, wrists, hands, nates, thighs, legs, feet, genitals, mouth, soft palate, and trachea were involved. The patient had an enlarged liver, and had been treated for chronic hepatitis. Jaundice of twelve years' standing had rendered the skin almost black, and the surface was much scratched and scarred from the intense pruritus ever present. The xanthoma had gradually evolved in the course of four years, and seems to have commenced in the gluteal region. There was a trace of sugar, but no albumen, in the urine. Dr. Hardaway suggests that xanthoma is a diathetic affection, and that jaundice, when it occurs, is secondary to an early xanthomatous implication of the liver.

SHORTCOMINGS OF THE FACTORIES ACT.

WHILE it is not to be expected that the business of factories and workshops will go on without a measure of danger from accident and illness, the last return presented to the Home Office on this subject shows that the minimum of avoidable mishap is still far from being attained. A large percentage of reported cases of accident are evidently due to carelessness on the part of employers and employed. Among these are such as arise from insufficient fencing of machinery, from hurry in piece-work, and from the regrettable practice of entrusting the cleaning of machinery to young boys or girls. A part of the report of special interest to the sanitarian is that which deals with the atmosphere of work-rooms. Interesting facts are communicated with respect to overcrowding, and the varieties of trade phthisis which are apt to follow the inhalation of many kinds of dust-laden air. Of equal or even greater public importance are the statements contained in this return with reference to the condition of the class known as "sweaters," who supply the market, particularly in the

clothing trade, with work done in their own homes. Accounts of the destitution prevailing in this class have found their way into the press in many recent publications respecting the state of the London poor. A house-to-house visitation by the Factory Act inspectors during 1884 has further proved the powerlessness of that Act either in controlling working customs or in improving unhealthy domestic surroundings. The Act, indeed, was not meant to extend to the above-named body of operatives. We find, accordingly, that of 1478 such workrooms visited by the inspectors, 734 were exempt from their jurisdiction in all respects, while 367 were equally free from their sanitary control, though subject to that of the local authorities. Those who have visited among the poor, professionally or otherwise, can best appreciate the meaning of these assertions, which not only signify that much unjust overwork continues to press where it can least be borne, but also indicate a serious public danger, for the clothes which are stitched in slums where infectious disease is rife are found a day or two later exposed as the ready-made goods of some fashionable tailor; and the same is true in principle of other kinds of merchandise. There are many who wish to see the Factory Act so amended and extended as to cover the needs of shop *employés*. The returns before us show that the real limit of the influence of that measure is coextensive with paid labour in almost every kind and degree of trade and manufacture, and such an extended application need not, we think, imply a too particular official interference.

COLOUR-BLINDNESS.

AN interesting and important report upon the tests for colour-blindness used in examining candidates for masters' and mates' certificates of competency in the British mercantile marine has just been presented to both Houses of Parliament. It has been drawn up by Mr. Thomas Gray, of the marine department of the Board of Trade, and deserves careful consideration. The colour test in examinations for masters' and mates' competency in the British mercantile marine was established by the Board of Trade in May, 1877; and since then all candidates for these posts have been compelled to pass a test examination as to their ability to distinguish black, white, red, green, yellow, and blue, which are the chief colours that enter into the combination of signals by day or night used at sea. It is singular, however, considering the magnitude of the interests involved, the immense value of the property in jeopardy, to say nothing of the numerous lives that are yearly lost by collisions and by shipwrecks which might well be avoided, supposing them to be, as they unquestionably are, due in many instances to colour-blindness, that these tests have not been generally insisted on, not only for officers, but for men who are on the look-out; yet Mr. Gray states that he has never yet heard that a shipowner, or even a master of a ship, applies the colour test to men employed as A.B.'s. It may reasonably be asked to what end are the mates and captains of merchant ships tested for colour-blindness, when many others to whom the steering and course of the ship is constantly entrusted are never examined at all. In the locomotive service on land, whilst it is absolutely necessary that the engine-driver should have correct appreciation of colours, the signalman might be subject to defect of this sense without harm to the public, since his movements are guided by printed directions in respect of which there can be no mistake, and the coloured glass he turns on to the driver is turned away from himself; but in the case of a ship the movements of each of the steerers are guided by the same sense, and disastrous accidents are sure to happen if either steerer fails to accurately distinguish colour. It would hardly be credited that up to the present time pilots are not compelled to give evidence of their full possession of the colour sense. Mr. Gray points out that for the small sum of one shilling all sailors have an opportunity of being examined, and expresses his regret that the Board of Trade has not been supported by the shipowners. That numbers of officers who obtained certificates before the colour test was prescribed are still afloat and in charge of vessels there can be no doubt. These should all be subjected to examination without delay. To the report is attached a page with three cards coloured respectively red, light-green, and black, which are used by the examiners. To this test we should be inclined to take exception, and would suggest the substitution of a pink for the vermilion. It is not uncommon in cases of partial colour-blindness for a patient to indicate saturated colours correctly, whilst he is totally unable to distinguish pink from a light shade of green. It is precisely such colours which are the most important in practice. When the lights are bright and clear red and green, the loom of the vessel can almost always be seen, and no collision can occur but through intense stupidity; but when there is a light haze, a red light becomes pink and indistinct, and the partially colour-blind is then at the greatest disadvantage; the lights may be seen but the vessel is invisible, and the result of confusion of colour may be anticipated. An officer who not long ago was compelled to leave the service on account of colour-blindness had actually brought home several of Her Majesty's vessels as flag lieutenant from the Mediterranean; and in this instance, whilst saturated colours were easily recognised, pale greens and pinks were constantly confused. His defect was easily ascertained by placing coloured lamps at a distance of several hundred yards. Mr. Gray mentions, without recommending, Dr. Thompson's skeins, which are certainly very serviceable. One point in the report strikes us as remarkable. It is stated that in regulations still in force a candidate who fails to pass the colour test may be re-examined after the lapse of three months from the date of his failure; if he fails a second time, he is allowed a third trial at the expiration of three months from the date of his second failure. Does the Board of Trade think colour-blindness a defect that can be got over by study, and that by applying his mind a man can overcome the difficulty as he would the use of the sextant? Surely a competent ophthalmologist should revise the regulations.

AN APOLOGY FOR LONDON SMOKE.

THE debate at the Society of Arts on Wednesday week on the sewage question and on the removal of refuse other than sewage called forth two papers, one by Dr. Thomas Hawksley, the other by Dr. B. W. Richardson. Dr. Hawksley repeated the arguments he has so long and so skilfully used in favour of the earth-closet system, and the total abolition of water carriage of sewage matter. Dr. Richardson dealt almost entirely with the work of the dustman, an official whom all Londoners look upon with almost as much awe as they do on a Prime Minister, and who, indeed, is to many a household even a more important officer, taking him all the year round. There were a number of weighty matters of a practical kind in both essays, but the point which seemed to elicit the most attention, and which met with considerable approbation at the moment when it was announced, was Dr. Richardson's statement that London smoke, bad as it may be and is, is not an unqualified evil in the present state of the sanitation of the metropolis. The argument was that so long as householders are obliged to ventilate their house-drains by means of long tubes extending to or above the roofs of their houses, and so long as they pollute the air in those upper regions, so long also does the fine carbon of the smoke from the chimneys, poured out almost at the same level, exert a salutary influence over the drain emanations. In other

words, if London air were entirely free of carbon and were systematically charged from houses with sewer gas, the clear air would become a noxious air, and it is better, therefore, to let the clarification of the heaven above be suspended until the purification of the earth beneath can at the same time be secured. This is, without doubt, a view of the subject in hand that deserves to be considered. That cases of disease have been engendered by the emanations from ventilators into bedrooms seems beyond question, and that carbon in a state of fine subdivision is a destroyer of organic poisons from decomposing materials is not less certain. We ought, therefore, to keep in view in all future sanitation the necessity for cleanliness from the drain of the dwelling as well as from the chimney-pot; sanitation, like all else, having its basis in mother earth.

UNIVERSITY COLLEGE HOSPITAL.

HIS Royal Highness the Prince of Wales has consented to preside at a festival dinner on behalf of the funds of this hospital, to take place on Wednesday, May 13th, at the Langham Hotel. The committee are naturally anxious that the efforts made by the friends and patrons of the hospital and medical school shall prove as successful as the occasion is auspicious. It will doubtless interest the past students at the College and Hospital to know that last year an "Old Students' Jubilee Fund" was initiated by the medical and surgical staff with a view to obtaining means for the ultimate rebuilding of the hospital. The Dean of the Medical Faculty will, no doubt, be happy to receive, in the shape of substantial contributions, appropriate assurances from former students that they are not unmindful of their indebtedness to their *alma mater*.

LORD BRAMWELL ON DRINK.

THERE is nothing so much spoken against nowadays as "drink," and nothing, consequently, in more need of apologists. Some very good judges, indeed, think, from the very severity of the vituperation, that it must be overdone. That vein of charity in the human mind which sees a soul of good in things evil has asserted itself, and both in the medical and legal professions great champions are on the ground to see that justice is done. It is well that it should be so. Lord Bramwell, as the able spokesman of the League for Defending Liberty and Property, has written a smart little defence of "drink." He admits the harm it does: "Disease is brought on, health is ruined, insanity and death are caused, by excessive drink. There is no doubt also that crime is caused by drink." He admits all the harm done, but claims that the good done is more. We must make clear what are Lord Bramwell's views of the good done by "drink." First, "it gives a vast deal of pleasure and enjoyment to those who take it with moderation." But his second, and perhaps chief, argument is that it is useful. With much skill he throws on other shoulders and on another profession the responsibility of stating this part of the case. He falls back on Sir James Paget's well-known argument that the best and the largest quantity of brain-work is being done by the nations in which the use of alcoholic drinks is and has been habitual; and further, that as regards the brain-work of different persons, "they have done the best and most who have habitually and temperately taken alcoholic drinks." It is exceedingly difficult to make comparisons of this kind of much value, as the nations and persons so compared differ in so many other respects besides the mere difference of alcohol-taking. It must be admitted that teetotalism has still its feats to achieve in war, in genius, in statesmanship; and with practical men such rough judgments as that of Sir James Paget will have much weight. But Sir James himself would be ready to admit that even some of those who have done the best brain-work took too much alcohol, and that the world might have got much more good work out of them had they taken less. With one of Lord Bramwell's positions we are not quite satisfied. Society's right to interfere with individual liberty being limited to securing person and property from external and internal attacks, he thinks the prohibition of "drink" not within the right of society. But if its prohibition be not within the right of society, certainly the prohibition of drunkenness is well within its right. Drunkenness is altogether an offence to society, and an injury as well. There is nothing more clear than that drunkenness tends to poverty, and that the family of the drunkard is apt to become a burden on the ratepayers. They have a perfect right to prevent the sale of that amount of drink which involves them in heavy taxation and their fellow-citizens in misery and disease.

EPIDEMIC OF MEASLES AT BUENOS AYRES.

LAST summer Buenos Ayres experienced an epidemic of measles, an account of which is published in the *Revista Argentina* by Dr. Penna. At the beginning of the year there had been a number of cases of very mild enteric fever; these were followed by a considerable increase in fatal puerperal affections, and in June the number of small-pox cases usually existing increased markedly. The first cases of measles which then appeared occurred in lodging-houses, families were then attacked in their residences, and finally the soldiers and gensdarmes of the garrison. The drainage of the city was at the time in an unsatisfactory state. Dr. Penna saw sixty-two cases, varying from two to forty years of age. The incubation period varied from eight to nine days. The symptoms of invasion were, as usual, chills, headache, prostration, languor, anorexia, insomnia, and elevation of temperature, followed by the characteristic oculo-nasal catarrh, photophobia, lacrymation, coryza, sneezing, &c., and afterwards by tracheo-bronchial symptoms, with sometimes violent cough simulating that of croup. Moist and dry râles were heard frequently in the chest, sometimes arousing suspicions of phthisis. Several cases of epistaxis occurred; none of them were severe. In two children considerable subconjunctival hæmorrhage took place, encircling the cornea with a sanguineous ring. There were no cases of convulsions, but delirium was frequent where the temperature was very high. The course of the fever in no instance gave cause for alarm, except where complications existed. The remission on the third day, as described by Jaccoud, and which Kaposi states appears on the second or third, and which by its constancy serves to distinguish the catarrhal inflammation preceding the eruption, was only observed in adults, who could state exactly when the symptoms commenced, and in some doubtful cases which came under observation from the beginning. The temperature remained high for two or three days, sometimes for four, six, or eight days, until the eruption appeared. These latter cases cannot unfortunately be well explained, and sometimes lead to a doubtful diagnosis. Generally the eruption appeared from the fourth to the sixth day, preceded in some cases by a marked rash on the soft palate and pharynx. It invariably commenced on the nose, chin, forehead, and cheeks, never on the trunk or limbs. The eruption consisted of irregular spots, not always of uniform redness, sometimes slightly raised, and occasionally with papules on the edges. The duration of the eruption varied from one and a half to three days. In one child it lasted six days, the colour being very deep. In a girl of three years the eruption appeared and faded at short intervals several times till the third day, from which time it ran its ordinary course. This child had just recovered from a severe attack of broncho-pneumonia. The fever

accompanying the eruption frequently rose to 40° or 41° C., especially in children, and the pulse rose and fell with the fever. The complications were capillary bronchitis, which carried off two children, two cases of croup, and two deaths from lobar pneumonia in Indians. In four cases the disease assumed a typhoid character, in two there was tuberculosis, and in some others suspicions of that affection. No active medication was employed, excepting in cases where complications existed.

MR. COMBER ON THE CONGO.

WE have taken frequent occasion to note the good done in the world by medical missionaries. It is very pleasant to see in other and authoritative quarters a similar recognition. At the Geographical Society last week a very just tribute was paid by Sir Henry Rawlinson to the scientific value of the work of Mr. Comber, who is connected with the Baptist Missionary Society, and in that capacity has explored the Congo to a higher point than any previous traveller except Mr. Stanley. He succeeded in getting up 400 miles beyond Stanley Pool, and by his observations giving scientific clearness and definition to the geography of the river and some of its chief affluents. Speaking of the healthiness of the river, he said that on the coast and the delta of the river Europeans seemed to have good health; also on the Upper Congo between Stanley Port and Stanley Falls they did well. Only one had died. But in the Cataract Region of the Congo, between Vivi and Stanley Pool, about 200 Europeans had been located for the last six years, and about 25 per cent. of these had died. Mr. Comber attributed this high mortality to the fatigue and exposure undergone in building, travelling, &c., and anticipates much less sickness when locomotion is facilitated by the railway, and life by the introduction of skilled labour. It is very gratifying to see our missionaries adding to their beneficent work that of observations of the highest scientific and human interest. Much gratitude was expressed by Mr. Comber and others to Mr. Stanley and to the King of the Belgians.

PREVENTION OF THE SPREAD OF SCARLET FEVER.

THE *Medical Record* of New York, March 14th, contains the report of a discussion, in the Practitioners' Society of New York, on the subject of Practical Considerations on the Propagation of Acute Infectious Fevers, especially Scarlet Fever. The first question raised was the contagiousness of scarlet fever during the stage of incubation. Some speakers believed in the possibility of this, but the chief evidence went to show that the disease was very feebly infective at this stage, if so at all. As to measures deemed necessary during the sickness of the patient to prevent the spread of the disease, nothing very new was suggested, and the chief reliance was on isolation and plenty of air, the disinfection of clothes, and the hanging of a sheet wetted with a disinfectant solution before the door. One gentleman thought the room, and not the child, was the chief source of danger. Some speakers were disposed to think that the whole of the desquamative period was not infectious—only the earlier weeks; but Dr. Kinnicall very properly demurred to this, and said that careful thermometric observations showed that a slight elevation of temperature persisted in the third and fourth weeks in a large number of uncomplicated cases. He pointed out, too, that cases had occurred in which desquamation had lasted until the seventy-seventh day. The fourth question discussed was whether physicians should attend both scarlet fever cases and obstetric cases at the same time. Several speakers thought it undesirable. The President thought the risk much exaggerated. We think so too, if such precautions as those taken with visitors at the London Fever Hospital and by most careful practitioners are duly observed. The chief of these are, after doffing the outer clothing, to put on a surplice over the remaining dress of the physician in going into the patient's room; to wash the hands and, if possible, the mouth carefully on leaving the patient's room, of course prescribing and enforcing all due precautions for limiting the diffusion of the scales from the skin and securing their being burnt. With such precautions as these there will be little risk of the spread of infection by means of the medical attendant.

"AN OFFICIAL FIB."

A MADRID medical journal just to hand thus expresses its views on the subject of the epidemic in the province of Jativa, which was announced in certain newspapers as cholera:—

"What is taking place in Jativa? A malady prevails which has in an unlooked for manner become epidemic, whose symptoms make us suspicious of Asiatic cholera, a disease which has had several victims, which is communicated from one to another, and about the diagnosis of which there is disagreement amongst skilled observers; a disease, too, which has produced much alarm amongst the inhabitants, and has required preventive measures, sanitation, and a hospital service, and, indeed, all the measures which are adopted in dealing with true cholera. In official circles it is called gastro enteritis—an official fib,—which will become incorporated in statistics, reflecting but little credit on the exactitude of science or on the truthfulness of those who write such fraudulent reports. What purpose can be served by this bold attempt to hoodwink public opinion, giving rise to the most dangerous uncertainties, and the result of which it is impossible to foresee? What teaching can efface the occurrences last year in Toledo, Tarragona, Alicante, Novelda, and other places where politicians gave vent to their complaints? The Cortes have now been open three months, and no one has thought it necessary to demand from the Government a satisfactory answer to a question as to their behaviour in this matter, thus leaving the country in a sad state of uncertainty as to the course to be pursued. We shall not be surprised if, as the recent statements from Jativa and another town in Valencia makes us fear will be the case, similar untruths are promulgated on any repetition of these occurrences that may take place this year."

This would seem to be an excellent opportunity for Dr. Ferrán to demonstrate conclusively the practical value of his researches on "cholera vaccinia." His colleague, Dr. Pauli, stated at a banquet, lately given in honour of Ferrán, that he (Pauli) had just come from Jativa. We shall look with interest for an account of what results he has to report.

IMPRISONING AN UNDOUBTED LUNATIC.

NEXT to solemnly hanging a maniac who in his morbid frenzy has slain a fellow-creature, there is no more grotesquely absurd and humiliating proceeding than that of imprisoning a lunatic who declaims somewhat inconveniently in public. We confess our inability to understand how any magistrate with two ideas and time to think can have come to the conclusion that it was consistent with the dignity of a justice of the peace to commit an undoubted victim of insane delusions as is Herbert Freund—sometime an inmate of the City of London Asylum at Stone—for two months imprisonment. The procedure was not fair to Freund, and may be perilous to the community. We have no right, and it is not prudent, to irritate madmen. When this poor man comes out of prison to continue his labours as a prophet acting under "inspiration," he may conceive it to be his duty to do more dangerous work than simply disturbing a

crowd or a congregation. Surely this is a matter in which the Secretary of State may be fairly asked to interfere. Freund should either be certified and sent to an asylum or allowed to go at large, and the police should be instructed to move him on gently, though effectually—not to treat him as a man responsible for his actions, which he unquestionably is not.

THE EXPLOSION AT THE ADMIRALTY.

ANOTHER explosion, this time at the Admiralty Offices, Whitehall, took place at about eleven o'clock on the morning of the 23rd. By it the assistant secretary, Mr. Swainson, was injured. The explosive compound, probably dynamite, and about two pounds in quantity, was placed in a cupboard above, somewhat behind and to the left of the secretary, who sustained serious injuries. When found he had evidently been blown from his chair, and was lying against the wall, huddled up, covered with dust, and quite insensible. The unconsciousness lasted for about two hours, and was followed by vomiting. Slight irregularity of the pupils was observed. There were several scalp wounds, one being about three inches in length; all were contused, and there was much dirt in them. The bone was not injured. There was also a contused wound of the left conjunctiva near the inner canthus. There was no deafness. The eyelashes, eyebrows, and hair had been burnt by the explosion.

SIR WILLIAM JENNER.

WE regret to say that Sir William Jenner is at the present time confined to his room by indisposition. About nine years ago Sir William had a short attack of plastic bronchitis, from which, however, he recovered completely. On Tuesday last, after seeing his patients, in the evening there was a recurrence of this affection, attended by slight hæmorrhage. There has been no febrile disturbance, and the malady is gradually, but certainly and steadily, disappearing. Dr. Russell Reynolds has been in constant attendance upon him, and has been in daily consultation with Sir William Gull.

SEPTICÆMIA.

Is septicæmia the result of the action of ptomaines or microbes? This is the question which M. Jeannel and of M. Laulanié have attempted to answer in a brief paper communicated to the French Congress of Surgery (*L'Union Médicale*, April 16th). Ptomaines, being in a state of solution, are able to penetrate the layer of granulations lining a wound. Microbes cannot enter the circulation unless a solution of continuity exists in the layer of granulations. As septicæmia is only observed when a break in the continuity of the living membrane of a wound exists, the authors conclude that the ptomaines play a subsidiary *rôle*, whilst the principal part in the pathogeny of septicæmia is left to the microbes. The arguments used are, in our opinion, not absolutely conclusive.

THE RABBETH MEMORIAL FUND.

THE subscriptions to this fund, which is now closed amounting to between £800 and £900, will be devoted to the maintenance of two cots, one at King's College Hospital, and the other at the Royal Free Hospital. The Senate of the University of London had £100 from the fund placed at its disposal for the founding of a Memorial Medal, but this has been declined with thanks, lest it should be considered a precedent for the authorities of the University. Mr. J. E. Rabbeth (Dr. Rabbeth's father) has offered a sum of money to the Council of King's College to found a Scholarship in memory of his son, who was educated first in the School and then in the medical department of the College. The offer has been gratefully accepted, and, at Mr. Rabbeth's desire, the money will be devoted to a special exhibition for boys passing from the school into the medical department. A final committee meeting will be held at King's College about the middle of May, probably on the 18th.

THE PUBLIC HEALTH (MEMBERS AND OFFICERS) BILL.

A MEDICAL officer of health, in adverting to our recent annotation on the "Public Health (Members and Officers) Bill," considers it very unfair that officers should not be allowed to have shares, or be interested in, waterworks or gasworks. In so far as the prohibition holds good, we are of opinion that it is very undesirable for medical officers of health to be pecuniarily interested in concerns the prospects of which it becomes their duty to promote for the purposes of health. It is only recently that a medical officer of health found himself seriously hampered in his endeavour, during an epidemic of enteric fever, to secure the closure of polluted wells, and the substitution of a water from the public mains, and this because the inhabitants had been given to understand that he was interested as a shareholder in the water company; and it was only as the result of a public announcement that this belief was incorrect that the needed action could be taken. There may be individual cases of hardship, but the principle involved in the prohibition referred to is sound.

THE ARMY MEDICAL STAFF: THE REVISED SCHEDULE.

THE revised schedule of qualifications of candidates desirous of obtaining commissions on the Army Medical Staff, with the conditions of service, has just been issued. The only change which has been made in it since it was withdrawn last month is that the position of the officers on the list will be determined "by the combined results of the competition and qualifying examinations," instead of the competitive examination only. We consider this change to be satisfactory, as holding out an inducement to, and reward for, good work done in the school at Netley.

UNHEALTHY HOUSES.

THE decision arrived at in the case of "Chichester *v.* Lance," which was tried last week before Mr. Justice Wills and a special jury, is another step in favour of tenants who seek to make their landlords responsible for the sanitary state of the houses which have been let to them. In this special case the defendant had effected some so-called improvements, but the work was so carried out as to be ineffectual; and typhoid fever having occurred in the house, the plaintiff has secured judgment and damages to the extent of £40. Landlords will have to understand that when they let premises as dwellings, it must be regarded as an essential part of the transaction that the premises are adapted to healthy occupation.

GUY'S HOSPITAL.

THE governors of Guy's Hospital have, we understand, made a new departure in the mode of election of assistant physicians. Hitherto the vacant posts have been closed to all but Guy's men. There is now a vacancy for an assistant physician at Guy's Hospital, and it is the expressed desire of the governors that applications should be sent in from any gentlemen who may choose to become candidates. This step cannot fail to be regarded with approval by the profession.

AT a meeting of delegates from the metropolitan vestries and district boards of works on the 16th inst., resolutions were passed expressing the opinion that it is desirable in the interest of the inhabitants of the metropolis, and as a general principle, that all telephone and telegraph wires within the metropolitan area should be placed underground; that the control of the construction and maintenance of all such wires should vest in and be under the direction of the vestry or district board of the parish or district; and that a letter be sent asking, on behalf of the conference, that the Committee of the House of Commons should hear one witness from each vestry and district board of the metropolis.

FROM the report made by Messrs. Crookes, Odling, and Tidy, on the composition and quality of daily samples of the water supplied to London for the month ending March 31st, it appears that of the 188 samples examined the whole were found to be perfectly clear, bright, and well-filtered. The mean amount of organic carbon in the Thames-derived waters for March was practically identical with that for February—viz., 0.18 in 100,000 parts of the water. Considering the condition of the river during the month, and the additional care needful to effect good filtration, it is noteworthy that not one of the 188 samples contained so much as a trace of suspended matter.

AT a meeting of the Vaccination Officers' Association, held at the Charing-cross Hospital Medical School on Saturday, April 18th, the members considered the best means of securing the vaccination of children born in public institutions, and it was resolved—"That the attention of the Local Government Board be called to the large number of children who are permitted to leave public and parochial institutions unvaccinated, and respectfully suggest that, if a special fee were paid to all medical officers of public and parochial institutions for successful cases of primary vaccition, the returns of vaccination would to a great extent be improved."

CONSEQUENT upon the cholera scare in Spain, the Local Boards of Health in many of the Spanish Mediterranean ports and in the Balearic Isles have, it appears, without even receiving orders from Madrid, established quarantine regulations for vessels from the province of Valencia, whilst several towns refuse to receive goods or passengers from the infected districts, which are nearly free from the epidemic. France, Portugal, Turkey, and Holland have already established a quarantine on arrivals from Spain.

THE late Dr. Wells' funeral took place at Reading on Saturday, the 18th inst. Some ten thousand persons of all classes of society assembled in the streets and at the cemetery to pay respect to his memory, and a string of carriages more than a mile in length followed his remains. All the medical men in the neighbourhood attended, as well as large numbers of the clergy, the governors of the hospital, and nurses.

A MOTION by the Croydon Rural Sanitary Authority that the operation of the injunction granted by Mr. Justice Denman on Jan. 12th of the present year, restraining the authority from polluting a piece of water near Garratt, called the Western Pool, by illegally discharging sewage thereinto, might be suspended, was last week dismissed by Mr. Justice Chitty with costs.

MR. E. HURRY FENWICK, F.R.C.S. Eng., has been appointed Examiner in Elementary Physiology at the Royal College of Surgeons.

ON the 4th inst. the death occurred of Dr. James Lawrence Little of New York. He was Professor of Clinical and Operative Surgery in the New York Post-Graduate Medical School and Hospital, Professor of the Principles and Practice of Surgery in the medical department of the University of Vermont, and consulting surgeon to the Mary Fletcher Hospital at Burlington, Vt.

A BILL is before the Legislature of Ontario, and bids fair to become law, which provides that the bodies of persons found dead, also of those who die in public institutions (lunatic asylums excepted), and are not claimed by friends who are willing to pay the funeral expenses, shall be handed over to the medical schools for anatomical purposes.

A CIVIL LIST pension of £100 per annum has been awarded to Edward Scott Docker, Deputy Inspector-General of Hospitals, in recognition of his discovery of the uses of ipecacuanha in the treatment of dysentery, and of his services towards Her Majesty's forces.

A DEPUTATION of the Parliamentary Committee of the Medico-Psychological Association waited on the chief secretary of the Lord Chancellor, at the House of Lords, on Monday, the 21st, to express their views on the proposed Lunacy Law Amendment Bill.

THE Senate of the University of Glasgow, at their meeting on Thursday, the 16th inst., resolved to confer the degree of LL.D. on Professor Struthers of Aberdeen.

WE regret to record the death, on the 18th inst., from enteric fever, of Surgeon Paul Bennett Conolly, who was attached to the right camp, Dongola, as surgeon of the Light Division, Camel Corps. He was in his thirty-first year.

THE Bill to amend the Medical Act, 1858, has been just issued.

INDIAN HEALTH STATISTICS.

No. II.

THE gaol population in 1883 shows, like the army, a marked improvement in health. The average number of prisoners was 88,174, among whom the admissions into hospital were 996, the deaths 31·37 per 1000, and the daily sick 36·5 per 1000. Intermittent fever was the most prevalent disease, and was the cause of more than one-third of the admissions; abscess and ulcer were next in frequency; dysentery and diarrhœa gave rise to the greatest number of deaths, amounting indeed to one-third of the whole; respiratory diseases were the cause of upwards of one-sixth; fevers and cholera rank next; the deaths from dysentery and diarrhœa were 10·64, from respiratory diseases 5·30, from fevers 2·52, and from cholera 2·28 per 1000. The prisoners, like the native troops, show very little susceptibility to enteric fever, only 15 cases with 8 deaths having been reported. The admissions ranged widely in the different gaols. In Bengal they averaged 949 per 1000; in Bombay, 734; in Madras, 861; in British Burmah, 1159; and in the Andamans and Nicobars, 1454. In Bengal some of the gaols yielded a very high death-rate: at Jalpaiguri, of 117 prisoners 35 died, being in the ratio of 299 per 1000; 19 of the deaths were from cholera, and 10 from dysentery and diarrhœa. Gorakhpur, with 607 prisoners, had a death-rate of 146 per 1000, chiefly from the same diseases; Ranchee, with 160, lost 187 per 1000; Dinagepore, with 184, lost 183 per 1000; and Raipur, with 788, lost 143 per 1000. In no less than ten gaols in this Presidency, including those just mentioned, the mortality was above 10 per cent. In Bombay, the only large gaol in which so high a rate occurred was at Shikárpur, where of 656 prisoners 66 died. In Madras the

highest rate was 86 per 1000 among 93 prisoners in the Tanjore gaol. At Akyab and Kyaukpyu, in Burmah, the mortality in the gaols was as high as 133 and 169 per 1000; at the former from cholera and dysentery, and at the latter from cholera. In the convict establishment at the Andamans, although the admissions and mean sick were much above the average of the gaols in India, the death-rate was comparatively low, amounting to only 19·63 per 1,000; the sickness and mortality and mean sick were all very much lower than in any year on record.

The sanitary sheets received from the gaols, while recording a considerable amount of improvement, show clearly that there is still much to be done in preventing overcrowding, increasing the means of ventilation, improving drainage, water-supply, food and clothing. We trust that the steady work which has been going on of late years in the removal of insanitary conditions may be continued, as the result cannot fail to be well marked in a progressive diminution of the sickness and mortality among the prisoners.

The registration of births and deaths in the civil population of India is still so imperfect that we fear no reliance can be placed on the results. The returns, however, of the mortality by certain diseases, as cholera and small-pox, afford some interesting information when compared with the results for previous years. Cholera prevailed with great severity in the province of Berar, 27,897 deaths having been recorded in a population of a little over two millions and a half; the death-rate by it amounted to 10·61 per 1000. The disease began in April, but it was not till July that it assumed the proportions of a great epidemic; in July and August 25,198 deaths were recorded. In Assam it caused a mortality of 3·29 per 1000, the most fatal months being January and April to July inclusive. In the Bombay Presidency the death-rate from cholera was 2·31 per 1000, being considerably above the average, but its great prevalence and mortality took place in the Northern Deccan Division, 30,298 deaths having been recorded in it out of a total of 37,954 throughout the Presidency. There is a curious fact mentioned in connexion with the question of fairs as one of the supposed causes of the spread of cholera. In the Sholapur district, where it was prevalent, a fair was held in July, and "the disease appeared among the people with great severity"; while in the Kaira district, where it also prevailed, although to a less extent, the usual fair was held in September, and there the disease did not break out.

In the Report a number of examples are given in which the beneficial influence of removal from the place where the disease broke out was very marked. Among the European troops at Allahabad, the native troops at Kamptee, and the prisoners at Jalpaiguri, the disease seemed to be at once arrested by the movement into camp, and in only one instance—that of the prisoners in Gorakhpur gaol—did it continue to prevail after the change of locality. There is one statement in the report in connexion with the spread of cholera which appears to us to be at variance with the facts as shown by the returns. "No case is adduced which favours the idea that the disease was spread by contagion. The positive information regarding the experience of those who came in contact with the sick is, as usual, altogether opposed to this idea. The results are shown in the following statement, which has been so frequently made in previous reports, that attendance on cholera cases involves no danger greater than that to which all persons residing within a cholera-affected locality, and exposed to the causes which induce cholera, are subject." The table shows the proportion of attendants on cholera patients attacked by the disease to have been: among the European troops 1·57, native troops 2·22, and in the gaols 2·51 per cent. But if the statistics be taken of those stations and gaols only at which cases occurred during the year, the ratio among the troops and prisoners will be found to have been: for European troops 0·50, native troops 0·68, and prisoners 1·70 per cent.; so that the proportion attacked of the attendants was considerably above the average of the others. This does not necessarily prove the disease to be contagious, but it shows at least that the attendants are exposed to conditions which render them more liable to an attack. Small-pox prevailed to a great extent among the civil population in 1883, the recorded deaths having amounted to 232,363, or nearly three times as many as in the preceding year. Its greatest mortality occurred in the North-West Provinces and Oudh, where the death-rate was 3·14 per 1000. In Assam and Berar and in the Madras Presidency it was considerably above the average of past years. Vaccination continues to receive much attention in India, but is still very far from being general.

A brief summary is given at the end of the Report of the investigations made at Calcutta by the German Commission, consisting of Drs. Koch, Gaffky, and Fischer, and by the British Commissioners, Drs. Klein and Heneage Gibbes; but it is unnecessary to notice this, as the information contained in it is rendered of comparatively little value by the more extended reports which have since been published by the Commissioners themselves. In the appendix is a detailed medical history by Surgeon-Major Johnson of the Aka Expeditionary Field Force; and also a medical report of the Indian Division, Egypt Expeditionary Force, 1882, by Deputy Surgeon-General Colvin Smith, who accompanied it as Principal Medical Officer. The latter shows the force sent from India to Egypt to have consisted of 199 officers, 1713 European and 3961 native soldiers, and 6478 followers. The period from the date of arrival of each corps till it was struck off the force varied from thirty-four to sixty-three days. The admissions into hospital from the European troops amounted to 361 and the deaths to 9, and from the native troops to 485 and 6. These numbers, calculated on the strength in the usual manner, show the *annual* ratio of admissions to have been: of the Europeans 1597 and of the natives 919 per 1000, and the deaths to have been 39·82 and 11·36 in each class respectively. Of the 9 deaths among the European troops 3 were from gunshot wounds, 2 by drowning, 3 by sunstroke, and 1 by diarrhœa; of the 6 among the natives, 4 were by gunshot wounds, 1 by dysentery, and 1 by gangrene of foot following an accident on shipboard. The 3 deaths by sunstroke occurred in the Seaforth Highlanders, and were, we regret to say, a result of drinking at Suez and subsequent exposure to the sun; 10 cases occurred in the short march of three miles from Suez to the Victoria Hospital. There were 14 cases in the force during its service in Egypt, and all of them in this regiment. The most prevalent diseases among the Europeans were conjunctivitis and ague, and among the native troops dysentery, conjunctivitis, and ague; dysentery was the cause of one-fourth of the admissions among the latter. Considering the short period during which the Indian contingent was in Egypt and the arrangements which had been made for its reception, it must be obvious that no fair comparison could be instituted between the sickness and mortality in it and the rest of the force in Egypt. But the circumstances under which the Eastern Soudan expedition was undertaken so much more nearly resembled those under which the Indian force served as to permit of such a comparison. That campaign lasted fifty-one days, and was undertaken after due arrangements had been made.[1] The admissions into hospital were in the *annual* ratio of 912, and the deaths of 224·4 per 1000, all of them in action. The sickness, therefore, was almost identical with that of the Native Indian Contingent in Egypt; no deaths were caused by disease in the one force and only two in the other, and of the latter one was consequent upon an accident.

The history of the Aka Expedition by Surgeon-Major Johnson is very interesting. It consisted of 30 officers, 1028 men, and 1993 followers, and lasted two months. None of the officers died; four of the men were killed, and one died of pneumonia, and there were sixteen deaths of followers—ten from pneumonia and bronchitis, four from fever, and two from diarrhœa. Three of the deaths in action were caused by poisoned arrows, and an interesting account of the symptoms is given in the report. The poison is believed to be prepared from the root of the *aconitum ferox*. Great difficulty was experienced in some places in effecting the carriage of the sick in dandies, and some *thappas* were constructed, which are stated to be admirably adapted for the purpose over difficult ground. They are made of canes and split bamboos, and are carried on the back and shoulders of a coolie, and supported by a flat band of woven cane or bamboo, one end supporting the *thappa* below the seat and the other passing round the head and across the forehead of the carrier. "A strong coolie will in this way carry a man of ordinary weight up or down the steepest pathway, as both his hands and arms are free to assist him in difficult places." This appears closely to resemble the modification of the Tyrolean kraxe proposed by Staff-Surgeon Michaelis of the Austrian Army for the carriage of sick and wounded in mountainous districts, to

[1] THE LANCET, Sept. 6th, 1884.

which we called attention in THE LANCET of January 3rd last. We again recommend these proposed means of transport to the consideration of the military medical authorities.

BRITISH DENTAL ASSOCIATION: MIDLAND BRANCH.

THE annual meeting of the Midland Branch of the British Dental Association was held on Friday the 17th inst., at the University College, Nottingham. Mr. H. Blandy presided. A number of specimens, appliances, &c., were shown, and several demonstrations given. The principal of these were—an operation performed illustrating Herbet's method of gold filling; a new method of vulcanite plates in steatite by the dry system, was shown by Mr. Brunton of Leeds; and demonstrations of taking models in plaster by Mr. W. Bowman Macleod.

A Council meeting was subsequently held, the retiring President (Mr. J. Harrison, Sheffield) in the chair. The report stated that in December last the Central Branch was inaugurated in Birmingham, and the Council rejoiced in this multiplication of centres, from which the influence of the British Dental Association must radiate. The membership of the Association was eighty-eight, which was far below what they desired to see. The Council nominated Mr. H. Blandy, of Nottingham, as President, and Mr. A. M. Mathews, of Bradford, President-elect: it is also recommended the holding of the next annual meeting at Bradford. The report was adopted.

In his address, the PRESIDENT (Mr. H. Blandy), after briefly sketching the history of the British Dental Association, alluded to the work of their venerable friend, Mr. John Tomes, whose name would be known over the whole scientific world for his valuable work as an anatomical and physiological investigator, and revered by his brother dentists as the champion and pioneer of dental reform. They sought to make the dentist an educated and scientific man, and they would have him pass an examination in arts identical with that formerly demanded of the student of medicine alone. They required an apprenticeship of three years to a registered and qualified practitioner, and a three years' course of hospital study in medicine and surgery, as well as courses on special dental subjects in a dental hospital. This was at last granted by the College of Surgeons, and a curriculum of study marked out. In 1878 they obtained the Dentists Act, which demanded registration of all persons practising dentistry. Another great evil of the dentistry of the past was the advertisements of the quacks. The College of Surgeons demanded of their licentiates a solemn undertaking that they would not advertise or associate their names with anyone who did. It was to be regretted that dental advertisements and show-cases still appeared to disgrace their profession. The objects of the British Dental Association included not only the study of dental and the allied sciences, the maintenance of the honour and interests of the profession, and the publication of a periodical journal, but the upholding of the spirit and provisions of the Dentists Act. It seemed to him that one great difficulty of the administration of that Act lay in the constitution of the General Medical Council, which had the supervision of registration and was the chief authority. It would not do for them to advocate the abolition of the House of Lords; but it was certainly open to grave consideration whether it would not be to their advantage if it were more representative—i.e., if taxation and representation were more proportionate. They had those amongst them who were earnest workers in the field of science. It was known that bacilli and micrococci had been found in the mouth and in the tissue of decayed teeth, as also in the alveolar abscesses; and when it was recognised how rapidly they multiplied, it would be seen how important a bearing they had on dental diseases. It had been held that the human race was deteriorating in physical, if not in mental power. Models were constantly exhibited which proved that jaws were becoming more and more contracted; that wisdom, bicuspid, and lateral teeth were often absent; and that even the teeth which were present were not nearly so good as they used to be. The President concluded by welcoming the members to Nottingham.

Dr. SMITH moved a vote of thanks to the President, which Mr. STORY (Hull) seconded. The motion was carried.

In the afternoon Mr. Marshall read a paper on "Nutrition in Early Life"; Mr. F. Harrison a paper on "The Preparation of Tissues for Microscopical Examination"; and Mr. L. Matheson one on "Artificial Separation of Teeth."

This concluded the meeting, and in the evening the members dined together at the George Hotel.

MAHOMED MEMORIAL FUND.

A MEETING of the subscribers to this fund was held in the Governors' Court Room, Guy's Hospital, on Thursday, April 16th. Dr. S. Wilks, F.R.S., took the chair, and explained the steps which the subcommittee had followed to carry out the resolutions of the meeting held at Guy's Hospital in December last. Mr. Durham, the treasurer to the fund, stated that the amount subscribed slightly exceeded £2500, of which sum all had been received except about £295. It was then proposed by Mr. Durham, seconded by Dr. F. Taylor, and carried unanimously, "That the fund subscribed be entrusted to three gentlemen, to be hereinafter elected, who shall have full and absolute power to invest, hold, and dispose of the money placed in their hands, both as regards capital and the interest that shall accrue upon it, at their discretion, in such way as may seem in their judgment best calculated to promote the interests of those left by Dr. Mahomed and to fulfil the objects for which the fund has been subscribed, subject to the following conditions:—(1) "That during the lifetime of Mrs. Mahomed, and while she remains unmarried, the interest upon the fund shall be regularly paid to her for her use; (2) that, if at any time it may seem good to them, the trustees may dispose of portions of the capital for the immediate use or benefit of Mrs. Mahomed or any one of the children, provided always that no larger sum than one-quarter of the capital be given to Mrs. Mahomed for her own use, nor any larger sum than one-fifth or three-quarters of the capital sum be expended upon any one of the five children, except in case of the death of any one or more of the children, under which circumstances a proportionately larger share may be appropriated to any one or more of the survivors."

Mr. Eastes proposed, Mr. Aiken seconded, and it was unanimously resolved, "That in accordance with the foregoing resolution, Dr. Cayley, Dr. Goodhart, and Mr. Field be requested to take charge and dispose of the money subscribed; and, in the event of the death or resignation of any one of these gentlemen, the remaining two shall appoint a new trustee." It was proposed by Mr. Lushington, and carried, "That the report of this meeting, and the resolutions adopted, be forwarded to the medical journals and also to each of the subscribers to the fund, with a complete list of the subscriptions." Votes of thanks to the subcommittee, to the treasurer of the hospital, and to the chairman of the meeting, brought the proceedings to a close.

The following additional subscriptions have been received:

	£	s.	d.		£	s.	d.
W. A. Aikin, Esq.	1	1	0	T. A. Ives-Howell, Esq. ...	3	3	0
R. W. Broglen, Esq. ...	2	2	0	Hugh R. Ker, Esq.	1	1	0
Percy H. Garner, Esq. ...	1	1	0	J. V. Salvage, Esq.	1	1	0
T. S. Howell, Esq.	5	5	0				

The Treasurer and Secretaries wish to express their cordial appreciation of the courtesy and kindness that have been shown by the Editor of THE LANCET in inserting notices relative to the fund, and in thereby much promoting its success.

ARTHUR E. DURHAM, Treasurer.
JAMES F. GOODHART, } Secretaries.
W. H. A. JACOBSON, }

SOUTH LONDON SCHOOL OF PHARMACY.—The following prizes were presented to the successful competitors at the school examinations (held from April 7th to 11th) on Wednesday last:—Senior Chemistry: David Kingan, medal; John G. Rowell, certificate. Junior Chemistry: Thomas C. Barkas, medal; Ernest A. Long, certificate. Botany: David Kingan, medal; Ernest Daintree, certificate. Materia Medica: Ernest Daintree, medal; Thomas C. Barkas, certificate. Pharmacy and Practical Dispensing: Ernest A. Long, medal; Jeremiah Burgess, certificate. Extra Certificates of Merit: Messrs. Carr, Fulcher, Moore, Pyle, Reedman, Robinson, and Tirrell.

WILLS OF MEDICAL MEN.

THE will of Mr. John Charles Parrott, late of Clapham-common, surgeon, who died on January 31st last, was proved on the 4th ult. by Mrs. Maria Parrott, the widow and sole executrix, the value of the personal estate amounting to upwards of £62,000. The testator bequeaths his household furniture and effects to his wife; £10,000 each to his son Alfred Albert and his daughter Julia Isabel; £10,000 upon trust for his daughter Mrs. Annie Walter; £5000 to his son John Charles; and some other legacies. His freehold residence, and the residue of his shares, bonds, insurance money, and cash at his bankers, are to be held upon trust for his wife for life, and then for his two daughters and his son Alfred Albert.

The will and codicil of Thomas Derry Jones, M.D., late of 1, Loraine-place, Holloway, and 328, Upper-street, Islington, who died on January 21st last, were proved on the 20th ult. by Ralph John Dent, J.P., and John Chalmers, M.D., the executors, the value of the personal estate amounting to over £12,000. The testator bequeaths legacies to his executors, coachman, and others; £1000 each to Ada and Jane Kipling, and £500 to Bessie Mitchell, the payment of these three latter legacies being postponed until the death of his mother. Subject to the foregoing bequests, the testator leaves all his property to his mother.

The will and codicil of Mr. William Coulthard, surgeon, formerly of 42, Hertford-street, Mayfair, but late of 49, Queen's-gardens, Hyde-park, who died on January 27th last, have been proved by Henry White and John Coulthard, the executors, the value of the personal estate amounting to over £8500. The testator leaves £100 per annum for the benefit of his sister Mrs. Clara Ann Farmer; £100 to each of his executors; and the residue of his real and personal estate to his three half-sisters, Phœbe, Jane, and Frances Coulthard.

The will of John Collis Browne, M.D., late of Mount Albion House, Ramsgate, and of 11, Sandringham-gardens, Ealing, who died on August 30th last, has been proved by Mrs. Harriet Browne, the widow and sole executrix, the value of the personal estate amounting to over £4700. The testator gives all his real and personal estate to his wife absolutely.

The will of Mr. Forster Fowler Martin Maynard, physician and surgeon, late of Kemendine House, Baldslow-road, Hastings, who died on January 1st last, was proved on the 9th ult. by Mrs. Charlotte Harriett Maynard the widow, Mr. Edward Garnet Man and Mr. Lionel Booth, the executors, the value of the personal estate exceeding £800. The testator gives his household furniture and effects to his wife, and confirms the assignment to her of his life assurance policy; and complimentary legacies to Mr. Man and Mr. Booth. The residue of his real and personal estate is to be held upon trust for his wife, so long as she shall live without marrying again, and then to be equally divided between his children.

The will of George Ridsdale, M.D., late of 26, Endsleigh-gardens, Euston-road, who died on November 11th last, was proved on the 20th ult. by Mr. Alexander Greaves, the acting executor. The testator leaves all his real and personal estate upon trust, the income to to paid to his wife for life, and then to his god-daughter, Ethel Fanny Graves.

The will of William MacOubrey, M.D., barrister-at-law, formerly of 50, Charlotte-street, Fitzroy-square, but late of Oulton, Suffolk, who died on August 24th last, was proved on the 13th ult. by Mrs. Henrietta Mary MacOubrey, the widow and sole executrix, to whom he leaves, devises, and bequeaths all his real and personal estate, to be at her own disposal.

The following legacies have recently been left to hospitals and other medical charities:—Mr. Nathaniel James Powell, of Devonshire House, Beckenham, £250 to the Royal Hospital for Incurables, Putney; and £100 each to the London Hospital, Whitechapel-road, the London Hospital, Victoria-park, and the Eastern Dispensary, Leman-street.—Miss Sarah Ward, formerly of Leicester-place, Camberwell New-road, but late of Carshalton-grove, Sutton, £500 New Three per Cents. each to the Brompton Hospital for Consumption and Diseases of the Chest, and the Victoria-park Hospital for Consumption and Diseases of the Chest.—Mr. John Christopher Augustus Voelcker, of 39, Argyll-road, Kensington, analytical chemist and Doctor of Philosophy, £100 each to University College Hospital, and the German Hospital, Dalston.—Mr. William Danby Baker, of 385, Kennington-road, on the death of Miss Charlotte Clarke, one-third of £3000 Consols each to the British Home for Incurables, Clapham, and the Royal Hospital for Incurables, Putney.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 6195 births and 3966 deaths were registered during the week ending the 18th inst. The annual death-rate in these towns, which had increased in the previous six weeks from 20·6 to 25·0, declined again to 23·2. During last quarter the death-rate in these towns averaged 21·9 per 1000, and was 2·3 below the mean rate in the corresponding periods of the nine years 1876-84. The lowest rates in these towns last week were 16·2 in Hull, 16·3 in Derby, 17·8 in Nottingham, and 17·9 in Birkenhead. The rates in the other towns ranged upwards to 32·4 in Newcastle-upon-Tyne, 33·9 in Sunderland, 33·3 in Cardiff, 35·7 in Plymouth, and 35·9 in Manchester. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had steadily increased in the preceding seven weeks from 377 to 478, further rose last week to 484; they included 190 from measles, 109 from whooping-cough, 46 from small-pox, 42 from "fever" (principally enteric), 38 from scarlet fever, 30 from diphtheria, and 29 from diarrhœa. No death from any of these diseases was recorded last week in Wolverhampton, whereas they caused the highest death-rates in Cardiff, Newcastle-upon-Tyne, and Sunderland. The greatest mortality from measles occurred in Newcastle-upon-Tyne, Cardiff, and Sunderland; from whooping-cough in Preston and Sunderland; and from scarlet fever in Halifax and Sunderland. The 30 deaths from diphtheria in the twenty-eight towns included 21 in London, and 2 in Portsmouth. Small-pox caused 67 deaths in London and its outer ring of suburban districts, 2 in Liverpool, 2 in Manchester, and 1 in Sunderland. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had risen in the preceding three weeks from 880 to 910, had further increased to 1062 on Saturday last; the admissions also further rose from 179, 141, and 185 in the previous three weeks to 307 last week, the largest number under treatment since June last. The Highgate Small-pox Hospital contained 92 patients on Saturday last, 23 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 448, 478, and 512 in the preceding three weeks, declined again last week to 449, and were 21 below the corrected weekly average. The causes of 101, or 2·6 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Leicester, Sunderland, and in four other smaller towns. The largest proportions of uncertified deaths were registered in Hull, Blackburn, Sheffield, and Huddersfield.

HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 25·0 and 23·4 per 1000 in the preceding two weeks, was 23·3 in the week ending the 18th inst. The rates in the Scotch towns last week ranged from 14·8 and 18·3 in Greenock and Perth, to 27·1 in Glasgow, and 29·0 in Paisley. The 569 deaths in the eight towns included 24 from measles, 23 from whooping-cough, 12 from diarrhœa, 7 from "fever," 7 from scarlet fever, 3 from diphtheria, and not one from small-pox; in all, 67 deaths resulted from these principal zymotic diseases, against 84 and 68 in the preceding two weeks. These 76 deaths were equal to an annual rate of 3·1 per 1000, which was 0·3 above the mean rate from the same diseases in the twenty-eight English towns. The 24 deaths from measles corresponded with the number in the previous week, and included 22 in Glasgow. The fatal cases of whooping-cough, which had been 34 and 17 in the preceding two weeks, rose again to 23 last week; 8 occurred in Edinburgh and 6 in Glasgow. The 7 deaths referred to "fever" showed a decline of 3 from the numbers in the previous week

and included 3 in Glasgow and 2 in Dundee. Of the 7 fatal cases of scarlet fever 5 occurred in Glasgow and 2 in Paisley; and 2 of the 3 deaths from diphtheria were returned in Dundee. The 12 deaths attributed to diarrhœa included 6 in Glasgow, and were 3 below the number in the corresponding week of last year. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 130 and 134 in the previous two weeks, were 131 last week, and exceeded the number in the corresponding week of last year by 3. The causes of 73, or nearly 13 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 40·4, 33·6 and 33·2 per 1000 in the preceding three weeks, was last week 33·7. During last quarter the death-rate in the city averaged no less than 34·0 per 1000; whereas in London and Edinburgh the rate did not exceed 20·8 and 20·0 respectively. The 228 deaths in Dublin last week showed an increase of 10 upon the number in the previous week, and included 29 which were referred to the principal zymotic diseases, against 32, 24, and 29 in the preceding three weeks; 15 resulted from measles, 8 from "fever" (typhus, enteric, or simple), 3 from scarlet fever, 2 from whooping-cough, 1 from diphtheria, and not one from either small-pox or diarrhœa. These 29 deaths were equal to an annual rate of 4·3 per 1000, the rates from the same diseases not exceeding 3·0 in London and 2·1 in Edinburgh. The fatal cases of measles in Dublin, which had been 13 and 19 in the previous two weeks, declined again to 15 last week. The 8 deaths from "fever," however, showed a marked increase upon recent weekly numbers. The fatal cases of scarlet fever were also more numerous. Five inquest cases and 5 deaths from violence were registered. The 80 deaths in public institutions were more than a third of the total deaths recorded. The deaths of infants showed a further decline, while those of elderly persons exceeded the numbers in the two previous weeks. The causes of 20, or nearly a tenth of the deaths registered, were not certified.

Correspondence.

"Audi alteram partem."

STRANGULATED OMENTAL HERNIA.

To the Editor of THE LANCET.

SIR,—The interesting letters by Mr. Timothy Holmes and Mr. Parker, published in your issue of April 11th, revive once more the question of the due appreciation of strangulated omental hernia. Mr. Parker denies a clinical being to this form of rupture, and contends that, so far as a symptomatic outline is concerned, it is without form and void. In spite of the undoubtedly strong arguments so ably advanced by Mr. Parker, I would still venture to place myself among those who adhere to the ancient surgical faith, and believe that a strangulated epiplocele will be attended with the same symptoms, in a modified form, that follow the strangulation of bowel in a rupture. The disposal of the question must rest at present upon individual experience and impression. It will be answered when Mr. Parker's arguments have been supported or opposed by more extended clinical data, and when they have met fully the test of the post-mortem room. So far, Mr. Parker has clearly demonstrated that a serious fallacy may exist in the diagnosis of strangulated epiploceles, and it would be at present difficult to maintain that this fallacy has not crept into all reputed cases of strangulated omentum with symptoms. The point, however, has rather a negative than a positive value; it shows that certain cases have been wrongly diagnosed, but it still does not dispose of the main question, nor touch the possibility that certain precise symptoms may follow the strangulation of a portion of omentum. It would appear that in the discussion too little notice has been taken of the important part the abdominal nerve centres play in the production of strangulation symptoms. It will, I presume, be allowed that the omentum contains nerves, and that these nerves are derived more or less directly from the great solar plexus. These nerves must obviously be damaged when the omentum is compressed, and as it can be shown that strangulation symptoms may follow upon a like lesion to other offshoots from the great plexus, it will not be unreasonable to expect that strangulation of omentum alone may be attended by the same clinical manifestations. The almost immediate pain, collapse, and vomiting that attend acute volvulus of the sigmoid flexure can hardly depend, in the first instance, upon the mechanical obstruction in the bowel, but are due rather to the impression conveyed to the solar plexus from the damaged nerves in the twisted gut. The earliest symptoms also in Littré's hernia must be explained by a reference to sudden nerve impressions rather than to a mechanical obstruction, since the lumen of the bowel is not entirely occluded, and an immediate paralysis of the ensnared part could hardly meet the manifestations produced. The collapse, deep abdominal pain, and copious vomiting that often attend crush of the testes would appear to depend upon damage to the spermatic plexus—a close derivative from the solar. The same applies to instances where in infants orchitis of an undescended testis has given rise to symptoms hardly to be distinguished from those of strangulation. In several instances, and notably one recorded by Dupuytren, an inflamed hydrocele has been mistaken for a strangulated rupture; and other cases may be mentioned where the leading symptoms of acute obstruction have followed a lesion of a limited part of the peritoneum. In the light of such instances, it may be expected that damage to the peritoneum forming the omentum would not improbably lead to such disturbances as slight shock, abdominal pain, vomiting, and constipation.

An important argument now comes to the front. "I continue," writes Mr. Parker, "unshaken in the firm conviction that strangulation alone, as strangulation, can have no symptoms, seeing that the tightest ligature never produces them." I venture to think that this ingenious argument involves a fallacy. The two forms of constriction alluded to are not identical. Mr. Parker will agree with me that certain lesions are measurable in a surgical sense. There is a lesion which when of light degree may cause severe irritation and widely diffused nerve disturbance, and which when of intenser character may cause more or less abrupt death of parts and lead to none but local manifestations. Many illustrations of this are afforded by surgery. In spontaneous strangulation of omentum the nerves are compressed, but not at once destroyed. They remain, as it were, alive under the keenly constricting band, and become the starting-point for widespread disturbance. In the case of the ligature, the parts enclosed within the thread are practically killed outright, the nerves are crushed, and their conducting power destroyed. The lesion would appear to be, and to remain, purely local. From a neighbouring part a nearly parallel example may be taken. A bunch of internal piles descend, and are nipped by the sphincter. The ensnared part is not killed outright, it may survive for days, and it becomes the seat of intense irritation leading to the most grave disorders. The same phenomena do not appear when the same piles are subjected to the surgical ligature, and I do not think that Mr. Parker would deny that symptoms attend strangulated piles because ligation of those piles is not followed by identical disturbances.

I am, Sir, yours truly,

Golden-square, April 17th, 1885. FREDERICK TREVES.

REFORM AT THE COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—Your leader of this week calling attention to the general meeting of the Association of Members of the College of Surgeons must be very pleasing to Members of the College who already have joined together in large numbers, and are exerting themselves energetically to obtain from the College some sort of recognition. There is only one passage to which I wish to call attention. You say "There is difficulty in carrying out the programme drawn up by the Association, and the burden of showing how these difficulties may be overcome lies with the Association." Now, Sir, in my opinion, when any business firm, or even corporate body, is desirous of contributing to the interests of the public at large, and of removing a grievance known to exist, the public is not called upon to point out to the firm or corporate body how they are to conduct their own affairs in order to remedy the evil complained of. It may as well

be argued that a medical man having a long round of visits before him may refuse to attend an urgent message unless and until this patient first points out how the day's work can be satisfactorily gone through. Surely such interference would be laughed at and treated as an act of impertinence. I am of opinion that this applies equally to the College of Surgeons, and that it rests with the Council to consider how to advance the interests of the members when once the latter have made known their grievances and desires.

I am, Sir, your obedient servant,

M. CLIFFORD, M.R.C.S. Eng.

Warrington-gardens, April 22nd, 1885.

The following letter has been addressed to the Honorary Secretaries of the Association of Members of the Royal College of Surgeons of England:—

Dulwich, April 21st, 1885.

DEAR SIRS,—In reply to your invitation to attend a meeting of the Association of Members of the Royal College of Surgeons of England on May 5th, I am afraid that, as I do not approve of the separation of Fellows and Members into hostile camps (for which, I am bound to say, your Association is not wholly responsible), my presence at your meeting would hardly help you, unless indeed you are prepared to take steps for co-operating with the Association of Fellows, in which case I would gladly assist. It appears to me, as I believe it does to others, that the resolutions passed at the meeting held at the College in March, 1884, afford a basis on which Fellows and Members ought to be able to work for the common good. Those resolutions asked, *inter alia*, for the following important reforms:—(1) That the Fellows and Members should be invested with a larger share in the management of the College; (2) that no important alteration should be made in the constitution or relations of the College without the consent of the Fellows and Members; (3) that there should be an annual meeting of Fellows and Members, at which the annual report of the Council should be presented, received, and adopted. Had the Fellows and Members, since the meeting unitedly adhered to this moderate programme, there can, I think, be no doubt that the Council would have been ere this forced to yield; but dividing into two Associations, each bent upon securing as much for its own order as possible, the interests of the profession fell an easy prey to those who believe in the ancient maxim, *divide et impera*, and the Council of the College has been able for a whole year to act as if it had never accepted any of these proposals, not even the third, in a modified form, or as if its acceptance of that proposal was one of those inoperative resolutions which Mr. Marshall told us the Council is in the habit of passing. As there may possibly be some both in your own Association and among the Fellows who will agree with me in thinking that our true policy, in view of the determined hostility of the Council and officials of the College to all reform, should be to seek union rather than to divide our powers, I shall send a copy of this letter to the medical papers.

I am, dear Sirs, faithfully yours,

H. NELSON HARDY.

The Hon. Secs., Association of Members, Royal Coll. Surg., Eng.

THE CHELTENHAM APPOINTMENT OF MEDICAL OFFICER OF HEALTH.

To the Editor of THE LANCET.

SIR,—As one of the candidates for the above appointment, allow me to thank you for the paragraph in your last issue, In addition to the fact, which you lay stress upon, that Mr. Roch possessed only one qualification at the time of his appointment, there are other objections to the election, which it is well the thirty-four candidates should know.

1. The advertisement required that applications for the office should state age, residence, and *qualifications*. The gentleman elected did *not* state his qualification (M.R.C.S., 1854), but merely added to his name Deputy Surgeon-General.

2. The notification to the Local Government Board, instead of being made within seven days, was delayed by the Sanitary Authority (or rather, as it really was, the Mayor and Town Clerk) for three weeks, during which time the gentleman elected obtained, after *special* examination of an oral character only, and for which no curriculum is required, a licence in medicine from a college in Ireland, the value of which, as you rightly say, "can best be judged of by the circumstances under which it is procured."

3. One of the applications for the office was never opened or considered. There can be no doubt that this election was conducted in a slovenly manner. The Public Health Committee and the Town Clerk (to whom a selection of six candidates was delegated) appear never to have considered the qualifications of the several applicants, the Town Clerk ruling that this was only necessary in the case of the elected one, the consequence being that the majority of the Town Council, in voting for Mr. Roch, thought they were supporting a gentleman at least as well qualified as the other five candidates, and his want of legal qualification was never discovered until after his election; further, if one application was never opened, the inference is that others shared the same fate.

I am pleased to find that several of the candidates contemplate taking further action, and I shall be glad to join in any movement for testing the legality of the appointment. The best thing, however, in my opinion, would be—if I might venture to suggest such a course—for the gentleman elected to resign and submit his claims, now that he is fully qualified, for re-election.

I am, Sir, yours faithfully,

April 20th, 1885. A GRADUATE.

THE MEDICAL BILL AND THE SCOTCH UNIVERSITIES.

To the Editor of THE LANCET.

SIR,—Will you kindly allow me to correct a mistake into which I fell in my letter of the 14th inst.? I find on reference to the journals of the House that the Medical Act Amendment Bill was exempted in the first instance from the general massacre of the innocents, and was only withdrawn at a later date, when it became evident that it would be hopeless to attempt to do anything beyond absolutely necessary work in an expiring session. I feel that this explanation is due to Sir William Jenner, whose knowledge of the detail of the question was really greater than mine, but from whose conclusions I still venture to dissent; and whilst thanking you, Sir, for your personal expressions of courtesy, I must, with all respect, continue to express my dissent from the views which you so ably advocate.

I am, Sir, yours faithfully,

Reform Club, April 22nd, 1885. R. FARQUHARSON.

SMALL-POX AT SALVATION ARMY BARRACKS.

To the Editor of THE LANCET.

SIR,—In THE LANCET of last week a correspondent states that small-pox is now, and has for some time past been, very prevalent among the persons residing in the barracks of the Salvation Army, Clapton, and that scarcely a day has passed without some patient being removed. This is absolutely untrue. Since the barracks have been opened at Clapton, three years ago, there have been in all twelve cases; seven this year, three in 1884, and two in 1883. Every care is taken to prevent infection spreading; on the slightest suspicious symptom the cadet is isolated (in a room kept on purpose for infectious cases), and as soon as small-pox is pronounced the patient is at once removed to the hospital at Highgate. Every precaution as regards disinfection is taken after a case has occurred. So far there has been no spread of the disease in the barracks, the cases being isolated ones. In one case the disease was evidently caught at Plymouth, as symptoms of small-pox appeared within a week of the patient's arrival at Clapton. A matron and a certificated hospital trained nurse have the cadets under their constant supervision, and are prompt in isolating any one showing the slightest suspicious symptom of any infectious disorder; and, considering the number of persons residing in the barracks (over 300), and how prevalent small-pox has been in the immediate neighbourhood, in my opinion the army is to be congratulated that there have not been more cases. Either the matron, the nurse, or the medical officer, will be very happy to show any qualified medical man over the barracks.

I am, Sir, yours faithfully,

FRED. H. SPOONER, M.D.,

Lower Clapton, April 21st, 1885. Med. Off. of the Salvation Army.

WITH THE TROOPS IN THE SOUDAN.

(From our Special Correspondent.)

Base Hospital, Camp near Suakim, March 27th, 1885.

SINCE yesterday week there have been constant skirmishes with the enemy, but that of Sunday last was by far the most severe, even critical, action that has taken place; for it was one in which the Soudanese made a most determined attack on our zereba and troops, and were not repulsed until they had managed to put some 250 of our men (killed and wounded) *hors de combat*. Conflicting as the reports are which are heard from all quarters as to how this loss was occasioned, the opinion of most of those I have seen and spoken to on the subject, and who were eye-witnesses of, participators in, and also sufferers by the fight, may be summed up in a single word—Surprised! That for a time it was a disaster is certain, and a palpable disaster into the bargain—a second Isandhlwana affair, averted only by the coolness and steady bearing of our English troops. It appears that the forces under the command of General McNeil had started on the morning of Sunday, the 23rd, to form a zereba and establish a position on the line of communications a few miles out for the general advance of the main body of our troops, which intended to move a few days afterwards for Tamai *en route* to Berber. The troops, consisting of the Berkshire Regiment, Marines, Sappers, Sikhs, 17th Bengal and 28th Bombay Native Infantry, with some mounted infantry and a small body of the 5th Lancers, and some thirty-two Blue-jackets, had reached a spot five miles and three-quarters S.S.W. from the camp, quite unmolested by the enemy, and were there halted, for the purpose of making a zereba out of the bushes growing in the immediate locality. At this time the camels and mules carrying water and provisions, with their Indian and Maltese drivers, had not yet reached the *locale* selected for the camping ground, but were coming up in detachments and groups, the line of their somewhat irregular formation extending a considerable distance in the rear. The mounted scouts were out searching for the rebels; and so much security from any sudden attack was felt by those in command, that the men's arms were piled and the ammunition placed outside the half-finished zereba in one spot, whilst many of the Sappers were unarmed, cutting brushwood, some 400 yards away in another. The greater number of the soldiers thus employed were in their shirt-sleeves, and possessed no weapons of defence save the spades and pickaxes they had in their hands. Working under the scorching rays of a vertical sun, they little dreamed their foe was so near them. At this juncture an alarm was raised, the mounted scouts giving notice of the enemy's presence and rapid approach upon our position and half-finished zereba; but the warning was not in sufficient time to avert the disaster that speedily followed; nor could any means be taken to check the on-rush of their impetuous charge before many of their brave fellows had not only reached, but gone clean through, the British half-formed square. Fleet of foot—their speed even exceeding that of our troopers' horses—and courageous as lions, on they came bounding, yelling horribly, and brandishing their spears and sharp-edged swords. Their onslaught was so unexpected and so determined that, for a few minutes at least, everything seemed to fall beneath their vigorous and well-timed attack. Amidst a scene of the wildest confusion, and enshrouded in a towering column of thick dust that arose on all sides, our men were rushing here, there, and everywhere but in the right place—of course, to search for and regain possession of the arms left far away from them at the commencement of their work. What followed will long be remembered by those who have been spared, but who were unfortunate enough to have taken part in this most calamitous affair. Camels, cut loose, and disembowelled by the fiends creeping beneath them and ripping open their abdomens with short curved swords, were racing in maddening agony over the plain; whilst riderless horses and mules, whose unarmed keepers and attendants had by this time all been shot or speared by the Arabs, were kicking up their heels and scampering away in all directions, making confusion worse confounded by their snorting and hideous noises. Half-dressed semi-armed men were (hotly pursued by the foe) making for points where rallying squares could be formed by their officers; whilst fugitives—press correspondents among them,—better mounted than the rest, and unable to get within the squares, were seeking the more congenial safety of strategical retreat in a racing dash for it across country in the direction of Suakim and the entrenched camp some five miles in the rear. The 17th Bengal Infantry, unable to withstand the impetus, commenced falling back in disorder, whilst officers, men, and camp-followers were on all sides trying to get within the shelter of the forming square. One officer, a member of the medical profession, unarmed, lost his horse under him, and at the same time saw his servant and also his orderly shot dead by his side. Seizing an axe, in the absence of sword, revolver, and ammunition, he laid it about him with such dexterity and effect that he kept his antagonists at bay, got within the square, and, happily unscathed, came into camp with the wounded next day. A small unfinished sand-bag redoubt occupied by the Naval Brigade, under the command of Lieutenant Seymour, suffered terribly. Out of the nine persons there, six were killed, one was wounded, and two escaped. Poor Seymour's body presented a shocking spectacle of spear and sword wounds. Pen cannot describe the doings of that momentous Sunday forenoon's work. To avert an overwhelming calamity something had to be done, and that very speedily too. The Berkshire Regiment, the Marines, as well as the brave Sikhs, were equal to the occasion, and proved true to the core. By their steadiness and bearing under most trying circumstances the enemy were for a few minutes held in check, and some order was restored. Our boys, rallying, fell into something like fighting position, and, standing shoulder to shoulder, poured in such a destructive and deadly hail of bullets upon the advancing line of these poor fanatical, yet withal bravest of the brave, savages, that the battle was saved and the day won, and the dark legions of Osman Digna were hurled back once more to the limited shelter of the mimosa-bush, whilst the withering fire of our marksmen strewed the yellow sand with corpses, and reddened its surface with the blood of the wounded and slain. Twenty minutes' action, and the fight was over. In that brief space of time what blood had been spilt and what treasure had been lost! Rifles, spears, and swords had done their murderous work so well and so effectively that the ground was strewn with the mangled and slain, whilst a death-roll of 118 and a list of wounded to the extent of 160 men on our own side testify to the impetuous and desperate character of this affray.

A camel train of about 1000 strong a few days ago is now a thing of the past, whilst it would commercially repay any man of energy and strong nerve—if utterly regardless of his own life—to make an excursion from here to the zereba, and collect the transport boxes, water barrels, &c., scattered along the line of retreat of our poor unarmed and scared camel and mule drivers, who, on the first rush and surprise, were forced to desert their charges, seek some protection, make for some place of safety, and leave their costly articles of commissariat to the tender mercies of a temporarily victorious foe.

Many are the gunshot wounds amongst the wounded, yet the enemy are supposed to have but few rifles (Remington's), and these were secured at the defeat of Hicks's army; but those they possessed must have been used with an accuracy of aim and precision of fire unprecedented in the records of target practice; whilst the extraction of some Martini-Henry bullets from our men cannot be explained except on the presumption that the enemy are already in possession of a fair supply of these more modern, invaluable, and long-range weapons. Sunday's fight has already taught one lesson—that our camel and mule drivers must no longer be permitted to go without weapons, for one can well understand the hesitation (begotten of no spirit or unmanly fear) shown by these unarmed followers to accompany the force again, unless better protected on their flanks and in their rear, with the prospect of provoking a conflict in which they are certain to find themselves worsted by so active, so well armed, and implacable a foe.

To the chivalry of our own men alone can be ascribed the success of Sunday's fight, at one time so doubtful. Soudanese mothers, wives, and relatives have now to mourn the loss of about 2000 warriors, lying bleached and decomposed on that gory, trampled plain. Such are the results of this horrible war, and such the outcome of that religious fanaticism which carries these poor creatures to

their desperate fate, and urges them heedlessly on to their inevitable doom. But what of Christian chivalry, supposed to be so characteristic of our time and age? If it in any way influences men to do their duty whenever and wherever they may be sent, does it not also make them shudder at times, when called upon in the performance of that duty, to mow down in hundreds, nay in thousands, such brave misguided fanatics; because we are invading, they as patriots (they are in reality such) are defending their own country and her most uninteresting cause? England's bravest deeds in this unhappy land were well unwritten indeed; the best results, the most brilliant achievements, will carry little weight with them hereafter; and when sufficient blood has been poured out and treasure lost, the *finale* will be discouraging enough to stamp with a big blot those pages of England's military history in this sun-scorched land. Besides the 118 killed amongst our naval and military officers and men, about 300 or more of our Indian coolies and European mule and camel drivers and attendants are missing since the disastrous Sunday's engagement. About the fate of these poor fellows there can be but one opinion—all slain to a man. The enemy gives no quarter whatever.

But enough of this: let me for a moment turn to the brighter and philanthropic side of this dismal and bloody picture, and say a word or two about the sick and wounded. Being an eye-witness of what took place (down at the excellently arranged Base Hospital) on the Monday after the fight, I am able to show you every possible contingency was provided for; how faithfully a small band of skilful surgeons, under the direction of Brigade-Surgeon Tanner, provided for the reception and comfort on arrival of those stricken down in yonder plain; how, though these poor wounded men came into camp late in the evening, they were received with humanity and every possible care; how each medical officer during the previous afternoon had received a notification to have ready a supply of hot coffee and beef-tea, brandy-and-water to be given to each patient after being placed in nice clean soft beds. Nothing could be better than the arrangements made by the medical staff on behalf of the poor sufferers.

Up to this date, March 27th, since the establishment of the Base hospital at H redoubt, there have been 137 admissions; of this number 64 have been transferred to the *Ganges*, and five have died, three from wounds received in action and two from sunstroke. The rest remain under treatment. Of amputations performed, there have been four arms, four fingers, one thigh, and one leg. Of these only one has died after operation. The previous admission list does not include marines and sailors; of these twenty-seven have been received, one of them dying from gunshot-wound in the thigh. Up to date there have been eight cases of severe sunstroke, and of these, as before mentioned, two have died.

Before closing this letter I may mention that several of the Sisters under the superintendence of Miss Ireland have arrived, and are severally located at the Base Hospital, *Ganges*, and auxiliary depôt. They look remarkably well after their sea trip. Their presence seemed to quite cheer up the poor wounded and sick fellows. I sincerely trust they may stand this climate. Temperature in the shade 80°, in the sun 94°. The nights are cool and pleasant.

The following is the disposition of the medical staff:—

Surgeon-General O. Barnett, principal medical officer at Headquarters Camp.

Surgeon-General G. L. Hinde, superintendent at Base, H. Redoubt, and Quarantine Island.

Surgeon-Major J. Warren, sanitary officer, Headquarters Camp.

Surgeon-Major H. Tanner, sanitary officer, Base and H. Redoubt.

Surgeon-Major J. B. Hamilton, field inspector detailed for hospital organisation on line of communications.

Surgeon-Major H. Tobin, operating surgeon at Base and H. Redoubt.

Surgeon-Major A. Allan, registrar at Base and H. Redoubt.

Surgeon-Majors at Base Hosp., H. Redoubt: T. W. Patterson, J. G. Barrow, S. R. Cotter.

Surgeon-Majors at Stationary Field Hospital: H. H. Stokes, C. Carey, J. J. Cream.

Surgeon-Majors, Hospital Ship *Ganges*: H. Gribbon, E. F. Coult.

Surgeon-Majors at Guards' Hospital (their own): H. J. Lawrence, A. B. Meyers, C. C. Read. 4th Guards' Field Hospital: S. G. Robinson.

Surgeon-Majors and Surgeons to 1st Field Hospital: J. H. Shaw, F. Kingston, W. J. Bourke.

Surgeon-Majors and Surgeons to 2nd Field Hospital: J. Flemming, H. L. Donovan, R. Smith, S. G. Freyer.

Surgeon-Majors and Surgeons to 3rd Field Hospital: H. J. Riordan, H. Bates, H. N. Johnston, N. Maunders.

Surgeon-Majors and Surgeons to No. 1 Bearer Company: H. J. Wilson, J. R. Collins, C. Bert.

Surgeon-Majors and Surgeons to 2nd Bearer Company: E. J. H. Evatt, W. Keys, R. J. D. Hackett.

Surgeon-Major Cream (sanitary), at Base.

Sixteen other surgeon-majors and surgeons attached to their various regiments; also two naval medical officers doing duty on shore. In addition, Professor Ogston and myself.

The following cases, which came under the care of Surgeon-Major Samuel Kyle Cotter, are worthy of record:—

Gunshot Wound; Fracture of Arm; Amputation.—Private E. C——, Royal Marines, was wounded on March 20th by a bullet which passed through the middle of his left arm, shattering the bone upwards and downwards for about the space of four inches. On the 21st, under ether, examination revealed the hopeless shattering of the bone, and amputation was performed by Surgeon-Major Tobin at the junction of the middle and upper thirds. The temperature before operation was 99·1°, and soon after it fell to 98°. The operation was by anterior and posterior flaps, and the bone was sawn at about three inches below the head, up to which point splintering existed. A drainage-tube was placed through the wound at the outer angle, and the whole dressed antiseptically. He was restless all day, but the pulse did not rise beyond 88. At 9.30 P.M. one-third of a grain of morphia was injected hypodermically, and he passed a very fair night. On the morning of the 22nd the temperature was 99·2°, the pulse 96. Since the operation there had been difficulty in passing urine, and the catheter was required. In the evening of the 22nd the temperature was 99·8° and the pulse 93. On the 23rd the dressings were renewed, and the wound showed a tendency to heal by first intention. Temperature 99·2°; pulse 80; bowels confined. To have an enema of sulphate of magnesia at once. Catheter still required. In the evening of the 23rd the temperature was 100·2°, and the pulse 84, with a tendency to hardness.—24th: Temperature 99·2°; pulse 79, and hard. Not a good night; but little pain in the stump now. Evening temperature 100°; pulse 78; urine passed freely.—26th: Dressings and drainage-tube removed, and the stump again dressed under carbolic spray. Union by first intention established almost throughout. On this day he was cheerful and able to sit up, and was transferred in the evening to the hospital ship *Ganges*.

Sunstroke.—No. 73, Corporal (name unknown), Royal Engineers, contracted sunstroke during the action of the 20th of March, and was brought to the Base Hospital at 6 P.M. on the 21st. He lay speechless and still; the eyeballs turned somewhat upwards, the upper lids immovably elevated, and the pupils dilated to their fullest extent. At about 6.30 P.M. a convulsive attack came on, and he voided a most profuse quantity of thin, dark, grumous fæces, with a fætor of the most intolerable character, the sickening odour of which was beyond description. The muscles of the chest, abdomen, and arms were affected by the convulsions, but not those of the back and legs. Though he lay perfectly straight and rigid, there seemed to be no opisthotonos. The convulsive attacks soon began to recur at short intervals, and a slight touch, merely, of the skin sufficed to bring them on. The hands eagerly grasped any article, and on attempting to withdraw it the grasp became stronger and the shaking and convulsion increased, whilst at the same time it is believed that he remained entirely unconscious. The bowels continued to discharge, and nearly a gallon of this grumous matter must have passed. Urine was drawn off with a catheter in immense quantity. The temperature was 103·3°, and later on rose to 104·5°, the pulse being all along about 150, and intermittent every fifth or twelfth beat. During the convulsions he screamed loudly. The convulsive attacks getting more prolonged, and interfering so much with respiration, inhalation of chloroform was resorted to. Under the use of this the convulsions ceased or were controlled, the pupils contracted to nearly their natural size, and the pulse became fairly full, slower and intermittent, but at long intervals. Two ounces of brandy were given and swallowed well; also beef-tea. At 1 A.M. on March 22nd the pulse began again to flutter and intermit. A sinapism was applied to the precordiæ and epigastrium, and an enema of beef-tea and brandy administered. He continued to moan, but had no convulsions to speak

of. The pupils again became dilated, and most profuse sweat—not cold—bathed the whole body. He became unable to swallow, and sank at 3A.M. A case exactly similar occurred at the same time in the next tent, but the man died about two hours after admission.

LIVERPOOL.

(From our own Correspondent.)

THE PREVENTION OF CRUELTY TO CHILDREN.

Two years ago a Society was formed here for the prevention of cruelty to children, and its first annual meeting was held in March, 1884. Similar societies have since been formed in London, Manchester, Edinburgh, and Glasgow, all of which have adopted the rules of our local society. At the second annual meeeting of the latter, held on the 20th inst., it was stated in the report that, during the year, complaints had been dealt with by the Society involving the welfare of 844 children. Speaking generally, the cases were more those of gross neglect than of active and deliberate cruelty. In fourteen cases the parents were prosecuted and punished. The condition of the children in the streets of Liverpool has long been a reproach to the city, and it was hoped that the School Board would be the means of effecting an improvement. The evil was one, however, with which they had no power to deal; hence, the new Society has a noble work to perform, and it is being vigorously taken in hand. No class of men know how much unpunished cruelty to children goes on so well as medical practitioners, especially those who hold parochial appointments. These children by their miserable appearance excite sympathy, and with the money received from charitable persons often maintain their drunken and idle parents. A great effort is being made by the head constable to suppress mendicity, and when it is found to be unprofitable much of the present cruelty to children will cease.

COURTS OF LAW AND FETID ATMOSPHERE.

Mr. Justice Wills has severely censured the authorities in Manchester for the very inadequate arrangements made for the accommodation of prisoners awaiting trial. That which is provided in our local courts is superior to less modern courts, but it must be frankly admitted that the accommodation for witnesses is very deficient. Medical and other witnesses awaiting their turn to go before the grand jury are huddled together at the top of a staircase and along a corridor where the atmosphere is most vitiated. This ordeal passed, the medical witness has to choose between the corridors, the outside of the building, or the body of the court, the general waiting-room being quite out of the question. In the Crown Court itself the atmosphere becomes very vitiated even on a winter's day, and in summer time almost intolerable, except to those who are well acclimatised to it. The radical defect in our assize and police courts is a want of sufficent escape for foul air at the top of the building. It is not many years since the late Mr. Justice Heyes fell a victim to the polluted atmosphere of the court in which he had been presiding, and there can be little doubt that many an illness has arisen from being required to attend court as juror or witness.

THE STIPENDIARY MAGISTRATE AND CASES OF BITING.

At the police-court on Monday last, a respectably-dressed man, who had hitherto borne a good character, was charged with an assault upon a city constable, whose hand he had bitten, besides inflicting sundry bruises. The magistrate, on being asked by the prisoner's solicitor to deal summarily with the case, declined to do so, remarking that it was his determination to send all such cases to trial, "as cannibals deserved more severe punishment than he was able to award them."

CORONERS, MEDICAL WITNESSES, AND POST-MORTEM EXAMINATIONS IN WORKHOUSES.

The result of the Croydon Workhouse case will be watched with considerable interest by practitioners here as elsewhere. In the Liverpool Workhouse there are, on an average, at any given time, 2500 inmates. As may be readily understood, among such a number inquests will occur frequently in the course of the year, and the resident medical officers have invariably been paid for attendance and for making autopsies. To require them to undertake such additional work gratuitously would be manifestly unfair, as well as contrary to the understanding which regulates the acceptance of such appointments.

Liverpool, April 22nd, 1885.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

DURHAM UNIVERSITY.

CERTAIN important alterations were made at the late convention of this University in the regulations respecting the degree of Bachelor of Medicine. Henceforward every medical student will have to pass a preliminary examination in general knowledge, including the English language and history, arithmetic, geography, and Latin; and candidates for the degree of M.B. will have to be of the standing required for admission to the licence in Medicine, and must have fulfilled similar conditions as regards residence and attendance on lectures and hospital practice during four years.

THE PROPOSED FLOATING HOSPITAL FOR THE TYNE.

At a late meeting of the Tyne Commissioners notes were submitted in reference to the new floating hospital. The city engineer proposed to float it upon circular pontoons, placed ten feet apart, and surmounted upon a platform of iron and timber. These pontoons would be so arranged as to carry the platform about four feet above the water level. It was proposed to have three large wards, with ten beds each. The wards would of course be of wood, doubly lined. The roof would be of zinc or wood. Space was provided on the proposed platform for the future erection of the administrative block; but the cost would not be included in the present estimate. The cost of the hospital would be £4000.

THE NEW ETHOXO LIME-LIGHT.

At a late meeting under the auspices of the Northern Counties Photographic Association, held in the theatre of the Newcastle Literary and Philosophical Society, a paper was read upon the new Ethoxo Lime-light by the Rev. F. T. Hardwick, which is claimed to be equal in lighting power to the oxyhydrogen light, and more safe and convenient. A letter was read from Professor Herschell testifying to the safety of the improved ethoxo light under tests of exceptional severity. Mr. Hardwick showed slides of insect life, &c., by aid of this light, and his demonstrations were admitted to have been very interesting and successful.

THE WATER-SUPPLY OF NEWCASTLE.

Some of our local papers are pointing out that the water-supply to our Tyneside towns is beginning to take a rather serious aspect. The population supplied by our waterworks is 770,000, and it is calculated that we have only 900 million gallons in store, against 2000 million gallons at the same period last year. At this rate our store will be exhausted in four months—that is, by the end of July. Of course we have the Tyne to fall back upon, but this source is open to many objections, and at present it is only pumped to meet trade demands. It is to be hoped that "a great many things may happen" before we have to resort to the Tyne for drinking purposes.

PRISONERS DYING IN GAOL.

The death of a prisoner under sentence, perhaps for some comparatively trivial offence, always produces a painful sensation. A case came before the coroner at Durham lately, in which a prisoner convicted of begging under false pretences died in gaol, after the expiration of his sentence. It was shown that on admission he was examined by the prison surgeon, who, finding him in an advanced state of pulmonary consumption, had him removed to the hospital in the gaol. He became gradually worse, and although his sentence had expired and it was intended to remove him to the workhouse, he succumbed to the disease before this step could be carried out. It was shown at the inquest that everything possible had been done for him from the first; still the coroner pointed out that this was another case which showed the necessity of there being some other place than a prison for the reception of dying persons convicted of crime. Another point was alluded to—namely, that the

Durham prison is too far away from the railway station for weakly people, and that there is no prison van for their conveyance. Cases have occurred of prisoners dying soon after admission to the gaol.

Newcastle-on-Tyne, April 21st.

EDINBURGH.

(From our own Correspondent.)

MEETING OF EDINBURGH UNIVERSITY GENERAL COUNCIL.

THE statutory half-yearly meeting of the General Council was held on Tuesday, the 21st instant. Lord Inglis, the Chancellor of the University, presided, and was supported by the Principal, Sir William Muir, and several of the professors. The whole interest of the meeting centred in the question of University reform, and there were several motions on the orders of business which had reference to the Universities (Scotland) Bill, 1885. The first was moved by Mr. Taylor Innes, Advocate, approving the general scope and principle of the Bill, and proposing to petition Parliament in favour of its early passage into law. In bringing forward this motion, Mr. Innes said that, in his opinion, there were clauses in the Bill which would require amendment in passing through committee, but that it should be supported, as it provided for many useful reforms, amongst which he might cite the scope of *those* clauses which endow the Commissioners under the Act with powers of adding to the functions of the General Council and increasing its power, of further developing the *range* of extra-mural teaching, and of providing for the University education of women. Amidst loud expressions of varied opinion on this point, Mr. Innes expressed the *hope* that the University curricula would soon be thrown open to the other half of the human race. He also drew attention to the fact, that in the present Bill the finality *clause* as regards the limitation of Government support to Scottish Universities has been abandoned, and this he urged as an additional reason for supporting the Bill as at present drafted. Mr. McKie proposed an amendment, approving the clauses which increase the powers of the University Court and the General Council, but opposing the Bill as a whole unless greatly modified. The amendment was rejected, and the motion carried by a large majority. Professor Laurie brought forward a motion urging upon the Government the reconsideration of the clauses which transfer the Observatory and Botanic Gardens to the University, providing for the payment of pensions by the Senatus instead of by the treasury, and transferring the patronage of bursaries from various private individuals and corporate bodies to the Senatus. After prolonged discussion this motion, with a slight modification, was agreed to. Professor Masson then opened a discussion of some importance upon the question of an increased teaching staff within the University itself. At the meeting of Council held last October a general motion in favour of increased facilities for extra-academical teaching had been adopted; and the present motion, while conceding the importance of that element, urges that attention should also be paid to a scheme for greatly enhancing the teaching power of the University within its own economy by adding to the numbers of its teaching staff. This, Professor Masson thinks, should be carried out on the German *privat docent* system; and he advocates an advance in the status of assistants to professors, and of their emoluments, as the best means of accomplishing this object. Mr. Scott Dalgleish proposed an amendment reaffirming the position taken by the Council in the matter last October. An animated discussion ensued, followed by a division, when the amendment was declared to be carried by 26 votes to 22. Several members present abstained from voting. This result was largely due to the vote of the medical graduates present, many of whom are themselves engaged in extra-mural teaching in the Edinburgh Medical School, and who view with distrust any proposals tending to diminish the importance which the extra-academical school at present possesses in relation to medical teaching in Edinburgh.

SUPERANNUATION.—Mr. Arthur Priest, late medical officer for the Waltham Abbey district, Edmonton Union, has received a superannuation allowance of £71 8*s.* a year.

IRELAND.

(From our own Correspondent.)

ROYAL UNIVERSITY OF IRELAND.

As the undergraduates of the University of Dublin have been granted a term, a memorial is about to be presented to H.R.H. the Princess of Wales, praying that she may be pleased to ask the Senate of the Royal University to grant a similar favour to the undergraduates of this University. Honour students will not feel this concession, if granted, in any way a hardship, as they will, as usual, have the right to compete for exhibitions. Steps are being taken to place the matter under the Royal notice before the return to England.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

At the last meeting of Council the President read a letter from Dr. Cameron, the Vice-President, stating that, having suggested the idea of erecting a marble statue to Mr. William Dease in the College, Mr. M. O'Reilly-Dease, D.L., a grandson of the celebrated surgeon, had offered to defray the entire cost of erecting the monument, and had given him (Dr. Cameron) *carte blanche* to make all the arrangements. We understand Dr. Cameron has selected Mr. Thomas Farrell, the eminent sculptor, to carry out the work, which will at once be commenced. On the motion of Mr. Colles, seconded by Sir G. H. Porter, Mr. O'Reilly-Dease's generous offer was thankfully accepted.

ALTERATION OF IRISH PRISONS RULES.

By an Order in Council the Lord-Lieutenant has approved of certain rules made by the General Prisons Board for Ireland in relation to the duties of surgeons to prisons. These are as follows:—1. That no irons or means of mechanical restraint shall be used, excepting such as are approved by the Lord-Lieutenant, or such as may be considered necessary by the medical officer to be used as medical appliances in the case of violent prisoners in hospitals. 2. The surgeon shall visit the prison once each day, and not later than 12 o'clock noon, and oftener if necessary; and shall see every prisoner in the course of the week. He shall daily visit the prisoners, if any, confined in punishment cells or under punishment in their own cells, or under mechanical restraint; and he shall visit daily, and oftener if necessary, such of the prisoners as are sick, and when necessary shall direct any prisoner to be removed to the infirmary. 3. The surgeon shall, whenever he considers a prisoner's life to be in danger by further confinement, at once report the fact to the Under Secretary for the Lord-Lieutenant's information, and also to the General Prisons Board and to the governor; and he is also to report to the governor the case of any prisoner to which he may think it necessary, on medical grounds, to draw attention.

THE TREATMENT OF INTERNAL ANEURYSM.

In a paper read by Professor Finny at the last meeting of the Pathological Section of the Academy of Medicine in Ireland, the treatment advocated by Mr. Tufnell of Dublin was highly recommended. Mr. Tufnell, who was present, made a very interesting communication in reference to his treatment in cases of internal aneurysm, and particularly insisted on rest in the horizontal position for a considerable time as a most important element in these cases. He referred to two cases of well-marked abdominal aneurysm, the subjects of which were now in excellent health, one after five years, and the second after seven years, since his mode of treatment had been used.

Dublin, April 21st.

PARIS.

(From our Paris Correspondent.)

THE NATURE OF THE CURVED OR COMMA BACILLI.

AT the meeting of the Académie des Sciences last week Professor Richet read a paper, in the name of M. J. Héricourt, on the nature of the curved or comma bacilli and on the presence of their germs in the air. The following are the conclusions of the author:—1. In all waters, whatever be their quality or origin (springs, drains, wells, cisterns, &c.), there exist curved bacilli of variable forms and dimensions,

among which those of the type that are described as choleriform are constantly found. 2. The curved bacilli do not exist in the atmosphere under their characteristic form; they are there found in a state of germs, under the form of spores. 3. The intestinal dejections in simple diarrhœa, as well as in dysentery and typhoid fever; the broncho-pulmonary secretions in the various diseases of the lungs, in pus exposed to the air, human saliva, whether normal or abnormal—all substances, in fine, that are susceptible of serving as nutriment to germs or bacteria, contain curved bacilli. 4. These curved bacilli are strongly aërobied, and it is only at the surface of liquids that they are to be collected. They are very mobile. They are agitated by rapid oscillations, exactly similar to those of vibriones, and are endowed with a strong power of refraction. They are about half or two-thirds of the length of the bacilli found in tuberculosis, and are thicker and less regular than the latter. Nothing differentiates them from the bacilli that are found in the dejections of cholera patients. 5. In awaiting inoculations more conclusive of their pathogenic *rôle* being performed with the comma bacilli collected in the intestines of cholera patients, the conclusion to be drawn from the propositions that precede is that these micro-organisms are the same as those that are found in all secretions, whether normal or pathological, on the only condition that these secretions have been found in contact with water in which the curved bacilli are the habitual occupants, or with the air which conveys their germs.

THE REMOVAL OF A CANCEROUS KIDNEY.

Wishing to know the cause of the omission on the part of Dr. Péan to state whether the operation of gastrotomy, referred to in my letter of the 11th inst., was performed under the influence of chloroform or other anæsthetic, or whether antiseptics were employed or not, I wrote to him on the subject, and received for answer, "Inutile de vous dire que je soumets à l'anesthésie chloroformique toutes les malades auxquelles je pratique la gastrotomie, et que je me contente, à la suite de l'opération, de l'appareil ouaté compressif et du pansement par occlusion de Chassaignac comme je l'ai fait depuis 25 ans, sans autre précaution antiseptic. J'ai rejeté depuis longtemps le 'spray' comme étant plus dangereux qu'utile dans ces sortes d'opérations." I may here add that the patient who was the subject of Dr. Péan's communication was herself presented to the Academy of Medicine. She was thirty-six years of age. She also formed the subject of a clinical lecture by Dr. Péan, which will be found embodied in vol. iv. of his "Cliniques de l'Hôpital Saint Louis," about to appear. The lesson taught by this case is, according to the author, that in the presence of large malignant tumours of the kidneys, the course of which is not hyper-acute, one should not despair of cure. I may here also add that in the case under notice it was the right kidney that was removed.

MM. CHARLES ROBIN AND CORNIL.

By a special decree in their favour MM. Charles Robin and Cornil, Senators, have been allowed to retain their respective positions at the Faculty of Medicine of Paris, the former as Professor of Histology, and the latter as Professor of Morbid Anatomy.

Paris, April 21st.

THE SERVICES.

WAR OFFICE.—Army Medical Staff: The undermentioned officers are granted retired pay, with the honorary rank of Deputy Surgeon-General:—Brigade Surgeon William Gerard Don, M.D., Brigade Surgeon Samuel Stacy Skipton, M.D. The undermentioned officers are granted retired pay with the honorary rank of Brigade Surgeon:—Surgeon-Majors James Edward Clark, William George Ross, M.D.; John Anderson, C.I.E.; George Francis Dooley, Eugene Robert O'Brien, M.D.; and John Norman Davis, M.D.

INDIAN MEDICAL DEPARTMENT.—Deputy Surgeon-General Michael Cudmore Furnell, M.D., F.R.C.S., Sanitary Commissioner, Madras, has been appointed Surgeon-General with the Government of Madras; Deputy Surgeon-General George Bidie, M.B., C.I.E., has been appointed Sanitary Commissioner, Madras; Surgeon Hazlett Allison, M.D., has been appointed Assistant Physician, Madras General Hospital; Brigade Surgeon J. McN. Donnelly, M.D., has been promoted to be a Deputy Surgeon-General, with permanent rank.

ADMIRALTY.—The following appointments have been made:—Surgeon Francis H. Julyan, to the *Triton*, additional; Fleet Surgeon James Trimble, to the *Asia;* Staff Surgeon James Robertson, to the *Conquest;* Fleet Surgeon Robert Nelson, to the *Thunderer;* Staff Surgeon Michael Fitzgerald, to the *Orion;* Surgeon Edward G. Swan, to the *Thunderer;* Surgeon Denis W. Donovan, to the *Alexandra*, additional. Staff Surgeon William Henry Stewart, M.B., has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet.

YEOMANRY CAVALRY.—Middlesex: Surgeon Thos. William Thompson resigns his commission.

MEDICAL NOTES IN PARLIAMENT.

The Poisons Bill.

IN the House of Lords on the 20th inst., Lord Carlingford having moved that the Poisons Bill be referred to a Select Committee, the Earl of Milltown, who had given notice that on the motion for going into Committee on the Bill he would move, "That the House resolve itself into Committee on the Bill this day six months," said he felt very strongly that a measure on this subject was necessary, right, and proper. At the same time, however, he was of opinion that the Bill now before their lordships was not a good one, and that it was extremely likely to harass and hamper legitimate trade. It had been brought forward without any reference to the interests of the trade or to the interests of the public, and on that ground he appealed to the noble lord some time ago to refer it to a Select Committee. The noble lord had now done so, and he would, therefore, withdraw his notice on the paper. The motion was carried.

The Expenditure of the Eastern Hospitals.

In the House of Commons on the 20th inst., Mr. G. Russell, in reply to Baron H. De Worms, stated that the Local Government Board had been asked by the Metropolitan Asylums Board and several Boards of Guardians to institute an inquiry into the expenditure of the Eastern Hospitals, and the inquiry has been intrusted to three of the Board's inspectors, Mr. Hedley, Dr. Bridges, and Mr. George Taylor.

Pauper Lunatics.

On the 21st inst., Mr. G. Russell, in reply to Mr. J. Talbot, said the question of detaining pauper lunatics in workhouses, in view of the recent decisions of magistrates on the subject, was being considered in connexion with the Lunacy Bill which had been introduced into the House of Lords by the Lord Chancellor.

The Health of the Troops in the Soudan.

The Marquis of Hartington, in reply to Sir F. Milner, said that from the circumstances under which our forces were now placed in the Soudan, it was scarcely possible to state the exact percentage of sickness. On the whole, however, the health of the troops was reported to be good. They had not received any accounts showing that an extraordinary amount of suffering prevailed among the troops on the Nile. All the arrangements for the accommodation of the troops were made locally. Large supplies of clothing and other requisites had been sent out, but it would be impossible to state how far the means of transport at the disposal of the authorities in Egypt enabled them fully to reap the advantage of such arrangements.

Private Lunatic Asylums (Ireland) Bill.

On the 22nd inst. Mr. Corbet moved the second reading of this Bill, the object of which, he said, was gradually to get rid of private asylums kept for pecuniary profit, which was reported to be at the root of all the evils connected with private asylums in Ireland. Mr. Campbell-Bannerman said that the Government had introduced into the other House a Bill dealing with the subject of lunacy on different lines from this Bill, and it would be impossible to be legislating at the same time upon one system in the other House and upon another system in this House. He knew and admitted all that could be said in favour of doing away with private asylums; at the same time to get rid of them in a summary way would raise large questions of compensation. The hon. member assumed that asylums would be self-supporting if they were erected, but money would be required to erect them. The hon. member said he would get it from the

Church Fund Surplus; but to the best of his belief there was nothing to be obtained from that source. The Bill was lost by a majority of thirty-five.

Mr. Acland moved the second reading of the Public Health (Members and Officers) Bill, which after some discussion was read a second time.

Obituary.

OSWALD GEORGE DYX BRADSHAW, M.R.C.S., L.R.C.P.

THE death of Surgeon Bradshaw at Korti, March 13th, 1885, from enteric fever, has created a feeling of the deepest regret. He was beloved and respected by all with whom he had occasion to become associated, and, though but a young man, his professional and social merits had secured for him a large circle of friends. He was the youngest son of the late Capt. L. A. Bradshaw, Royal Artillery, and was born in 1859, at Secunderabad. He was educated at Wellington College, and entered the British Medical School in 1876; subsequently becoming a student at St. George's Hospital in 1878. At the latter institution he obtained the Brackenbury prize in medicine, and passed first in the Army Medical Service at the August examination, 1883. At Netley his career was marked by the same devotion to work, and he was rewarded by gaining the Martin Memorial Gold Medal for proficiency in Military Hygiene, and the Director-General's Prize for Pathology. In September, 1884, he obtained his commission, and sailed for Egypt, where he was actively employed at the front, and was untiring in his care of the sick. The fever was probably contracted by the bad water and fatigue incident to a long march across the desert. In him the service has lost a brave and faithful officer, the profession a useful member, and his friends a genial and pleasant companion.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following candidates passed the Primary Examination in Anatomy and Physiology for the diploma of Member of the College at a meeting of the Board of Examiners on the 8th inst.:—

ANATOMY AND PHYSIOLOGY.—Joseph Beadle, Newcastle and Glasgow; G. Hamerton Rowlands, O. Taunton Stephenson and Charles W. Graham, Liverpool School of Medicine; J. Price Williams, Percy Ashworth, Herbert Wade, and Arthur M. Cass, Manchester; George A. Ferraby, W. Matthew Joyce, and Leslie Whitehead, Birmingham; T. Mayo Stiles, G. Henry Skinner, F. Horace Hudson, and Frank Calden, Bristol; Percy R. Gostling, T. H. Fencott Evans, A. Knight Holt, and Edwin C. Palmer, St. Bartholomew's; Herbert J. Roper, J. Arthur Smith, and Henry Goot, Leeds; Patrick Hehir, Edinburgh and Calcutta; P. J. Mader, Edinburgh; M. Mitchell Bird, St. Mary's; William Branson, Sheffield; George Cherry, Toronto.

ANATOMY ONLY.—Lewis L. Bailes, Newcastle; A. Dunley Owen, Bristol; W. Matthews Joyce and J. Hazlewood Clayton, Birmingham; A. Morton Barford, St. Bartholomew's.

(Candidates referred for three months, 5; six months, 4.)

Passed on the 10th inst.:—

ANATOMY AND PHYSIOLOGY.—W. Rickward Bacot, R. William Boyce, University College; Christopher P. Spink, W. Barker Russell, and H. Clifford Baldwin, Leeds; M. Prentice Ledward and J. Harwood Wilson, Manchester; A. Edward Leitch, J. Hepworth Shaw, G. William Chaster, W. Edward Livesey, and J. Webster Shannon, Liverpool; E. Lyall Haynes, L. William Andrews, L. Emilius Jowers; Thomas Lissaman, T. William Kelly, and B. A. Farrar, St. Bartholomew's; J. W. B. Pogson, E. Alfred Sadler, G. T. Congreve Barber, and H. Wynne Thomas, Birmingham; J. Smith Bootiman, Newcastle; John Stokes, Sheffield; G. Herbert Pennell, Guy's; W. M. F. Nelson, Montreal; H. Stanfield Collier, St. Mary's; Benjamin Walker, London.

ANATOMY ONLY.—B. Hamilton, Bristol; A. E. D. R. Peters, St. Bartholomew's; J. A. Eyton-Jones, Liverpool; J. E. Foster, Birmingham.

PHYSIOLOGY ONLY.—E. B. Smith and J. W. Whitehead, Manchester.

(Candidates referred for three months, 6; six months, 2.)

Passed on the 11th inst.:—

ANATOMY AND PHYSIOLOGY.—W. Arthur Hooton, Richard Alcock, J. Watson Lonsdale, and J. F. Woodyatt, Manchester; F. H. Whitehead, Charing-cross and Manchester; J. Houghton White, Ernest Crompton, Henry Huxley, and W. Edmund Hardy, St. Bartholomew's; T. Wiltshire Robbins, London; Ferberd R. Buswell, Middlesex; G. E. Kennie, University College; Basil W. Housman, Charles St. Johnston, Samuel Nicklin, and Ernest H. Snell, Birmingham; Felix Kerans, Liverpool; J. V. W. Rutherford, Edinburgh; Joseph J. Wheeler and W. Job Maillard, Guy's; Frederick Lace, Bristol, Arthur Miers, Leeds.

ANATOMY ONLY.—George Thorpe, Sheffield; Arthur W. Hogg, St. Bartholomew's; Abraham J. Meuer, New York; Percy J. Spencer, London; Hubert Joslen, Guy's.

PHYSIOLOGY ONLY.—Herbert Burland, Manchester; F. S. Jermaine-Ludham, St. Bartholomew's; H. Cecil Nichölls, Charing-cross; Evan Jones, London.

(Candidates referred for three months, 2; six months, 2.)

Passed on the 13th inst.:—

ANATOMY AND PHYSIOLOGY.—R. Oxley Bowman, Jabez D. Windle, Daniel Booth, W. Leonard Bentley, E. Ernest Smith, and Arthur E. Giles, Manchester; G. Arbuthnot Robinson, London; Robert Bird, C. Stanstay Edwards, J. G. Ernest Colby, W. Norman Evans, John Rust, and T. William Francis, St. Bartholomew's; Henry J. Campbell and Morgan J. Morgan, Guy's; Frederick W. Stokes, Birmingham; Eric E. Kershaw, and M. Percy Cooke, Middlesex; Francis Naumann and Albert W. Cooke, Charing-cross; Richard P. Brooks, King's College; Stanwell Weldon and John Wayte, St. George's; W. Ap Samuel J. Graham, St. Mary's; T. Arnold Durrant, St. Thomas's.

ANATOMY ONLY.—William Reunie and J. Hurd Gordon, Birmingham; William Mortimer, London.

PHYSIOLOGY ONLY.—F. Cubbon Rogers, Manchester; C. L. S. James, London; A. F. Bilderbeck-Gomes, St. George's; Percy V. Dodd, St. Bartholomew's.

(Candidates referred for three months, 6; six months, 4.)

Passed on the 14th inst.:—

ANATOMY AND PHYSIOLOGY.—H. C. Leffler Arnim and Robert May, Charing-cross; Prideaux G. Selby, E. T. Mosse Tunnicliffe, A. Lindsay Travers, John W. Applegate, and A. Leonard Bright, St. Bartholomew's; H. C. Bristowe, R. Jackson Langley, R. Vaughan Solly, and E. Charles Mahany, St. Thomas's; H. E. Drake-Brockman, R. Staker Turton, and Beaumont H. Comerford, St. George's; James Wigg and J. H. E. Jarvis, London; Charles H. Buckley, James P. Walker, and George A. Berry, Manchester; Herbert E. Cuff, Guy B. Smith, and John D. Cruickshank, Guy's; C. Herman Ferman, University College; Howard P. Ward, King's College; W. Baron Cockill, Middlesex.

ANATOMY ONLY.—T. Owen Raw and Astley C. Roberts, Guy's; T. Alexander Murray, Manchester; M. Bayfield Dumaresq, London; Ernest Dawson, Westminster; James Daniel Brown and Cyril W. Shaw, St. George's; Alfred Bowles, University College.

PHYSIOLOGY ONLY.—P. Seymour Harris, Middlesex; W. Douglas Gimson, St. Bartholomew's; Lionel N. Hoysted, Charing-cross; Frank Elias, University College; G. W. B. Daniel, St. George's; George A. Slack, Guy's; Arthur Crook, London.

(Candidates referred for three months, 6; six months, 2.)

Passed on the 15th inst.:—

ANATOMY AND PHYSIOLGY.—J. Auriol Armitage and T. Hamilton Ward, Edinburgh; J. George Carter, Charing-cross; Walter J. Bearblock, Walter Fisher, Joseph C. Baines, Ernest H. Starling, J. Vincent Blachford, and J. Low Aymard, Guy's; J. Llewellyn Rees, G. Gordon Parsons, and W. Burwell Darroll, London; E. Courtney Lomas, Marmaduke Bannister, Harvey Rhodes, and A. Baxendell, Manchester; E. A. Griffiths Dowling, Frank E. Gibbens, and George Heaton, St. Bartholomew's; H. Bryan Densham, Bristol and Edinburgh; W. Henry Vickery, R. Francis Thomas, and C. Lloyd Worrell, Middlesex; G. A. T. Bray and R. James Carter, King's College; E. Deanesley, University College; J. T. Bays, St. Mary's.

ANATOMY ONLY.—Walter S. Holford, St. George's; Harold Birkenhead, Manchester; T. Edward Pallett, Westminster; W. Wheldon Williams, University College; Jasper J. Garmany, Bellevue; James E. Brown, Toronto.

PHYSIOLOGY ONLY.—W. John Midelton and H. Y. Whitchurch, St. Bartholomew's; J. Wilkins, London; Malcolm B. H. Wale, St. George's; J. Douglas Cree, Middlesex; H. Foreman Cartmil, Manchester; Norman Davis, Newcastle; William Jones, University College.

(Candidates referred for three months, 4; six months, 1.)

At the recent Primary or Anatomical and Physiological examinations for the diploma of Membership of the Royal College of Surgeons, 387 candidates presented themselves. Of these 148 were referred.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following candidates passed the Second Examination (Anatomy and Physiology) on the 11th inst.:—

O. Le Mare Theobald, Walter Lovett Hubbard, H. H. Brodie MacLeod and Ernest A. W. Armstrong, King's College; Arthur W. James and W. P. Peake, St. Bartholomew's.

Passed on the 13th inst.:—

Herbert A. Smith and Edgar R. White, King's College; William Woodward, St. Bartholomew's.

UNIVERSITY OF ABERDEEN.—At the late medical graduation term, the following candidates, after the usual examination, received degrees in Medicine and Surgery:—

DEGREE OF M.D.

Brown, Clarence W. Haig, M.B., C.M., Godalming, Surrey.
Campbell, Alexander, M.B., C.M., Dundee.
Collie, Robert John, M.B., C.M., Aberdeen.
Cooper, William, M.B., C.M., Bellelvie.
Crow, Herbert William Tolver, M.B., C.M., London.
Gayton, Francis Carteret, M.B., C.M., Surrey County Asylum, Woking.
Hosie, Andrew, M.B., C.M., Inverness District Asylum.
MacLean, Alexander, M.B., C.M., Deputy Surgeon General, Thurso, Caithness.

Stewart, William H., M.B., C.M., H.M.S. *Clyde*, Aberdeen.
Stuart, William, M.B., C.M., Stratton, Cornwall.

DEGREES OF M.B. AND C.M.

†Alcock, Alfred William, Bombay.
Anderson, John, M.A., Marnoch.
Brown, David MacDonald, Banchory-Ternan.
Butchart, Charles Alexander, Aberdeen.
Connan, Alexander Gray, Aberdeen.
Cowan, Andrew Hunter, Aberdeen.
†Davidson, John Stuart, Mauritius.
Deane, E. Greaves Wooding, Barbadoes, West Indies.
Duncan, John, M.A., Aberdeen.
†Godfrey, Henry William, Hornhurch, Essex.
Gunn, James William McKenzie, M.A., Reay, Thurso.
Henderson, Albert Edward, Sheffield.
Irvine, John Charles Davidson, Udny.
†Jones, Francis Grice, Denbigh, North Wales.
*Lamb, John Marshall, M.A., Aberdeen.
Marsden, John, Banff.
*Milne, Alexander, Huntly.
†Milne, James Black, Huntly.
Morgan, William Vincent, Narberth, Pembrokeshire.
†Paterson, Thomas George, New Galloway.
*Rattray, Patrick Whyte, M.A., Aberdeen.
Scott, George, Aberdeen.
Simpson, David, M.A., Alvah, Banff.
Simpson, William Bulmer, Bedale, Yorkshire.
*Smith, Arthur Greatorex, Marlborough.
Sullivan, Peter Alfred, Carlisle.

* Highest Academical Honours. † Honourable Distinction.

The John Murray Medal and Scholarship was awarded to

Patrick Whyte Rattray, M.A.

The following were certified as having passed all the examinations, but did not graduate:—

Charles Mitchell Aird, Leslie Durno, James Murray, Cecil Robertson, and John Hutton Stenhouse.

The next Professional Examination for degrees in Medicine commences on July 18th.

COLLEGE OF PHYSICIANS IN IRELAND.—At the April examinations the following obtained the licences in Medicine and Midwifery of the College:—

MEDICINE.—Robert Blackwell, Thomas J. Dillon, William Dillon, Andrew A. Doyle, Richard Herbert Joseph Fetherston, James Hefferman, Samuel Horneck, John Lowney, David Charles Morgan Lunt, John McFadden, Joseph Daniel McFeely, Edmond Ryan MacMahon, Septimus Palmer, Paul A. Piel, Joseph Robinson, Herbert Shackleton, Henry Barlow Strong, Hamilton James Thornbury, Richard Henry Tailour, Everard Woods.

MIDWIFERY.—Robert Blackwell, William Dillon, Richard Herbert Joseph Fetherston, David Morgan Lunt, John McFadden, Joseph Daniel McFeely, Paul A. Piel, Joseph Robinson, Hamilton James Thornbury, Everard Woods.

The undermentioned were admitted Fellows:

A. H. Horne. | F. X. MacCabe.
James Pollock.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 9th inst.:—

Cockerill, John W., St. Bartholomew's Hospital.

Passed on the 16th inst.:—

Carless, Albert, King's College.
Crowdy, F. Demainbray, St. Thomas's Hospital.
Rattray, Alexander, Edinburgh University.
Warner, Frederick Ashton, St. George's Hospital.

WE are asked to state that the Press Information Agency is now a Limited Liability Company.

MR. JOSEPH CROSSLAND, local banker and manufacturer, has given £1000 to the Huddersfield Infirmary for the establishment of a children's ward.

THOMPSON MEMORIAL HOME, LISBURN.—This institution has just received the very handsome donation of £10,000 from a relative of the late Dr. Thompson.

ON the 18th inst., the Kent justices decided to build an infectious diseases hospital at the County Lunatic Asylum at Chartham, near Canterbury. The cost will be £2500, or about £125 per bed.

THE Corporation of Cork have passed a vote of thanks to Dr. Donovan for his exertions, in conjunction with his staff of assistants, in grappling with, and stamping out, the epidemic of small-pox in that city.

EPSOM COLLEGE.—The Rev. Dr. West will retire at the end of Easter Term from the Head Mastership of the Medical College at Epsom, which he has held for fifteen years; and the Council have appointed the Rev. W. Cecil Wood, M.A., as his successor. Mr. Wood, who is now Head Master of Birkenhead School, has had much experience in important public schools, and especially at Wellington College, where he was a master for eight years.

ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.—The annual general meeting of this Association will be held on Tuesday, May 5th, at 4 P.M., in the Westminster Town Hall, Dr. Danford Thomas in the chair. All members of the College are invited to attend.

AMERICAN PRECAUTIONS AGAINST CHOLERA.—The *Liverpool Journal of Commerce* says that the United States Government is taking early precautions against the introduction of cholera into their country. Orders have been issued by the American Consul at Liverpool that he must have twenty-four hours' notice of the sailing of any vessel to the United States, in order that it may be subject to sanitary inspection by officers specially appointed for that purpose.

PADDINGTON-GREEN CHILDREN'S HOSPITAL.—The report, which was read at the second annual meeting of the contributors to this hospital on the 16th inst., stated that 288 in-patients had been admitted during the year; 9356 new out-patients were treated, the total attendances being 29,328, or an increase of 10,669 over those of 1883; 398 casualty cases also received attention. The yearly expenditure is about £1700, towards which there is a subscription list of £679. During 1884 a sum total of £258 was subscribed by the working-men of the district.

CITY OF LONDON TRUSS SOCIETY.—The seventy-eighth annual festival in aid of this Society was held on the 21st inst., the Lord Mayor presiding. Since the charity was established in 1807, more than 406,000 patients of all ages and both sexes have been relieved, the number in the first year being 227, and last year 9248. In 1884 the regular annual subscriptions amounted to £1843, new and additional subscriptions to £144, life subscriptions and donations to £902, legacies to £1868, and extra by governors for letters £103. During the evening subscriptions amounting to £520 were announced.

VICTORIA UNIVERSITY.—At a meeting of the Court of this University last week, Professor Rendall moved the following resolution, which was approved:—"That any registered medical practitioner who shall have qualified to practise medicine or surgery prior to January 1st, 1885, shall be permitted to enter for the intermediate and final examinations for the degree of Bachelor of Medicine without having previously passed the entrance examination in arts or the preliminary examination in science, provided that all other requirements for admission to the intermediate and final examination have been duly complied with."

SANITATION AT BEDFORD.—An action was recently brought against the Mayor and Corporation of Bedford for cutting off the connexion between the drains of the plaintiff's houses and the main sewer. The Corporation, in defence, alleged that the plaintiff covered in his drains without notice to their surveyor to afford him an opportunity of inspecting them; that "it is most important in the interests of the public, and is, in fact, absolutely essential for sanitary purposes, that the corporation surveyor should have an opportunity of inspecting the drains of houses and their connexions with the main sewer before they are covered in;" and that the plaintiff was duly required in writing to uncover them for inspection, which he refused to do. Evidence having been given as to the faulty construction of the drains, judgment was given for the defendants.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BRAMWELL, HUGH RANSOM, M.B. & C.M.Ed., has been appointed Resident Physician to the Royal Infirmary, Edinburgh.

CLARK, WILLIAM THOMAS MARSTON, L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer of Health to the Twickenham Urban Sanitary District; Surgeon to the Loyal Orleans Lodge of Oddfellows (Manchester Unity); Surgeon to the Waldegrave Lodge of Oddfellows (Manchester Unity); Surgeon to the Boys' Home, Twickenham; Surgeon to the Twickenham Provident Dispensary; and Surgeon to the Twickenham Lying-in Charity.

CROSSFIELD, ARTHUR KYFFIN, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Thirteenth District of the Totnes Union, vice Stone.

CUNNINGHAM, PETER HANNAH, M.B., C.M.Glas., has been appointed Government Medical Officer for the Shire of Majorca, Victoria.

GRIFFITHS, WILLIAM CHARLES, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Conwil Elvet District of the Carmarthen Union, vice Lloyd, resigned.

GUINNESS, THOMAS ARCHIBALD, L.K.Q.C.P.I., M.R.C.S., has been appointed Medical Officer for the Bampton District of the Tiverton Union, vice Nason, resigned.

IRVING, JOHN CHRISTOPHER, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Billinghay District of the Sleaford Union, vice Thompson, resigned.

LLOYD, MORGAN, L.R.C.P.L., M.R.C.S., has been appointed Medical Officer for the Llangendeirne Upper District of the Carmarthen Union, vice Timmins, resigned.

MCHUGH, MICHAEL, M.B.Dub., L.R.C.S.I., has been elected Assistant-Physician to St. Vincent's Hospital, Dublin.

MCKEE, JAMES CHARLES, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Health Officer for the Borough of Raywood, Victoria.

PARRY-JONES, M., M.B., B.S.Lond., M.R.C.S., has been appointed Resident Medical Officer at the City of London Hospital for Diseases of the Chest, Victoria-park, E.

PESKETT, ALFRED F., M.R.C.S., L.S.A.Lond., has been appointed Resident Accoucheur at the London Hospital.

PIKE, JOSEPH BALM, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Loughborough District and Workhouse, Loughborough Union, vice Palmer, resigned.

SOUTER, JOHN CLEMENT, M.D., C.M.Aber., has been appointed Government Medical Officer and Vaccinator at Murrumburrah, New South Wales.

STEPHENS, CHARLES, L.R.C.S.Ed., L.S.A.Lond., has been appointed Medical Officer for the Fourth District of the Stow Union, vice Ebden, deceased.

STOKES, ALFRED WALKER, F.C.S., has been appointed Public Analyst for St. Luke's Parish, vice Pavy, resigned.

Births, Marriages, and Deaths.

BIRTHS.

CHETWOOD.—On the 16th inst., at King-street, Finsbury-square, the wife of William Chetwood, M.R.C.S., of a son.

GIBSON.—On the 21st inst., at Stanley House, Blackstock-road, Finsbury-park, N., the wife of Dr. J. C. Gibson, of a son.

SMITH.—On the 19th inst., at Christ's Hospital, London, the wife of Alder Smith, M.B., F.R.C.S., of a daughter.

WEATHERHEAD.—On the 30th ult., at Fairview Ranch, Boorne, Texas, the wife of J. F. Weatherhead, M.R.C.S., of a daughter.

MARRIAGES.

BURCHELL — EVANS.—On the 9th inst., at the Parish Church, Aldeburgh-on-Sea, Suffolk, Peter Lodwick Burchell, M.B.Lond., F.R.C.S.Eng., to Emily Anne Frances, widow of T. H. Evans, Esq., second daughter of the late William Webber, F.R.C.S.Eng., and granddaughter of the late Sir Thomas Preston, Bart., of Beeston Hall, Norfolk.

HUNT—BAWTREE.—On the 16th inst., at St. Mary-at-the-Walls, Colchester, by the Rev. Canon Luard, Vicar of Stanstead, Essex (uncle of the bride), assisted by the Rev. J. W. Irvine, Rector and Rural Dean, and the Rev. J. G. Bullock, Rector of St. Nicholas and St. Runwald, Edgar Atlee Hunt, M.R.C.S., L.R.C.P., L.S.A.Lond., of Colchester, eldest son of Josiah Hunt, Esq., of Queen Anne's Gate, Westminster, and Putney, S.W., to Charlotte Mary, third daughter of John Bawtree, Esq., of Colchester.

PENFOLD—BAYNE.—On the 3rd February, at All Saints Church, Sandhurst, Victoria, by the Rev. J. Garlick and the Ven. Archdeacon MacCullagh, Oliver Penfold, M.R.C.S. & L.S.A.Lond., to Mary Louisa, second daughter of Alexander Bayne, Esq., of Montanvert, Sandhurst.

SEQUEIRA — STAFFORD.—On the 9th inst., at the Parish Church, Chiswick, Henry J. Sequeira, M.R.C.S., L.S.A.Lond., eldest son of Henry L. Sequeira, M.R.C.S., of Waltham Lodge, Tulse-hill, and the City, to Inez W. E. Stafford (Nina), only daughter of William J. Stafford, Esq., of Bradmore House, Chiswick, W.

SHORE — SARGENT.—On the 20th inst., at St. Peter's, Regent-square, W.C., by the Rev. R. H. A. Bradley, Vicar, Thomas William Shore, M.B., B.Sc.Lond., M.R.C.S., &c., eldest son of T. W. Shore, Esq., of Southampton, to Mary Elizabeth, eldest daughter of H. E. Sargent, Esq., M.D., M.R.C.S., &c., of Shadwell. No cards.

WARD—LYNCH.—On the 16th inst., at St. Gregory's, Sudbury, Suffolk, by the Rev. T. Lingard Green, Rector of the Parish, assisted by the Rev. H. C. Jollye, of Westmount, Dover (brother-in-law of the bride), Allan Ogier Ward, M.B. & C.M., of Casita, Northumberland-park, Tottenham, to Leila Catherine, daughter of J. C. Lynch, Esq., M.R.C.S., of Sudbury, Suffolk. No cards.

DEATHS.

HARRISON.—On the 15th inst., at Gipsy-hill, Upper Norwood, S.E., Joseph Harrison, M.D., eldest son of the late Thomas Harrison, of Lotamore, Glanmire, co. Cork, aged 70.

LEEMING.—On the 16th inst., at the Victoria Hotel, Southport Robert Toulmin Leeming, F.R.C.S.Ed., M.R.C.S., & L.S.A.Lond. (of Kendal), aged 58.

PUDDICOMBE.—On the 17th inst., at Dartmouth, Devon, John Morgan Puddicombe, F.R.C.S., aged 70.

SMITH.—On the 12th inst., at Greenhill, Weymouth, William Johnson Smith, M.D., aged 72.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, April 23rd, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Apl. 17	30·03	N.E.	46	44	89	64	41	·35	Cloudy
,, 18	30·15	N.E.	47	45	99	67	40	...	Hazy
,, 19	30·31	N.E.	57	52	107	71	44	...	Bright
,, 20	30·33	W.	56	50	110	75	46	...	Hazy
,, 21	30·15	W.	59	50	112	74	47	...	Bright
,, 22	29·86	S.W.	60	54	109	70	54	...	Cloudy
,, 23	29·77	W.	53	50	...	...	49	·02	Cloudy

Medical Diary for the ensuing Week.

Monday, April 27.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Althaus: A case of Syphilis of the Brain.—Dr. West: On Hæmaturia in Granular Kidney.—Dr. Herbert Snow: On the Free Use of Caustic Potash in the Treatment of Cancer of the Cervix Uteri.

Tuesday, April 28.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

ROYAL INSTITUTION.—3 P.M. Prof. Gamgee: Digestion and Nutrition.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. Mr. A. L. Lewis: On the Past and Present Condition of Certain Rude Stone Monuments in Westmoreland.—Rear-Admiral F. S. Tremlett: Quadrilateral Constructions near Carnac.—Mons. Jean L'Heureux: The Kekip-Sesoators or Ancient Sacrificial Stone of the North-West Tribes of Canada.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. Doran: Notes on so-called Non-ovarian Dermoid Tumours.—Dr. Hale White: On the Pathological Histology of the Semilunar and Superior Cervical Sympathetic Ganglia. Dr. Hale White will exhibit a series of Microscopic Specimens in illustration of his paper at 8 P.M.

Wednesday, April 29.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department: 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.

Thursday, April 30.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Tyndall: Natural Forces and Energies.

Friday, May 1.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—8 P.M. Mr. Percy Dunn will show a Heart with Ante-mortem Clots in Right Ventricle which have Suppurated; Abscess in the Brain of a Child aged eight; Primary Scirrhus of Liver.—Mr. Burrows will show some Experiments with Pancreatine.—Mr. E. Hurry Fenwick: Latent Calculus.—Mr. Bruce-Clark: A case of Cancer of the Prostate.—Mr. C. B. Keetley: Antiseptic Surgery at the West London Hospital.

ROYAL INSTITUTION.—1.30 P.M. Annual Meeting.—9 P.M. Lord Rayleigh: Water Jets and Water Drops.

Saturday, May 2.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. W. Carruthers: Fir-trees and their Allies.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

WHAT DEATH-RATE CHARACTERIZES A "PERFECT PARADISE."

A MEMBER of the Romford Local Board considers that locality a "perfect paradise." The reason, apparently, of his enthusiasm is hygienic rather than sentimental. It seems that the Local Board began its existence in 1854 with a death-rate in their district of 28 per 1000. By means of hard work and judicious administration this is now reduced to 15·8 per 1000. Though the Board has certainly something substantial on which to congratulate itself, Dr. Richardson would tell them that the goal of a hygienic paradise was still a long way ahead.

Dr. J. Weaver.—We think it would be premature to notice the matter, as the gentleman in question has not yet, we believe, been formally asked to come forward as a candidate.

G. B. (East Finchley).—We cannot insert the appeal. Perhaps an application to a society such as that in St. George's-road, S.W., might be useful.

"WHOOPING-COUGH."

To the Editor of THE LANCET.

SIR,—In reply to Mr. Burman I beg to state—(1) The paroxysms of whooping-cough are, in my experience, always more frequent at night, whether the patient sleeps or not. (2) I have noticed that they are most frequent about 2 or 3 o'clock in the morning, at which hours the air is most chilly and the temperature of the body lowest. (3) The child awakes from sleep, evidently suffering from a sense of irritation in the throat, and cries at the unconquerable tendency to cough, which it seems to dread; but the more profound the sleep, the less is this tendency. (4) Cold and exposure appear to induce attacks quite as frequently as the act of deglutition.

The treatment of this disagreeable and fatal malady will, of course, depend upon the theory framed as to its exact nature. Though generally induced by direct infection, whooping-cough frequently follows attacks of bronchitis and ordinary catarrh. I regard it as essentially a subacute inflammatory condition of the mucous membrane of the larynx. In its first stages there is no noticeable whoop during inspiration, but simply a short cough. This becomes more prolonged as the disease progresses, until, when the paroxysms are most intense, every particle of air seems to be expired in a rapid series of what might be termed "glottic explosions," and the child, now almost suffocated, again inspires, the air producing a falsetto note by reason of the contraction of the vocalising muscles during the inspiratory effort. The phlegm secreted is at first purely of a mucous nature, but as the disease develops and becomes chronic it assumes a muco-purulent character. The presence of a parasitic organism is, I consider, the result, not the cause, of the disease, and is, I should think, never noticed in its earlier stages, but only when, from the continued inflammatory action, the parts have become prostrated in vital power, and unable in consequence to resist its growth and development in their vicinity.

I have found a popular remedy very efficacious in the treatment of whooping-cough. I refer to picked oakum worn by the patient either round the neck in muslin or on the chest as a pad stitched to the underclothing. Locally I apply the glycerine of tannic acid with a laryngeal brush two or three times a day, and internally I prescribe one-, two-, or three-grain doses of chloral, one, two, or three minims of belladonna, one grain of alum, and one minim of carbolic acid, in syrup, every two or three hours. A liniment of turpentine, acetic acid, and yelk of egg is an excellent application for the chest, back, and neck night and morning, with the liniment of belladonna added in the proportion of 1 to 7. In children of two years or more, I have applied carbolic acid and glycerine, in the proportion of 1 to 15, to the larynx with success, each application checking a paroxysm at once. With the above-mentioned treatment I cure the worst cases in from seven to ten days.

I am, Sir, yours truly,

Clayton-le-Moors, April 16th, 1885. C. R. ILLINGWORTH, M.D.Ed.

PROVIDENT DISPENSARIES.

PROVIDENT DISPENSARIES may be very good things; but they may be abused, either by being made available for persons who are not entitled to use them, or by being made the means of indiscriminate advertisement in handbills scattered broadcast. A bill of this kind has been sent us from Cardiff with the names and addresses of ten or twelve medical men.

Mr. J. L. Stretton.—We do not perceive any legitimate ground for interference.

"DISINFECTANTS."

To the Editor of THE LANCET.

SIR,—Your report of the paper recently read by Mr. Wynter Blyth before the Society of Medical Officers of Health on the "Action of Disinfectants on Microzooids" (see THE LANCET, April 4th, 1885, p. 621), will doubtless interest those investigators working in the discovery of bacilli and of germ-destroying agents. The facts connected with the properties of the pyridine bases, as disclosed in the valuable researches of Mr. Wynter Blyth, and referred to in the paper read before the Society, are of considerable import, and fully confirm the views and opinions of previous observers who have studied the compounds named. It may be of interest to state that they may now be obtained commercially in quantity; and that disinfecting powders and fluids containing a proportion of the bases in conjunction with carbolic acid are already in the market. Fluids also containing these substances are in successful use as washes for exterminating scab, acari, and parasites in sheep and other animals. Referring more generally to the pyridine bases, it may be mentioned that in an article appearing in the *Boston Medical and Surgical Journal* for July 14th, 1881, pointing out the high value and utility of certain phenylic washes (used at the Massachusetts General Hospital in the antiseptic treatment of surgical cases) that were found to be practically free from carbolic acid, and concerning which there was some speculation as to the active constituent, it was ultimately found that these compounds were present in sufficient quantity to impart the character observed, and to which Mr. Wynter Blyth now points as bacillus-destroying agents of great potency. From my own knowledge and observation, I would venture to predict a wide rise in the future employment of these basic compounds for the treatment of various skin diseases of parasitic origin, used either in aqueous solution or as pure substances, and would commend them to the notice of medical practitioners for this purpose. Having prepared and supplied the pyridine bases referred to and used by Mr. Wynter Blyth, I shall have much pleasure in furnishing samples to those investigators who may wish to make trial of their specific qualities. I am, Sir, yours faithfully,

BENJAMIN NICKELS, F.C.S., F.I.C.

Leadenhall-street, E.C., April 20th, 1885.

Mr. W. Brown.—The drug should be given with great care. Pregnancy does not absolutely forbid its administration.

Mr. L. Hudson.—Vacancies are announced in our advertising columns.

"MEDICAL PRACTICE IN THE UNITED STATES."

To the Editor of THE LANCET.

SIR,—I presume I, as a graduate of New York, must answer the questions of "Medicus" in your issue of the 11th inst. As a general rule, respectable medical colleges in the United States require the last course of lectures to be taken out, and the passing of a practical examination, before granting an *ad eundem* degree. It does not much matter where the applicant has previously studied, or what qualifications he possesses. I may add, however, that with the qualifications your correspondent holds he would not be debarred from practising in any portion of the States; but he might have difficulty in a legal matter if involved therein. "Medicus" will not, however, find it a matter of so much difficulty as it is in the mother country for a foreign practitioner to carry on his profession; and he may rest assured that if he makes the acquaintance of the authorities in any State where he wishes to reside he will have every courtesy shown him, and every facility given to make him acquainted with anything he may wish to know. There is not that exclusiveness in friendly relations betwixt caste and its privileges *versus* new comers as is generally maintained in old countries.

I am, Sir, yours faithfully,

April 13th, 1885. AN M.D. OF NEW YORK.

CASCARA SAGRADA FOR CONSTIPATION.

To the Editor of THE LANCET.

SIR,—With reference to the subject of the action of cascara sagrada, which has lately been discussed in your columns, I beg to say that for the last two years I have taken it for the relief of habitual constipation arising from sluggish action of the liver, and have found its effects upon myself somewhat different from what your correspondents describe. It has always acted as an efficient hepatic stimulant, as evidenced by the increase of the fæcal colouring matter, but only as a mild intestinal one, and that without producing any pain or griping. I take it uncombined in the form of one-drachm doses of the liquid extract of Messrs. Southall Brothers. In a case of severe constipation in which I lately prescribed it, combined with large doses of tincture of belladonna and nux vomica, it caused considerable griping, and acted most powerfully on the intestines. The preparation dispensed was that of a different firm from the one I myself use.—Yours truly,

April 6th, 1885. T. L. K. DAVIES, M.B.

THE MISCARRIAGE OF MEDICAL EDUCATION.

Dr. Bernard O'Connor.—It is not profitable to cry over spilt milk, or to waste time in debating the question, Who were responsible for the miscarriage of medical legislation last year? Happy are those who feel themselves free from blame! Dr. O'Connor thinks Dr. Farquharson's explanation satisfactory. We do not.

A CASE OF MISSED LABOUR.

To the Editor of THE LANCET.

SIR,—A short description of the following case may be of interest to some of your readers.

On the evening of July 22nd, 1884, I was called to see Mrs. M. T——, a patient who had been expecting her second confinement, when she gave me the following history:—She last menstruated at the end of September or beginning of October, 1883, but was not sure of the time of quickening. The pregnancy was perfectly natural up to the middle of April, 1884, when the movements of the fœtus, which had been well marked, ceased. From this time she did not increase, but rather diminished in size, and immediately a cold heavy weight was constantly felt in the abdomen, and a discharge, sometimes of blood, sometimes of yellowish slime, began. On the morning of July 22nd, 1884, labour pains commenced, the waters breaking, and a large quantity escaping. She expressed herself as having been in fairly good health up to this time. Her only child was nine years old, the husband having been absent at sea for a long period. On my visit at 10 P.M., I found a healthy-looking Scotch woman, aged thirty-three, not suffering from any labour pains, with the uterus projecting two inches above the umbilicus, and some loose membrane protruding from the os, which was rigid and would only just admit the point of the finger. Her general condition was good.—23rd: Sanguineous discharge all night; uterus level with the umbilicus; os the same size. There was some slight attempt at labour pains.—24th: The uterus and os in the same state; a small piece of membrane was discharged. There were no pains.—25th: Discharge becoming offensive.—26th: Feverish symptoms and rigor; portion of hairy scalp passed; discharge fetid; slight tenderness over the uterus. Up to this date the treatment had consisted of the administration of ergot and antiseptic injections, but the symptoms having become serious I obtained permission to interfere. On the 27th, the patient being under chloroform, I introduced my forefinger through the rigid os and felt the skull, denuded of its scalp, presenting. An attempt was then made to dilate the os with the fingers, but the part was so rigid that an extensive laceration was made. The skull was now taken away piecemeal; finally the remainder of the fœtus was extracted, the entire placenta following, and the uterus was washed out. The fœtus was apparently between the sixth and seventh month. Extensive decomposition had set in, the muscles of the back being bare. All went well with my patient until the third day, when, in spite of constant antiseptic uterine injections, a severe rigor occurred, and a sharp attack of septicæmia followed. Four weeks after this, when almost convalescent, she had a relapse, and for six weeks was very ill with peritonitis. However, in the end, she got the better of her septicæmic symptoms, but was left in a terribly emaciated condition. At the present time she has regained her former weight, looks remarkably well, is able to attend to her domestic duties, and has menstruated regularly three times. There is some erosion of the os consequent on the laceration.

I am, Sir, yours faithfully,

Devonport, April 7th, 1885. W. W. PRYN.

"WORCESTER URBAN DISTRICT."

To the Editor of THE LANCET.

SIR,—In your remarks on the eleventh annual report of the Medical Officer of Health for the City of Worcester you state: "In seeking advice the opinion of the borough analyst has been sought, especially as to whether filtration would secure the inhabitants against 'this great source of danger' (i.e., 'pollution by the germs of disease'), and he has answered, 'If efficiently carried out, I believe it does.'" My opinion has neither been asked nor given. I have merely sent reports giving an opinion which Dr. Strange has quoted in his report, and which certainly do not bear out such a statement. Dr. Strange, in making the remarks you quote, was referring to a question which he asked himself and answered himself in his tenth report. When the Kidderminster sewage pumps broke down, and the typhoid excreta of 500 patients was discharged into our waters, I had very grave apprehensions of what results would follow, and must confess that I was agreeably surprised that the danger was at any rate minimised by the effective condition of our filter beds; but it was an experiment so perilous that I should not like to see it repeated. My report, which to avoid a panic was sent in privately and not for publication, clearly showed what I thought of the danger.

I am, Sir, yours faithfully,

HORACE SWETE, M.D.,

Analyst to the County and City of Worcester.

Worcester, April 11th, 1885.

*** On again reading Dr. Strange's report, we find that the expression of opinion as to what filtration can do is his own, and not Dr. Swete's, whom we failed to identify as the analyst referred to. We were misled by the words in question being quoted in inverted commas in a sentence which in the same way quotes Dr. Swete's opinion as to the insufficient filtration carried out.—ED. L.

EARTH-CLOSETS.

Alpha.—If earth-closets be properly constructed and properly managed, we know of no objection to their use in-doors. The best form of closet to secure is the one manufactured by the Moule's Earth-closet Company, which received the Gold Medal of the International Health Exhibition. Its special feature consists in the very efficient manner in which the dry earth is uniformly distributed over every portion of the excreta in the receptacle. The size of the pail will necessitate frequent emptying, and this is a distinct advantage in the case of an in-door earth-closet. Our correspondent should remember that the earth must be *dry*, and *finely divided* by passage through a sieve, and then, apart from excessive wetness of contents, careful supervision is alone necessary to ensure success.

Justice.—1. Yes.—2. Yes.—3. No; but the presence of another medical practitioner is frequently desirable, as he could be called upon to give confirmatory testimony.

M.D., Late Assistant, and *Cedric* have not enclosed their cards.

FALSE TITLES AND THEIR BASE USES.

To the Editor of THE LANCET.

SIR,—We are constantly reading in your Answers to Correspondents that certain titles do not carry the right to the prefix of "Dr." With this I entirely agree. I think it is time, and even necessary, for some protest to be made against the increasing practice of addressing medical men who are not M.D.'s as "Dr." Of course, of the lay public, who do not know better, we cannot complain; but I do protest against medical men themselves addressing others, whom they know are not entitled to the designation, as "Dr." this and "Dr." that, not only in the course of conversation but in correspondence. This practice is even now becoming common with societies composed of medical men; only during the last week two medical associations, obtaining my name I presume from the Directory, wherein I appear as "L.R.C.P. Lond." and "M.R.C.S. Eng.," addressed me as "Dr." To my mind this system of mutual "back-scratching" is bad form, undignified, and unbecoming amongst members of a learned profession, and calculated to bring us into ridicule and contempt.

Allow me to recount a true tale to point a moral. Not many years ago, in the metropolis, there was a post vacant for a medical officer of health. There were many candidates, for it was a good appointment, and amongst them were two special favourites in the betting. The first favourite, having very great influence, was considered bound to win; but he had always been in the habit of calling himself "Dr.," had "Dr." on his door-plate and "Dr." on his visiting card, and naturally by the public was thought to be an M.D. But he was not; he was simply L.R.C.P. Ed. The second favourite was plain "Mr." At the meeting of the vestry for the final settlement of the conditions of election, the principal supporter of the first favourite suddenly hit upon a brilliant idea, as he thought, to oust the second favourite and to secure for his friend the appointment. He therefore proposed and carried that it should be a *sine qui non* that the future medical officer of health should be M.D. One can imagine the tableau when, on rushing off to tell his friend the clever electioneering trick he had succeeded in, the latter had to confess he was a sham, and not M.D. after all!

I am, Sir, your obedient servant,

April 11th, 1885. ANTI-HUMBUG.

AGORAPHOBIA.

To the Editor of THE LANCET.

SIR,—Can any of your readers suggest a treatment for what I suppose I may call a case of agoraphobia? My patient is a young lady aged twenty-two, with a tendency to constipation and occasional attacks of hæmorrhoids. The first symptoms of a dislike to going out alone showed themselves about two years ago. She was for a long time ashamed to speak of this, and made all kinds of excuses to avoid the necessity of a solitary walk. But now she dare not walk twenty yards alone. If any chance compels her to do so, she feels almost paralysed, unable to stir, and violent palpitation comes on; but if a friend joins her, she can walk actively and for a considerable time, and will appear bright and happy and in apparently perfect health. There is no organic heart disease, and the catamenia are regular. No cause can be assigned for the commencement of the affection. Tonics, such as iron, nux vomica, and arsenic, have been used, also the bromides of potassium and sodium. The family history is good. Any hints as to treatment would be highly acceptable.

I am, Sir, yours faithfully,

Bradford, April 18th, 1885. W. HILL EVANS, M.D.

"IMPROVED FRACTURE BOX."

To the Editor of THE LANCET.

SIR,—In your last issue Mr. T. G. Nasmyth says that he has already used a fracture box similar to mine for two years. Permit me to state that I think he does not quite understand the construction of the apparatus for which I claim invention. 1. He does not allude to the sliding reversible splint which forms one of the sides of my fracture box. 2. No one has as yet used a hinged foot-plate with such a regulating screw as I have devised. 3. There is no ratchet, as it would add to the cost. 4. Ferguson has already used perforated splints, but not as I do—as a means of attachment; and to Rhases, an Arab doctor of the twelfth century, belongs the invention of keeping fractures in position by straps.

I am, Sir, your obedient servant,

Midleton Hospital, April 20th, 1885. JAMES J. FOLEY, M.R.C.S.E.

BLOOD-POISONING TREATED BY HYPODERMIC INJECTION OF CARBOLIC ACID.

To the Editor of THE LANCET.

SIR,—I think the following mode of treatment of a not unfrequent and sometimes fatal condition worthy of note.

R. S——, a slim, delicate-looking lad, aged sixteen, received a cut from a knife charged with putrid matter across the palmar aspect of the third and fourth fingers of the left hand. On the morning of the second day after the occurrence the patient felt chilly and generally unwell. On my arrival, a few hours afterwards, I found the lymphatics of the arm inflamed, tenderness of the glands in the axilla, and a temperature of 101·4° F. Nine hours afterwards the patient complained of sickness, with occasional vomiting, and increased pain, with stiffness in the axilla. There were a more diffused redness of the limb and a temperature of 103·8°. I now injected six minims of a 4 per cent. solution of carbolic acid into the unaffected arm. After twelve hours the patient felt better, and the temperature had fallen to 101·8°. The injection was repeated, and no local applications were used. The patient then rapidly recovered, and in twenty-four hours every symptom had disappeared. I am, Sir, your obedient servant,

Wick, April 11th, 1885. A. G. AULD, M.B.

W. T. H.—The lectures on Medical Jurisprudence delivered at any of the medical schools would meet the requirements of our correspondent. He can take out a single course without having entered as a medical student.

T. S. K.—Application might be made to the Hospital in Queen-square, or to the institution in Portland-terrace, Regent's-park.

Mr. Frederic Hewitt.—The paper is marked for early insertion.

THE TITLE OF "DOCTOR."

To the Editor of THE LANCET.

SIR,—I see the Colleges of Physicians and Surgeons are about to take into their consideration, if they have not already done so, the propriety of allowing the Licentiates of both institutions to take the title of "Doctor." Will they extend their consideration a little further—namely, to the repayment to those who have taken, besides their licences, the degree of "Doctor" at a University, with the expenditure of a considerable amount of inconvenience, time, and money, on account of the higher standing this title, so honourably obtained, was supposed to confer upon them? If they do not do this, I for one must consider I have been mercilessly robbed. It is singular that the outcry of a few who have no right whatever to complain, inasmuch as they have never subjected themselves to these inconveniences, &c., should be able to overthrow and reduce to no value the labours of those who have undergone them all. I am, Sir, yours obediently,

April 22nd, 1885. M.D.

G. P.—We do not understand the question as it is put.

A Medical Student.—We cannot notice the "miserable" print.

ERRATUM.—In our leader on Reform at the College of Surgeons, p. 713, col. 1, line 4 from bottom, "The Board of Examiners" should be "The *Court* of Examiners."

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Suckling, Birmingham; Mr. Annandale, Edinburgh; Prof. Geo. Buchanan, Glasgow; Prof. McKendrick; Mr. W. F. Somerville; Mr. Macdougall, Chesterfield; Mrs. Tillett, Dudley; Mr. Birchall, Liverpool; Dr. Herbert Snow, London; Mr. Fred. Neves, London; Mr. Reginald Harrison, Liverpool; Mr. Dittridge, London; Mr. Alder Smith, London; Mr. Pearse, London; Dr. Cook, Tendring; Mr. Freeman, London; Dr. Illingworth, Clayton-le-Moors; Mr. M. G. Evans, Cardiff; Mr. Aikman, Guernsey; Dr. Hawksley, Brighton; Mr. R. T. Manson, Darlington; Dr. W. H. Evans, Bradford; Dr. Pacchiotti, Turin; Dr. Wright, Southport; Mr. Cadge, Norwich; Mr. G. A. Kenyon, Chester; Mr. Lewis, Birmingham; Messrs. Hemming and Son, Cheltenham; Mr. Martin, Crawley; Mr. Russell, Liverpool; Mr. Fuge, Taunton; Mr. Saunders, Manchester; Messrs. Pemberton, Manchester; Mr. Bourne, London; Mr. Gray, S.E. Coast, America; Mr. Rigden, Canterbury; Dr. Alfred Meadows, London; Mr. B. R. Datt, Calcutta; Dr. O. N. Royle, Jersey; Mr. J. L. Stretton, Kidderminster; Dr. J. E. Morgan, Manchester; Mr. Leopold Hudson, London; Dr. W. Curran, London; Mr. Blandy; Dr. D. B. Pestonji, Bombay; Dr. Bernard O'Connor, London; Dr. T. I. Rowell, Singapore; Dr. W. Ewart, London; Mr. T. Deane, Birmingham; Dr. G. Oliver, Harrogate; Dr. Oxley, Liverpool; Mr. Macdonell, London; Mr. T. W. Thompson, Potter's Bar; Messrs. Richardson and Co., Leicester; Mr. W. H. Pearce, London; Mr. O. Dwyer; Mr. Young, Ardsley; Messrs. Wilkinson and Co., Borough; Miss Hertz, Manchester; Mr. J. Marsh, London; Dr. Seaton, Sunbury; Dr. Lewers, London; Rev. O. Allen, Tetsworth; Messrs. Ingram and Royle, London; Mr. Russell, Liverpool; Mr. Berthier, Paris; Mr. Chatfield, London; Mr. Charmers, London; Messrs. Mulliner and Co., Northampton; Messrs. Mackay, Edinburgh; Dr. Leiterchofen, Homburg; Messrs. Sydenham and Co., Bournemouth; Messrs. Smith and Son, Manchester; Mr. Rich, Leeds; Mr. Kuyle; Mr. Hopkinson, Nottingham; Mr. Leggatt, London; Dr. Heelas; Mr. Brown, Westgate-on-Sea; Mrs. Bourchier; Messrs. Lumley, London; Mr. W. H. Kesteven, London; Mr. Clifford, London; Mr. F. W. Hewitt, London; Mr. P. Birch, London; Dr. Spooner, Clapton; Dr. Horrocks, London; Mr. G. Duncan, Berlin; Dr. C. S. Taylor, London; Mr. Foley; Mr. W. A. Ellis, London; Mr. Elkerton, London; Mr. F. W. Friend, Douglas; Mr. Forfar, Silvertown; Dr. Farquharson, London; Mr. H. Willson, London; Messrs. Dolman and Pearse, London; Mr. Ford, Devonport; Mr. Martin, Southport; Mr. Unsworth, Liverpool; Dr. Squire, London; Mr. Craske; Mr. Brooks, Hull; J. H., Manchester; S. P.; K. D. M.; H. O. M.; M.D., Shepherd's-bush; J. B., Glasgow; Zero; Physician, Edmonton.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Wall; Mr. Hunter, Nelson; Mr. Wall, Wigan; Messrs. Bell and Co., Liverpool; Mr. Dalling, Colchester; Miss Hunt, Dublin; Mr. Wetwan, Southwold; Dr. Bower, Bedford; Mr. Leaming; Mr. Smith, West Hampstead; Mr. Foster, Green Hammerton; Miss Cooper, St. Mary Cray; Mr. Bennett, Ottley; Dr. Hughes, Llaniar; Mrs. Pudney, Leicester; Mr. Marsh, London; Mr. Blake, Birmingham; Mr. Shore, Finsbury; Dr. Day, London; Mr. Partington, Tunstall; Mr. Taylor, Newcastleton; Mr. Rogers, Truro; Mrs. Griffith; Dr. Brown, Manchester; Mr. Jones; Mr. Thomson, Liverpool; Dr. Drummond, Prestonpans; Mr. BeLoe; Mr. Rigdie, Canterbury; Miss Chreiman, West Kensington; Mr. Williams, Oxford; Dr. Waugh; Mr. Currie, Wemyss Bay; Dr. Habershon, London; Miss Sidney, Brighton; Mr. Martin, Crawley; Dr. Royle, Jersey; Mr. Higginbotham, Glasgow; Mr. McMunn, Dromore; Mr. Brown, Faulkhouse; Dr. Jay, Leamington; Mr. Allen, Pemby; Miss Hertz, Manchester; Dr. Eberle, Thirsk; Mr. Boycott, Madeley; Mr. H. P. Potter, London; Medicine; J. J.; J. H. A.; M.D., Poplar; F.S.A., Wye; D., Cradley Heath; Medical, Peebles; M.D., Swanage; Registrar, Bath; X. Y. Z., Wigan; E. G.; Beta; M.D., St. Ive's; G. W.; R. S. T.; E. A. B., London; W. G. D.; E. P., Eastbourne; St. Dalmas, Leicester.

Dumfries and Galloway Gazette, Cork Examiner, Hampshire Advertiser, Madras Times, Liverpool Courier, Brighton Guardian, Westminster and Lambeth Gazette, Guernsey Star, &c., have been received.

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Clinical Lecture
ON
CONGENITAL TUMOURS.

Delivered at the Manchester Royal Infirmary,

BY JAMES HARDIE, F.R.C.S.,
SURGEON TO THE INFIRMARY, AND LECTURER ON CLINICAL SURGERY AT OWENS COLLEGE.

GENTLEMEN,—Having recently had in my wards several cases of congenital tumour, I propose to take the opportunity which they afford of drawing your attention to a class of cases which cannot be frequently well illustrated in a general hospital. By the term "congenital tumour," I do not mean to include all tumours which may be met with congenitally, nor do I mean to exclude all tumours whose existence is not evident at the time of birth. The cases I refer to are those of tumours which are dependent on and arise from mere developmental errors of the normal tissues. They are associated with the growth of the embryo, and as a matter of fact, have nearly always grown to such a size at the time of birth as to be recognisable at that period, or very shortly after it. The errors of development which produce these tumours may be classified as follows: (1) Included fœtation; (2) dissociated blastoderm (dermoid cysts); (3) tissue hypertrophy (fibro-fatty tumours, cystic tumours, and nævi).

1. *Included fœtation; attached fœtus.*—In the development of the blastodermic vesicle the normal course is the formation of a single embryonic area, and subsequently of a single primitive streak and a single medullary groove. If, however, a double embryonic area be formed, two embryos will result in place of one only; and if these areas come in contact, a fusion of the two, to a greater or less extent, may take place. As a result there will be a double fœtus. The degree of attachment in such a case may vary from a mere band of soft tissue, as in the well-known case of the Siamese twins, to an extensive coalescence and fusion of a part of the skeleton. The latter result is the more likely to occur, according as the duplication supposed takes place at a later period than the appearance of the embryonic area. Instead of being merely "attached" in the manner indicated, the coalescence may be so complete that one of the germs may be surrounded by the advancing development of the other, and its growth seriously compromised. Thus it might occur that a limited portion only of the parasitic fœtus attains full development, and monstrosities of various kinds be thus produced. Projection of one or more limbs of the parasite from the body of the host is an ordinary example of such a monstrosity. It may even happen that at the time of birth the inclusion may be still complete, and the abnormal condition only become manifest by the sprouting forth of the parasitic members at a later period. While these various forms of monstrosity are sufficiently interesting from an embryological point of view, they have very little of surgical interest in them; and I have alluded to them merely to give an aspect of completeness to the subject I am dealing with. We pass on to a class of cases to which the appellation of the term "tumour" is strictly accurate, but whose genesis may still be referable to the same errors of development as have produced the exaggerated condition I have just mentioned—that is to say, to fœtal attachment or inclusion. Closely connected with certain parts of the body, more particularly with the sacrum, the ovary, and the testis, tumours are sometimes met with of a cystic formation, containing a quantity of more or less developed fœtal structures, such as cartilage, bone, viscera, skin, hair, or sebaceous matter. It is probable that here, again, there has been a fusion of the germs of two individuals. It has, however, been more complete than in the former instances, and, from certain causes operating at a very early period, probably from the cutting off of its proper blood-supply, the due development of the included fœtus has been arrested. It thus comes to be dependent for its nourishment on the blood-supply of that part of the host to which it is more particularly attached. As this would generally be provided by vessels of insignificant size, the quantity will be too niggardly to permit of more than a very tardy and incomplete growth of the aberrant structures. If I except, possibly, one or two ovarian tumours, I cannot refer you to any example of this class of tumour in my own practice; but I remember very well the case of a young woman who was under the care of Professor Lund in this infirmary, and who had what, I believe, was such a tumour, situated between the sacrum and rectum. In such cases the question of operative treatment will frequently arise, and it will depend largely on the extent of the dissection required to extirpate the growth.

2. *Dissociated blastoderm.*—I have said that the foregoing cases are probably due to the inclusion of a second fœtus. The implied reservation has reference to the mode of origin of the next class of congenital tumours which I have to mention. We have seen how the germ of one fœtus may be enveloped in that of another, and cut off entirely from its proper connexion with the maternal structures. It becomes displaced and detached. In a similar manner you can understand how, in the process of evolution and growth of the layers of the blastoderm of a single fœtus, there may be an inclusion and separation from its proper connexions of some portion of one or other of the three layers. I shall speak to you immediately of cases of tumour which, by common consent, are explained in this way; but it is possible enough

FIG. 1.

that some of those which I have just been referring to, which contain fœtal elements of various kinds, may, in reality, have been produced by some dislocation of the blastoderm of the subject, and not by fœtal inclusion. Probably one would determine the matter by the degree of variety of the contents of the tumour in question. The cases which appear undoubtedly to arise in the former manner are those whose contents consist simply of structures belonging to the skin and its appurtenances. Such tumours are of comparatively frequent occurrence, and are denominated dermoid cysts. They are met with most frequently in the ovary, under the roof of the orbit, in the neck, and on the head. They are to be regarded as due to a displaced piece of epiblast, which, slowly growing according to its original character, in its foreign soil, presents in process of time an epidermal sac with included sebaceous matter, hair, teeth, or, it may be bone, according to the situation to which it primarily belonged. A good example of such a tumour you saw lately in my female ward. Mrs. ——, aged thirty-eight, had a tumour over the middle of the forehead. (Fig. 1.) At birth it was about the size of a marble, and it had gradually increased to be larger than a fist. Situated where it was, there appears to have once been a suspicion that it might be an encephalocele, and operation was not advised. At the time we saw the patient

however, we were at once satisfied of its real character by the peculiar feeling it had when taken between the fingers. It was easily compressible, and felt somewhat like a bladder of half-melted tallow. For some distance around the most prominent part the skin was closely adherent to the tumour; elsewhere it was separated by cellular tissue. I exposed the growth by a crucial incision, taking care to include a considerable portion of skin, for the reason that this structure in such a case is not simply stretched over the surface, but actually redundant. The dissection was easily accomplished, and the tumour removed from a saucer-like depression in the frontal bone. At one small spot there seemed to be complete perforation of the bone. The tumour consisted of a thin cyst-wall, containing sebaceous matter in various stages of softening and numbers of long fine hairs. You see from the appearance of the patient to-day that the wound healed with a scarcely perceptible scar. All such cases occurring on the surface of the body are readily removable by excision.

3. *Tissue hypertrophy.*—At almost any period of life there may be a tumour formation from a simple overgrowth of some texture or organ, as in the case of fatty tumours or of adenoma of the mamma; but in the fœtus, in which the process of growth is so exceedingly active, there would appear to be a peculiar tendency to such an accident on the part of certain tissues, in consequence of which we have the formation of certain tumours almost peculiar to this period. Occasionally there is met with a congenital hypertrophy of

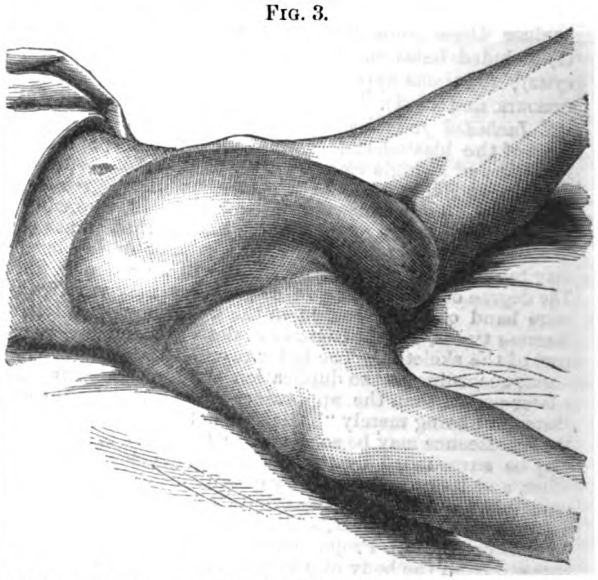
FIG. 2.

the whole of the structures of a limb or other part of the body; but the tissue which is more especially prone to this excessive development is the ordinary connective tissue, with its contained fat. To a less extent the skin may be similarly affected, and in another class of cases the cutaneous and subcutaneous bloodvessels. In an individual case there may be hypertrophy of all of these tissues, but it is usually most pronounced in one or other, and different varieties of tumour due to this cause are accordingly recognised.

I show you here (Fig. 2) the photograph of a congenital tumour hanging from the back of the leg of a man aged thirty-two, who was a patient here some time ago. At birth, it would appear, it was quite small; but as he advanced in life the tumour steadily increased in size, until it measured five inches in length by three in width at the time he presented himself to have it removed. It was attached to the leg by a flattened pedicle about an inch in diameter, and evidently had no connexion with the deep structures. It was uniformly firm in consistence, but not so dense as a fibrous tumour. The skin which covered it was coarser in texture than that in the neighbourhood—a circumstance which may have been an original character of the growth, or which may have been occasioned by the repeated inflammatory attacks to which it was subject by the friction of his clothing. It was on account of this frequent accident that the patient at length determined to have it removed. This was accomplished easily enough. The tumour was found to be an outgrowth of the subcutaneous connective tissue, and on section it presented the appearance of coarse bands of fibrous tissue, with loculi containing fat. Such tumours or hypertrophies are not always so easily dealt with. They are not always pedunculated, but sometimes form ill-defined projections from the surface with wart-like hypertrophy of the skin. At other times the condition met with is an overgrowth of the whole of the skin and cellular tissue investing the distal portion of a limb, as the foot or hand, or one or more fingers or toes. In some cases the fatty, in others the fibrous, tissue predominates; and occasionally there are small cyst-like interspaces containing clear fluid.

This last condition leads us on to the next variety of tumour which I have to mention to you—viz., the congenital cystic tumour. In the previous case the occurrence of cysts is a rare event, and is to be regarded as merely accidental and of little importance. In the case of the tumour I am now speaking of, however, the cystic formation is the essential feature. Of all parts of the body, it is most frequently met with in the neck, and, although also occurring in other parts of the trunk, has never, according to Mr. T. Smith, been met with in the limbs. This tumour has its origin in the connective tissue under the deep fascia. It can usually be ascertained to be intimately connected with some portion of the deep fascia; but as it grows it forms a well-defined tumour separated from the surrounding structures by cellular tissue. It consists partly of solid and partly of cystic tissue, and there is every variety in the proportion of the two constituent parts. In the neck, it is sometimes met with as a single dense walled cyst con-

FIG. 3.



taining thin straw-coloured fluid, which some people call a hygroma. Some time ago there was such a case under my care here, in a young man aged eighteen. The tumour was the size of a duck's egg, and was situated in the posterior triangle. I dissected it out and the case did well. It is better to treat them thus than to annoy your patient and yourself with setons, injections, and so forth.

In other cases the cysts are multiple, and for the most part intercommunicate. The case of L. L——, a girl aged six years, sent to me by Dr. Cran, and whom some of you saw, was a good example of such a case. There was a tumour lying in the right groin, extending from the anterior superior spinous process into the labium. It was evidently attached to the abdominal wall, though it had turned over and had obscured Poupart's ligament. There was not much doubt as to its nature, particularly when regard was had to the fact of its being a congenital tumour. At birth it was about a fourth of the size, and it was still growing when the patient came under observation. In the upper part of the thigh, quite separate from this tumour, there was a second swelling about the size of a hen's egg. It was soft, projected but little above the surface, and had no very distinct outline. The parents knew nothing of this second growth, and in the absence of any history I came to the conclusion that it was probably a self-cured nævus. (Fig. 3). I treated this case by making a single incision over its entire length and dissecting it out. Its

most intimate attachment was to the aponeurosis of the external oblique, more particularly to that part of it which forms the external pillar of the inguinal canal. To this it was so closely adherent as to appear to have grown from it. Elsewhere its connexions were loosely cellular. The second tumour was not interfered with, nor do I think that it will ever require interference, as it appears to have diminished somewhat in size since the time when the child was in the hospital. I show you the tumour, and, as you will perceive, it is composed of a number of intercommunicating cysts of various sizes, from a hen's egg to a pea, with dense fibrous septa; they contained amber-coloured fluid.

Here is another such tumour which I removed from the front of the neck of a child five months old. It is the size of a large orange, and was growing so rapidly as to be placing the child's life in imminent peril. It had pushed itself under the edges of both sterno-mastoids, and had very close attachments to the surrounding parts, so that its extirpation was difficult and tedious. Happily, however, this was at length accomplished, and its removal gave new life to the child, who soon became quite chubby. You see that the section of this tumour closely corresponds with that of the other, except that the cysts are smaller and more numerous, and that the septa are thicker and in places of gristly consistence. The usual explanation given of the formation of the cysts in this form of tumour is that they are due to an expansion of the normal lymph spaces in the cellular tissue. I cannot say that this explanation is very satisfactory to my own mind; I cannot, however, suggest a better; and if this be the correct pathological explanation, it certainly stamps these congenital growths with a peculiar individuality.

The last variety of congenital tumour to which I have to refer is that due to an overgrowth of vascular tissue.

FIG. 4.

This is the familiar nævus. We have not time, nor have I the wish, to enter at present at any length into this very extensive subject, either as regards its pathology or its treatment. You must, however, regard nævus as due to this same peculiarity of certain tissues, in the fœtal condition, to take on an abnormal development, to which I have been referring. Nævi occur with by far the greatest frequency in the skin, or in the subcutaneous cellular tissue. They are occasionally met with in bone and in glandular structures. In some examples the capillary system is probably that in which the affection has its origin, but coincident with this there also occurs an overgrowth of the efferent vessels. There is a multiplication and dilatation of both sets of vessels, while the basis tissue is reduced to very small dimensions. In other cases the capillaries are of normal size, while there is a varicose dilatation of the venules, which push aside the intervening tissue so as to produce a well-defined tumour of turgid vessels embedded in the surrounding parts. When the growth is excised it presents a shrunken trabecular structure. Sometimes this affection causes a mere florid colour of the skin, which may be but slightly elevated. At other times the subcutaneous tissue is also more or less involved, and in a third variety the affection is situated in the subcutaneous vessels exclusively, producing a more or less prominent subcutaneous tumour.

I will illustrate this variety of congenital tumour by referring to an important case which came under my care some time ago. This nævus was certainly one of the largest and most formidable which has ever been met with, as you may judge from the photograph which I pass round. (Fig. 4.) It was also of much interest from the successful issue of the very simple method of treatment which I adopted. As you see, the tumour involved the whole of the leg from the knee to the ankle for two-thirds of its circumference. The child was brought to me when only a fortnight old, and when the part was uncovered, its aspect was certainly alarming. The circumference of the affected leg was nearly three times that of the other. The surface was of a bright-red colour, and the skin was in some places so thin that it appeared as if rupture might take place at any moment. The tumour was growing with great rapidity. I feared that amputation of the limb was the only resource open to me; but observing how materially I could diminish the size of the growth by grasping it firmly in my hand, it occurred to me that something might be effected by means of continuous pressure. To this end I bandaged it carefully with elastic webbing, trusting that, by compressing the vascular network and at the same time inducing a certain amount of inflammatory effusion into its basis structure, permanent obliteration of the vessels might be produced. This treatment was entirely successful. I was anxious that I should not cause ulceration of the surface, and therefore reapplied the bandage, with but moderate tightness, daily for a few times; but on taking it off, even on the second day, the delicate cutaneous envelope gave way in numerous places, with the immediate result, of course, of an outburst of blood—a very serious matter in so young a child. The part was instantly grasped, however, and the bandage reapplied. After a few days I had the satisfaction of finding the growth becoming solidified and diminishing rapidly in size. In a fortnight's time, I may say, the nævus was non-existent. This photograph shows the appearance of the part some weeks later. (Fig. 5.) Of course this was an altogether exceptional

FIG. 5.

example of nævus. The treatment also was not such as you will very often be able to adopt. But it is a case you will do well to remember. Bear in mind, especially, when you enter upon practice, the exceeding usefulness of pressure as a therapeutic means, for it is in a great variety of circumstances of the greatest usefulness, while it is too apt to be forgotten altogether. I will spare you the recounting of other methods of treating nævus.

In addition to these various forms of tumour, peculiar to the fœtal stage of existence, you must bear in mind that almost any other variety of tumour such as we are accustomed to meet with in later life, may also occur congenitally. It is true that such tumours are rare in the fœtus, but there is no intrinsic reason why they may not be found in this association. With these, however, we have at present no concern.

G. A. PILKINGTON, M.R.C.S., L.S.A., Mayor of Southport, has been unanimously elected Liberal candidate for the Southport division by the Executive Committee of the Liberal Association.

ON THE

SPECIFIC ORIGIN OF GENERAL DISEASE.[1]

BY J. WALLACE ANDERSON, M.D.,

LECTURER ON MEDICINE, GLASGOW ROYAL INFIRMARY MEDICAL SCHOOL, ASSISTANT-PHYSICIAN TO THE ROYAL INFIRMARY.

I NEED offer no apology for the subject of the present paper. At the present day it is suggestive enough. At once a whole host of microbes, spores, and other horrid things rise up before us, for in this age there are germs, germs everywhere. They try to win our toleration, if not our sympathy, under the thin garb of a new name: bacilli possibly, little walking-sticks, they call themselves, with quite a wont-you-have-me kind of air. But I am not going to take up the matter lightly. It is a burning question, and one of the greatest interest, the relation between these organisms and disease; and apart from the practical results that may yet follow the subject is not without its attractions as a mere speculative inquiry. It has been left too much in the hands of the pathologists. Surgery has within well-defined limits studied the question, and with an advantage to suffering humanity that few, if any, will gainsay; but when from the wide domain of medicine individual diseases are brought in, and we are told that this and that germ is the only true *fons et origo mali* of each, we may with reason both wonder and doubt. I would still leave to the pathologists the task—a most agreeable one doubtless—of further germ discoveries, believing that there are other views of the question that should readily invite the attention of the medical practitioner. What I have proposed to myself is an abstract inquiry into the essential cause of individual diseases, and what I wish to present to you is the reasonableness of the opinion that many—we can never say how many—diseases are caused by distinct specific germs. Holding this view implies the existence of an opposing force. Now, without going into the old scholastic inquiry as to the nature of health and disease, I suppose it will be admitted that their relation is one of antagonism. Certainly we do act as if we were engaged in a conflict. We endeavour to strengthen the vital forces. We do this by such means as improved sanitary conditions, better food, tonic medicines, or change of air; by keeping up the supplies, so to speak. Again, we do the opposite to the opposing forces. We cut off their supplies by improved hygienic measures: pure air frequently, if possible continually, renewed; attention to cleanliness in all respects. That cuts off the supplies of the invaders. If universally carried out it would lead to the complete extinction of typhus fever, for example. We even go further, and take a lesson from actual warfare by laying waste the fields over which we believe the enemy will march. Do we not do this? do we not willingly submit to the lesser evil, in the expectation of avoiding the greater, when by vaccination we substitute cow-pox for the dangerous and disfiguring small-pox? Practically, then, we act as if we were face to face with foes. But I have often thought that it is on the most general grounds reasonable to suppose that the condition of health is constantly assailed by influences around us. I think we may very properly hold the view that every disease is but a response to an impression of some kind. This law of response seems to be universal in nature. Every act, circumstance, or condition has its response, physical, and, in the case of sentient beings, intellectual as well. It was while reflecting on the nature of fever and its relation to these organisms of contagion, the existence of which I am assuming, that my thoughts went first in this direction. It seemed to me that fever might be viewed as a form of resistance or defence (as a response to an evil necessarily is) against these pernicious influences around us—just as truly as that, in the world of feeling, the flushed countenance, the passion, and it may be the knock-down blow, are the response to the imputation of falsehood. So far as we can judge, this principle is universal, or, as Emerson says, "The law at the foundation of all things is retribution." It will thus be seen from what standpoint I wish to view the origin of disease in this paper. Jonathan Hutchinson, in his lectures on "The Pedigree of Disease," approaches the question from the other side. He dwells on temperament, idiosyncrasy, and diathesis as causes of disease. He does not of course exclude external influences, but holds, or at least inclines to, the opinion that intrinsic conditions rather than extrinsic influences are the determining causes of the endless variety of diseases. But there are two sides to every question, and it is the other I would venture to take and present on this occasion. I am on the side of the germs. My creed is: "The law at the foundation of all things is retribution."

In proceeding further to the consideration of the precise question before us—viz., a specific organism the cause of disease,—I am confronted with the proverbial difficulty of knowing where to draw the line. One has little difficulty with the common infectious fevers, yet many will raise doubts regarding the specific origin of erysipelas and diphtheria; and what shall we say of such diseases as pneumonia, still more of ordinary catarrh? That is where the doubts and the discussion come in. Let us begin with what is pretty well assured—the dependence of each of the common fevers on a specific organised germ. That they are caused by an organism, and not mere inorganic particles, is inferred from the general character of the fevers themselves. They have an incubation, a growth, a maturity, a power of reproduction, a struggle for existence doubtless, a decline and death—the attributes of all living beings. Then it is a matter of common remark that a particular fever reproduces itself and no other. The distinctive characters of each are always preserved. The typhus germ strikes suddenly and vigorously, living on the system as a whole and on no individual part; its death is sudden and on a fairly definite day, and then the sufferer is safe. How different is the germ of enteric fever! Unlike that of typhus, in its immature or larval condition, it is an amphibious creature, most likely taking to the air occasionally, but preferring water, or perhaps rather milk, when it can get it. I say larval state, because from analogy we may infer that it reaches the mature condition in the human body. Once there, it lives longer than the typhus germ, having had a distinctly longer incubation and slower adolescence than its altogether shorter-lived typhus brother. It has its peculiar well-defined local manifestation, and often exhibits that indication of a relapse which is perfected in some of the other fevers. In all these respects it is specifically distinguished from typhus fever. But however interesting the study of the distinctive characters of the common fevers may be, and I think nothing to the physician can be of greater interest, I need not here dwell upon them merely as a proof of what is generally accepted, even were it only accepted truisms I had to offer. I would only ask to be allowed to make an exception in favour of intermittent fever and erysipelas. The ague germ presents some interesting peculiarities. It is essentially an aquatic bird, for though a warm atmosphere invites it, it will not fly far from its home in the marsh. In its fondness for the water it resembles enteric fever, but, unlike the latter, it is in no sense cosmopolitan. But it would seem as if it had another distinctive peculiarity—viz., its size and weight. A belt of trees will catch the germs in its meshes and save the troops beyond, and they are substantial enough to be carried a considerable though still quite limited distance by the wind. Their greater weight may be inferred from the fact that a pretty high temperature is needed to raise their ponderous bodies from their bed, and in no case are they raised to any great height. They have a curious but perhaps not absolutely peculiar affinity for water, as a running stream between is known to be something of a protection to a body of troops on the further side. In all respects the germ presents the most marked contrast to such a one as that of epidemic influenza, which asserts its powers at long intervals, is often pandemic when it does appear, and would seem to be transmissible unimpaired for many miles at least, and solely through the air. Such are some of the best examples I can think of in evidence of specificity.

Now as to erysipelas. I select it as a distinct departure from a class of diseases whose specificity is pretty generally accepted. Perhaps regarding no disease has the question of specificity been more disputed than that of erysipelas, but I do not refer to it to enter upon an enumeration of its special characters, though the subject might be made as interesting as it is ample enough, but rather to call attention to the arguments usually adduced in favour of its non-specificity, because, so far from being conclusive, they rather disclose further the question under consideration. "The arguments in favour of its being a non-specific and local disease," says Bristowe, who summarises them con-

[1] Read before the Glasgow Medico-Chirurgical Society.

veniently for us, "are chiefly the following:—First, the fact that the disease appears in many cases to arise from exposure to cold and various other non-specific causes; second, that a previous attack so far from precluding subsequent attacks, as is generally the case with the infectious fevers, encourages them, as is the common rule with the non-specific inflammations; third, that contagiousness is not an attribute of the specific fevers only, for many varieties of simple inflammation (catarrh, ophthalmia, and the like) are apt to spread by contagion."[2] Now the first argument, while qualified by the word "appears," yet to that extent begs the question, for we hold that exposure to cold in the case of erysipelas, as in many other diseases, simply permits the common but still specific germ to gain for the time the mastery over our system. Dr. Francis Henderson is the only one, so far as I know, who boldly advocates that view on abstract grounds. In an able paper on the Rationale of Cold as a Cause of Disease,[3] he maintains the following proposition: "Cold is not of itself adequate to cause these various forms of disease; it is only one of two factors which in ordinary circumstances require to act conjointly. The catarrh, the inflammation, and the fever which are produced by exposure to cold have a real *materies morbi;* but this *materies* could not be the cause of disease if the vital powers of the part or of the system were not abstracted or lowered by the agency of cold." That is the view we have always held. Now, the germ of erysipelas seems to resemble that of ordinary catarrh in respect of its being a very common one, yet acting in its own special ways—amongst others, in taking effect on our system, as some suppose, only through an abraded surface, however minute. As to the second argument, the fact of a disease being taken possibly, or even readily, a second time, is little evidence of its non-specificity. Relapsing fever is a typically specific affection, and one attack is no protection against another. So with regard to intermittent fever; and Maclagan would instance acute rheumatism as another common exception. Then as to contagiousness not being an attribute of the specific fevers alone, we simply say it is an attribute of specific diseases alone, for it need not be a fever, and catarrh is one of the commonest illustrations of this. It may be thought I am hurrying past many difficulties, but these will come up again under the heading of objections.

But now we come to the difficulty of knowing where to draw the line. What can we say of such diseases as pneumonia, asthma, dysentery, or any other malady taken at random?—although these I have really selected, as we shall see immediately. It is with such diseases that the real difficulty begins in our present state of knowledge, and all that we can hope to do is possibly to suggest some points for further reflection. Well, I think we sometimes create a difficulty by forgetting that symptoms which present a general similarity may indicate very different diseases. We can imagine an ignorant person including an eczema, an erysipelas, and a slight burn under the term inflammation of the skin, or grouping together as one disease enteric fever, dysentery, and simple diarrhœa; and we can suppose a much less ignorant person considering a bronchial spasm due to bronchitis to be the same thing as pure idiopathic asthma; and so on. If it be not admitted that either bronchitis or bronchial spasm is due to a specific cause, and I do not say so myself, it will be allowed that the very same symptom, the asthma, may in some people be the result of a specific factor—e.g., the pollen of hay. Those who believe that there is such a thing as hay asthma will admit that it is a specific complaint. It seems to me, indeed, that the term asthma is as comprehensive and as vague as that of dropsy. And may it not be as vain to ask if pneumonia is a specific affection? May there not be really different diseases included under that term, some specific and others non-specific? Some think a fractured rib can cause a pneumonia. Can that possibly be the same disease as ordinary idiopathic pneumonia, or still more the exceptional epidemic forms? Just as one would expect, the report on pneumonia recently issued by the Investigation Committee of the British Medical Association shows that some kind of division of this term is necessary if we are to make anything of it at all. Without passing any opinion on the classification given by that committee, it seems clear enough from their report that, besides certain forms of pneumonia which are apparently set up by various non-specific influences, there are others of a strictly epidemic character, falling on a district and spreading thence so widely and so inexplicably as to imply a generally prevailing yet special cause. Examples, too, are given which appear to prove conclusively the infectious nature of certain forms. And so with regard to dysentery. Many cases presenting symptoms which lead us to diagnose that disease may no doubt be the result of non-specific causes; but I think few can doubt that the epidemic form handed down through ages with a constant history, and of such exceptional severity, must be the result of a fixed specific cause.

Further than this I shall not attempt to go. We have, indeed, touched but the border-land of disease as a whole in regard to specificity; but beyond we could only wander in vain imaginings. But, possibly, not the least interesting part of the question lies in the consideration of the objections that may be urged against even the position I have now taken. And this will form the second and shorter part of our subject. In the first place, it may be said that the infecting particles of even a specific fever are not organisms at all; it may be held that they are inorganic. I need not dwell upon this objection; for I find that Maclagan many years ago discussed this point very elaborately in his work on "The Germ Theory of Disease." After all, the one essential distinction is that a number of living germs merely sufficient for successful development is all that is needed to secure the maximum effect; whereas the effect of inorganic or lifeless particles is always commensurate with their numbers or amount. The power of infection, too, as distinguished from contagion, is, I should imagine, the prerogative of a living germ; but that may be disputed; the former cannot be, and its bearing on our subject is obvious. Inorganic particles cannot, properly speaking, have an incubation; they do not mature, nor can they reproduce, their kind.

To return to the question of specificity. Though we do not venture to affirm that this and that disease are of specific origin, it may occur to some of us that very many diseases are so. We find that not only is ordinary catarrh epidemic and infectious, but in particular seasons we have special varieties of it—say in the form chiefly of a myalgia. Now, one may ask himself if such special forms may not depend on a special form of the catarrhal germ? The supposition is fantastic enough, but I make it for that very reason. It forces us to ask if we are to suppose a germ for everything—for a kick on the shins, perhaps. Simply letting the last remark pass, I would say, first of all, that the specificity of practically an endless number of diseases is not to be considered unlikely on the ground of the limited resources of nature. The variety that nature presents in the visible world is endless, and everything tends to show that the same variety obtains in what is, to our unaided eye, the unseen world. No doubt one instinctively refuses to believe that there is a germ for diphtheria, and for erysipelas, and for pneumonia, and at first may think it simply ludicrous to imagine that common catarrh can depend on a specific germ. It is too quixotic to suppose we are fighting daily with germs and microbes—not indeed by the day, but at every turn we take and every breath we breathe. But I say we are not to consider the position untenable from any limit to variety in nature. Is it not practically infinite? The variety in the vegetable kingdom strikes the dullest, and the learned can divide and classify into groups innumerable the vast array of form and kind; but the work is never done. In moss, and heath, and fern, and such-like meaner things—for so we reckon them who know little of them—the earnest student finds a continual feast; and amongst the lichens, that almost look like a part of the rock from which they seem to draw their scanty store of life, there are curious secrets hidden, of which even a Leighton or a Stirton has never dreamed. Well, then, one may admit the possibility of a more substantive disease having a specific origin, but refuse to believe that such a vulgar thing as common cold can lay claim to any kind of descent. But is the contrast greater or nearly so great as many which we find in the visible world? Is the contrast between common catarrh and cerebro-spinal fever greater than between the grass that clothes our fields or the weeds that infest our path, and that rare fern that is only found in one shady glen, or the lichen that still lingers, the last of its race, on but one mountain side? It is not half so great. Catarrh is the common chickweed; cerebro-spinal fever the rarer plant that we only meet with

[2] Theory and Practice of Medicine, 5th ed., pp. 296, 297.
[3] Glasg. Med. Jour., Oct. 1881.

now and then. Common plants will grow anywhere—that is why they are common; but rarer plants are of special soils. Anyone will take a common cold, but special cultivation, so to speak, is needed to make anyone take an erysipelas, though in the few it will grow apace. This reference to special soils reminds us of the undoubted fact that some are much more prone to the contagious fevers than others. Occasionally we meet with a person who has had scarlet fever repeatedly, and this exceptional liability we sometimes find is not an individual peculiarity merely, but one that may affect a whole family. I am as firmly convinced, on the other hand, that other individuals and other families present a specially unfavourable nidus for the development of a particular germ. And here too the question of heredity might be discussed, were it not quite understood now that by that expression one only means, where an external morbific influence can be assumed at all, an inherited peculiarity of constitution that is specially favourable to a particular spore. And, lastly, I can suppose this objection still urged: In the natural world there are doubtless many rare plants and animals too, as well as those which are very common; but they all exist somewhere. They do not disappear and return every other year or half century perhaps, as some epidemic diseases do. Or, without looking for analogies at all, one may say, "I will not believe that a malady like true epidemic influenza, which we only see a few times in a century, arises under the same conditions as those diseases which are always with us; it is absurd to suppose that these varied diseases we have been considering originate under one common law." Well, I am not going to prove that the germ of true epidemic influenza or of relapsing fever is always about us, but in an immature state. I do not think we shall get much further in that direction than did Sydenham, when by "epidemic constitution" he meant or supposed a peculiar atmospheric state by which such exacerbations of disease were brought about. But I think we have analogous excesses in the visible world. Those of us who have lived in the country have observed how special years have been marked by special flowering seasons; when the apple-blossom decked every garden, or the primrose covered every grove and meadow. One year the poor man gets his potato cheaper; another will make the rich man pay willingly for the finer wine. In the animal world we have special years of migratory visitants which defy the naturalist to explain. One may see in all this the law of variation which is universal in nature, but we cannot explain the phenomena themselves. I do not think such reflections are idle. They have made me cease to wonder at such an occurrence as a sporadic case of enteric fever. I am no believer in its spontaneous origin. Its germs are likely ever present, but either themselves immature or waiting for a convenient pabulum. And once a centre formed, the extension is a matter of no difficulty. But I must not be tempted to go beyond our present subject. The origin of disease has many sides, and I have only presented one in this paper. It has long been a hobby of mine, and took its origin certainly quite apart from the germ discoveries in medical disease of the last year or two. Of these bodies which the pathologist shows us I know nothing. One may be a whole cityful of germs, or no germ at all. Other views of the question seem to me to have been too much neglected, and one of these I have done my best to offer in the foregoing remarks.

FURTHER OBSERVATIONS ON THE CURE OF WRITER'S CRAMP.

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THERE are two phases in the early history of every scientific discovery or new application of practical methods. Its truth or value is at first denied; then, jealousy springing up, the originality of the discovery or invention is placed to the credit of others. When a principle only is involved, the claim is sometimes made for the dead; at other times, however, especially when practical issues are bound up with the question, the attempt is made for the benefit of the living. I had the opportunity a short time ago[1] of describing the remarkable results obtained by Mr. Wolff, of 19, Upper Berkeley-street, London, in the treatment of writer's cramp by a combined application of massage, gymnastics, and caligraphic exercises. The same occurrence which had signalised his first appearance in Germany some years ago saluted his introduction to the profession in this country. It was asserted that his method contained nothing new, that massage was known to the Greeks, and that Swedish gymnastics are as old as the century. Now I did not claim for Mr. Wolff anything but that he alone, among those who devoted themselves to the treatment of writer's cramp, had been generally, nay, almost regularly, successful in his endeavours. I have in vain looked through literature for similar results; and I am glad to find that in the last works which the medical press has given us on mechanico-therapeutics[2] the authors refer to the subject in terms which fully confirm these conclusions. In order to illustrate the value of Mr. Wolff's method I publish two cases, which will speak for themselves. No commentary is needed in presence of facts so clear and so telling.

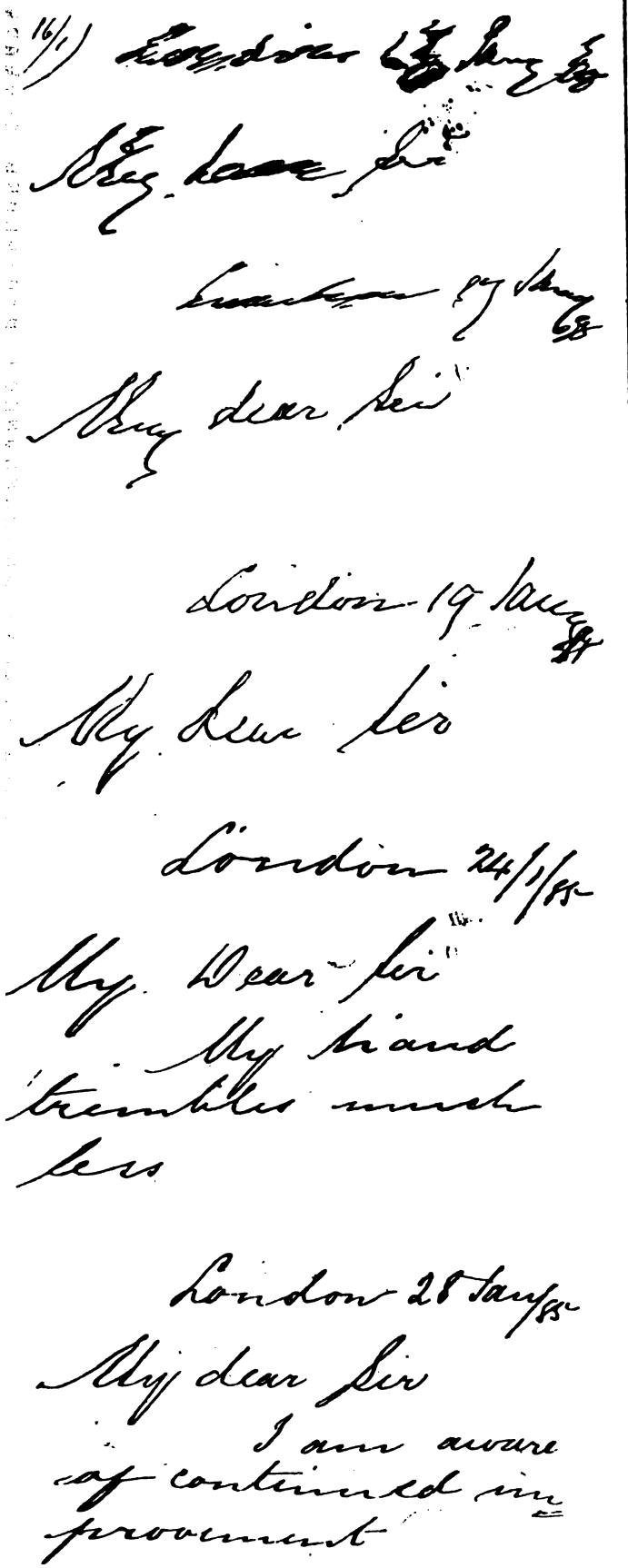
CASE 1.—Mr. G. H——, a merchant of Liverpool, with no noteworthy family history or personal antecedents, noticed seventeen years ago a weakness in the thumb, index and middle fingers, and a tendency of the arm to turn inwards, when he was writing. These symptoms steadily grew worse up to 1874, when pains began to be experienced, extending from the wrist to the elbow along the ulnar side of the arm. He persisted in his attempts to write, however, and these brought on spasmodic movements and pains in the upper arm, whilst, strange to say, the motor and sensory troubles in the arm and wrist rather showed a tendency to mitigation, being then replaced by tremors. For the last four years the use of the pen has been practically impossible, and the patient exclusively used the type-writer for his correspondence. The use of this instrument rather increased the tremors when attempts were made to write, whilst it developed sensations of pain in the fingers. I first saw Mr. G. H—— in 1883, and again on the 16th of January, 1885, when he came to London at my instance, to place himself in the hands of Mr. Wolff. Several specimens of his handwriting were taken. (See facsimiles.) It took him seven minutes to trace four or five very short lines of very shaky characters. The facsimile bearing the date Jan. 16th was taken just before the first manipulation; the others will tell their own tale. The improvement was steady, and on the 30th of the same month (January) he left London to return to his business in Liverpool. He was then able to write without difficulty for several hours a day. I need hardly say that the ordinary resources of therapeutics, including a rest of several months on board ship, had been in vain resorted to before recourse had been had to Mr. Wolff's method. In fact, so despondent was the patient as to the possibility of a cure, that I had no small difficulty in persuading him to make another attempt to obtain relief from his apparently hopeless malady.

CASE 2.—Mrs. C. K—— came to Mr. Wolff for treatment The case being a well marked one, I obtained permission to watch it for my own instruction. The patient's power to write was tested at intervals of three or four days, from January 14th to February 18th, 1885, on which latter date she considered herself as cured. (See series of facsimiles.) I append a few notes concerning this patient. Her age was forty-three, and the first symptoms of her complaint date from 1871. She then experienced a mere feeling of fatigue and discomfort in the arm on writing. Till 1875 no change was noticed except an increasing powerlessness; though she tried to write a little, this became so accentuated that she had to give up almost every attempt. She rested for some years, during which the feelings, which had in the meanwhile assumed the character of pain, persisted, and even extended upwards to the shoulder. Tremors in both arms made their appearance, occurring first on performing other actions than writing (combing the hair, &c.), and finally persisting for the whole day. No treatment seemed to give her any relief. When I saw her the act of writing was almost impossible; it took her five minutes of effort and pain to trace eight or ten very shaky letters. As the treatment proceeded the symptoms gradually subsided. On the 6th the persistent feeling of pain in the arm had disappeared. She could then write for a few minutes. The motor symptoms gave way also, as is well shown by the series of facsimiles. The specimen taken on the 9th February coincided

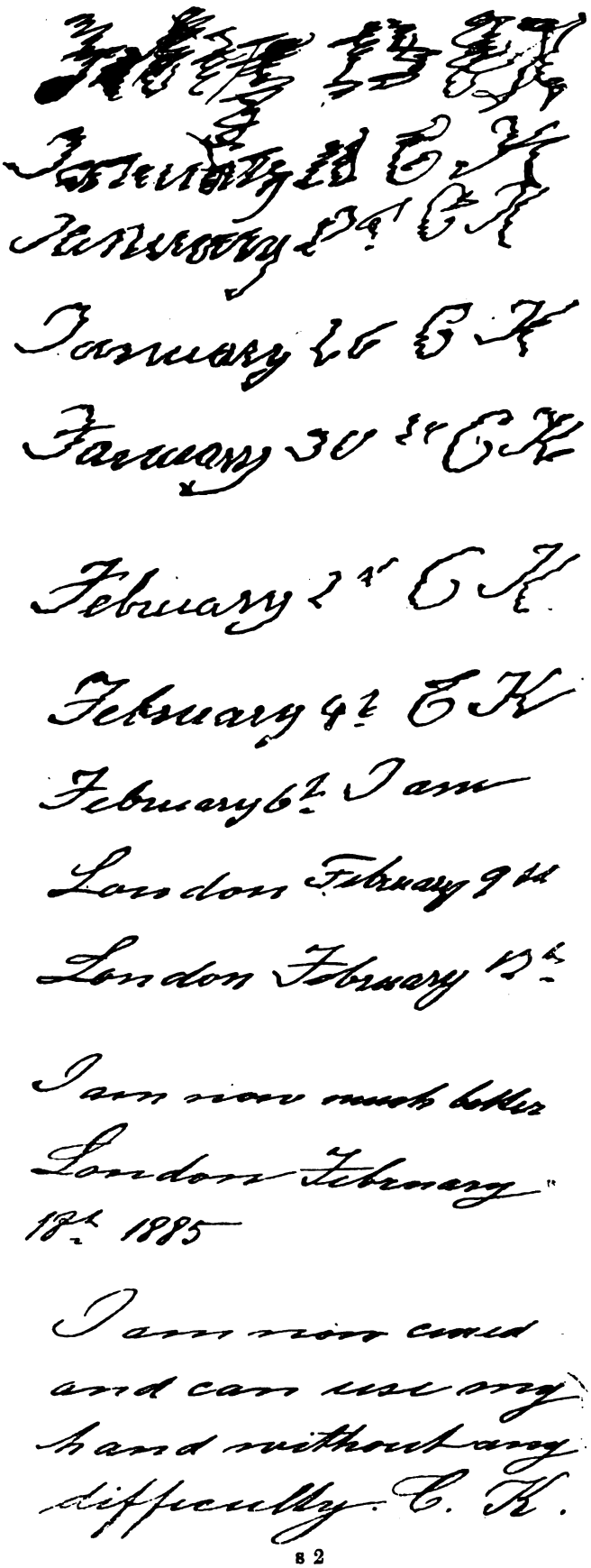
[1] British Medical Journal, Feb. 14th, 1885.

[2] Reibmayr: Die Massage, and Die Technik der Massage (Vienna, 1884). Graham: On Massage (New York, 1884).

FACSIMILES OF WRITING, CASE 1.



FACSIMILES OF WRITING, CASE 2.



with a menstrual period, and shows an accidental increase of the tremor.

A general idea of Mr. Wolff's plan of procedure will be gained by a perusal of the article already referred to, or of the paragraph I have devoted to it in the "Year-book of Treatment," recently published by Messrs. Cassell and Co. I need only repeat here what I have previously said—viz., that there is no secret connected with it. Personal dexterity and the experience of many years' assiduous observation and practice are the elements of Mr. Wolff's success.

Welbeck-street, W.

ON THE

NON-MALIGNANT TUMOURS OF THE SPERMATIC CORD, AND THEIR DIAGNOSIS FROM HERNIA.[1]

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I DO not intend, in this paper, to enter at all upon the literature of my subject, but merely remark that it is wonderfully scanty, and what there is of it is not quite of such a kind as to solve many of the doubts and difficulties which surround this class of cases. It may, however, be well to recall the fact that the diagnosis of tumours of the cord, both as to their exact nature and as to their differentiation from hernia, has been found by the best and most experienced surgeons so difficult as sometimes to have been declared by them impossible without cutting down upon the tumour, which is often by no means desirable from the patient's point of view. I have therefore thought that if practical surgeons would more frequently put on record a minute and accurate account of such cases of this kind as were presented to them, the sum total of their observations would lead to a better understanding of what is at present rather a surgical puzzle. I know, and feel very much, in commencing this paper, that the very doubtfulness of many of these cases, and the imperfect or unreliable histories which operating surgeons too often obtain of their early progress, combine to make it very difficult to write about them as one would wish to do; yet that difficulty is the very reason why such an attempt ought to be made, and the very foundation of the appeal which I should like to make to all clinical surgeons to institute more careful observations in these cases, and to record the results more frequently than hitherto. The present paper is intended as a contribution in this direction towards the elucidation of what I venture to call one of the most difficult chapters in surgery.

For practical purposes the simple or non-malignant tumours of the spermatic cord may be divided into the fluid and the solid, the former being, on the whole, the more frequent of the two. They consist of œdema of the cord and the so-called hydroceles of that organ. It must be remembered that the areolar tissue, which supports the elements of the cord, is continuous with a very considerable amount of the same tissue in the pelvis—viz., that which connects the transversalis fascia with the peritoneum; so that when œdema occurs in the cord, it may pass up or be pressed up within the inguinal canal and into the same structure within the pelvis. Thus it may be made altogether to disappear from the swelling in the cord, and lead to the idea that the case is one of hernia, unless the special features of the pathological condition are attended to. These will best be shown in an example.

On May 3rd, 1884, a patient, aged seventeen, was admitted to one of my wards in the Royal Infirmary. He stated that he had had what he believed to be a rupture for some six years. It had at first appeared suddenly as a swelling in the right groin, and when he consulted his doctor he confirmed his opinion of its nature. The swelling was soft, and extended a little way into the scrotum. It was readily reducible on pressure, but on lying down it did not disappear till pressed on by the hand. By the advice of his doctor he wore for eighteen months a truss, which kept it up very well; but the truss got broken, and he did not buy another, so that the swelling remained down in the groin and scrotum. He does not seem to have attempted to reduce it after he gave up wearing the truss. One morning, however, about a fortnight before admission into the infirmary, he awoke with a feeling of constriction at the upper part of the abdomen, and pain in the right groin, especially on coughing. He then noticed that the swelling was much larger than usual, harder, and that it extended to the lowest part of the scrotum. He then tried to reduce the supposed hernia, but failed; and he therefore applied for advice at the dispensary of Anderson's College, where he was advised to go to the infirmary. On admission there was found the swelling as above described, involving the right testicle, and extending up into the inguinal canal. It was tense and elastic, with a softer part in front, and rather to the inner side of the swelling. The skin over the tumour at the lowest part was red, and there was no distinct impulse given to it on coughing. There was no sickness, and the bowels were easily opened by castor oil. Fomentations were applied, and in a day or two fluctuation could be detected at the lower part of the tumour, a little above and in front of the testicle. An incision was at once made into this part, and a considerable quantity of pus evacuated. The director was then passed up into the inguinal canal, and another opening made in the upper part of the abscess. A small drainage-tube was pulled through the openings, and the usual antiseptic dressings were applied. Some purulent discharge continued for a few days, but it soon diminished so much as to allow the tube to be withdrawn, and the boy left the hospital quite cured in about three weeks from his admission.

I have no doubt that this was a case of slow œdema of the areolar tissue of the cord, which ultimately became acute and ended in suppuration. For the early part of the history we have only the patient's statement to rely upon, but it may, I think, be received as accurate so far as it goes. The swelling appeared first in the groin, occurring without known cause, and slowly progressing downwards into the scrotum. It could be reduced, or at all events diminished, by pressure with the hand, but always reappeared when the pressure was taken off. We are left in doubt as to the completeness or incompleteness of this reduction, and also as to the effect on the tumour of forcing a cough at this time. Afterwards, when I saw him, there was no such impulse on coughing as there would be in a case of hernia, and there was no diminution of the swelling in any posture or by gentle pressure. I regret that it is not stated in my notes what interval of time elapsed between his giving up the use of the truss and the occurrence of the acute inflammation, but one can easily understand that the pressure of a truss in this case might cause irritation and bring on such an attack. It therefore seems to me a good illustration of the evil which may follow from the too often routine practice of ordering a truss for every swelling, even if only partially reducible, which may occur in the position of an inguinal hernia.

Hydrocele of the cord may originate in the same way—viz., by œdema, not resulting in suppuration, but in the expansion of one or more of the areolar spaces containing fluid. It perhaps, however, more frequently originates in some small extravasation of blood, which after partial coagulation changes into a serous cyst. In either case, the diagnosis is comparatively easy if the tumour can be isolated and the cord felt above and below it; but this is not always possible, as the hydrocele may be partly included in the inguinal canal. Nay, it is possible that in some rare cases the fluid may pass up into the abdomen of the patient and entirely disappear in the recumbent position. This occurrence has been explained by some writers as due to the non-obliteration of the "processus funicularis" of the peritoneum; but I think it may also be accounted for by the occurrence of two areolar cavities containing fluid as the result of œdema, one cavity being in the pelvis and the other in the cord. But this is mere speculation on my part, for I have not seen any such case, even in the infant, though I have treated a goodly number of them for hydrocele. In no case have I been able to press back the fluid above the internal inguinal opening.

In the cases of hydrocele of the cord which I have examined, there was little or no diminution of the tumour on the patient's lying down, and the impulse on coughing has appeared to me slight compared with that felt in a case of hernia. For example, about a year and a half ago an American gentleman consulted me for a tumour of the cord which had existed for several months. He had a hernia on the right side, for which he wore a truss, and on the left side a long oval- or pear-shaped tumour, the narrow part of which

[1] Read before the Medico-Chirurgical Society of Glasgow, April 3rd, 1885.

was included in the inguinal canal and the larger part extended downwards towards the scrotum. The cord could be felt below but not above it. The impulse on coughing was slight, and it did not disappear, though it diminished and softened in the recumbent position. It was translucent and free from pain. His general health was quite good, but the swelling had been slowly increasing for several weeks. The nature of the tumour had been rightly diagnosed some time previously by a surgeon in London, who had drawn off the fluid, and therefore it was the more readily punctured by me with an aspirating needle, when some ounces of clear serous fluid were withdrawn. The cord was then felt clearly, and there was no evidence of hernial protrusion.

But sometimes the matter is not quite so easily cleared up—as, for instance, in the case of a man who was brought to the Royal Infirmary from the country with all the symptoms of strangulated inguinal hernia. He had worn a truss for years when these symptoms arose, and on admission I found a much larger tumour than in the previous case, involving great part of the cord, but still not extending into the scrotum. There was at that time no impulse on coughing, and the tumour was pear-shaped, the neck of it being in the inguinal canal. It was quite smooth and too tense to be distinctly fluctuant, yet it gave to the fingers the feeling of fluid more than of solid contents, but it was not translucent. Nevertheless, I believed it was not a hernia, but a hydrocele of the cord, and I said so to the students and others around me at the time. I also gave it, however, as my opinion that in all the circumstances of the case the best practice was to cut down on it and incise it, which I thereupon did. There was no hernia, but a considerable quantity of reddish serum. The wound healed readily, and the man left the hospital radically cured of the hydrocele and relieved from the fear of hernia, of which he had no trace. Of course the constipation and sickness had easily yielded to proper treatment of a very simple kind.

I have little doubt that this last case was an example of the origin of hydrocele of the cord in a blood-cyst from the patient being a working man and in the prime of life, and also from the serum being still coloured with hæmatin when evacuated. The other case, being that of a gentleman in easy circumstances and of pretty advanced age, was, I think, an example of the origin of this affection in œdema of the cord, or possibly in a partially unobliterated funis. Of course, as I told him, if the fluid was found to reaccumulate rapidly and to be a trouble to him, he might require to have it injected with tincture of iodine and radically cured; but this could not be thought of while he was merely travelling, as he then was, in this country.

(To be concluded.)

A CONSTANT ANTISEPTIC VAPOUR DRESSING.

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SINCE Schultz first proposed the employment of the oil of eucalyptus in surgery numerous cases showing its value as an antiseptic have been published (e.g., by Siegen, in *Deutsche Medicinische Wochenschrift*, 1880, No. 30, and 1881, No. 14; and by Busch, in *Berliner Klinische Wochenschrift*, 1880, No. 39). For an antiseptic spray, the oil can be utilised by either filling the spray bottle with the pure undiluted oil or by employing a solution in rectified spirit (1 in 8). The first method, however, produces a spray which is so powerful as to make it almost intolerable for some nurses. Inhalation of the strongly irritating eucalyptus steam, when it is at all prolongod, is not very pleasant. It often occurs that one desires the constant action of a volatile antiseptic on a wound which is already, to a greater or less extent, septic. Syringing in such a case would do harm by breaking up union which has already taken place in part, and even were it possible to syringe out a wound with corrosive sublimate or some other antiseptic solution, without at the same time causing any disturbance to the healing process, the solution would not perhaps penetrate to all corners and sinuosities where an antiseptic vapour, constantly applied to the wound, would find its way. In cases of this nature, which I may best illustrate by the subjoined notes of one or two recently under treatment in the Bury Dispensary Hospital, the great value of antiseptic agents which volatilise at the temperature of the body is seen. A dressing which throws a constant antiseptic steam into the wound can be prepared. Plain ordinary gauze, unimpregnated with any other antiseptic material, can be kept (till required for use) soaking in pure eucalyptus oil. Before being put on the wound which is to be dressed, strips of this eucalyptus gauze are squeezed as dry as possible and then steeped in eucalyptus and olive oil (1 in 5). Thus prepared, the strips of gauze are put on the wound, and immediately over them are applied some folds of ordinary absorbent cotton-wool, which have been freshly wrung out of the pure eucalyptus oil. The thickness of this dressing can be made to vary with the amount of discharge expected from the wound, and, if thought necessary, some dry antiseptic absorbent dressing material can be put outside this moist eucalyptus dressing. The wool, impregnated with eucalyptus, however, very soon dries at the temperature of the body, and its power as an absorbing dressing is higher than one would at first suppose. The deep dressing may be as above described, or may consist of gauze strips steeped in a solution of eucalyptus oil in rectified spirit (1 in 8). In twenty cases treated in Professor Busch's wards (Bonn), the pure undiluted oil was applied directly on wounded surfaces without causing the least pain, even in children.

CASE 1.—P. H——, aged four, was admitted into hospital on Nov. 12th, with injury to the left hand. There was a large open wound parallel to the fifth metacarpal bone, a wound also on the dorsum of the hand between the thumb and index finger, and a compound fracture of two metacarpal bones. After the wounds had been stitched and syringed out with corrosive sublimate, a sublimated dressing was applied. In the evening of Nov. 15th this dressing was saturated with discharge, and the wound, when examined, was found not to be aseptic. Frequently repeated changes of dressing and syringing with corrosive sublimate failed to make it sweet. On Jan. 3rd there was still a good deal of discharge, which smelt very offensively. The eucalyptus dressing, as above described, was applied and left *in situ* for a fortnight. On Jan. 17th the eucalyptus dressing was removed. The odour of the eucalyptus was still distinctly perceptible in the absorbent cotton, which was of a yellow colour and quite dry. The wound was found to be nearly healed up, and there was no bad smell.

CASE 2.—E. O——, male, aged forty-two, was admitted on Dec. 15th, having received an injury to his foot by a heavy weight falling on the dorsum. The first metatarsal bone was fractured (compound), and the metatarso-phalangeal joint was open. The open joint and the entire wound were well syringed out with corrosive sublimate solution. The edges of the wound were brought together by antiseptic stitches, and a dressing of absorbent cotton, steeped in pure eucalyptus oil, was applied. All this was done under a eucalyptus spray obtained from pure eucalyptus oil in the spray bottle. The dressing was left on for twenty-two days. During all this period the odour of the eucalyptus was distinctly perceptible at the patient's bedside. There was no elevation of temperature above the normal at any time. On the twenty-third day the dressing was removed. A small amount of blood and discharge was contained in the deeper layers of the wool, but there was no wounded surface, not even a single granulation left. A firm, healthy pinkish-coloured cicatrix, outside which the ends of the catgut sutures were lying loose, existed where the wound had been. The joint was somewhat stiff. The patient was soon afterwards discharged cured.

CASES 3 and 4 were severe scalds. The one case was that of an adult male who had both feet extensively injured by a kettle of boiling water having been upset on them. The other was that of a girl eight years old. This patient had met with a similar accident, which had caused serious scalds of both arms and of the face. Both cases were septic when admitted, and in both a single application of the eucalyptus dressing at once corrected the disgusting fetor. The dressings were left on for five days. At the end of that period healthy granulating surfaces were exposed when the dressing was removed, and the wool still smelt strongly of eucalyptus. The cases then progressed fast towards recovery, and the remarkable power possessed by a eucalyptus dressing of promoting the rapid formation of healthy granulations, and at the same time causing processes of firm cicatrical tissue to spread inwards quickly from the

margin of the wounded surface, was beautifully demonstrated in the course of both of them.

CASE 5.—On Jan. 9th I performed excision of the hip for disease of that joint in a boy aged four. Sero-sublimate gauze dressing was applied, but had to be removed on Jan. 16th, for the discharge had soaked through the dressing, and two long sinuses, which communicated with the wound, were found discharging a septic pus, although at the time of the operation they had been scraped and syringed out with corrosive sublimate solution (1 in 1000) and then plugged with sero-sublimate gauze. The patient's temperature also had risen on the night of the 15th. On Jan. 16th, with eucalyptus spray playing on the wound, after the strips of gauze had been removed and the sinuses well syringed out with corrosive sublimate solution, the eucalyptus dressing as above described was applied. Next day the patient's temperature was normal, and for more than a week afterwards the odour of the eucalpytus was strongly marked all round the bed, the patient's temperature remaining normal.

Bury.

WHEAT-MEAL BREAD; ITS ALIMENTARY VALUE COMPARED WITH THAT OF WHITE FLOUR BREAD.

BY DR. CAMPBELL MORFIT, F.I.C., F.C.S.

THERE is such a diversity of chemical opinion as respects the nourishing potentiality of wheat-meal breads, that a satisfactory solution of the question by chemical analysis alone would seem to be difficult, for the present at least. But if we leave the chemists disputing among themselves, and pass from the domain of speculative philosophy on to the safer ground of practical science, mystification is seen to clear away at once, and there is revealed to us by the logic of facts the true state of the case, which I will now endeavour to explain.

Whole wheat-meal bread was the kind upon which the Roman army fed in the time of Julius Cæsar; and in the earlier part of this century Dr. Sylvester Graham, of New England, recommended its use in the United States, where it is now known as Graham bread, and is highly appreciated by bread consumers generally. But until I made the process for the granular form of wheat meal and gave it to the London Bread Reform League, whole meal was coarsely ground and contained its bran as dense flattened scales with sharp points and rough edges, which rendered it irritable to digestive organs the least sensitive. My improvement, which removed these defects entirely, secured for the granular meal a widespread popular favour that has not become universal only because the millers and bakers, failing to understand the philosophy of its manufacture, allow both it and its bread to degenerate into irregularities. Granular wheat meal, unlike the ordinary whole meal, not only makes more toothsome breads, but ensures the maximum degree of assimilation, because it is without that mechanically stimulating effect which hurries the whole meal through the alimentary duct before it has had time to yield all its nourishing matter to absorption. Whatever small portion may be excreted has yet acted an essential part in the process of digestion at least, though we may not be able to define it at present.

There are chemists who encourage a wasteful mode of milling by repudiating the long-accepted doctrine as respects the physiological relations of the nitrogenous compounds of wheat. Their scientific contention not only splits the nitrogenous matter of food substances into divers phases with differential properties, but apportions to each a differential estimate of its nourishing capabilities. One of their tenets in this connexion is that, however much nitrogenous matter may be present, only that portion of it distinguished by them as albuminoid, and which exists as protein (the basis of albumen, casein, fibrin, and the like), is potential for the nourishment of mankind. Indeed, some go so far as to suggest that even a part of the albuminoid nitrogen is of doubtful efficiency in that respect; and dividing the nitrogenous matter into two phases, one coagulable by acids and the other not, they throw out the latter as unavailable food matter. Its proportion may and does vary so widely in the same kind of food as to amount to as little as 5 per cent. in some samples of wheat, and rises to 34 per cent. in others; but these great discrepancies do not affect their judgment in the least. By this social arrangement in chemistry they ostracise nüclein, plastin, and their congeners, as dietetic pariahs; and in the case of wheat, they would relegate to the cattle food bin all of the branny portion which, though representing about a fifth of the total nitrogen of the grain, contains most of it in other phases than the albuminoid—notwithstanding, too, that it carries with it most of the fat and phosphates, and the whole of the cerealine, the digestive ferment natural to the grain.

But while convinced by recent experiences that every part of the wheat grain is food for mankind, I know also that a portion of the branny integument, amounting to 6 per cent. of the whole grain, detracts from the toothsomeness of the baked loaf. Practically, therefore, this tough husky modicum is objectionable in a bread sense, and decortication does not remove it, nor can it be separated from the meal when the wheat grain has been ground in a steel mill. My old process conceded to the Bread Reform League, consequently, must be discarded, because it involves both decortication and the use of steel mills. I now not only make the elimination of the tough bran an incident of the grinding operation, and save any outlay for the purpose, but simultaneously render the tender portion yet more loose and soft in texture, and consequently am able to produce at the minimum of waste and cost, firstly, a standard granular meal of refined character, representing from 93 to 94 per cent. of the cleaned grain, and always uniform in quality and features; and, secondly, a pearl-white meal representing all the farina of the grain with some cerealine, or about 83 per cent. of the whole, and affording a superior material for a white loaf to excel the "household" bread of the bakers. The perfection of these meals facilitated my subsequent improvements in bread-making, and the two combined not only accomplish a saving of 10 to 15 per cent. in the milling operations, but will supply standard meals and breads at less cost than usual.

As yet the public have not had the opportunity for testing the great advantages of genuine wheat-meal breads, because bakers in this country are unable or unwilling to make them properly, and millers do not supply suitable meals. Wheat-meal bread as it should be is attractive in appearance, and very unlike the poor stuff sold as such in the London shops. Whether made by fermentation or without, its basis is granular meal free from any of the usual admixtures or substitutes of white dough or dusted bran and white flour. Its crust is tender and smoothly granular, instead of being rough and hard, and, in the case of fermentation breads, deliciously crisp. The crumb, vesiculated, light, and elastic, is never sodden or too close, becomes stale slowly, has a rich mealy taste, and when chewed excites the salivary secretion. The bran particles are invisible to the eye, even through a magnifying-glass, and, save that they impart an agreeable taste, scarcely betray their presence to the tongue. The outward features and inherent qualities of the breads of my system are characteristic and uniformly the same. Not only are they appetising, but, weight for weight, much more nourishing than white flour breads.

In realising this standard excellence for meals and breads I employ only the usual means, but manage them in unusual ways so as to produce new and important effects. Success is obtained in my system of procedure, not by adopting the dogmas of those chemists whose culte is the aristocratic albuminoids, but by practising a rational philosophy of conflict with them. I act upon my belief that each food substance carries, naturally, an adjuvant of digestive ferments peculiar to itself, as wheat bears cerealine, and which, when loosened from its bonds by compatible means, receives the impulse to co-operate in preparing its associate constituents for digestibility in the human stomach. The observance of this principle has enabled me to convert even milk into a cheese of characteristic toothsomeness and digestibility, chiefly because the latter reclaims and embodies the wealth of essentials now run to waste in the whey. Even my pearl meal, therefore, is made to retain as much as possible of the cerealine matter of the wheat; and when either it or the granular meal is mixed into dough, water is made to set free the digestive ferment for action. This done, the dough, without being touched with the hands, is partitioned in a manner to protect it against injurious influences or changes during fermentation in any weather, and to ensure its perfect

cooking in the oven without risk of spoiling a loaf by scorching or otherwise. The water is confined within the loaf until it has co-operated with the cerealine in developing the digestibility of the dough, and in promoting the baking or rather cooking of it into perfect bread; so that the portion necessary for its constitution remains in the loaf as a fixture, the excess passing off only when it has done its part in the cooking.

The crumb and crust of the breads made by my system contradict impressively the arguments against whole wheat meal. But chemical analysis obtains so little interpreting assistance from physiological research in the premises, that it occurred to me to seek a fuller understanding of the subject in a way quite different from any hitherto conceived. That is, having satisfied myself, by oft-repeated practical experiments, that standard breads in every respect can be made with wheat meals, I contrived a method which, though not strictly classical, is one of practical science, for determining what modifications their material undergoes during conversion into bread to render them characteristically superior to any others of the kind. Four different typical wheats (two white and two red) having been selected and first made into three meals—viz., one crude, representing the entire grain; another, the standard granular of my system; and a third, the pearl meal or *farina consols*, also of my system, both of which have been already described,—these meals were then converted severally, and according to my system, into non-ferment and fermentation breads. Scrupulous exactitude was observed as to all the weighings, dryings, and other manipulations, in order to make the results as trustworthy as possible. The first step was to ascertain the exact proportion of total branny matter in the several meals; and for this purpose a given weight of each was carefully but thoroughly brushed upon a very fine wire cloth until all its farinaceous portion had passed through. That which remained on the sieve, being direct from the meal, was designated *proximate bran*, and it varied in proportion, according to the kind of wheat, from 16·80 to 19·30 per cent. of the crude meal, and 10·58 to 13·24 per cent. of the standard meal, or a mean of 18·23 per cent. for the former and 12·19 per cent for the latter. Therefore, wheats generally may be said to consist of 81·72 farina and 18·28 branny matter per cent. The proximate brans of the different samples of crude and standard meals were next enclosed, separately, in very fine, white cotton cloths, and kneaded under relays of cool water until the latter ceased to become the least cloudy, and by this treatment they were reduced in weight rather more than one-half. The residue left I distinguish by the name of *absolute bran*, because it has parted with all its matter separable by the means employed. It will thus be seen that cool water alone has taken out of the proximate bran and into solution or intimate suspension upwards of 50 per cent. of its original substance. And what is no less remarkable, the ratio of absolute bran to the meal is a uniform fixed quantity for all the wheats indifferently, being 9·65 per cent. from the crude and 5·80 per cent. from the standard meal, notwithstanding that the proximate brans, whence they were derived, are variable in their quantitative relations to the meals. Therefore the total of actual bran in any wheat does not exceed 10 per cent.

Not yet satisfied that this absolute bran was exhausted, I next proceeded to ascertain if the proximate bran would yield more of its substance to artificial digestion than it does to water; and therefore it was subjected, under proper conditions, to the action of diastase, pancreatin, and pepsin consecutively. The result proved that the 9·65 per cent. of absolute bran from the crude meals had become reduced to 7·87, or 18·44 per cent.; and in like manner the 5·80 per cent. of absolute bran of the standard meals lost 21·38 per cent., having been lowered to 4·56—except for one of the red wheats, which gave rather less difference for both meals, and seemed to be erratic. As this residue could not be resolved further by any controllable means, it takes, logically, the title of *ultimate bran*: and it would represent the final state and proportion of the bran if the process of artificial digestion left it free from variable quantities of associate matter. But digestion outside of the human stomach does not correspond with that inside, however skilfully it may be imitated, for there is some force at work in the one case which cannot be commanded in the other; and probably, therefore, yet more of the bran is assimilable under more natural conditions. At the worst, the standard granular meal of my system has only 4·56 per cent of undigestible matter. Very interesting, too, in this connexion is the fact that this absolute bran not only loses density in becoming ultimate bran, but also drops as respects its mineral matter from 5·36 to 0·33 per cent. for the crude meal, and from 4·33 to 0·43 per cent. of the standard meal; or, in other words, the 2·42 and 2·36 of phosphoric acid which they represent fall nearly to zero, being drawn out by the process of digestion. Moreover, the total nitrogen, 2·17 per cent. (containing albuminoid nitrogen, 1·80), of the crude meal brans becomes 0·82 (containing albuminoid nitrogen, 0·78); and under corresponding circumstances the total nitrogen, 1·92 per cent. (containing albuminoid nitrogen, 1·86), of the standard meal brans falls to 0·80 per cent. (containing 0·80 albuminoid). Thus, although artificial digestion draws out the whole of the phosphates or mineral matter, and 60 to 70 per cent. of the nitrogenous matter, that portion of the latter which it leaves is—wonderful to be told—all or nearly all albuminoid.

Results could not be more impressive than these as to the superior nourishing value of whole wheat meal, for they prove that the separation and rejection of the bran must inevitably impoverish the residual farina or flour. This fact obtains additional confirmation in my own every-day life, for whole-meal bread, which forms four-fifths of my restricted diet, nourishes me satisfactorily; whereas any attempt to vary it in the least, with fine white flour bread, brings back bodily discomfort and debility. In the course of my laboratory work upon this subject, I also learned that, unusually fine as are the fermentation breads of my system, non-ferment breads can be made to excel them in every respect. But it is necessary to follow throughout a strictly philosophical method, and then they will require less time and labour in their manufacture, be independent of a choice of wheats and always sweet and appetising. "Baking powders," however, must not be employed for generating the carbonic acid gas which is to vesiculate the dough, as they leave chemical residues in the baked loaf which render it unwholesome. Nor must the carbonic acid gas be dissolved in the water for mixing the dough and forced in mechanically, for though it would aerate the loaf it will not produce perfect bread. To promote the hydrolysis whereby the cerealine with water replaces yeast, leaven and fermentation, and to facilitate the osmotic action upon which the metamorphosis of dough into bread largely depends, the carbonic acid gas must be in the nascent state and generated within the dough.

Alexandra-road, N.W.

CASE OF DOUBLE OVARIOTOMY.

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THE following report of a case of double ovariotomy contains some points of special interest, which may render it worthy of insertion in the columns of THE LANCET.

E. R——, aged thirty-six, wife of a farm-labourer, a healthy-looking woman, married at the age of seventeen, came to New Zealand in 1874, having four children; since her arrival in the colony she has had three more, besides three miscarriages. She states that her mother died in childbed, at the age of thirty-two. She first noticed an enlargement of the abdomen in 1877. In September, 1883, she first experienced abdominal pain, which occurred after running a short distance. She applied then to Dr. Beale of Hamilton, who diagnosed an ovarian tumour of the left side. It caused very considerable enlargement of the abdomen, and extended about three inches above the umbilicus. The tumour was freely movable. It was increasing in size, and pain was constant. Two months later she came under my care in the Auckland Hospital (Nov. 1883). I aspirated the tumour, and through a large needle withdrew twenty-eight ounces of a jelly-like matter that became solid immediately; so thick and viscid was it that its withdrawal occupied an hour and a half. The size of the tumour was not very materially diminished after the operation. She then returned home. Her health was excellent, and the catamenia regular. Three months later Dr. Beale reported that the tumour was rapidly increasing and that her health was failing. The patient was suffering from dyspnœa and difficulty of micturition, and the tumour became so large that she was unable to move about. I then decided to

operate and elected to do so at her own house in Hamilton, 100 miles from Auckland. On examination prior to operation, I found that the patient had assumed a cachectic appearance; the abdominal circumference at the umbilicus was forty-five inches; the womb measured three inches and a half, and was not movable. On Feb. 14th, 1884, assisted by Drs. Beale, Blunden, and Mr. R. F. Sandes, I operated. An incision of six inches exposed the tumour. Spencer Wells's cannula failed to withdraw the contents of the cyst. I then made an incision into the cyst sufficiently large to admit the hand, and brought away in successive handfuls some pints of a similar matter to what had previously been removed by aspiration. I was then able to pass the hand round the tumour. I found that it was irregularly lobulated and polycystic. A few adhesions to the omentum existed. The smaller cysts I broke down from within, and scooped out the contents with the fingers. The omental adhesions were tied in segments with fine whipcord, and a few bleeding points touched with solution of perchloride of iron. On examining the right ovary another tumour was discovered. It was about the size and shape of a full-sized fœtal head, perfectly smooth, with white opaque walls. Its contents consisted of thick cheesy matter, studded with fine hairs, and was evidently a dermoid cyst. The left pedicle was narrow and of medium length, the right short and thick. The right pedicle was tied in two segments with stout whipcord and returned; the left was secured with a Spencer Wells's clamp. The tumours being then removed, the abdomen was carefully cleansed with a 1 in 60 carbolic lotion, the wound secured with deep sutures of wire and superficial ones of carbolised gut, and a rubber drainage-tube inserted. A dressing of several layers of thymol gauze and an abdominal bandage completed the operation. The patient rallied well, and spoke cheerfully on recovering from the effects of the anæsthetic. Half a grain of morphia was administered hypodermically. Having to return immediately to Auckland, Drs. Beale and Blunden took charge of the patient. The highest temperature recorded was 101·8° on the afternoon of the day succeeding the operation. She had some vomiting, which was restrained by ice, and some attacks of pain, relieved by morphia. No drainage took place through the tube, which was removed on the fifth day. An enema given on the sixth day opened the bowels freely. The dressings were not removed until the tenth day, when the greater portion of the wound had healed, and the clamp separated. The sutures were removed on the twelfth day. From this time the patient made uninterrupted progress; the wound had entirely healed on March 10th, twenty-five days after operation, and the patient was able to resume her ordinary duties. The weight of the cysts and contents was thirty-six pounds.

Remarks.—The points of special interest in this case which induced me to report it are: the nature of the cyst contents, the complication with the large dermoid cyst, and the good results obtained under the different methods of treatment of the pedicle. No special antiseptic precautions were taken during the operation, but the apartment had been thoroughly cleansed with antiseptics. The abdomen was washed with a weak solution of carbolic acid, and the dressings were of an absorbent and antiseptic character, which admitted of their being left undisturbed until separation of the clamp had taken place. The district where the operation was performed is a thinly populated one, well elevated above the sea, and of a very healthy character. The house of the patient is an ordinary labourer's cottage, detached, and surrounded by eucalyptus trees; the time of year midsummer, with the temperature of the atmosphere in the apartment ranging from 65° to 70°.

SOCIAL SCIENCE ASSOCIATION.—The Council of this Association, have, after due notice given, unanimously passed a resolution to the effect that, in prospect of a general election in the month of November, it is undesirable to hold a congress during the present year. They have, therefore, been reluctantly compelled to decline the invitation received from the City of Bath to meet there in the forthcoming autumn, but they have expressed a hope that the invitation from that city may be renewed for the year 1886. It has, however, been referred to the Executive Committee for consideration, and to report whether a conference of a more limited nature should not be organised in London, on some special subject or subjects to which, in view of the opening of a new Parliament, it may be considered desirable to call attention.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procœmium.

CHARING-CROSS HOSPITAL.

TRAUMATIC ANEURYSM OF THE ULNAR ARTERY; OPERATION; RECOVERY.

(Under the care of Mr. BELLAMY.)

ANEURYSM of the arteries of the forearm, even of a traumatic character, is a rare disease, especially in the upper third; and the ulnar, from its position and depth, is less likely to be affected than the radial. The distance of the vessel from the surface, which is important in protecting it from wound, makes the operation which was required in this case more difficult of performance when the wound has been inflicted, and the presence of firm blood-clot, such as would be found eleven days after the injury, obscures the vessels when reached.

J. J. O'N——, a clerk in the Civil Service, was admitted on Jan. 12th with a wound inflicted with a desk knife, which entered about two inches the flexural fold of the elbow and rather to the inner side of the middle line, about a third of an inch long. Just before he came in the blood spurted out of the wound in great quantity. A firm compress was applied; and as there was no recurrence of bleeding and no appearance of a false aneurysm, he was on the 14th made an out-patient.

On Jan. 16th a little suppuration was observed in the wound, and on the following Monday night the pain was so severe from the tight bandage that sleep failed him. On the morning of the 20th he was seen by a private surgeon, who removed the tight bandage and syringed the wound out with carbolic lotion, after having pressed out a quantity of matter. On the following morning a sudden and severe spurt of blood occurred, estimated at about five ounces. Pressure on the wound stopped the bleeding. In the evening he was admitted, at 7 P.M., in consequence of a fresh and severe occurrence of hæmorrhage (about ten ounces).

Jan. 22nd.—The patient had his arm raised and very tight pressure applied over the wound by means of a pad. No fresh hæmorrhage has occurred since his admission to hospital. The patient looked somewhat blanched.

23rd.—As a fresh and unquestionably arterial hæmorrhage occurred in consequence of the bandage being loosened—the column was six inches high—Mr. Bellamy proceeded this day to operative measures. A tourniquet had been applied to the brachial artery to arrest bleeding. This was of course kept on during the operation. The wound was first enlarged, both up and down, with a probe-pointed bistoury, coagula of blood being found lying over the vessel and choking up the wound in every direction. On these being cleared away, the gaping open mouths of a wounded artery were seen. The vessel was as nearly as could be divided right through by the original injury, hanging together only by a thin shred. Mr. Bellamy ligatured the open ends of the vessel, divided the connecting links between the open ends, placed ligatures on one or two bleeding points, and cleared out all the clots, one of which had consistency in its walls, and could be called a diffuse traumatic aneurysm. The artery was unquestionably the ulnar, as the nerve was lying close to its inner side. Strict antiseptic precautions were observed: the wound was not closed, but a drainage-tube laid in and fastened with one stitch.

26th.—The patient is easy, and the wound looking healthy.

29th.—Granulations springing up of a healthy kind all over the wound. Drainage-tube no longer required. One catgut ligature visible. Patient still somewhat pallid.

The wound healed very rapidly, and the patient left, cured, on Feb. 10th, the circulation being thoroughly maintained in the hand and forearm, and there being no symptoms of injury to the ulnar nerve.

LEEDS UNION INFIRMARY.

THREE CASES, WITH POST-MORTEM EXAMINATION, ILLUSTRATING SOME POINTS IN CEREBRAL LOCALISATION OF FUNCTION.

(Under the care of Dr. JAS. ALLAN, Medical Superintendent.)

CASE 1. *Cerebral Softening; Paralysis; Death. Autopsy: Lesions of Basal Ganglia and of Third Left Frontal Convolution.*—Catherine F——, aged sixty-six, was admitted on Sept. 15th, 1882. She had been quite well and strong up to the 5th, when she had a fit and became paralysed on the right side.

On admission there was paralysis of the right upper and lower extremities, the facial muscles not affected; her articulation was thick and indistinct, and she complained of great pain in the paralysed limbs. The patient was emotional, noisy at night, but apparently unconscious of so being. The pain referred to continued throughout her illness.

On Nov. 17th she had an epileptiform fit, became unconscious and remained so, groaning continuously till death on the 23rd of November. After the fit the patient's face was strongly drawn to the right, and the right lower limb was firmly flexed on the abdomen. Reflex action exaggerated; the left lower limb sprawled about over the bed; reflex action subnormal. Both eyes were drawn to the right and upwards; the pupils dilated, but sensible to light. Saliva dribbled from the mouth; power of swallowing lost.

Autopsy a few hours after death.—Skull-cap very thick, half an inch at parts; membranes on the vertex of the brain opaque and thickened; a large amount of fluid in the membranes; the brain tissue generally abnormally firm, but a portion of the left hemisphere behind, and including the third left frontal convolution, was very soft on palpation, and here the membranes could not be removed without brain tissue adhering to them. On section of the right hemisphere the brain was found much too firm in consistence; the lateral ventricle was rather small; a very large artery entered the corpus striatum. Section of the left hemisphere showed that the left corpus striatum was softened to diffluence; there was also softening of a limited area of the contiguous anterior part of the left optic thalamus; softening also involved the left hemisphere from the corpus striatum outwards and upwards to the surface, including the posterior part of the third left frontal convolution. The softened tissue was greyish and darker than normal; there was no hæmorrhage, or evidence of old hæmorrhage. The whole brain weighed 38 oz.; the cerebellum and pons alone weighed 5½ oz. There was aortic incompetence; atheromatous degeneration of the valves and of the aortic arch; the left ventricle much hypertrophied; weight of heart 12 oz. The liver and kidneys were cirrhotic.

CASE 2. *Convulsions; Loss of Sight; Death. Autopsy showed extensive Areas of Softening, including part of Optic Thalamus.*—James R——, aged sixty-four, a shoemaker, was brought in by the police on December 9th, 1882, having been found in an unconscious state. He gradually recovered consciousness, and in a few days was apparently quite well; his memory, however, was very defective; he had an anxious expression, as if in dread of some imminent danger, and complained of pain in the back of the head. Ophthalmoscopic examination revealed nothing abnormal. The patient was an inmate of this infirmary until his death, on June 12th, 1884. At intervals of six weeks or two months during his stay he was suddenly seized with very violent epileptiform fits; would continue two or three days after each attack dazed and ill, and then get about as usual. For a week before death he was, on account of the frequency and severity of the fits, entirely confined to bed. The muscular contractions were usually general, but always more marked in, and sometimes confined to, the left upper and lower limbs and the left side of the face. When not convulsed the patient was quite conscious, and had perfect use of his limbs. He became completely blind of both eyes four days prior to death. There was no pain referred to the eyes; sight not previously affected. It was found on inquiry that this patient had had two fits, one a year, the other six months, previous to date of admission. He was described as having been ill for three months after the first, and is said to have lost his speech for a time after the second seizure. There was nothing peculiar in the family history of this man; no previous illness; but he was much given to drink.

An autopsy of the head was made a few hours after death. The scalp was adherent; calvaria of normal thickness; membranes of the brain much thickened; a considerable amount of fluid in the subarachnoid space. There was a small osseous plate in the falx cerebri just over the crista galli. On removing the brain a large quantity of fluid escaped from the ventricles. Arteries at the base much degenerated, atheromatous, and calcareous. In the situation of the left supra-marginal lobule there was a large deficiency of brain tissue; the gap was triangular in outline, the two longer sides of the triangle, about one inch and a half each in length, were formed by the ascending parietal convolution and by the superior temporo-sphenoidal convolution; the base of the triangle, about an inch in length, was in the occipital lobe; in shape the gap was somewhat pyramidal; its apex reached the descending cornu of the left lateral ventricle on a level with and just behind the ventricular projection of the optic thalamus, and was only separated from the lateral ventricle by its ependyma, which was much thickened. Both lateral ventricles, much dilated, presented large vessels ramifying on their walls. The left corpus striatum and optic thalamus were normal in consistence. In the right lateral ventricle there was softening to diffluence of the floor behind and external to the optic thalamus; it extended close up to and included the posterior part of the optic thalamus to the depth of about half an inch. Both hippocampi were involved and the surrounding cerebral tissue, downwards to the inferior surface of the occipital lobe, and backwards—that part of the occipital lobe directly behind the lateral ventricle. The corpus striatum of the right side was normal, also the anterior part of the optic thalamus. The brain weighed 43¾ oz., the cerebellum and pons alone 4⅛ oz.

CASE 3. *Heart Disease; Hemiplegia; Death. Autopsy showed Softening of one Corpus Striatum and part of Optic Thalamus.*—William H——, aged thirty-seven, a slater, was admitted on March 24th, 1884, with paralysis of the left side. Paralysis came on after a fit on the day previous to admission. Cramps and numbness of the left lower limb preceded the fit a few hours. Just before his illness he had got cold and wet from working on a roof covered with hoar-frost. He had not had any illness; said he never had venereal disease; was a moderate drinker. On examination he was found to have complete motor paralysis of the left upper extremity, and nearly complete motor paralysis of the lower; muscles of the face not affected. He experienced intense pain referred to the right ear and radiating over the right side of the head; nothing abnormal detected in the right ear. The pupils were unequal, the right contracted and the left dilated. There was evidence of aortic disease and cardiac hypertrophy. The patient was ordered iodide of potassium in increasing doses, and blisters were occasionally applied behind the right ear.

April 5th.—Earache and pain not so excessive. Temperature 98°; pulse 66.

27th.—Progressive emaciation; headache. Retinal hæmorrhages were found on ophthalmoscopic examination; sight not affected.

July 8th.—Both pupils dilated, the left more so than the right; frontal headache. Temperature 98·2°; pulse 84.

15th.—He feels very unwell; headache frontal and above the ears. Temperature 103°; pulse 132.

17th.—Headache nearly gone; he is very anæmic. The patient is troubled with dreams, of the unreality of which he can with difficulty convince himself. Morning temperature 99·4°; pulse 84. Evening temperature 98·4°; pulse 96.

27th.—Temperature normal; pulse 84, dicrotic.

August 4th.—Temperature subnormal; frontal headache. Has Cheyne Stokes' respiration; the accelerated respirations are brought on by any change of position in bed or by coughing; pulse feeble and irregular, varying from 96 to 120.

7th.—Respiration frequently of Cheyne Stokes' character. Temperature 97·5°; pulse 120; has a troublesome short cough.

8th.—Has dyspnœal paroxysms; distressed expression; not much headache. Evening temperature 96·8°; pulse 120 to 144 per minute.

9th.—More intense dyspnœal attacks. Death took place, the immediate cause being œdema of the lungs.

The patient was confined to bed during the whole time of his illness. Soon after admission the use of the left lower limb was to a considerable extent recovered; he could get out of bed and walk fairly, dragging the paralysed limb.

Throughout his illness he was rather restless at night, and talked in his sleep; his expression was anxious; was never irritable; would sometimes give way to tears; was quite conscious up to death, his intellectual faculties not being impaired.

An autopsy was made thirteen hours after death. No external evidence of syphilis except baldness of the head. Scalp thin and adherent to the calvaria; the bone very dense, rather thick, heavy, and of an ivory whiteness; the diploë very inconspicuous. The dura mater along the longitudinal sinus in the situation where the Pacchionian bodies are usually found, contained a number of osseous spicules. Membranes of brain thickened, especially so on the vertex and just behind the pons Varolii at the base; there was some fluid in the subarachnoid space. The right corpus striatum was much softened, not quite to diffluence, throughout its whole extent; also a considerable portion of the right optic thalamus in its upper and outer and anterior aspects. The brain generally presented nothing further abnormal, except that it was rather softer in consistence than normal. Both internal ears were thoroughly examined; no evidence of disease was found. The costal cartilages had undergone ossification. The heart weighed sixteen ounces; cavities dilated; walls hypertrophied; both tricuspid and mitral valves much dilated; the aortic valve cusps presented exuberant granulations all round; the aorta slightly atheromatous, very thin, not dilated; right side of heart full of blood and clots. Both lungs œdematous throughout; in the apex of the left lung there had at one time been an area of disease, probably phthisis, now represented by a cicatricial mass undergoing cretaceous degeneration, about the size of a golf ball, and quiescent. The right lung was universally adherent to the chest wall, and in this lung œdema was much more marked than in the left. The stomach much dilated; walls attenuated; no disease of the pylorus. Liver considerably enlarged, fatty; capsule thickened at parts; no new growths in the interior. Spleen of large size; at its upper end, near each other and reaching the surface, there were two gummata, rather firm in consistence, and each about the size of a hazel nut; other smaller gummata were found on section of the spleen. The spleen had undergone amyloid degeneration.

Note.—The osseous plates found in the meninges of the brains of two of the cases were prepared and examined microscopically, and found to be true bone.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Non-Ovarian Dermoid Tumours.—Pathological Histology of Semilunar and Superior Cervical Sympathetic Ganglia.

AN ordinary meeting of this Society was held on the 28th ult., Dr. George Johnson, F.R.S., President, in the chair.

Mr. ALBAN DORAN read some notes on so-called Non-Ovarian Dermoid Tumours. The object of this paper was to show that many dermoid cysts of the abdomen that have been described as non-ovarian were really ovarian cysts that had become separated from their pedicles. Dermoid cysts of the great omentum were generally of this class. The following case was related:—A woman, aged thirty-three, had noticed for six years a swelling lying rather to the left of the umbilicus. It shifted to the right side after pregnancy, and then appeared as an obscurely fluctuating tumour, extending towards, but not deeply into, the right flank. There was tympanitic resonance over the tumour, especially towards the right side. The tumour was exposed by an incision made along the outer border of the right rectus muscle. On tapping it, some fluid resembling pus was drawn off. The tumour was intimately connected with the great omentum, and strongly adherent to the ascending mesocolon. The right ovary was found healthy. The left was not examined, as there was no suspicion, at the time of operation, that the tumour was ovarian. It proved to be a dermoid cyst, and it was afterwards suspected to have arisen from the left ovary. Mr. Doran then related a second case, where the ovarian origin of the dermoid tumour was proved by examination of the uterus; and a third, where a normal ovary was found high out of the pelvis, adherent to the omentum, with its pedicle much stretched. Some dermoid abdominal cysts had been rightly described as non-ovarian, having occurred in men. The origin of dermoid cysts developed between the bladder and rectum was very uncertain; such cysts were sessile, and thus could not come under the conditions that formed the subject of this paper. On carefully considering the cases described or referred to by Lebert (*Gazette Médicale de Paris*, 1852) as instances of non-ovarian dermoid cysts of the abdomen in women, the evidence as to their real nature was found to be very defective. The ovaries appeared to have often been overlooked. The shrivelled stump of a self-detached ovarian pedicle bore some resemblance to an atrophied ovary, and thus might be a source of fallacy. Lastly, the separation of an ovarian tumour from its pedicle was a condition which had not been recognised when Lebert's cases had occurred. That pathologist quoted examples of uterine dermoid cysts, but these all appeared to be simply instances of the discharge of hair and teeth from the uterus or vagina, a complication unknown in cases of dermoid ovarian disease. The paper included an analysis of some of Lebert's cases, taken, not from his works, but from the original clinical reports, which often failed to prove that the tumours were not ovarian. Since ovarian pathology had been more studied, few, if any, cases of non-ovarian dermoid abdominal cysts in women had been described, excluding perhaps those instances where such cysts had developed between the uterus and the rectum. No museum specimen of dermoid abdominal tumour could be safely held up as non-ovarian unless there was clear evidence that the pelvic viscera had been carefully searched and both ovaries accounted for.—Dr. ORD had shown before the Society some years ago a specimen of dermoid cyst removed from the abdomen of a man. He considered that these tumours might arise as the result of the process of "inclusion," such as led to the formation of dermoid cysts about the neck, or as the result of an aberration of development: where we might suppose that a portion of the common blastema of ovary and testis had gone wrong at an early period of development. He believed Mr. Doran's contention that these cysts wanting pedicles arose from abnormal states of the ovary was the right one.—Dr. CREIGHTON thought there was no *à priori* reason why these dermoid tumours should not arise in the omentum itself. As he had elsewhere shown, nearly all "epiblastic" structures could originate from the connective tissue cells.—Mr. JULER asked whether these tumours were always and necessarily congenital. Had the ovary the power of giving rise to these dermoid cysts? He had seen many cases of dermoid cysts at the outer angle of the orbit and always regarded them as of epiblastic origin.—Mr. HOWARD MARSH asked whether all the ovarian tumours in children were dermoid; he had removed one from a child eight years of age.—Mr. ALBAN DORAN said that dermoid tumours in man nearly always occurred between the bladder and rectum. Dr. Ord had described to this Society a specimen of persistent Müllerian duct in the male, and this duct might have become the seat of a dermoid tumour. He did not say that dermoid tumours could not originate from the omentum, but clinical experience pointed to the contrary. There was strong evidence of the congenital origin of these dermoid cysts. Römer had watched the growth of one. He considered that dermoid tumours might arise as the result of an abnormal development of an ovarian cell, the influence of the spermatic cell being wanting. Dermoid cysts of the testis were different from those met with elsewhere, as Velpeau and others have maintained.

Dr. HALE WHITE read a paper on the Pathological Histology of the Semilunar and Superior Cervical Sympathetic Ganglia. This paper was founded on an examination of about a hundred and fifty sections of the above ganglia, from which it was concluded that the external appearances of the ganglia were of no importance whatever in pathology, unless they were obviously affected by malignant disease, abscess, tubercle, &c., or had become implicated in some inflammatory condition of the surrounding parts. The typical ganglionic nerve-cell resembles other ganglion cells; it is larger and more rounded than those from the anterior cornua. No inference can be drawn from the number of nerve-cells to be seen in a section, for the normal arrangement is irregular, the sections are not in the same place, and all ganglia are not the same size. Many cells have no processes, and some have neither nucleus nor nucleolus. As a

general rule, the cells are wasted in patients who have died of wasting diseases, but this is subject to many exceptions. Pigmentary degeneration may or may not be accompanied by a diminution in the size of the cell, and is almost universal in sympathetic ganglia; perhaps this may be the cause of some of the slight ailments from which we all suffer. In the present state of our knowledge the varying appearances from pigmentation have no significance; the variations within the normal limit are very great, and in at least four-fifths of the cases the cells are abnormal. Pigmentation of the nerve-fibres does not occur. The amount of fibrous tissue varies much in different specimens, and in different parts of the same specimen. The superior cervical contains more bloodvessels than the semilunar ganglia. In the former, the normal arrangement is for a large artery to run down the long axis; there is no constant arrangement in the latter. In chronic Bright's disease the small arteries are thickened; otherwise in this malady the specimens are normal. In acute inflammation of the ganglia the section is obscured by the enormous number of escaped white blood-cells; there is also some multiplication of the cells of the connective tissue; this may be accompanied by congestion. It has been found only in diabetes and purpura hæmorrhagica, and is the only pathological lesion about which one can speak with certainty.—The PRESIDENT thanked Dr. Hale White in the name of the Society for the interesting and laborious paper which he had prepared, and imagined that the field of work was one but little known.—Dr. DYCE DUCKWORTH considered that the paper contained a valuable summary of results. Morbid phenomena may occur without any recognisable pathological changes being left behind. He had hoped to have heard something about the histology of the ganglia in exophthalmic goitre and Addison's disease.—Dr. ANGEL MONEY also commented on the value of the research, and asked whether the gold and osmic acid methods had been used; Weigert's method might prove of much use. By these methods the intimate structure of the ganglia could be made out more efficiently.—Dr. PERCY KIDD asked in how many individuals the ganglia had been examined. In some sections mention was made of numbers of small cells, and he inquired what the age of the patients was from whom these specimens had been taken, as he had observed somewhat similar changes in the ganglia of young persons. — Dr. HALE WHITE, in reply, said he had been unfortunate in not obtaining specimens from cases of exophthalmic goitre and Addison's disease. He had not employed the gold method, but had used osmic acid in some cases. He could not state the precise number of individuals from whom he had made preparations, as from some he had taken two or more sympathetic ganglia.

CLINICAL SOCIETY OF LONDON.

Sporadic Cretinism.—Inguinal Aneurysm.—Renal Lithotomy.

AN ordinary meeting of this Society took place on the 24th ult., Mr. Arthur E. Durham, F.R.C.S., Vice-President, in the chair. The discussion of the surgical papers was of an interesting character.

Dr. SIDNEY PHILLIPS read notes of a case of Sporadic Cretinism. The patient, who was exhibited, was a child aged ten years and three months, who had come under observation at St. Mary's Hospital. The parents were healthy, and there was no history of syphilis, tubercle, or rickets in the family. Two months previous to the birth of the child the mother had received a severe fright. Labour was natural. The child exhibited nothing unnatural till nine months old. The child was 2 st. 7 lb. in weight, and 2 ft. 7¾ in. high. There were large masses of fatty tissue above the clavicles, the thyroid was absent, the voice croaking, the hair scanty, the head very large, and the anterior fontanelle unclosed. There was marked lordosis, and the child, though able to walk, was unsteady on the legs. She was childish in intellect, but good-tempered; her mental condition was mainly remarkable for extreme torpidity and hebetude. The limbs and face were œdematous, but firm; they pitted on firm pressure, but the pitting disappeared more quickly than in cases of dropsy. The hands were spade-like, the feet short and square, the limbs very much enlarged, and the tongue also enlarged. Dr. Phillips pointed out that, besides other signs of cretinism, there was here present a condition much allied to, if not identical with, the disease known as myxœdema. That the mental condition was somewhat different from that in myxœdematous adults was accounted for by the early age at which it came on, before the mind had had time to become developed. It was pointed out that ten cases of a similar nature had now been recorded, two of them by Mr. Curling, four by the late Dr. Hilton Fagge, and one each by Dr. Fletcher Beach, Dr. Langdon Down, and Dr. Routh. On examining the records of these, it appeared that six of the ten cases presented signs, more or less marked, of an œdematous state, and Dr. Phillips pointed out that it was not therefore an exceptional occurrence in association with myxœdema, but must be looked on as part and parcel of the disease. Foden's opinion, quoted by the Sardinian Commission, that cretinous infants mostly become œdematous, was to the same effect. Experimental removal of the thyroid had been shown by Kocher to produce cretinism in human beings. In monkeys Mr. Horsley had produced myxœdema by ablation of the gland. There was no evidence as to what caused the deficiency of the thyroid in the present case, but this was the third out of the ten cases in which there was a history of fright during pregnancy. The cause, whatever it might be, must have been transient and accidental, rather than due to the locality inhabited or the parents' health, since the remaining eight children born of the marriage were quite healthy.—No discussion followed the reading of this paper.

Mr. W. J. WALSHAM read notes of a case of Inguinal Aneurysm, in which Ligature of the External Iliac Artery with two Kangaroo-tail Tendon Ligatures and Division of the Artery between was practised. A strong and muscular man, aged thirty-three, came under Mr. Walsham's care on February 4th, 1884, for an aneurysm the size of a small cocoa-nut in the right groin. The patient had been in the army, and had had syphilis. He had only noticed the aneurysm two months, and attributed it to a fall whilst carrying a sack of coals on his back. He had followed his employment of a dock labourer till within a week of his admission to the hospital, when he had to give it up on account of pain and swelling of his leg. The aneurysm measured five inches and a half in its longitudinal diameter, seven inches in its transverse, and projected two inches above the level of the thigh. It extended about an inch above Poupart's ligament. The right lower limb and the penis were swollen and œdematous. Pulsation could be stopped with difficulty by pressure on the external iliac artery. The patient was placed in bed, and the limb bandaged and raised; but the aneurysm increasing in size, Mr. Walsham tied the external iliac on February 8th. The vessel was readily exposed in the usual way, and two strong kangaroo-tail ligatures having been applied three-eighths of an inch apart, the vessel was divided between them with scissors. The ligatures were then cut short, a drainage-tube inserted, and the wound closed with stout catgut sutures. The steam spray apparatus failed in the middle of the operation. The wound was dressed with carbolic gauze. On the second day after the operation the wound was found united by the first intention, except at its lower part. From this time the patient progressed favourably in every way, except that a sinus remained where the drainage-tube had been inserted, and the aneurysm, which ceased to pulsate on the application of the ligature, remained soft, and did not diminish in size. On March 27th his temperature rose to 101°, and on the 28th to 103°; whilst the pulse was 132. The wound was then dressed, and appeared healthy. Nothing fresh was noticed about the aneurysm. On the 29th the temperature had fallen to 99·6°, and the pulse to 120. The patient complained that the bandage felt tight, and it was loosened by the house-surgeon. On the 31st Mr. Walsham found on his visit that the aneurysm had given way at one spot, where the cuticle was raised into a blister by fluid black blood, which was oozing from a pin-prick aperture in the sac. The parts around were red and swollen; the sinus where the operation wound had been was healthy. The aperture in the aneurysm was closed by lint soaked in collodion, and a nurse placed on guard. On April 1st the aperture in the sac increased to the size of a penny-piece, and a black clot the size of a walnut was projecting. A probe soaked in a strong solution of perchloride of iron was thrust into the sac through the clot in six or seven places, and the clot covered with collodionised lint. On April 2nd this was repeated. On the 3rd the aneurysm was evidently sloughing, and a poultice was applied. On the 10th the aneurysm no longer projected, and was freely suppurating. On the 17th the site of the

aneurysm was occupied by a healthy granulating wound. On May 17th the patient was discharged with both wounds soundly healed. The author remarked that the aneurysm had formed so rapidly, had attained so large a size, its increase was so marked during the few days it was under observation, and the sac was so thin, that ligature was resorted to without any attempts to cure it by pressure. Mr. Walsham had collected all the cases of aneurysm in the groin published in the English weekly periodicals, &c., since 1870. They numbered sixty-seven cases. Of these, thirty-six were treated by pressure, or by pressure and subsequent ligature. In nine only was pressure successful; in two of the remainder pulsation ceased in the sac, but the patients died apparently from the effects of the pressure. In the rest, pressure failed entirely, and ligature had to be resorted to. But not only in these did pressure fail to cure the aneurysm, but it appears in fifteen to have placed the patients in a worse condition for subsequent ligature, and in some in considerable danger of their lives. In three or possibly four, death seemed attributable entirely, or in great part, to the pressure. In face of these results, Mr. Walsham was inclined to question whether, as generally taught, pressure ought as a rule to be attempted in aneurysms of the groin before resorting to ligature. Since the revival of the method of applying two ligatures and dividing the artery between them, this appears to be the first case in which it has been employed on the external iliac. The advantages claimed for the method are—1st, that it diminishes the risk of secondary hæmorrhage by removing longitudinal tension of the vessel, and by ensuring that no part of the artery above the upper and below the lower ligature is deprived of the nourishment it receives from its sheaths; and 2ndly, the artery being divided completely across, there can be no chance of its calibre being restored through the slipping of the knot, the too rapid absorption or giving way of the ligature, or the failure of division of the internal and middle coats. A restoration of the calibre of the artery from one or other of these causes has now in several instances led to a return of pulsation in the aneurysm, and in consequence, in some cases, to its rupture and fatal hæmorrhage. In the last place, Mr. Walsham advocated the leaving of the suppurating sac to nature, in place of incision, and turning out the clots as advised by many—a proceeding which has led to severe, or even fatal hæmorrhage. —Mr. DURHAM had seen a remarkable case of inguinal aneurysm twenty-five years ago under the care of Mr. Hilton. A silk ligature was placed upon the artery, probably the common iliac. Although suppuration of the sac ensued, the patient ultimately recovered; and four years later an aneurysm of the other side appeared, which was cured by compression of the common iliac artery by means of Pancoast's tourniquet. The patient lived five or six years, and then died of aneurysm of the aorta.—Mr. CHARTERS SYMONDS said that the kind of ligature and the method were the points still under discussion. From Mr. Morris's and Mr. Hutchinson's statistics no comparison could be made between the relative values of silk, catgut, and kangaroo tendon as ligatures. He said that fresh statistics were required before we could arrive at a comparative value. At Guy's Hospital the use of catgut and antiseptics had rendered very infrequent the occurrence of secondary hæmorrhage.—Mr. R. J. GODLEE asked whether the kangaroo tendon was rendered aseptic by any means, and also whether there were any signs of the ligature coming away. He had known such ligatures to come away some time after the operation; in a case of subcutaneous ligature of a nævus two months elapsed, and then a ligature was removed from the wound. He thought that double ligature with division was a sound operation.—Mr. T. SMITH said that he was the first to do the operation of double ligature with division between at St. Bartholomew's Hospital. He had pursued this plan with every artery in the body except the subclavian. Last year he ligatured with kangaroo tendon the external iliac artery, with a successful result. Many of his colleagues were converted to this method, which was the one which Carden of Worcester had suggested to Mr. Smith many years ago. The double ligature did not allow of pockets of pus to accumulate, for the divided ends of the artery retracted to varying degrees according to the artery concerned. There was less risk of secondary hæmorrhage from an artery in a stump because the artery was relieved from all tension, whereas much elastic tension existed in a vessel ligatured in its continuity. The whole wound was laid open from the bottom if the artery were divided between the two ligatures, and nothing like a separate sinus existed between the artery and vein such as was the case when a single ligature was used.—Mr. HOWARD MARSH was one of those who had formed a favourable estimate of the method of double ligature with division of the vessel between. In this operation there was a greater certainty that the vein would not be wounded. In at least two instances he had seen the femoral vein wounded, and in one case the needle was passed through the vein, and pyæmia resulted. The division of the artery allowed of full contraction and retraction of the ends, as happened in spontaneous arrest of hæmorrhage. It was true that Mr. Syme had ligatured in their continuity thirty-one arteries without a fatal result, but such success it was not for everyone to expect. He thought it was far better to ligature the external iliac without attempting to cure the aneurysm by compression. Pain, delay, and uncertainty were the objections encountered in treating the aneurysm by compression.—Mr. WALSHAM replied that the kangaroo tendon was steeped in a strong solution of carbolic acid. He did not agree with Mr. Symonds, for he considered that the statistics which he had furnished, dating as they did only since 1870, supplied a comparison, for many of the cases had been treated antiseptically, and catgut and kangaroo tendon had been used.

Dr. DICKINSON and Mr. ROUSE read a paper on a case of Renal Lithotomy. The subject of this case was a young man who had been in St. George's Hospital under the care of Dr. Dickinson, as far back as 1877, with hæmaturia, due, as was considered, to stone in the kidney. He was last admitted in April, 1884. His age was then nineteen. His parents had been on the previous occasion advised to bring him up to a sedentary occupation, instead of which they made him a blacksmith. He suffered from repeated hæmaturia, brought on either by exertion on movement or by drinking beer, and had occasional pain in the right renal region. The urine was bloody, there was no albumen except what was due to the blood, and the diagnosis of stone in the right kidney appeared to admit of no doubt, while excepting the stone there appeared to be no renal disease. The patient was somewhat spare in frame, and appeared to be so favourable a subject for operation that Dr. Dickinson requested Mr. Rouse to undertake it. This was accordingly done on May 8th, 1884. An incision was made in the right loin as in Amussat's operation, the kidney exposed, and a stone felt inside it with the finger and with a needle. The kidney was then incised, a stone weighing sixty-five grains removed, and a smaller one felt, which eluded the attempts made to extract it. This, however, which was found to weigh only two grains, came away spontaneously on the fourth day after the operation. The larger stone was about as large as a filbert, the smaller the size of a pea. They were not cut, but presented the appearance externally of oxalate of lime. The urine discharged abundantly through the wound. The progress of recovery was interrupted by an attack of septicæmia, which was almost indistinguishable from pyæmia. A severe rigor occurred on May 22nd, and was repeated on many subsequent days. The temperature went up to 107°, and presented a daily maximum which for twelve days, with one exception, ranged between this point and 103°, while eleven days elapsed before it assumed anything like a normal level. The febrile attack was accompanied at its commencement by pneumonia, as was shown by the characteristic expectoration, and later by rheumatoid swellings of several joints, notably of the left elbow, wrist, and knee, all of which were red, painful, and tender, while the knee contained an appreciable amount of fluid. Quinine and stimulants were freely given, under which the adverse symptoms disappeared. The wound in the meanwhile had been healing without interruption, and on July 16th was closed. The patient was last seen on October 27th, when he returned to the hospital to show himself. He was in perfect health, and was about to resume his work as a blacksmith. The stones were exhibited. — Mr. DURHAM made mention of the fact that Mr. Thomas Smith was the first to advocate this operation, though he believed that he (Mr. Durham) was the first, in recent times, to attempt the operation of removal of a renal calculus; owing to a mistaken diagnosis no calculus was removed. Mr. Morris was the first to perform the operation successfully.—Mr. SMITH thanked Mr. Durham for referring to his inauguration of the idea of renal lithotomy, and said that it was not till two months ago that he had had the oppor-

tunity of performing the operation. Even when the kidney was exposed it was sometimes impossible to detect the actual existence of a stone. He had recently removed the kidney for calculus, and yet thorough external exploration (the kidney was not punctured) failed to detect the stone. A detached calculus, with much phosphatic débris, was first seen on incising the kidney after its removal. He was not sure which would prove the less dangerous operation, nephrectomy or nephrotomy.—Mr. WALSHAM alluded to a case of nephrectomy which he had performed on a woman, aged forty-three, about two weeks ago. There was no hæmaturia at any time, but much pus in the urine; in the right lumbar region a large swelling existed. The kidney was reached by a lateral incision between the anterior superior spine and the left rib. A large branched stone was found, but he had to remove the kidney; the nephrectomy was accomplished after considerable difficulty; some collapse followed, but the patient was in a fair way of recovery; the urine was clear and free from albumen.—Dr. F. L. BENHAM said that Armstrong had advocated calomel as a treatment for pyæmia, and questioned whether the improvement in Dr. Dickinson's case did not result from the external use of calomel.—Mr. CHARTERS SYMONDS put the question whether, in a man suffering from renal colic or intense pain due to kidney disease, it was justifiable to remove the kidney. He referred to cases that had been under his observation, and to one in which a urinary abscess, situate behind the peritoneum, was drained; death ensued from peritonitis, which was not related to the operation, but was due to the primary renal disease.—Mr. WARRINGTON HAWARD was of opinion that exploration, even with incision, was far less dangerous than nephrectomy when the surgeon was doubtful whether a stone was present or not. He related a case in which all the symptoms pointing to a renal calculus were present in a young man; digital exploration and puncture detected no stone, but he did not proceed to remove the kidney, for he was very doubtful of the wisdom of such a procedure. In a case in which he had removed a stone from the kidney there was much suppuration; incision allowed of drainage as well as removal of the stone, and the patient did well.—Mr. R. J. GODLEE thought that our surgical experience had taught us that nephrectomy was a most dangerous operation, and likely to cause death in exhausted states of the system. Some old cases of kidney disease might be dealt with much more freely than was perhaps generally thought. He referred to a case of renal calculus in a woman from whom he had removed a stone first and the kidney later on; the shock was comparatively slight in both operations, and by the time of the second operation the kidney had shrunk to a very small size. He differed from Mr. Rouse, and thought it was possible to keep the wound aseptic notwithstanding the presence of urine.—Dr. DICKINSON felt most strongly that the removal of a kidney was a most unwise procedure when incision would effect practically all that was necessary. He did not think that the calomel had much to do with the recovery of the patient from the pyæmic-like symptoms.

Mr. R. W. PARKER showed a little girl, aged five, in whom he had performed thyrotomy for papillomatous growth in the larynx seven months ago. Recovery followed, with preservation of voice. A paper on the case will be read in full in the early part of next session.

Mr. J. R. LUNN showed: Four cases of Osteitis Deformans and microscopical sections of Diseased Tissues. Mr. Rushton Parker: A case of Ununited Fracture of Olecranon, wired antiseptically, with close union of fragments. Dr. Stephen Mackenzie: (1) A case of Osteitis Deformans; (2) A case of Hereditary Multiple Tumours. Dr. Hadden: A case of Obstruction of Arteries and Veins which had lasted many years.

HARVEIAN SOCIETY OF LONDON.

A MEETING of the above Society was held on April 16th, Dr. T. Morton, President, in the chair.

Dr. R. W. BURNET read notes of a case of Ulcerative Endocarditis, which had been under his care for two months in the Great Northern Central Hospital. The earliest complaint had been of slight pains and swelling of the limbs. The symptoms having become acute, the patient was admitted into hospital. She was then weak, pale, and somewhat emaciated; skin dry and harsh; pulse 110; temperature 102·5°; respiration 36; heart's impulse normal; a systolic thrill, and a systolic murmur audible at apex and in the axilla. Ulcerative (or infective) endocarditis was diagnosed. The patient gradually got worse. The temperature varied from 100° to 104·5° F.; and the pulse from 120 to 130; the murmur became very rough and the urine albuminous, and the patient gradually sank. Post-mortem: Lungs congested and œdematous; pericardium thickened and adherent; ventricles thickened and dilated; mitral valve thickened, but smooth; posterior surface of left auricle covered with adherent vegetations; aortic valves incompetent, thickened, and thrown into folds; aorta healthy; large infarct in spleen, and two other infarcts of older date. No noticeable changes in the other organs. Dr. Burnet gave abstracts of three other cases, one of which had been under observation for four months. In this case there were, in addition to extensive disease of the heart, pleurisy, pneumonia, and pericarditis. The heart was very large, hypertrophied, and dilated; the mitral valve and chordæ tendineæ much thickened; on the mitral and in the left auricle numerous vegetations; emboli in the spleen and left kidney. In one of the other cases there was gangrene of the foot. Dr. Burnet pointed out that the first case was typical of a class of cases in which endocarditis followed upon old rheumatic mischief, and that the rheumatic symptoms need not be severe, although the cardiac affections may ultimately prove fatal. Dr. Burnet alluded to the recent Gulstonian lectures by Dr. Osler, and quoted the views of the latter in reference to this form of endocarditis.—Dr. BROADBENT commented upon the pathology of the affection and upon the usual modes of death. Occasionally cases might recover; of this there existed clinical as well as anatomical evidence.—Dr. EWART called attention to the fact that fatal endocarditis often ran its course without any ulceration. Applied to such cases the term "ulcerative endocarditis" was a misnomer. It might be well to discontinue the use of the prefix.—Dr. J. WILLIAMS referred to a case of the disease occurring in the puerperal state. Independently of endocarditis, cardiac murmurs were very common in puerperal women. — Dr. ANGEL MONEY had recognised the presence of a bruit over the site of the left auricle and at the fourth cartilage in 60 per cent. of Dr. Williams's puerperal patients. This was probably due to the hypertrophy and dilatation of the heart, and to physiological changes in the composition of the blood.

Mr. J. ERNEST LANE read a paper on Hæmophilia. Having dwelt upon the hereditary nature of the affection, he referred to its marked prevalence in the male sex. In the female the disease probably remained in a latent form. Thus the daughters of a male patient, although exempt, might transmit the idiosyncrasy to their sons, whilst the direct male descendants remained healthy. Attention was also drawn to the fact that "bleeder" families were unusually prolific, the number of births being almost double the ordinary average. The comparative rarity of the disease was explained by the fact that in these families the number of sons far exceeded that of the daughters. Of thirty-seven children born in six of these families, twenty-seven were boys and ten girls. The symptoms were classified under the following headings:—1. Spontaneous bleedings. 2. Traumatic bleedings. 3. Effusions into joints. Referring to this last symptom, Mr. Lane considered that the swellings of the joints were usually due to synovial, and not to hæmorrhagic, effusion. The views of Virchow and of Wachsmuth as to the pathology of the disease were quoted. With regard to treatment, he recommended the habitual use of purgatives, such as sulphate of soda or compound jalap powder. The hæmorrhages should be treated by the use of styptics, preference being given to the perchloride of iron. He referred to a case in which transfusion had been performed by Dr. Samuel Lane when the patient was on the point of death from hæmorrhage induced by an operation for squint.—Dr. M. HANDFIELD JONES briefly narrated an example of the disease which had come under his notice in which the diathesis had been traced through three generations. There was apparently a close connexion between the number of members in a family and the fatality of the disease, the percentage of deaths from bleeding increasing as the number of children became larger. Moreover, among the younger children hæmophilia proved more rapidly fatal than in the earlier members. Dr. Handfield Jones differed from Mr. Lane in thinking that hæmophilic patients rallied quickly from large blood-losses.—Mr. SEDGWICK looked upon hæmophilia as a congenital defect of the vascular system, and upon the associated affection of some of the joints as usually due to effusion of blood. The female transmitters did not exhibit any ex-

ceptional tendency to hæmorrhage even during childbirth. Families of bleeders both in this country and in America probably inherited the defect in many cases from a common source, through the occasional extension of the usual limits of atavism. In some forms of the diathesis, such as epistaxis, hæmoptysis, and umbilical hæmorrhage, the structural defects in the bloodvessels was more limited than it was in hæmophilia.

MEDICAL OFFICERS OF SCHOOLS' ASSOCIATION.

THE annual meeting was held in the Medical Society's Rooms on Wednesday, April 18th, Dr. T. Fuller, President, in the chair.

Dr. ALDER SMITH reported that nearly six hundred copies of "The Code of Rules for the Prevention of Infectious Diseases in Schools" had been sold and distributed since the last meeting in January; and that the following gentlemen had joined the Association: Dr. Richards, of Winchester; Dr. Newsholme, of Clapham; and Mr. Brudenell Carter. The following members were elected on the Council in the place of four retiring: Dr. Briggs, of Harrow; Brigade-Surgeon Clarke, of Sandhurst; Dr. Fletcher, of Highgate; and Mr. O'Brien Jones, of Epsom College.

Dr. Withers Moore, of Brighton, and Dr. Littlejohn, of London, were elected members of the Association; and Dr. Thorne Thorne as the first honorary member.

Mr. BRUDENELL CARTER then read a paper on Eyesight in Schools. The author commenced by setting forth the great importance of the question, not only to the scholars of the present generation, but also, possibly, to their descendents, and dwelt upon the necessity of caution in arriving at any conclusions upon the subject. He then proceeded to describe at length the peculiarities of the several conditions of refraction, emmetropia, hypermetropia, myopia, and astigmatism, the signs by which they were recognised, the sources of error in diagnosis, and the effects upon vision and comfort which they respectively produced. He discussed the view maintained by Donders, of the essentially diseased condition of the myopic eye; and showed that, although not universally correct, it was correct in the majority of instances, especially in all those in which the myopia was progressive in its character. He referred to a doctrine lately put forward by Mr. Berry, to the effect that increase of myopia might be regarded merely as a consequence of physiological growth, and showed this view to be incompatible with the clinical history of the affection, and also with the normal rate and amount of growth in the eye. After glancing at the original statistics by which Cohn, in 1867, called attention to the prevalence and progressive increase of myopia in German schools, he said that Cohn's investigations had now been repeated in various parts of the world by at least forty observers, and upon at least 50,000 children; and that, while different observers brought out different results as regarded the relative prevalence of various forms of defect, yet that all were agreed in maintaining the accuracy of the general principles which Cohn had laid down. In England but little evidence had been collected, although Mr. Priestly Smith had found 5 per cent. of myopia in Board School children, and 20 per cent. among pupil teachers taken mainly from the same class; while Mr. Adams Frost had found about 20 per cent. of myopia among London Board School children. Still, these figures, although confirming those obtained in other countries, were not sufficient to serve as a foundation for practical deductions; and the author proposed to rest his case chiefly upon the results published by a medical committee in Philadelphia, a committee presided over by Dr. Risley, and which appeared to have conducted its inquiries with exceptional diligence and care. After giving an account of the methods pursued by this committee, the author cited their figures to show that the increase of myopia, which seems to occur in all schools, occurred mainly at the expense of the hypermetropia and the astigmatism; and he drew the inference that these eyes were especially vulnerable, and that they required to be watched over during the progress of school life. He then proceeded to criticise in detail some observations recently published by Mr. Roberts, which purported to give the results of an examination of the eyes of the boys at Marlborough College, and endeavoured to show that these results afforded no support to the encouraging conclusions which Mr. Roberts had drawn from them, and that they only showed a great and lamentable prevalence of defective vision in the school. Finally, he dwelt upon the necessity of paying attention to the early signs of ocular discomfort in young children, whether at home or in preparatory schools, or in the junior classes of large schools, and expressed a hope that the members of the Association would make inquiries into the facts of the case, and would place themselves in a position to give utterance to opinions which would rest upon the solid basis of knowledge. The paper was illustrated by numerous figures and diagrams.

A discussion followed, and the meeting adjourned after a vote of thanks to Mr. Brudenell Carter for his paper.

MIDLAND MEDICAL SOCIETY.

AT the meeting held on April 1st, Mr. T. H. Bartleet, President, in the chair,

Mr. H. BRACEY showed a case of Myxœdema. The patient, a woman aged fifty-seven, presented all the usual symptoms of the disease. Her sister died last June of myxœdema in a London infirmary. The patellar reflexes in this case were increased, and the urine contained a trace of albumen.

Mr. J. W. TAYLOR showed an Instrument for Dilating the Cervix Uteri.

Mr. CHAVASSE exhibited a patient, aged nineteen, who had suffered from Necrosis of the Radius ever since he was an infant. Sequestrotomy had been performed nine times, as latterly the symptoms seemed suggestive of myeloid sarcoma; the entire radius was excised a year ago. The patient had now a useful limb, being able to feed and wash himself, and carry an ordinary bucket.

Dr. GARMAN showed Crystals of Leucin and Tyrosin from a case of acute yellow atrophy of the liver.

Dr. SUCKLING showed a boy who had suffered from Pachymeningitis Cervicalis Hypertrophica. The disease began three years ago with rigidity of the neck, shooting pains along the great occipital and other nerves, followed by paralysis of both upper extremities with rigidity, the hands being strongly flexed on the fore-arms. Paralysis with rigidity of both legs followed. The patient had been under Dr. Suckling's care for two years, and recovered entirely, with the exception of a little twitching of the left knee.

Dr. SUCKLING also showed a man suffering from Perforating Ulcer of the Foot, which was the first symptom of locomotor ataxy. There were two sinuses, one on the under surface of each great toe, opposite the phalangeal joint, which did not lead down to dead bone. The patient had suffered from these sinuses for two years. Dr. Suckling saw him about twelve months ago, when there were no signs of locomotor ataxy; but when examined last March loss of patellar reflexes, swaying movements, and the Argyll-Robertson pupil had supervened. There was no anæsthesia or sweating of the feet.

Dr. NEALE showed an Instrument for Irrigating the Uterus, made of vulcanite, the chief object of its design being to combine in one piece the smallest injecting-tube with as roomy an ejecting one as possible, so as to allow of the immediate removal of débris from the uterus. The makers are Messrs. Woodall, York.

Mr. H. LUPTON read a paper on a case of Intra-cranial Hydatid. The patient, a girl aged thirteen, had noticed a swelling on the head for about twelve months, which, after discharging purulent material, subsided, and refilled again repeatedly. Mr. Lupton at first thought he had to deal with a suppurating cyst, and proceeded to operate with the intention of dissecting out the cyst wall, but no cyst was to be found. The bone was rough, and an aperture was felt leading into the skull. The hole was just large enough to admit the tip of the little finger, and when the finger was withdrawn it was followed by an ounce or two of fluid, and about a dozen daughter hydatids. The cavity was washed out and drained; daughter cysts occasionally came away, but in about a month the cavity ceased discharging. The hole in the skull closed up, and the girl got perfectly well. The site of the perforation was close to the occipital protuberance.

Dr. HEADLEY NEALE read a paper on the Germ Theory of Phthisis, pointing out the difficulty of harmonising the theory of the micro-organismal origin of the disease with the well-established fact of its heredity, the arguments employed pointing to the conclusion that physico-chemical changes must precede the botanical aggression. The

subject of the antiseptic treatment of phthisis was touched upon, the author drawing attention to the difficulty of applying antiseptic material topically to the air vesicles and their phthisical contents.

WEST HERTS MEDICAL ASSOCIATION.

THE seventy-fourth annual meeting of the above Association was held at Watford on the 8th ult. Twenty-four members were present. The President, Dr. P. Hood, in the chair.

Dr. C. E. SAUNDERS read a paper on Cholera, its Cause and Method of Propagation. The author referred to India as the home of cholera, and gave some chronological account of its early history in that country. He traced its advance in 1817 to parts of Europe, and in 1831 to England, where it remained fourteen months; the next visitation was in 1848-49, then in 1853-54, and the last 1865-66. Dr. Saunders discussed the various theories that have been promulgated as to the cause of cholera, and showed that many observations, although carefully made, contradicted one another, and from this drew the conclusion that cholera could not occur without its specific contagion, and that meteorological or other conditions had little to do with the dissemination. The one factor constant in all outbreaks was filth in some form or other, and the pollution of water certainly, and possibly other media through this means, with the excreta of cholera patients, which had been conclusively shown to contain the germs. He showed, from the conclusions arrived at by the two international sanitary conferences which had been held at Constantinople and Vienna respectively in 1856 and 1876, that cholera was not carried by the air for any but very short distances from the source of infection, and that no instance of an outbreak had ever been known to occur in less time than it would take a man to travel the distance, or, in other words, that human intercourse was the source of propagation. Dr. Saunders believed that Professor v. Pettenkofer's theory as to the conditions that were necessary for the naturalisation of cholera was worthy of great consideration. Pettenkofer believes that a soil permeable to air and water and containing much organic matter, with a fluctuating subsoil water, are essential conditions for cholera propagation. Although it was probable that the cholera poison was of the nature of a microbe which was swallowed in water, the author considered it was premature to accept the belief that Koch had discovered the bacillus on which cholera depended. Dr. Saunders insisted that cholera was a disease *sui generis*, and that it was mischievous and misleading to use that term for any but Asiatic cholera, and especially objected to diarrhœa being qualified by the prefix choleraic. In conclusion, he laid down rules for the hygienic management of a case of cholera, especially alluding to the precautions necessary to be taken in dealing with the excreta, and the best method of disinfection, enjoining the use of a perfectly pure water and food free from suspicion of contamination, and urged that the safest thing to do if a case of cholera occurred was to cause a revolution of all pre-existing domestic arrangements so far as concerned those persons who remained well, with a view of preventing further extension of the disease while an investigation was being made into the cause of the first outbreak.—In a discussion which followed, Mr. Cayley gave his experience of twenty-seven years of practice in India. He gave most valuable information as to the treatment of the disease, and considered that in the comma bacillus of Koch a valuable means of diagnosis was to be found. The President, Dr. Brett, and Mr. Stradling joined in the discussion.

Mr. FISHER showed some photographs of an interesting case of Ichthyosis, which had greatly improved under treatment.

WATER-SUPPLY OF EPPING.—Last summer and autumn there were fully forty cases of diphtheria at Epping. The only water to be had in outlying parts of the parish was obtained from ponds, which in many instances had become absolutely putrid during the drought in summer; samples of such water were green and opaque. Some fresh wells were immediately sunk, and the water-mains of the East London Company were extended to Chigwell-row. Great difficulty still exists with regard to the water-supply of the town of Epping.

Reviews and Notices of Books.

Louis Pasteur: his Life and Labours. By his SON-IN-LAW. Translated from the French by Lady CLAUD HAMILTON. London: Longmans, Green, and Co. 1885.

AMONGST all the eminent men assembled last year at Edinburgh to receive honorary degrees and take part in the ceremony whereby the University signalised its tercentenary, there was no one who was more enthusiastically welcomed than M. Louis Pasteur. It was a striking testimony to the appreciation of his indefatigable labours in the cause of science and humanity, work which has in so many directions overturned accepted beliefs, and has done even more in the way of opening up new and well-nigh inexhaustible fields of research. It is, then, with peculiar pleasure that we have read this record of his life, which shows how he was led from one point to another, and how the chemist was by reason of his chemical studies compelled to become in turn the biologist and experimental pathologist. The memoir is from the pen of M. Radot, the son-in-law of the *savant*, one who has lived long in intimacy with Pasteur, and, as he charmingly relates in the preface, whom he prevailed upon to be permitted to undertake the welcome task. And it is to Professor Tyndall that we owe the appearance of the English translation, which was entrusted to a most careful hand, of this "Histoire d'un Savant par un Ignorant," to which Professor Tyndall has prefaced an introduction that admirably surveys the whole theme. Pasteur's first great discovery was in chemistry—viz., the discrimination of the tartrates and paratartrates by the difference in their behaviour to polarisation; but, as Professor Tyndall shows, his generalisation from this discovery, as establishing a line of demarcation between the inorganic and organic kingdoms, has not been verified. It was, however, in the studies of the properties of the tartrates that Pasteur was led to his greatest discovery of fermentation being due to the action of living organisms—a discovery from which so much has issued, not only in the interpretation of chemical processes, but in those of the living body in health and disease. It is impossible yet to say how far-reaching that law of fermentation is, for from it have flowed all the researches upon morbid germs and infective disease, which daily multiply in number. Pasteur's own life-pursuit was dominated by the ideas that arose from the facts which replaced for chemical phenomena the fact of the intervention of living organisms. Hence he was engaged in the now historical controversy with the naturalist Pouchet upon spontaneous generation—a controversy which has been so completely settled that it is now almost forgotten. It was a curious thing that the chemist should have had to contest the truth of the doctrine that living things can only arise from life, whilst the biologist was contending that inert matter could become endowed with attributes of vitality; but the whole question turned upon delicacy of experimentation and accurate deduction from such experiment, and no wonder that the victory remained with the former. But this controversy was but an incident in the life of the experimentalist. His studies on the diseases of wine and of beer, resulting in simple measures for ensuring the purity of these articles, did much for commerce; but most of all in its direct practical utility was the issue of his prolonged and patient labour in unravelling the causes of silkworm disease, which threatened a whole industry. The description of his work on this subject is as readable as a romance, and the gratitude of France was well earned. It was on the completion of this work that Pasteur was attacked with paralysis, but, happily for humanity, he regained his health and resumed his researches with unabated energy. Splenic fever, septicæmia, fowl cholera, the discovery of the vaccine of

splenic fever and its practical application,—these and other researches alone would make his name famous. Throughout it all he has met with opposition, but his opponents have almost invariably had to admit they were in error. Even upon the question of anthrax vaccination, which Koch assailed, the issue of the controversy has been, not to invalidate the efficacy of such protective inoculation, but only to place a limit upon its period of protectiveness. It is to be deplored that the author of the memoir should have done Koch such scant justice; for it is doubtless true that it was his researches upon the bacillus of anthrax that stimulated Pasteur to study the subject. The work to which Pasteur has been devoting himself for the past two years—namely, the prevention of hydrophobia—forms the subject of the last chapter of the book, which closes with an anecdote describing Pasteur summoned to see two dogs in the last stage of the disease. One, a large bull-dog, was secured to the bars of the iron cage in which he was kept, and there "the dog, suffocating with fury, his eyes bloodshot, and his body convulsed with a violent spasm, was extended upon a table, and held motionless, while Pasteur, leaning over his foaming head, at the distance of a finger's length, sucked up into a narrow tube some drops of the saliva. In the basement of the veterinary surgeon's house, witnessing this formidable *tête-à-tête*, I thought Pasteur grander than I had ever thought him before."

OUR LIBRARY TABLE.

Cruise of the "Alert": Four Years in Patagonian, Polynesian, and Mascarene Waters (1878-82). By R. W. COPPINGER, M.D., Staff Surgeon, Royal Navy, C.M.Z.S. London: W. Swan Sonnenschein and Co. Naval surgeons on foreign, and especially on tropical, stations have ample opportunities for making valuable original researches in various departments of natural history, and the number of those who have availed themselves of such opportunities is considerable. When it was decided by the Admiralty to send out a vessel to survey the Straits of Magellan, certain doubtful reefs and islands of the South Pacific, and part of the northern and western coasts of Australia, Dr. Coppinger was specially selected for the medical charge on account of his knowledge of and interest in natural history. The volume before us embodies the results of his observations, related in a pleasant and interesting account of the voyage. Though the work can only be fully appreciated by an accomplished naturalist, it is full of interest to the general reader, and contains, scattered here and there, several valuable anthropological and medical facts which are specially interesting to the members of the profession. For example:—"We arrived at Talcahuano, one of the most interesting of the Chilian ports, on the morning of the 20th of April, and were surprised and grieved to hear that a severe epidemic of small-pox prevailed at the town of Concepcion, some nine miles inland. The epidemic had begun in January, and we were informed by Mr. Elton, the British Vice-consul, that since then no less than 1500 deaths had occurred, the mortality of those attacked having been at the extraordinarily high rate of 90 per cent." Of some aborigines he saw on the N.W. coast of Australia, Dr. Coppinger says:—"The nose was aquiline, with broad alæ nasi, and having the septum perforated for the reception of a white stick like a pipe-stem; the upper lip, cheek, and chin were furnished with a moderate growth of hair; the teeth were regular—no incisors removed; trunk and extremities almost devoid of hair; the skin of the arms, chest, and abdomen, was decorated with cicatrices, which stood out from the skin in bold relief, having the form and consistency of cords. On the arms these scars were disposed in parallel vertical lines, while on the chest and abdomen they were in horizontal curves. Dr. Morice informed me that these ghastly decorations were produced in some way unknown, by means of a sharp-cutting instrument, and that no foreign substance is introduced into the wound. He had been unsuccessful in all his efforts to ascertain how the peculiar raised and indurated character of the sore is produced." The question here propounded may perhaps be regarded as worth attention by pathologists. The work is well printed and well got up, and contains many good illustrations. If a map could have been included, the intelligent perusal would have been greatly facilitated, as few persons know much of the geography of the places described, and even a good ordinary atlas affords but little of such information.

Injuries of the Spine and Spinal Cord. By HERBERT W. PAGE, M.A., F.R.C.S. Second Edition. London: J. and A. Churchill. 1885.—When Mr. Page's book first appeared we noticed it at some length. The first edition has been soon exhausted, and Mr. Page has been well advised in republishing it. The changes and alterations in the edition before us are not numerous, and the additions are few and not very important. We deem it unnecessary, therefore, to deal at length with the present volume, but we may repeat that it contains a valuable amount of information on the subject upon which it treats. The amount of matter in the present volume is as nearly as possible the same as in the last, but the size of the page and of the type has been slightly reduced, and the weight to hold in the hand while reading has been greatly lessened. This is a gain which authors are too apt to make light of in the present day.

The Student's Guide to the Medical Profession. By C. B. KEETLEY, F.R.C.S. Second Edition. London: Baillière, Tindall, and Cox.—To the second edition of this work additions have been made which more than double the size of the book. They include chapters on Drawing, on Student's Societies, on Provincial Schools, on Scotch and Irish Schools, on the Army and Indian Medical Services, on Lunacy Work, and other important subjects. Considerable pains must also have been taken to collect the information given in the chapter entitled "The Conditions under which Pupils are taken at the Provincial Hospitals." In the list of the several legal qualifications and honorary degrees obtainable, including the minimum qualification to practise (given on p. 17), we notice one serious omission: the diploma of L.R.C.P. Lond. is not mentioned, an error which will doubtless be rectified in another edition, which will probably be soon called for. The work supplies a need, and can be consulted advantageously by all who intend to devote themselves to the practice of medicine.

Archives Italiennes de Biologie. Tome VI., Fasciculus 2.—This number contains the following articles:—1. Clinical and Physiological Researches on Paraldehyde, by V. Cervello. 2. On the Physiological Action of Antipyrin, by F. Coppola. 3. Perimetry and Self-registering Perimeters, by L. Ferri. 4. On the Action of Common Salt on Cercaria and their Desiccation, by E. Perroncito. 5. On Cicatrisation of Wounds of the Kidney, and on the Partial Regeneration of that Organ, by G. Pisenti, with a plate. 6. On the Presence of Albumen in the Saliva and Bile of Albuminuric Patients, by M. Dessalles. 7. Researches on the Air-sacs of Birds, by E. Ficalbi. 8. On Numerical Anomalies of the Semilunar Valves, by G. Martinotti and G. Sperino. 9. On the Microphytes of the Normal Human Skin, by G. Bizzozero, with a plate. 10. On the Organ of Corti in Monkeys, by A. Tafani, with eight figures in the text. 11. Notes on the Anatomy of the Negro, by G. Giacomini, with two plates and three figures in the text.

Transactions of the American Ophthalmological Society. Boston: Published by the Society. 1885.—This volume contains an interesting record of the following cases:—Hysterical Monocular Blindness with Violent Blepharospasm and

Mydriasis, by Dr. Harlan; Neuro-retinitis with almost sudden Loss of Sight in both Eyes, by Dr. Knapp; Hereditary Atrophy of the Optic Nerves, by Dr. Norris; Myxo-sarcoma of the Orbit and Osteoma of the Orbit, by Dr. Norris; Glioma of the Retina, by Dr. Little; Myxœdema with Atrophy of the Optic Nerves, by Dr. Wadsworth; Multiple Colobomata of the Iris, by Dr. Mittendorf; Hypermetropia passing into Myopia, with symptoms simulating general Nervous Disease, by Dr. Risley.

Analytical Records.

[WE think it right to direct attention to the system we adopt in the conduct of this department. Of the numerous articles of food and medicine submitted to us for analysis we select such as we think important to the medical profession and the public. Samples of these are bought by us in the ordinary way, and the results of our examinations reported.]

CARNRICK'S PEPTONISED COD-LIVER OIL AND MILK.
(MALTINE MANUFACTURING COMPANY.)

THIS is an exceedingly perfect emulsion of cod-liver oil and condensed milk, the oil-drops appearing under the microscope no larger than the granules of wheat starch. When the oil and fat are removed by ether and a drop of potash, a liquid remains which coagulates with acetic acid, and is evidently modified casein. This emulsion shows no tendency to separation. It has little of the disagreeable taste of the oil, and will be taken with ease by many who cannot digest pure oil. It is certainly a valuable and trustworthy preparation.

KING'S WHEATEN FLOUR FOR INFANTS.
(ALBION FOOD MILLS, SYCAMORE-STREET, E.C.)

This preparation is described on the wrapper as "prepared solely from the finest wheat," and is stated to be "free from any chemical additions." So far our analysis confirms the description. But when it is added that the flour is "thoroughly cooked by a new and improved patent process," we confess ourselves puzzled, for a great part, if not all, of the starch is ungelatinised. We notice that in the directions for use the addition of boiling milk or water is insisted on. This, of course, amounts to cooking.

BROWNING AS A SCIENTIFIC POET.

ON Friday evening, April 24th, Mr. Edward Berdoe, M.R.C.S., read a paper at University College, Gower-street, before the Browning Society, on "Browning as a Scientific Poet." The paper opened with an exhaustive argument to prove that the progress of science need not, as some had said, tend to the destruction of the poetic art; that, in fact, some of the greatest poets had enriched their verse by the study of natural phenomena—Lucretius, Haller, Milton, and Goethe, and in our own times Tennyson and Browning, while students of natural and physical science had not found their exact acquaintance with natural laws impede the luxuriant growth of their poetic fancy. In fact, to interpret Nature faithfully, she must be approached by a mind neither wholly scientific to the exclusion of reverence, nor wholly poetic to the exclusion of knowledge. Many of Browning's most beautiful similes were the result of his intimate acquaintance with anatomy, physiology, and chemistry; and the use he constantly makes of figures drawn from the science of optics has enabled him to illustrate his favourite optimism by much beautiful imagery. Tyndall claims for the scientist that "his imagination does not sever itself from the world of fact," and the poet of the future will be denied his former "power of dealing capriciously with facts," but this restraint, Mr. Berdoe argued, would not repress the poetic spirit. In the poem "Easter Day" Browning seemed to have anticipated by five years Herbert Spencer's theories of the evolution of the first rudiments of nerves in Medusæ along the lines of least resistance, as the following lines seem to show:—

> "Thy choice was earth; thou didst attest
> 'Twas fitter spirit should subserve
> The flesh, than flesh refine to nerve
> Beneath the spirit's play."

Tyndall's suggestion, that two-thirds of the rays of the sun fail to arouse in the eye the sense of vision because of its present imperfection, affords Browning, in "Jochanan Hakkadosh," an argument against the assumption that our reason is sufficient for the complete comprehension of the great problems of life, the soul, and God. Browning's splendid rehabilitation of the character of Paracelsus should earn him the gratitude of the medical profession. The poem may fitly be called the "Epic of the Healer." He speaks as lovingly of the human hand as Sir Charles Bell, and rebukes those who refuse belief in God because they cannot find Him with their microscope and scalpel:

> "The name comes close behind a stomach cyst;
> The small becomes the dreadful and immense."

"You cannot find soul?" he asks. "Show me an atom! You cannot believe in immortality? But an atom is immortal! You want scientific faith? It is absurd—would not be faith. Do you understand gravitation? The exhausted air-bell of the critic leaves no air to poison, and none to breathe!" His Göttingen Professor, in "Easter Day," reduced the Pearl of Great Price to powder for purposes of analysis. Sweep it, then, to the dust-hole? No! religiously preserve the remains! This is what modern Agnosticism and Comtism is doing with Christianity.

Mr. Berdoe, in conclusion, claimed for Mr. Browning that he is essentially the poet for the scientific man; abreast of the highest culture of his time, in close touch with the great aims of science, he knows its limits, and tells us we may

> "Confidently lay to heart, and lock in head our life long this—
> He there, with the brand flamboyant, broad o'er night's forlorn abyss:
> Crowned by prose and verse; and wielding, with Wit's bauble learning's rod.
> Well? Why, he at least believed in Soul, was very sure of God!"

THE UNIVERSITY OF DURHAM.

To the Editor of THE LANCET.

SIR,—May I be allowed to make one or two corrections in regard to the notice of the Durham University given by your Northern Counties correspondent in your issue of the present week? 1. No alteration has been made in the regulations which have for several years been in force with respect to the Preliminary Arts Examination. 2. No alteration has been made in the regulations affecting candidates for the Final Examinations for the degrees in Medicine, nor in those which concern the one year's "residence," or attendance on lectures and hospital practice. 3. The curriculum, &c., for the licence in Medicine have for many years past been identical with those for the degrees in Medicine; thus the licence has for a long time been merged in the degree, in fact, since the necessity for the possession of an Arts degree, or its equivalent, by candidates for the degrees in Medicine has been done away with. 4. The alterations which were made in Convocation (not "convention") in the University on April 11th consist in a rearrangement of the subjects of the earlier portion of the curriculum, and are briefly as follows—viz.: (*a*) Instead of a single First M.B. Examination in Anatomy, Physiology, Chemistry, and Botany, there will be two examinations, the first including Elementary Anatomy and Physiology, Chemistry, Chemical Physics, and Botany; the second (intermediate) including Anatomy, Physiology, Materia Medica, and Pharmacy (the last two subjects being removed from the Final Examination altogether). (*b*) The First Examination of the Conjoint Board in England of the Royal Colleges of Physicians and Surgeons will be accepted in lieu of the First Examination of this University, except in regard to Chemistry; and the First and Second Examinations of this University will be accepted by the Conjoint Board in place of the First and Second Examinations of the Boards. These are the only alterations which have been made.—I am, Sir, yours faithfully,

LUKE ARMSTRONG, M.D.,
Registrar of the University of Durham College of Medicine.

University of Durham College of Medicine,
Newcastle-on-Tyne, April 25th, 1885.

THE LANCET.

LONDON: SATURDAY, MAY 2, 1885.

THE meeting of the General Medical Council approaches, and is likely to be one of more than usual importance to medical students of the future. There is one consideration which may tend to liberate the Council in its discussion of proposed alterations in its Recommendations, whether as regards Preliminary Education or the Final Examination of medical students—namely, this: the supply of medical students is so ample, so much in excess of what is required to meet vacancies in the profession, that the regulations affecting both education and examination will bear to be much strengthened before any risk is run of starving the profession or leaving the public in that plight feared by Sir LYON PLAYFAIR, when the sick will not be able to have a physician on account of the scarcity of that craft. We have before us the Medical Students' Register for 1885, and amongst its multifarious contents of interest to those concerned in medical education is a table giving the number of medical students registered last year, and for every preceding year since, and inclusive of, 1864. We may explain, for the benefit of our older readers, that no medical student can be registered as such until he has passed a Preliminary Examination, as required by the General Medical Council, and has produced evidence that he has commenced medical study. The numbers, therefore, which we are about to give are of those who have succeeded in passing one of the Preliminary Examinations of the fifty or sixty bodies recognised by the General Medical Council. We may remind our readers that the natural waste of the profession by death is under 600. If to this we add another hundred as representing those whose deaths have not been reported to the Registrar, or who, not having died, have retired or in some way dropped out of the Register, we may have some idea of the numbers required to keep up the present supply of medical men.

The number of medical students registered in 1884 was 1957, as against 1783 in 1883, and 1862 in 1882. If we divide the period of twenty years into four periods of five years each, we get the following as the average number of medical students annually beginning their curriculum: From 1865 to 1869 inclusive there was an annual registration of 908 students; from 1870 to 1874 inclusive, of 1263 students; from 1875 to 1879 inclusive, of 1643; from 1880 to 1884 inclusive, of 1975. Thus it appears that there is an increasing rush towards the medical profession. The rush is not quite steady and regular. Three or four years ago the annual number for two or three years was a little more than it was last year. But, dividing the periods quinquennially, it is clear that a great increasing number of youths look towards the profession as a calling. No doubt many of them never succeed in getting a qualification. From failure in examinations or in fortune, from defective ability, or, much more commonly, defective industry, they do not reach the goal for which they set out, and they either fall out of the profession altogether, or hang on to its skirts in the unsatisfactory form of unqualified assistants. The point of this interesting table, carefully made up by Mr. MILLER, is that the Council has 1975 students a year to legislate for, and that it does not need half that number of students to be qualified annually in order to keep up the waste of the profession. We do not approve of the favourite pastime of the Council—that of always considering and altering the regulations of preliminary and medical education. It is exceedingly harassing to students and inconvenient to schools and teachers of medicine. Moreover, it does not tend to raise the Council in the respect of either students or teachers. But as there seems an intention to deal at the approaching meeting in some radical and serious way with fundamental principles in regard to preliminary and medical education, it is well to know that without any risk both the preliminary and final tests can be made more severe. If men are to be arrested in the process of entering the profession, the sooner the better. "Had it been early, it had been kind," might many a man say who is allowed to advance only so far in a medical career as to discover his unfitness and incompetency when it is too late. If the preliminary tests were of a thoroughly satisfactory kind they would tend greatly to diminish the subsequent rejections. We repeat, if a man is to be rejected, the sooner the better, and better in the preliminary stages than in the advanced ones. There is so much competition nowadays for students, such a rivalry of schools and examining boards, that there is constant danger of the Medical Council, in which school and examining board "interests" are so excessively represented, forgetting the great interests of the public and of the profession. We have shown by the Students' Register that there is no excuse for laxness of examinations on the score of defective supply of students, but, on the contrary, every encouragement to carry higher the standard of preliminary and medical education.

IT is much to be regretted that the Earl of SHAFTESBURY, whose name can never be mentioned in connexion with lunacy without the highest respect, has not found it possible to accept the principle of magisterial authority for the incarceration of a "lunatic" in an asylum, and rather than do so has resigned his position as Chairman of the Board of Commissioners. We attach the greatest moment to this new mode of procedure, and believe it will be found to afford a better safeguard against abuses than even its promoters anticipate. Altogether the Bill before the Lords is an admirable measure. The Earl of MILLTOWN, who has already done so much real service in this matter, and to whose efforts we mainly owe the fact that the subject has been seriously taken in hand by the Government, did not speak too warmly when he complimented the Lord Chancellor on "the ample way in which he had fulfilled the promise he had made last session." If the Earl of SELBORNE will only consent to modify a few of the minor points in the scheme as drawn—for example, shortening the period during which an alleged lunatic may be confined on an emergency certificate, and compelling the Commissioners to carry out their examination *before* they chance to find it "convenient" to do so, the reform effected will be such as to render the law of lunacy in the

mah satisfactory. As to the private asylums, we think matters will adjust themselves before long. Those houses which are actually needed will be maintained; but the provision made by the county authorities will soon be sufficiently great to meet all ordinary demands, and the cheaper sort of "licensed house" will cease to be a profitable speculation. It is a most satisfactory feature of the reform to be effected by this Bill, that committees of public asylums will be able to ease the burden on the rate-payers by receiving private patients. This provision will tend greatly to encourage the gradual replacement of private by public asylums, which is so much desired. At the same time, it must not be forgotten by the Lord Chancellor, and we are sure the Earl of MILLTOWN will not lose sight of the fact, that as soon as they begin to take in paying patients, the committees of public asylums will themselves become "keepers of private asylums." This is a very important consideration. It must not be assumed that committees are immaculate. At this moment some of the larger private asylums are managed by committees composed of men whose social position is such as to inspire the highest confidence, and yet, in spite of this, the allegations of undue detention in these very asylums are fully as many and as damaging as any which have been brought against the proprietors of the smaller licensed houses. We are not making this statement without reason. It follows that the provisions of the Bill should be strengthened in regard to the reception of lunatics under emergency certificates. It was stated in evidence before the Select Committee of 1876, and we are still prepared to maintain the statement then made, that even forty-eight hours in a lunatic asylum may suffice to convert excitement in a neurotic subject into actual mental derangement which may afterwards resist all remedial efforts. Therefore we contend that the folly of allowing a patient to remain a month or more, or even *seven* days, without examination by a competent and *impartial* authority stands confessed on the face of the proposal. The next stage of the Bill is fixed for a fortnight *hence*. Let us hope that in the meanwhile the Lord Chancellor will see the wisdom of amending the faulty details of a measure which in principle, and as far as it goes, is as satisfactory as could be expected or desired.

OUR readers are well aware of two things in reference to medical education in the United States. First, that it has hitherto been conducted on very free and easy principles; and, secondly, that earnest efforts are being made by good men and true in all the States to abate the scandals of medical education, and to bring it under some public and responsible authorities comparable with those which regulate it in all other civilised communities. An instructive prospectus on this subject has just been issued by the Illinois State Board of Health, with the help of which we shall try to elucidate for the benefit of our readers the real condition of things in the States, not so much with the view of finding fault as of supporting and helping those who endeavour to bring about a better state of things. The Illinois Board of Health proceeds under an act of the State called the Medical Practice Act, and publishes a schedule of minimum requirements. Diplomas from colleges which give evidence of an actual and *bonâ-fide* compliance with this schedule are accepted unconditionally. Diplomas from those which do not are required to be supplemented by an examination before the Board on the branches or subjects of the schedule omitted by the colleges in question. The schedule requires—1. Certificates of moral standing. Diplomas of graduation from a good literary and scientific college or high school; failing this, a thorough examination must be passed in mathematics, English composition, and elementary physics or natural philosophy. 2. Instruction in ten subjects or branches of medical science. 3. The length of regular or graduating courses or sessions to be five months, or twenty weeks, each; and two full courses of lectures, not within one and the same year, are required for graduation with the degree of Doctor of Medicine. 4. Regular examinations are to be made by each lecturer daily, or twice a week at least, and final examinations, where practicable, by competent examiners other than the professors in each branch. 5. Dissections and hospital practice during two terms. 6. The time of professional studies to be not less than three full years before graduation. 7. Each college must show that it has a sufficient and competent corps of instructors and facilities for teaching.

Such is the standard of medical education in one of the States which have confided the regulation of medical study to a Board of Health. It will not be thought exacting in its demands. But of 47 colleges which have claimed to have their diplomas recognised by the Board, only 26 were found to have regulations satisfying its requirements. The state of medical education in the United States is one of the illustrations of the disadvantage of a strong central government. Each State is a law to itself, and in many States it seems possible for any group of needy or adventurous physicians to form themselves into a medical school—otherwise a diploma-mill. The extent to which this evil has attained may be gathered from the fact that a total of 234 different medical institutions are given in a list in this pamphlet, dating from the year 1765. There are now in existence no less than 128 such bodies. Excluding 12 in Canada, there remain 116 in the United States, which for 38 States gives 3 per State. Among the extinct schools there are 54 out of 153 regular, 7 out of 20 homœopathic, 12 out of 24 eclectic, and 6 out of 10 physio-medical and miscellaneous. Out of 18 fraudulent institutes, 17 happily are now extinct. The "Boston Bellevue" is the only one of this class remaining. These figures are very significant. They show the mushroom-like growth and death of these "colleges." The harm done by them is incalculable. The competition engendered makes it very difficult for the more organised and recognised schools to maintain a high standard. The most absurd particulars are given of the devices resorted to for catching students. Personal solicitations, low fees or no fees, and the certainty that a diploma may be obtained on a minimum of knowledge and education, general or medical, are all enlisted. We are threatened in this country with a form of Parliamentary government where freedom may be prized above knowledge and efficiency; but we have not yet reached this depth, and we can only wish our American friends a speedy curtailment of that form of liberty which permits the creation of an indefinite number of schools to issue diplomas legalising the ignorant practice of an art in which a little knowledge is verily a dangerous thing. There

is some hope of this consummation on two grounds. First, the public is deeply interested in the suppression of mere diploma-mills, and in the quality of work done at medical schools; and, secondly, the evil now felt by the medical profession was formerly rampant in the legal profession in New York. Idle and incompetent young men were admitted to the bar in excess of legal business and the legitimate increase of the profession. The Higher Courts took measures to restrict the supply, and ordered that only graduates of certain specified law schools should be eligible for examination after a certain date. The other law schools closed their doors. The profession upheld the courts, and the end was gained. Let medicine take a hint from law. It is only fair to say that there are signs of improvement in the standard and methods of medical education in the States, of which the following are the most important: 102 colleges now exact a matriculation examination, as against 45 in the first Conspectus of the Board of Health; more colleges are requiring longer courses of lectures, and making provision for what are called "graded" courses—i.e., courses which are not mere repetitions of previous courses, but developments of them. We must leave this subject with every expression of sympathy with those who are seeking to abolish fraudulent medical schools and diplomas.

SOME incidental remarks made at a recent meeting of the Pathological Society revealed the existence of the first genuine instance of Actinomycosis in this country. The case occurred, we believe, in the practice of Dr. HARLEY at St. Thomas's Hospital, the post-mortem examination being made by Dr. SHARKEY, and the microscopical examination by Mr. S. G. SHATTOCK, curator of the museum. As the disease in man has only been recognised within the past decade, and as no cases have hitherto been recorded in this country, it is not surprising that but few members of the profession in England should be acquainted with it. A valuable clinical contribution to our knowledge of the affection in man has recently appeared from the pen of Dr. J. ISRAEL.[1] In 1882 Professor PONFICK published an almost exhaustive monograph on the disease, in which most of the facts then known were embodied. From questions which have been addressed to us, we believe that a brief account of the elemental features of the affection will be welcomed by the majority of the profession, to whom the malady is unknown.

The affection is presumably one which is dependent on the presence and activity of a micro-organism. The micro-parasite is a member of the fungoid class, and consists chiefly of a mycelium which divides in a dichotomous fashion, and gives rise by its spread from a centre to a radiate appearance, whence its name—actinomyces—is derived. The circumferential ends of the mycelial sprouts have a flask-shaped swelling. The little masses of felted mycelium may be recognised by the naked eye as sulphur-yellow bodies of about the size of a hemp-seed. The disease which this parasite is supposed to cause may develop in many parts of the body. The most common site appears to be the jaw and parts bounding the mouth. The affection in animals has long been known in this situation under various names, and has been regarded as a form of scrofula and as a new growth. It is believed that the parasite gains its entrance through the medium of a carious tooth or some wound of the gum leading to the jaw-bone. There is but little to be said of the morbid anatomy of the disease. A swelling forms in the jaw, and gradually increases in size. This tumour in its earliest stages may be punctured without any matter being let out, although it generally has an elastic and semi-fluctuating consistence. A section made into a tumour in the early stage of its existence shows a reddish-white area sprinkled in places with gold-coloured granules. Later on abscesses and fistulæ form, in the discharge from which the sulphur-coloured bodies may be seen. Broadly speaking, the tissue of the morbid new growth, which must be regarded as inflammatory rather than sarcomatous, has very much the characters of ordinary granulation tissue. Actinomycosis may occur primarily in the respiratory tract proper, and Dr. ISRAEL makes this class of cases his second group. He narrates a case in which the disease was localised to the bronchial mucous membrane. The patient was a girl aged fifteen, who suffered from the signs and symptoms of chronic bronchitis, with fetid expectoration, in which the actinomyces were readily discovered. Another case of a man, aged twenty, is given, in which the primary localisation of the disease was in the parenchyma of the lung; it was afterwards propagated to the pleura and to the prævertebral tissues. Some of the cases have many of the clinical characters of empyema with discharging sinuses, and in such cases a complex system of fistulæ not unfrequently undermines the morbid tissues. The structures in the posterior mediastinum and prævertebral regions are often affected, and the bodies of the vertebræ may become carious. Dr. ISRAEL makes his third group of cases include those in which the disease begins primarily in the intestinal canal. In some of the cases the foci of the disease are widely disseminated. The liver, spleen, muscles of the back, and muscular substance of the heart have been shown on post-mortem examination to have numerous centres of actinomycosis. Large abscess cavities may form behind the peritoneum as well as behind the pleura, and these may communicate by many perforations of the diaphragm. The symptoms necessarily depend chiefly on the localisations of the disease as well as on its rate of progress, and present therefore extremely varied clinical pictures. Dr. ISRAEL'S work contains an account of thirty-eight cases, which number includes all that have hitherto been recorded.

[1] Klinische Beiträge zur Kenntniss der Actinomycose des Menschen. Berlin: A. Hirschwald.

A MEETING of graduates of the Royal University of Ireland, including members of the Parliamentary Committee of the Senate and of the Council of the Graduates' Association, was held last week in the Westminster Palace Hotel, presided over by Sir William Mac Cormac. It was resolved that steps should be taken to press the claim of the University to Parliamentary representation, and a special committee was appointed to carry out the necessary arrangements. This committee will include Sir William Mac Cormac, and Drs. Knight, Jones, Purcell, MacKellan, Henry, Huggard, and Wheeler.

DR. MAPOTHER has resigned his seat on the Council of the Royal College of Surgeons, Ireland, and most probably will be succeeded by Dr. Hamilton.

Annotations.

"Ne quid nimis."

THE WAR IN THE SOUDAN.

THE experiences of our war correspondent in the Soudan will, we are sure, be read with much interest. They give a graphic description of the arrangements at the base for the sick and wounded of our troops, and furnish most gratifying testimony to the care which has been bestowed in making them, and to the intelligence and zeal with which they have been carried out. There were but two matters which did not seem to have been satisfactorily arranged, and, if we mistake not, for neither of these could the officers of the medical staff be deemed responsible. The first was the position of the burial-ground, which was very badly chosen, but after it was found to be a nuisance to the hospital ships it was closed and a new site selected. The other was the repetition of one of the great causes of complaint in the Crimea: the mixing up of the medical stores and hospital equipments with other goods, instead of having them either sent in a vessel specially retained for the purpose, or, at least, having them carefully separated when landed and arranged so as to be easily found when required. Our correspondent bears strong testimony to the admirable manner in which the officers of the medical staff have discharged their duties in the field, as witnessed by him in the disastrous affair of the 22nd of March, when the military commander allowed himself to be surprised, and to the very efficient arrangements for the treatment of the cases in the hospitals at the base. But he sounds a note of alarm on a subject to which we have already called attention—the great risk to be incurred if the troops are kept in the Soudan during the ensuing months of intense heat. Not only is there the probability of a great number of cases of heat apoplexy and of dysentery, but there is the certainty of exhaustion of the vital powers through loss of appetite and deprivation of sleep, which must inevitably destroy the efficiency of the men. The subject is one which calls for the most anxious consideration of the military authorities, and for immediate action if anything is to be done to avert such a deplorable prospect. If any delay occur in coming to a decision on this point, we fear that the ultimate measures will be found to be "too late," as has already been so often the case in the conduct of this miserable expedition.

THE NATIONAL AID SOCIETY.

ATTENTION has lately been called in the daily papers to the proceedings of the National Aid Society in connexion with the campaign in the Soudan. There probably never was an army sent from this country so fully supplied with everything necessary for the treatment of the sick and wounded as the one now serving in the Soudan; nor was there ever one in which the arrangements for that purpose were so successfully carried out. There has been but one opinion expressed by those cognisant of the facts, and competent to judge of the results, and that is, that the work of the medical service in this campaign has been excellently performed, and that the wants of the sick and wounded have been abundantly supplied and their comforts fully attended to. Under these circumstances, it is difficult to understand on what plea the very considerable expenses incurred by the National Aid Society can be justified. The Government has provided most amply both a complete staff of medical officers, nurses, and orderlies, and an ample supply of the necessary medicines and medical comforts. To supplement them from private sources is like sending coals to Newcastle; and if a statement were published of the articles sent out by the Society, we have a strong suspicion they would be found to consist to a great extent of luxuries which it is simply absurd to provide for the class to whom they have been sent. The manner in which this Society keeps itself before the public in the columns of the newspapers would, if followed by any professional person, be put down as quackery of the most intolerable kind, and it is painful to witness the efforts made to gain notoriety for its leaders. If, instead of profuse expenditure in providing luxuries when they are not required, and when the needful comforts are already abundantly supplied by Government, the National Aid Society would turn its attention to the wants of the wives and children left at home, and to the assistance and comfort of the widows and orphans of those who have fallen in the unhappy and mismanaged conflict in the Soudan, they would be doing a work of kindness and charity which would redound to their credit, though perhaps it might not afford so good an opportunity of self-gratulation as the course now pursued. It is alleged in some of the papers that the Society has a large sum of money at its command, and that it has not published any statement of its accounts since 1871. We know not whether this be correct or not, but, if so, we think one of the first acts of Sir R. Loyd Lindsay should be to give an account of his stewardship, to show how much he has spent, how he has spent it, and to justify the course which has been adopted by the Society in supplementing a service which was already quite equal to the requirements. In our opinion it has done serious mischief in shaking the confidence of the soldier in those to whom he is entrusted, and in generating a desire—may we not say a demand—for things which are not only unnecessary but often injurious. We are most reluctant to place any difficulties in the way of showing kindness to our soldiers, but we think far more good could be done by making provision for their families and for those left behind, than in parading great preparations to supply artificial wants—rose-water and eau-de-Cologne—and blowing loud in the streets the trumpets of the leaders of this quasi-benevolent Society.

CREMATION UNNECESSARY AND INJUDICIOUS.

A PAPER read by Sir Spencer Wells at the Parkes Museum has brought again before the public eye the long train of arguments for and against cremation and burial, which we have shortly sketched in former articles upon this question. Some would tell us that there is no longer any question as to the preference to be accorded to urn-burial. Despite the tendency of the late discussion, which was so far an apparent success for the advocates of the newer method that it was almost entirely one-sided, we venture to think that there is still room for much difference of opinion. On sanitary grounds, we can well see how objection may be raised to the continuance of a custom even so long approved, when ignorant malpractice or gross neglect of natural methods have turned the earth of the graveyard into a reeking pit of huddled corpses. Sir Spencer Wells makes much in his paper of certain spots of this kind discovered in Ireland. He regards as impracticable the scheme of the Local Government Board for the better laying out of cemeteries; and he places in contrast with the foulness of ill-conducted burials the refined and classic purity of cinerary urns. These comparisons are within the usual limits of persuasion, but it does not follow that they present equally to the mind both sides of the question at issue. We do not think that the abuse of burial in the earth justifies its abolition, any more than the Indian suttee represents or bans the practice of cremation. It is easy to bury decently, and yet to bring the human clay to earth in a more than figurative sense. If this were done, as it may and ought to

be, no objection which is not purely theoretical and unproved could be urged against it. Decomposition would be allowed and aided, and all communication between the areas of burial and those inhabited by the living could be prevented by appropriate drainage and isolation of soil. The rule and habit of Nature, by which she constantly and faultlessly removes and uses all dead creatures not consumed as food—namely, absolute surrender to the elements—would suffer no further change than that of somewhat retarded action, a change which frequently marks without marring her efforts in this direction. It is idle, therefore, to talk of so many million corpses having to be strewn over the country in a single generation. Long before the end of half that term the buried dead, if not pulverised by decay, would have ceased to yield sustenance to the germs of mortal change. The medico-legal aspect of cremation has been so often discussed that little remains to be said about it. The recent combustion of a body at Woking, it is important to note, was preceded by an autopsy. The necessity for this precaution, and the further analyses to which it may give rise, are not likely to weigh greatly as objections with those who contemplate the future incineration of their bodies. Post-mortem examination offers but trifling violence to the person in comparison with the fire of the crematorium. However this may be, it is clear to our minds that no less decisive measure can compensate the criminal law for the loss of the evidence of fact which it must otherwise occasionally sustain in the total destruction of the dead by fire.

BULLYING AT SCHOOL.

THE death of a little boy, aged twelve years, through injuries received from blows on the spine from a dozen or so of the bigger pupils at King's College, has led to an inquest, with a verdict of "Death by misadventure," the jury adding the following rider: "That the attention of the authorities at King's College should be called to the evident want of supervision over boys during the interval of school hours, which, in the opinion of the jury, led to the death of Charles Fisher Bourdas." The coroner, in summing up, strongly deprecated the rough play that prevails in almost all schools. We have good reason for stating that the cruelty of bigger boys to little boys is not confined to "rough play," but that a system of bullying prevails out of class hours, of which the masters at schools are as ignorant as the head master of King's College, in his evidence, admitted himself to be of the cruel practices of his own pupils. When the work of the class is over the form master turns his pupils loose, and considers his responsibility at an end. There is always a strong resistance exhibited by the form master against an attempt on the part of the head master or the governing authority to impose on him any responsibility for the conduct of his pupils out of class. Indeed, the governing authority of a school is a nonentity in matters of discipline, and it rests with the head master to make the best arrangement he can for the good conduct of his pupils in the intervals of class. As a rule this duty is imposed on the senior boys or prefects of the school. The head master, as well as assistant masters, usually, are intentionally ignorant of the methods adopted by the elder boys of the school to maintain, out of class, discipline among the younger pupils. The strictest secrecy is preserved, and no point of schoolboy honour is more rigidly maintained than the principle of not "splitting" either to masters or friends. In fact, so rigidly is this observed among most schoolboys that if masters institute an inquiry the schoolboy code of honour not only justifies him in suppressing the truth, but even in telling a lie to screen his school companions. It is, therefore, exceedingly difficult for the head master to become acquainted with the practices of his school, and the ignorance displayed by the head master of King's College in this respect is no more than prevails among all head masters. This, nevertheless, is no justification of the grave defects of discipline which lead to cruelty and oppression of the weaker and younger boys. Something more is wanted than mere prefectorial supervision, the authority of which has to be maintained by harsh and unfeeling treatment, accompanied often by cruel blows and kicks, or, as at one of our public schools, by "bending" a lithe ground ash stick across the back of the poor little culprit.

THE CUSTODY OF LUNATICS.

"LET the authorities get out of the difficulty as best they may." This is our advice to the medical officers of workhouses, and, so far as we have any influence with masters, to those officials also. It has long been a most mischievous practice to send suspected lunatics to workhouses, and to remand persons brought before magistrates to the same institutions on suspicion of insanity. A workhouse is not the place for such cases. As a matter of fact, a prison is better, if no more suitable place of observation can be found. The only right way out of the difficulty is to provide reception and probation wards in connexion with the public asylums for lunatics. This should be done at once, as we long ago suggested. We are not disposed to yield an inch of the ground we have taken up in regard to this matter, and we think it will be much to be regretted if the Local Government Board should give way under the pressure brought to bear upon it. The judge was right, the stipendiaries are wrong, and it is unfortunate that we have not a Home Secretary with sufficient strength of purpose to maintain the authority of the judicial opinion expressed.

THE PERILS OF FOOTBALL.

Now that the football season has come to an end, a timely opportunity occurs of drawing attention to the exceptional amount of danger run by the votaries of a much-abused (in every sense of the word) form of amusement and exercise. Since October last we have taken the trouble to cut out the record of each case of accident at football that we have met with in the papers, without, be it noted, any special search for them. The following is the result:—Oct. 10th: At Eton, Mr. W. J. C. "had his right leg broken by a cross kick."—24th: Mr. C., a student of St. Augustine's Missionary College, Canterbury, "had his leg broken."—25th: W. M'G., "while engaged in a match, was kicked in the stomach, but, feeling better afterwards, he finished the game. He died some time afterwards from internal injuries."—29th: Mr. W. P. G. "had his collar-bone broken."—Nov. 17th: W. A. "had his leg badly broken below the knee."—Dec. 1st: Mr. H. W. P.'s "left leg was broken clean through."—6th: Mr. E. G. B. "received a severe kick on his left leg, by which two bones were broken just above the ankle-joint."—13th: Mr. H. H. G., a well-known athlete, sustained an injury to his right ankle which, in sporting parlance, "effectually put a stopper on his engaging in those pursuits of which he was such a rattling exponent." On the same day, in one match, two players received injuries which compelled their retirement; in another the captain of one of the teams had his leg broken; in a third a fracture of the collar-bone occurred (in this last it is added, "the play is described as having been rough"); in a fourth, "one of the Flint men had his collar-bone broken through being violently charged by one of the opposing team."—16th: A broken leg.—22nd: Broken collar-bone.—27th: Broken leg and severe internal injuries.—29th: Fracture of right leg just above the ankle.—Jan. 5th: H. L. "received a violent kick in the stomach, which completely prostrated him and caused him intense

pain"; he died two days later from his injuries.—19th: A player "received serious internal injuries."—Feb. 2nd: Case of fracture of collar-bone.—9th: Two cases of fracture of collar-bone and one of fibula.—March 9th: W. "had his ankle-bone completely broken by a kick."—30th: T. S. "was accidentally kicked in the face; his lips, nose, and cheek were cut, and he was removed to a hospital."—April 4th: Broken leg.—13th: Broken arm. In this case "the game is said to have been characterised by a good deal of rough play." This list, which of course in no way represents the total amount of the season's football casualties, amply suffices to recall attention to the exceptionally dangerous nature of the game. No other popular game with which we are acquainted has the same amount of peril attached to it. It may be urged that accidents are bound to occur in all sorts and kinds of amusement, and that hunting is responsible for even worse and more frequent accidents than football; this may be so, but hunting is free from the objectionable element of personal conflict which pervades football. The game requires reform; we say *reform*, because we think it would be unwise, and on the whole undesirable, to follow a recent American proposal, and demand its prohibition in our schools. To put a stop altogether to the principal winter amusement of thousands of young people would, we are sure, be impossible. Nor is it needed; for football, under such restrictions as would reduce the number and severity of these frequent accidents, is capable of far more good than harm. What those restrictions should be is not for us to decide, but we would venture to call the attention of the Rugby Union and the Association authorities to "collaring" and "charging" respectively. Reform there must be, for the game is still only too well described by an old writer as "a friendlie kind of fight rather than a play or recreation—a bloody and murthering practise than a felowly sporte or pastime."

SANITARY PROGRESS IN COVENTRY.

DR. FENTON'S annual report for 1884 refers to the circumstance that his appointment has recently been made under the order of the Local Government Board. The occasion is opportune for giving a summary of the history of sanitary work in the borough during recent years. When the appointment of an officer of health was made in 1874 it was somewhat tentative in character. No means then existed for dealing with infectious diseases, some 2000 old-fashioned middens existed, well water liable to pollution by soakage of filth was somewhat extensively in use, the town water was in part derived from a stream which received sewage, and there was generally much carelessness and ignorance in sanitary matters. At the present date matters stand on a very different footing. Scavenging is done efficiently by the corporation officers, and it is in contemplation to erect a destructor: the offensive middens are largely done away with, only 200 of these structures remaining; the local wells have been, and are still being, closed; and the town water, which has been freed from the risk of contamination at its source, is replacing the former supply. Further, excellent hospital accommodation has been provided for cases of infectious diseases. First, a temporary iron structure was erected, and this, coupled with a voluntary system of notification, materially aided the authority in staying the spread of infectious diseases. Now, however, a modern hospital of two pavilions, with all needed administrative buildings, and a Ransome disinfecting stove, are available for the purposes of the urban district. Some practical outcome of this action may naturally be looked for, and it is forthcoming. In the five years preceding 1874, when the medical officer of health was first appointed, the annual death-rate from all causes and that from the seven principal zymotic diseases stood at 23·3 and 5·3 per 1000 respectively. In the five years ending 1884 the respective rates were 18·7 and 2·1—figures which indicate a large saving of valuable lives. In some towns officers of health were appointed, under statute, with much reluctance. Whatever may have been the case in Coventry, the authority of that town have now recognised the value of Dr. Fenton's work, and have, as the result of his efficient labours, placed his appointment on a higher and more satisfactory footing.

HEALTH OF THE POLICE.

THE Report on the Health of the Metropolitan Police for the year 1884 has just been issued by the chief surgeon, Mr. T. Holmes. The force numbers over 13,000 men. The daily average loss on the whole force by sickness was 2·93, which is nearly identical with the previous year's rate. The total injuries were 1129—727 "on duty," 230 "not on duty," and 172 sore feet. The ratio of these to the total number of men is about the same as the year before. The diseases of exposure, chronic and muscular rheumatism, coryza, bronchitis, and tonsillitis, were 874, 631, 461, and 1007 in the four quarters of the year respectively; making a total of 2973, which is rather less, both absolutely and relatively, than in 1883. For venereal disease 22 were suspended, 14 of these being sent to the Lock Hospital. During the year there were only 6 cases of small-pox, 2 of which were doubtful or "modified"; all were slight. One hundred and sixty-four men were admitted into hospitals; these were chiefly distributed amongst St. George's, Westminster, St. Bartholomew's, Guy's, University College, the London Fever, and the Lock; besides which twenty-six men of the outlying dockyard divisions were admitted into naval hospitals. The number of deaths in the Town and Woolwich divisions was 47, of which 15 were referred to consumption and "disease of lungs," 4 to pneumonia and pleurisy, 4 to bronchitis, 3 to rheumatic fever, 3 each to apoplexy and heart-disease, 2 each to typhoid, erysipelas, acute nephritis, and diabetes, and 1 each to scarlet fever, pyæmia, tumour of brain, phlebitis, psoas abscess, cancer, and drowning. Besides those who died, 223 were removed from unfitness through age or disease.

EPIDEMIC OF MEASLES IN GUERNSEY.

A WIDESPREAD epidemic of measles occurred in the Island of Guernsey during the last quarter of 1884, and it is the subject of a paper by Dr. J. Aikman in the *Glasgow Medical Journal*. The disease appears to have been imported from Jersey, to have been nurtured among the parish patients in the north district until it gathered epidemic force, and then to have spread to all classes of the population. It is explained that there are no data upon which to base any statistics with regard to the extent of the epidemic, but the local papers stated that there had been from 3000 to 4000 cases, in a population of some 30,000. Guernsey has been so free from epidemics for the past thirty-five years that it has been thought by some that local insanitary conditions must have been the cause of so exceptional a prevalence. The situation of its principal town on the slope of a hill, permitting the fresh aeration of even its narrowest streets by means of the sea-breeze from the Channel, and a subsoil of gravel and granite, afford natural conditions in favour of healthiness. But fault is found with the method of sewer ventilation; and house-drains are in this respect probably far more in fault. The water-supply is from public and private wells, many of which are in promixity to buildings and are liable to accidental contamination. It is always difficult to determine how far measles is associated in its spread with faulty sanitary circumstances, and the fact that Guernsey had long been free from it, supplies an explanation of the extent of the epidemic by reason of the number of children and young persons who would have been

susceptible to its influence. But whatever conclusion may be arrived at on this point, it is certain that the sanitary conditions to which we have adverted, and which are a blot on the reputation of a charming pleasure and health resort, should be at once remedied. We are glad to learn that a scheme is already on foot for supplying the town with a water which shall be free from suspicion.

THE APOTHECARY, ANCIENT AND MODERN.

THE peculiar position in which the Society of Apothecaries of the City of London has been placed by threatened legislation and by the new regulations of the Medical Council, has induced Dr. Corfe, the present Master, to sketch briefly the history of the Society, from the time of its foundation to the present time. Commencing with a cursory review of the rise and varied conditions of the body of men styled "apothecaries" during seven centuries (1180 to 1880), Dr. Corfe glances at the four stages of their history—viz., 1st, as Pepperers, of Soper's-lane, or Easterling's, trading with Egypt, Arabia, India, through Constantinople; 2nd, as a class becoming incorporated with the Company of the Grocers, but retaining their special title of apothecaries, and practising as such; 3rd, the disseverance of the fraternity from this company, and the establishment by Royal Charter of the present Society as an independent body; and lastly, the acquisition, by the Act of 1815, of the privilege of constituting itself as a Society for educational, examining, and licensing purposes. The remainder of the book is occupied with an account of the nature of the examination for the licence, a description of the hall and the articles of interest in it, a chronological glossary, and a list of eminent men who have been directly or indirectly connected with the Society. The work is intended, it is stated, to illustrate the facts—(1st) that the apothecary of the first and last portion of the nineteenth century is a coördinate practitioner with the same personage who carried on this profession in the twelfth century; and (2nd) that such persons were viewed as educated men, though traders. In another portion of the pamphlet, however, the author expresses the hope that he will be able to convince his readers of the great benefit which the Society has rendered to science, the advantages which it has conferred on the world at large, and the ability it still displays to carry on its functions for the good of mankind whilst it upholds its own reputation and the honour of the medical profession; and it may be fairly supposed that this is his main object.

ALLEGED CHOLERA VACCINATION.

CONSIDERABLE excitement has been aroused in Spain, both within and without scientific circles, upon the alleged discovery of protective inoculation for cholera; and we read that already numbers of people (300 according to one report) have submitted to inoculation with the choleraic "virus." In spite of the statements made by Dr. Ferrán (*vide* p. 489) we would venture to submit that the fact of such protective inoculation is by no means proved, if indeed it be capable of proof. For, so far as we know, cholera has never been transmitted by inoculation, and cannot therefore be placed on the same footing as small-pox, anthrax, and other diseases, in which the blood is apparently the seat of the organised virus. Nor can it be yet considered as determined that the microbe discovered by Koch is the specific cause of cholera. We have so recently heard this latter point discussed that there is no need to allude to it further; and it seems not only premature, but absolutely wrong, to promulgate the doctrine that cholera can be prevented by inoculation before these points are settled. The profession in Spain would do far more to protect their country from an epidemic if they urgently pressed on the authorities to undertake sanitary measures in the towns, than by lulling people into a fancied security by spreading the belief that inoculation will protect an individual from the disease. If cholera does visit Spain they will be wofully undeceived.

OVER-PRESSURE IN SCHOOLS.

DR. CRICHTON BROWNE'S letter in *The Times* a few days ago will be read with interest. He contends that the recent reduction in the rate of mortality among children, upon which Lord Aberdare laid great stress in his address at Manchester, is no proof of beneficial results from the effects of education; and he urges, on the other side, that disease and disturbance of the nervous system are increasingly frequent among the young. This is a fact which cannot be gainsaid. Headaches and nerve troubles of various descriptions are extremely prevalent, and we have no doubt that they are in great part the effects of brain work of a class and kind which is injurious to health, and will hereafter be found to be detrimental to progress. Mr. Mundella may try to sweep back the Atlantic with a broom, but, as Dr. Crichton Browne remarks, he must find better brooms than have yet been made available, Sir Lyon Playfair and Lord Aberdare not excepted.

VIRCHOW'S ARCHIV.

THE commencement of the one hundredth volume of the world-famous *Archiv für Pathologische Anatomie und Physiologie* is signalised by a few pages of retrospect by its illustrious editor, Professor Virchow. When he recalls the condition of medical science in 1847, the year of the first issue of the *Archiv*, and contrasts it with its position at the present day, he may well be pardoned any feelings of pride at the advances that have been made therein to which his *Archiv* has so remarkably contributed. He tells us that the enterprise undertaken by himself and B. Reinhardt was at the outset almost alone—at any rate in North Germany—in its object of promoting scientific research with direct application to medicine, and he pays a well-merited tribute to the encouragement and aid furnished by the publisher, G. Reimer, whose death at an advanced age occurred quite recently. The first numbers were almost solely composed of the contributions of the editors, and before the fourth volume was completed in 1852, the death of Reinhardt left Virchow alone in the editorial chair. But contributors were not lacking, and as years passed on they became so numerous that after the thirty-first volume (1864) the *Archiv* was issued monthly, forming three volumes a year; and in 1879 a further enlargement was found necessary, so that since that date four volumes have appeared annually. It would be quite possible to extend it still further, for the contributions are so numerous; but Virchow deprecates any further extension on the ground of cost. The statement speaks well for the great success and high reputation of the *Archiv*, which is read in all parts of the world. At first it was intended to confine its scope to subjects directly related to medicine; but it was soon found necessary to widen this area, with the result that its volumes contain much of the early work of anatomists, histologists, physiologists, and embyologists; and this in spite of the vast increase in scientific periodical literature that has taken place. In its pages may be found a complete history of the development of medical science; for it has fulfilled the object of its founders in making it a repertory of detailed observations to elucidate the problems of pathology. Prof. Virchow goes on to review this progress in one department with which his name is specially connected—viz., the application of the cell-doctrine of nutrition to morbid processes, and he clearly shows how the doctrine has been enlarged and elaborated in course of time. He alludes with

sorrow to those amongst the contributors to the work who have since died, including Reinhardt, Leubuscher, Beckmann, Friedreich, Otto Weber, C. E. Hoffmann, Förster, Buhl, v. Wittich, Rudnew, Hüter, and Cohnheim, many of whom are famous in their writings, but whose earliest ideas found expression in the pages of the *Archiv*. Not a few of them were his own pupils, several were long engaged as his assistants, and in losing them he feels a pang as if a part of himself had been torn away. In a few words at the close of this article he expresses his confident belief that the work thus commenced will be carried on with the same earnestness and vigour, and that the history of the *Archiv* in the future will be as rich as it has been in the past. That it may be many years before it is deprived of the guidance of its founder is the earnest hope of all who reckon this as not the least of his many great achievements in the cause of science.

ASSOCIATION FOR PROMOTING A TEACHING UNIVERSITY FOR LONDON.

AN important Conference between the Executive Committee of the above Association and representatives of the London Medical Schools will take place at 4.30 P.M. on Monday next (May 4th), at the rooms of the Society of Arts. The following medical schools have chosen the gentlemen named to represent them upon this occasion:—St. Thomas's Hospital: Dr. Bristowe, Dr. Bernays, and Mr. Sydney Jones. Middlesex Hospital: Dr. Cayley and Dr. Coupland. St. Bartholomew's Hospital: Dr. Norman Moore, Dr. Dyce Duckworth, Dr. Russell, and Mr. Willett. University College Hospital: Dr. Barlow, Professor Schäfer, and Professor Berkeley Hill. King's College Hospital: Dr. Curnow, Professor Bentley, and Professor Gerald Yeo. St. Mary's Hospital: Dr. Sieveking. Westminster Hospital: Dr. De Havilland Hall and Mr. George Cowell. Guy's Hospital: Dr. Taylor, Dr. Stevenson, and Mr. Howse. London Hospital: Dr. Down and Mr. Treves. It is expected that the medical schools of St. George's Hospital, Charing-cross Hospital, and the Royal Free Hospital will also be represented at the Conference.

THE EXPLOSION AT THE ADMIRALTY.

MR. SWAINSON, who was injured by the explosion at the Admiralty, we are pleased to say continues to make satisfactory progress. The recovery of consciousness was accompanied by vomiting, which lasted at intervals until midnight. The wounds of the scalp are healing, there having been very little suppuration. The wound of the left conjunctiva was accompanied either by fracture of the lacrymal bone (no bone was, however, felt on probing) or wound of the nasal duct, as sudden emphysema of the upper eyelid followed an attempt to blow the nose on the day following the injury. There was no wound of the eyelids. The temperature has not exceeded 99°. There has been no headache or deafness, and the mind has been quite clear since the 24th.

CYSTICERCUS IN THE VITREOUS.

DON PEDRO LAGLEYZE describes, in a Buenos Ayres medical journal, a case of cysticercus in the vitreous, this being the only recorded instance of an inter-ocular entozoon occurring in the Argentine Republic. The patient was a man thirty-four years of age. Six months before his eye trouble commenced he had passed a tapeworm. The first symptoms were pains in the supra-orbital arch and flashes of light in the right eye, the power of vision of which rapidly deteriorated. A month after these symptoms commenced he noticed that the vision of the left eye was beginning to be impaired; he therefore consulted a medical man, who treated him for more than a year before he was admitted to the hospital at Buenos Ayres, under the care of Dr. Don Cleto Agiurre. There was no injection of either conjunctiva; pupils sluggish, vision much impaired. Left eye: fingers scarcely counted at fifteen centimetres, tension normal, atrophy of papilla. Right eye: an extensive hiatus in the superior half of the field of vision, central vision ½, tension greatly diminished. With the reflector a characteristic cysticercus was seen in the vitreous, with two suckers visible, but not the corona of hooklets; it was dead, but apparently had not been long so, for about a month afterwards there was a considerable change, the head having become globular and the neck shrunken. The body, which had been translucent, and therefore appeared red by the transmission of rays from the fundus, was now opaque. The retina was detached at the point where the animal pierced it. The papilla was white, as in the left eye, this being not due to the entozoon, but merely a coincidence. The atrophy continued to increase in spite of remedies.

THE MEDICAL SOCIETY OF LONDON.

THE Medical Society is the first of the London Societies to bring its session to a close. The last ordinary meeting was held on Monday last. Next Monday the annual oration will be delivered at 8.30 P.M. by Professor Humphry of Cambridge, when it is anticipated that a large and distinguished audience will be present. The conversazione takes place immediately after the delivery of the oration.

A HEROIC GIRL.

AT an inquest held at St. Thomas's Hospital on the body of Elizabeth Chandler, aged three years, who died from burns received at the fire which lately occurred in the Borough, the jury returned a verdict of "Accidental death," adding that the conduct of the unfortunate young woman, Alice Ayres, who was instrumental in saving the lives of two other young children, and who herself had fallen a victim to the disaster, was beyond all praise. So far the jury have expressed the opinion of everyone who read the sad story of this brave girl's presence of mind and dreadful death. But we would go a little further, and urge that such conduct is not beyond recognition. Why should not the name of a heroine be kept in memory? and what more appropriate way, in the case of one who saved little children's lives only to lose her own, than by the establishment of a ward for children, or at least a cot, in one of the hospitals, which should bear the name of "Alice Ayres"?

HISTOLOGY OF SYMPATHETIC GANGLIA.

THE paper which was communicated by Dr. Hale White to the Royal Medical and Chirurgical Society, at its last meeting, on the Morbid Histology of the Sympathetic Ganglia, is one which merits some attention. In all researches in which almost negative results are arrived at there is a tendency for the mind to overlook and forget. The only change which Dr. White has felt himself justified in pronouncing as pathological is an increase in the number of the elements in the connective tissues of these ganglia—an abnormal condition, that is to say, of the purely supporting structures of the bodies in question. Though this is a conclusion which cannot be cavilled at in the present state of microscopical investigation, yet it must be admitted that it is anything but satisfying to the clinical physician. It may be that more minute methods of examination may at some future time reveal changes of the finest sort in the most intimate structure of the nervous tissues. The possibility of ultra-microscopical alterations of texture still remains to us to explain some affections which are obviously related to disordered action of parts of the nervous system. Chemical

or other modes of investigation of the protoplasm of nervous tissues may give us an earlier insight into the molecular disorder which certainly exists, whether it be perceptible or not by any of our present methods of inquiry.

SMALL-POX IN WEST HAM.

SMALL-POX is widely prevalent in West Ham, and Dr. Drake, the medical officer of health, is stated to have recently reported that no less than 290 fresh cases had come under his notice during three weeks. A house-to-house inspection has been instituted by the guardians with a view of promoting vaccination, and if this work is carried out promptly and systematically, it cannot fail to be of material value in saving the inhabitants from preventable disease and death. Nothing short of the efficiency obtained by the St. Pancras guardians in this matter should be aimed at. But the intervention of the sanitary authority appears to be much needed. Thus, we read in the local press of a girl who suffered from small-pox being found to occupy the same bed as her parents, and this in a small house of four rooms, holding no less than twenty-one persons. Overcrowding is one of the nuisances most dangerous to health, and as such it should be dealt with without delay wherever it is found to exist.

ALVELOZ IN CANCER.

THE United States consul at Pernambuco has forwarded to his government a report by Dr. Bandeiro, surgeon to the Hospital Pedro II., on the value of the juice of the alveloz as an external application in cancer. It seems to have been useful in epithelioma of the lips, nose, face, and eyelids, but to have been less successful in ulcerated sarcomas and carcinomas not of the epithelial variety. Several preparations are made with salicylic acid, &c., but it is thought that the juice is far more active when used in a fresh state. The natives employ the cut end of the stem of the plant, Euphorbia heterodoxa, to cauterise the sore, using at the same time a decoction of tobacco leaves. A supply of the prepared juice has been forwarded to the Marine Hospital in Washington and to the Cancer Hospital in Liverpool, from which institutions reports will doubtless be forthcoming if the alveloz juice treatment prove to possess any advantages over other methods of treatment of cancers.

SYPHILIS IN HOOFED ANIMALS.

THE Veterinary School of Madrid has reported that the disease from which solipedes are suffering in the district of Villarcayo (Burgos) is syphilis. It is feared that it may extend to animals whose flesh is used for food, and that syphilitic meat may be sold in the markets. A suggestion as to protective legislation, which is stated to have the approval of the Director of Charity and Health and of another important official, has been made to the Royal Council. It is not, however, expected that more will come of it than of numerous other projects which have previously been presented and quietly shelved.

CHOLERA IN EUROPE.

RUMOURS of cholera from time to time remind us of the prospect of a recurrence of the disease in an epidemic form during the coming summer. The most important announcements have come from Spain, where early in April a considerable number of cases were alleged to have occurred in the province of Valencia. The statement was, however, soon followed by contradictions, and precise information on the subject has since then not been forthcoming. France, however, imposed a three days' quarantine on arrivals from Spain. Since then we have heard that a case has occurred at Osio, not far from Bergamo, and a French newspaper has reported cases at Cairo. In the meantime, the oft-postponed European Conference has again been postponed to May 15th, and it is stated that the India Office will send separate representatives. Switzerland will be represented by M. Bavier, the Swiss Minister to Italy, assisted by Dr. Souderberger and Dr. Reali.

URIC ACID CALCULUS OF ENORMOUS SIZE.

WE desire to place on record some particulars of one of the most remarkable calculi that the records of surgery furnish. It was removed by the high operation (Petersen's modification), on Wednesday morning, by Sir Henry Thompson, from a man aged sixty-two. The stone was of an oval form, of pure uric acid, without any phosphatic incrustation whatever. It weighs 14 oz. avoirdupois (405 grammes), and measures 4½ in. long, 3¼ in. wide, and 2⅛ in. thick. The operation was rapid, and performed without difficulty; and the patient's present condition is unusually good and promising.

REMOVAL OF INFECTIOUS CASES.

MR. W. G. LACY, of 24, Ringford-road, West-hill, Wandsworth, has introduced an innovation in the means of removal of infectious patients to the several infectious hospitals which is, we think, likely to work well. By employing a private brougham, which he keeps for this purpose, all publicity is avoided, and less excuse is offered to persons to keep infectious cases in their homes on the plea of the injury to their business that the ordinary conspicuous removal entails.

ENTERIC FEVER AT NORWICH.

A SOMEWHAT wide and sustained prevalence of enteric fever is in progress in Norwich, and, so far as can be judged at the present time, the disease is more likely to be associated with faulty conditions of sewerage than with the water or milk supplies. Dr. Herbert Airy, of the Local Government Board, is making local inquiry into the matter.

SIR WILLIAM JENNER.

WE are happy to be able to state that Sir William Jenner is progressing as favourably as is possible towards recovery.

AT the recent meeting of Middlesex magistrates for the transaction of county business, upon the suggestion of the Parliamentary Committee, the Lunacy Acts Amendment Bill was referred to a special committee composed of the justices on the visiting committees of the three county lunatic asylums, with power to confer with the authorities, and to take such steps as might be deemed necessary to secure any necessary alterations. It was also decided to provide an additional asylum for the pauper lunatics of the county to accommodate 1000 patients, the administrative offices and plans generally being so arranged that provision may be hereafter made for additional patients up to 1000.

AT the same meeting it was resolved that the committee appointed to superintend the administration of the Adulteration Acts be authorised to seek counsel's opinion as to the power of the county inspectors to require samples of milk in course of delivery, and that the inspectors under the Adulteration Acts be authorised, under the directions of the committee, to pay and charge to the county the reasonable expenses of an assistant and of a witness, and that they be authorised to obtain professional assistance in the conduct of prosecutions in which legal or other difficulties are likely to arise.

FROM the report of the examination made by Colonel Sir Francis Bolton of the water supplied by the several metropolitan water companies during the month of March, it appears that the Thames water sent out by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies contained on the whole less organic matter than in either of the previous months of the present year, the amount being small for this season. The water drawn from the Lea contained slightly more organic matter than the previous month's samples. All the waters were clear and bright.

AT the monthly meeting of the Board of Management of the Manchester Royal Infirmary on the 27th ult., it was stated that there had been a very considerable increase of small-pox in the city during the past month, and in order to meet it the Monsall Hospital Committee had been obliged to erect at once an emergency building to accommodate twenty-four patients. As many as forty cases had been received during the preceding seven days; and there were at the time of the meeting 119 cases in the hospital.

THE question of lay administration of hospitals is not confined to this country. A Madrid paper states that the functions of Director of the Provincial Hospital of that city are now discharged, with assistance, by a lawyer. The Zaragoza *Clinica* also complains that a young lawyer has just been appointed Director of the Hospice of Calatayud.

DR. HUGHES BENNETT will deliver at the Westminster Hospital during the ensuing summer session a short course of lectures on the Recent Advances in Neurology, with their practical application to the investigation of diseases of the nervous system. They will be given on Mondays and Thursdays at four o'clock, beginning on May 4th.

DR. CHAMPNEYS has been appointed Lecturer on Midwifery and Obstetric Physician to St. George's Hospital, in succession to Dr. Barnes. This is an appointment which we feel sure will give general satisfaction.

PROFESSOR LORETA performed his operation of divulsion of the cardiac orifice for the seventh time on April 8th in the surgical clinique of Bologna. The proceeding was successful, and the patient is doing well.

AN exhaustive account of what is known of the therapeutics of antipyrin has recently appeared from the pen of H. Huchard. (Paris: Octave Doin, 8, Place de l'Odéon.)

THE *American Quarterly Journal of Neurology and Psychiatry* has closed its career at the end of its third year of publication.

BROWN INSTITUTION.

THE following is extracted from the Report by the Professor-Superintendent, Mr. Victor Horsley, to the committee of the Brown Institution for the year 1884, and presented to the Senate of the University of London on February 25th.

The report describes the whole of the past year's work of the hospital only, that part of it relating to the work done in the laboratory being an account of researches carried on during the autumn since the appointment of the present Professor-Superintendent on September 1st.

The report of the curative work of the institution has been drawn up by Mr. Ernest Batt, M.R.C.V.S., &c., who has fully maintained the high efficiency of this department.

The most noticeable feature in the list of diseases from which the animals treated have suffered, is the increase in cases of rabies. After a considerable period of complete immunity an outbreak of rabies took place towards the end of the year, which at one time appeared likely to assume alarming proportions. Nearly the whole of the tabulated cases (nineteen) occurred in the course of a few weeks, and many animals in the neighbourhood of the institution were known to have been bitten. Fortunately, however, the outbreak subsided, and for some weeks past no fresh case has come under notice. A suggestion was at one time made by a late Professor-Superintendent (Dr. Burdon Sanderson), but not acceded to by the Government authorities, that the leading symptoms of rabies should be printed on the back of dog-licences. They might, with advantage, be again counselled to follow this good advice.

The success of the stamping-out process as followed in glanders is proved by the continual small percentage of that disease: if it were possible to adopt a plan to pay compensation and destroy those doubtful cases which are so frequently the means of spreading the disease, it would not be too much to hope that in a few years London might be almost free from glanders.

The difficulty noted in previous reports of conducting the in-patient department of the institution has been intensified in a year that has seen the ruin of so many small traders. Day after day it is found that the very poor, those for whose benefit the institution is especially intended, are unable to pay the cost, or anything like the cost, of keeping an animal in the hospital. Frequently, in fact generally, the horse is the chief or sole means of gaining the living of a family, so that when its services are lost, it is as much as the members can do to earn sufficient for daily food, without paying from 1*s.* 3*d.* to 2*s.* 6*d.* daily for the maintenance of the horse.

Another point that might be brought to the notice of the Committee is the absence of a veterinary library. For years past it has been felt as a great inconvenience by gentlemen working in the laboratory subjects relating to animal pathology that there is no collection of foreign or English books of reference. A few pounds spent yearly would go far to lessen the inconvenience.

From September 1st to December 31st, the laboratory has been actively used for various researches in comparative pathology. 1. Dr. Theodore Cash has continued his researches (*a*) into the means of preventing the action of the poison of splenic fever and tuberculosis by means of certain disinfectants; and (*b*) into the subject of visceral innervation and abdominal temperature. 2. Mr. G. F. Dowdeswell, M.A., has been conducting experimental researches into the virus of (*a*) fowl cholera and Davaine's septicæmia, in the course of which investigation he has made the important observation that the organism, "which is presumably the cause," is identical in both diseases; (*b*) hydrophobia; and (*c*) human cholera, especially with relation to the lower animals, and particularly the cause of their power of resistance to the influence of the comma bacillus of Koch. 3. Dr. Wooldridge, who has for some time been engaged in researches on the albumen of the blood, and especially in relation to various forms of anæmia, has been able (by means of the facilities offered him by the institution, in the shape of the gas engine, &c.,) to confirm his previous investigations, and to considerably extend them. 4. Dr. Angel Money, by a few experiments, has succeeded in elucidating some of the symptoms which render diagnosis of coarse brain disease uncertain, and he has also commenced a research into the pathological anatomy of paraplegia following interference with the circulation in the spinal cord, a condition of things the correct knowledge of which is of practical importance in the diagnosis of paraplegia in animals. 5. Dr. Erb carried on for six weeks a research into the anatomy of the ear in fishes. 6. I have myself been engaged in a series of experiments on monkeys, which have resulted, I believe, in the demonstration that the loss of function of the thyroid gland is the cause of the obscure disease known as myxœdema. By the same research I have shown that the operation of thyroidectomy, as at present practised by surgeons, is unjustifiable, and should be modified. I have also, as occasion offered (twice), performed inoculation experiments, to lay the foundation of a research into the causation of the melanotic disease to which every white horse beyond middle age appears to be liable. With Mr. Shattock I have commenced an investigation into the healing of wounds by the first intention. This appeared to me desirable on taking office, seeing that it is a subject of vital importance, and one the details of which are as yet unknown.

OUR WAR CORRESPONDENT'S EXPERIENCES IN THE SOUDAN.

No one, I venture to assert, ever knows, or can appreciate to their fullest extent, the true comforts of a happy home until he has been away from it for a time; and surely the feeling is intensified tenfold by what an onlooker, especially a non-combatant, has to face, to see, and to endure amongst the distressing and harrowing scenes observed after a well-contested, hard-fought action on some foreign battle-field. Here, there, and everywhere shocking details present themselves in sufficient abundance to unnerve the very strongest mind, whilst the disparity between order and disorder, betwixt calm and fury, reason and frenzy, is so great as to make the bravest recoil from and shudder at the sickening sights which present themselves again and again on the gory trampled sod.

> But hearts may break, and tears may flow;
> The bugle will sound, and the soldier must go.

By-the-bye, that reminds me that neither the early morning slumbers nor the noontide siesta of those taking passage in that admirably-arranged troopship *Persian Monarch* were ever disturbed this side of Gibraltar by sounds of martial music. For some reason best known to the officials at home, no enthusiastic bugler—no, not even a scatter-brained drummer—figured amongst the list of troops despatched to the seat of war in the above-named vessel. The situation for the young artillery officer in command was as novel as well as unpleasant a one as could be well imagined. In his dilemma he applied to the captain of the ship, who suggested the use of the ordinary ship's bell, the ringing of which had on the first occasion the effect of instantly bringing all hands on deck to extinguish some imaginary fire—the more hungry in search of their dinner; whilst a general belief that the ship had run into some fog became so prevalent that this substitute for a bugle or a drum had at last to be given up altogether. Of course amongst us there were some carping critics who never let an opportunity slip for saying bitter things against the powers that be—oversight, blundering, &c.; but to me there was something particularly droll, as well as rich, in the practical joke played upon the military element by the transport department at home in depriving Lieut. —— and his subs of two such necessary but at the same time ear-splitting military accompaniments. With fine fast-steaming vessels to order, and with ample funds to freight and despatch them, it has become an easy matter for our Government to transport a large and powerful army even to the littoral of the Red Sea, as a passage of some sixteen days is now quite sufficient to span the distance from Portsmouth to the Soudan. But what a change has already come over the scene! A fortnight since those sturdy fellows in front of me were, with reddened noses, pinched features, and wrapped up in their great military overcoats, trying to dodge the cold nipping gusts of a strong north-easter by crowding together to leeward and under shelter of the ship's warm funnel and casing. Now these self-same men, in the scantiest of attire, and under an increase of thirty degrees in the temperature, are seeking shady corners, or leaning over the gunwale, intent on noting the progress of our ship, and, lost in admiration, are beguiling their leisure hours by watching Sol from his height playing fantastic sport with his rays on the glassy surface of this loveliest of cerulean-coloured seas.

> Some smoke, some play at cards, others merry ditties sing,
> While idle ones there are who never do a single blessed thing.

Yes, there they are in all directions, from forward to aft, in their shirt-sleeves and trousers, with sunburnt faces, and with heavy drops of perspiration exuding from every pore, crying out about the heat already, and begging for a drop of water—a good long drink to assuage their inordinate thirst; not a few, too, still more overcome by the languor that invariably seizes all on their first visit to the Red Sea, are lying helplessly on their backs beneath a double awning, a barely sufficient protection from the heat and glare of a mid-day tropical sun. Happily, our vessel has made a smart run of it, and by midnight of the 15th the engines are stopped in order to pick up the outer reef buoy on the following morning. An excellent landfall has been made, for just as daylight breaks the desired object is seen about a mile and a half away on our weather bow. Towards it we cautiously proceed at half speed.

WHAT ONE SEES ON ARRIVAL OFF THE PORT.

Breakers on all sides of us. To the right, to the left, they are discerned. Huge white-crested rollers, sending their rainbow-tinted spray aloft, are observed, one after another, dashing over and amongst the coral reefs which encircle as well as protect the harbour of Sawakin, twenty miles away, to which we are bound. Our charts being accurate, and our commander careful as well as very experienced, there is small need of fear in navigating the narrow though straight channel, which, running inside of the reefs and parallel with the shore, leads up to the place we are in quest of. After getting into deeper water our speed is somewhat increased, so that by breakfast-time we come in sight of the shipping, whitewashed houses, and tents of our army, dotted here and there over the sandy-coloured plain. Sawakin (usually spelt Suakin) is situate on the eastern coast of Africa, about two-thirds of the distance down the Red Sea. Its harbour proper, if not land-, is certainly coral-locked; not steep to approach, but from a very deep middle channel the water suddenly shoals to either shore. Its entrance is very narrow, and the mouth of it is guarded by a British gunboat lying there for that purpose. As most of the vacant berths are occupied by transport and other ships, all vessels arriving off the main harbour must heave to (they cannot anchor in sixty fathoms), and wait until boarded and brought in by a Royal Naval navigating lieutenant appointed specially for that purpose. Proceeding cautiously up harbour, the hospital ship *Ganges*, suitably painted white, is first noticed as she lies moored along the northern shore. Astern of her is the B.I. steamship *Bulimba*; she provides the expedition with machine-made ice, and is devoted to the reception of medical and surgical cases of a specific nature; whilst abreast of her, on the opposite side of the fairway, is anchored (or supposed to be so, for she sometimes drags her anchor and falls foul of her consorts) the hulk for the reception of small-pox patients. Still further westward and nearer to the town lies the *Arab*, of the Union line, a naval transport ship used as a sort of headquarters by that courteous and very indefatigable officer, Captain Fellows, R.N., and the really hard-worked staff immediately under his command. Astern of the *Arab* is the *Calabria*, utilised as a distilling vessel, whence issue the many thousands of gallons of bright clear water supplied daily for the entire force in camp. After inspecting her,

WE GO ON SHORE

at Quarantine Island, and close to the water's edge see lines of white tents of every shape and pattern. The best are the square-shaped ones. They are made of a material something like twill, lined with yellow calico, double roofed, both lofty and airy, and have four openings, one on each face, for the freer admission of both light and air. The few bell-shaped ones there are have to be exchanged shortly as soon as the new can be obtained from the store. To the

eastward are pitched those belonging to the firm of Messrs, Lucas and Aird, railway contractors for the Berber line; these are in turn succeeded by the auxiliary hospital pavilion, and further on follow the private tents of Surgeon-Major Hinde and the medical staff attached to that institution. The rising ground upon which these temporary habitations are placed is light-yellow in colour, and of a sandy porous nature. This sand is only some eighteen inches deep, a very hard, white, compact, coral formation existing beneath. No moisture, therefore, ever remains long on the surface. The latrines, placed to leeward and in rear of the tents, are simply spaces enclosed by bamboos and coarse Indian matting, supplied with a strong horizontal wooden bar, beneath which are two or three zinc buckets, which, with sand ready at hand, are used and cleaned upon the earth-closet system. Offensive smells seldom result from their use, and if they should at any time become obnoxious, the effluvium could readily be removed by the free use of disinfectants—MacDougall's powder, &c. Passing by the engineer's camp, crossing the causeway, and entering on the desert, on a somewhat elevated sand mound is seen

THE MAIN OR BASE HOSPITAL,

under the immediate superintendence of Brigade Surgeon Tanner. This camp hospital consists of a number of tents, most of which are of Anglo-Indian pattern and construction. They are not, as elsewhere, placed too near to one another, but are pitched with some regard as to method and regularity. In the centre of the group is a large square pavilion, called the operating theatre, and on entering it one is at once struck with the comfort and perfection of arrangement the interior of this place displays. An operating-table occupies the central position, and on the walls or sides of this calico habitation are hung up square creamy-white coloured bags, containing sponges, lint, bandages, antiseptic dressings, in fact any and everything needed, and that should be readily accessible in case of urgency or hurry. Already another correspondent, as well as myself in a former communication, has paid a well-merited compliment to Surgeon-Major Tobin for his energy and painstaking in this special portion of the department. Now, the store-room, or rather store-tent, with its heterogeneous assortment of goods, medicines, hospital equipment stores, and sanitary necessaries, must not be omitted from the list. I do not know the name of the officer in charge of it; but for the method, as well as the care displayed in the arrangement of the various odds and ends, from a bedstead down to a mosquito curtain, the superintendent deserves my warmest congratulations for the manner in which his different duties have been carried out. Each of the officers' hospital-tents can accommodate about eighty beds; the bedstead itself is very light and formed of thin split bamboos, and each one is supplied with more than sufficient bedding for use in this hot climate. Before leaving the subject of the base hospital I may take this opportunity of thanking the medical officers there for their courtesy to me on every occasion, and more especially give my thanks to Surgeon-Major Allan for supplying me with statistical information, which he, as the able representative of the Registrar's Department, is always desirous as well as capable of giving. Adjacent to, but south-west of, the "H" Redoubt, is

THE NEWLY-SELECTED CEMETERY.

Up to the time of my quitting Sawakin, the former burial-ground was close to and situate just opposite and to windward of where the transport ships *Arab*, *Bulimba*, and *Ganges* are moored. In this badly-selected portion of ground set apart for burial purposes, after our recent actions with the foe, a great number of interments had taken place, and as the graves for the corpses could not be dug more than some eighteen or twenty inches deep in consequence of the existence of a very hard substratum of coral, whenever the wind blew from the northward (the usual direction during the night and after-portion of the day), a horrible effluvium permeated through the superficial layer of sand, and was wafted directly across the vessels moored close to it; this horrible odour not only proved most offensive to the nostrils of all on board, but threatened most dangerous results from a sanitary point of view. During my residence on board the *Arab* a very strong remonstrance against any further interments here was made to the officials at headquarters, and resulted in their ordering an immediate discontinuance of any more burials in this spot, and in the selection of a more appropriate *locale*—the new cemetery above referred to. Let us now pay a flying visit to

THE ORDNANCE WHARF,

situated at the head of the creek, and just above where our men-of-war are anchored. The major in charge of this place (where all the military stores are accumulated) evidently has his hands full enough to discharge with efficiency the duties of so trying as well as difficult a department. Around the officers' tents, alongside of, and adjacent to the pier, lie scores of bales, hundreds of boxes, and packages of every conceivable shape, size, and description. In one spot carts are drawn up in a row; in another groups of harness. Not far from these, again, coils of telegraph wire and a host of water-pipes are seen; and would it be believed that by some wiseacre arrangement at home, amongst all this heterogeneous assortment of general merchandise and collection of commercial goods, a medical officer has himself to go, search for, and pick out the requisites for his own department. Dr. ——, of the Base Auxiliary Hospital, assured me—in fact, I saw it with my own eyes—that it had taken him some days to segregate from the rest the few hospital belongings urgently wanted, and that were then lying on the ground in front of me. A medical officer might be spared this difficulty surely, especially when in face of the enemy, by all the medical stores and hospital equipments being forwarded together in a hospital vessel, or placed in some portion of a ship where they could be readily got at on her arrival in port. The *Ganges* and her arrangements throughout set our authorities an admirable lesson in medical transport, and her well-organised system could certainly be copied with advantage by anyone desirous of improving the conditions under which these things are now done. Yet another little matter requires looking into. I have every reason for believing that in the present campaign one or two senior medical officers have taken a passage in one ship, while their junior brethren are sent out possibly some days afterwards in another. The one party arrives without his assistants, without medicines or appliances, to find nothing ready, everything to do, everything to organise, and no junior officer to lend assistance in the difficulty. More than this: when the "subs." present themselves, Brigade and simple Surgeon So-and-so are unknown to one another. How, then, in the name of goodness, can the principal medical officer direct with advantage? He should be acquainted with the capacity, as well as the fitness, of any and each officer for any special post he may feel desirous of appointing him to, and not have all this organisation to go through when the services of all his men are urgently needed in the field. That the principal medical officer has perfected his arrangements in the Soudan with great judgment and considerable tact and skill is no answer in face of a possible difficulty likely to occur in less able hands; and it would be well if the Home officials, acting on the well-known maxim that "prevention is better than cure," considered the propriety of holding a course of practical field hospital training during the summer season, and when perfected in drill send the officers and their bearer companies all out together, and not despatch them piecemeal abroad to serve under new officers and in new duties, as they hitherto seem to have been doing. And now let me say a word or two about

THE CLIMATE,

concerning which so much has already been written and said. Climate, everyone knows, is an important factor in the success or otherwise of any expeditionary undertaking. Especially would it be so in the African Soudan. It is a well-recognised fact amongst travellers and persons who have lived out in the Soudan that, with the exception of the Persian Gulf, there is no hotter or more unhealthy locality than the western littoral of the Red Sea in the summer season. During the months of October, November, and December, even up till the beginning of April, the climate is pleasant and healthy enough; with genial warm days and cool nights, a cloudless sky, dryness of air, an average daily temperature of 78° F., and refreshing sea-breezes setting in about 10 A.M. and continuing till after dusk, the climate of the Soudan at this season is by no means prejudicial to health, and not one-half as bad as is commonly supposed. The sense of freedom, moreover, and elastic buoyant health, which so many describe as experiencing when they first arrive out, and the stimulus to appetite afforded by a brisk early march across the sandy plains, are the best evidence of salubrity, as well as

of a certain amount of health-promoting power. The existence of so small a percentage of sick amongst the number employed during the past three months is more than confirmatory of this view; but let April pass and a complete change sets in. The thermometer no longer remains at 70° or 80° during the day, and falls as low as 50° at night; but rises to 112° in the shade, and remains at 100° during the night. No fresh sea-breeze sets in to cool this awful temperature, and man as well as beast fall prostrate beneath its influence. The super-heated air becomes then terribly relaxing, and has a most depressing effect upon the animal economy. Such a feeling of languor and lassitude seizes on one that it cannot by any effort of will be shaken off. The depression increases hourly, and, possibly with scarce any further appreciable warning, heat apoplexy strikes its victim and speedily relieves him from any additional tortures of mind and body; or to take a more lingering case still, after such a terrible drain upon the system, such an exhaustion of all the vital powers, through loss of appetite and deprivation of sleep, dysentery, that scourge of the tropics, sets in, with all its chain of most distressing and painful symptoms, and continues with all its agonising characteristics until death at last comes along to finish what heat and the overpowering influences of such a detestable climate has begun. Granted, some have withstood the climate well enough; but the majority have but too easily succumbed to its disastrous effects. I believe 40 per cent. were invalided last summer season, and nothing short of sheer madness should tempt any government to sanction the retention of troops, especially under canvas, in so dangerous a summer climate as that of the African Soudan. My own experience in the Red Sea (by no means limited) would scarcely warrant my giving so dogmatic an opinion on this subject were not my ideas backed up by what I hear from all others who have lived out there. They are unanimous in condemnation of leaving the troops at Sawakin to stew in their own gravy. The Arab knows what the effect of permitting this will end in. From what I learnt from a friendly sheikh, Osman Digna, after his last great attempt on March 22nd, is reported to have said, "I shall no longer attack the enemy in force; I shall retire to the mountains, and simply harass his lines of communication; the climate during the coming season will do the rest." God forbid, say I, it ever should. And the question naturally arises,

WHAT SHOULD BE DONE WITH OUR TROOPS?

Perhaps the Government are in a strait, having found out to their cost that it is a far easier matter to get into a difficulty than it is to escape out of one. To remove our troops from the Soudan at this juncture simply means death to, and total annihilation of, those friendly natives we leave behind us at Sawakin; and yet a decision to leave our men out there, under the scanty protection afforded by a tent's cover, will be fraught with equally unsatisfactory results. The consensus of opinion amongst my press colleagues is decidedly adverse to such a determination on the part of the Horse Guards. More than this, one or two correspondents have already spoken out with no uncertain sound. They have issued a warning not one moment too soon, as well as stated their opinions in language not one word too strong. Our only policy now is to confess to a serious mistake, and get out of the dilemma as soon as we possibly can. Now,

THE PAGES OF JOURNALISM

are always open for the insertion of fair criticism, in order not only to expose arrant blunders and point out grave and wretched mistakes, but also to accord honour where honour is due. Now, while paragraph upon paragraph in the public press has been lavish in its praises of the conduct and bravery of our English troops, especially the Berkshire regiment, the sailors, and marines, and have not hesitated—and very justly so, too—to speak of the thorough efficiency with which the Transport Department has been administered in the Soudan by such able officers as Captain Fellows, R.N., and the other members of his staff, surely we must not, indeed we cannot, forget that there are other brave hearts (the Medical Staff) who have equally borne their share of the heat and burden of the day. Amongst that heroic band there has, too, been no shrinking, no holding back, but always hard at work—ay, in the very thick of the fight, too, these men have carried their lives in their hands, and by their praiseworthy conduct and painstaking certainly deserve a modicum of that approval and praise a satisfied and generous public is more than ever ready to bestow. John Bull has a long purse we know, but in spending his money freely he certainly desires to see something for his outlay, and he may rest assured (lay correspondents have noticed it) that the sick and wounded are well cared for, and that no department has been better administered in the Soudan than this has been. The hospital accommodation has as yet been ample. The bearer companies are complete and efficient, the medicines and the comforts sufficient and good, whilst the officers themselves have been kind, patient, as well as brave unto death. Poor Lane was nearly the first to fall, and Surgeon-General O. Barnett may be well complimented indeed for the excellence as well as the efficiency of his arrangements throughout the present campaign.

UNIVERSITY DEGREES FOR LONDON MEDICAL STUDENTS.

A NUMEROUS and influential deputation of the Metropolitan Counties Branch of the British Medical Association was received by the Senate of the University of London (Sir James Paget in the chair) on Wednesday last, at 5 P.M. From the large attendance of the members of the Senate of the University there is every reason to think that the objects of the deputation are engaging, at least, the serious attention of those interested in the cause of medical education.

Sir JAMES PAGET, in opening the proceedings, informed the deputation that the report of the Council of the Metropolitan Counties Branch of the British Medical Association had been in the hands of each member of the Senate, and had received the earnest consideration of that body. He would be glad to hear any remarks from the members of the deputation.

Mr. MACNAMARA, President of the Branch, said that the chief object of the deputation was to obtain from the Senate of the University some promise that the examinations of the University for the degree of Doctor of Medicine should undergo certain modifications which would have the effect of rendering it possible for the majority of London medical students to obtain a degree in Medicine. He did not wish to define accurately the changes which ought in the opinion of the deputation to be made, but it would be sufficient if the Senate would undertake to make such concessions as would meet the necessities of the case. Speaking for himself, Mr. Macnamara considered that the present examinations were too stringent only in the requirements of the Preliminary Scientific and Matriculation Examinations; but he did not think there would be any occasion to lower the standard of the final examinations. He urged that the time at the disposal of medical students generally being limited, it should not be wasted by the acquisition of knowledge which would ultimately prove useless.

Dr. BRISTOWE urged that the preliminary examinations were unnecessarily severe, and considered that all that was necessary for the medical student to become a sound practitioner, and deserving of a degree, was that he should have a tolerable general education, and that he should be well grounded in the practice and theory of medicine.

Dr. CHOLMELEY was of opinion that the examinations were too stringent all round, and hoped that the Senate would see its way to compliance with the objects of the deputation.

Dr. LAUDER BRUNTON said that there was a want of sympathy between the University of London and the medical schools, and this was different from what existed at other Universities, such as Victoria and Edinburgh. In the last named Universities the teachers of the students formed part of the examining body of the University. At the University of London, the teacher seldom being the examiner, it was possible for the candidate to fail to satisfy the examiner, because what the teacher perhaps considered unimportant the examiner might regard as very important and give discredit accordingly, and *vice versâ*. He suggested that a less severe curriculum should carry with it the title of M.D., whilst the present stringent course should confer the degree of Doctor of Medical Science.

Dr. WADE (Birmingham) hoped that the Senate would bring the degree in Medicine within reach of the majority of medical students.

Sir WILLIAM MAC CORMAC pleaded for modifications in the earlier examinations only.

Sir JAMES PAGET said it was a mistake to suppose that it was useless to approach the Senate with the views which the deputation had put forward. It was the object of the Senate of the University of London to raise medical education in all its branches, and at the same time to make the degrees accessible to medical students. But it was very difficult to strike a fair medium between all the various views which had been laid before the Senate. The Senate had considered how this might best be done in conformity with the aim of the University that its M.D. degree should represent a higher degree of attainment than that expressed by the M.D. degree of any other University. He assured the deputation that the Senate was very far from disregarding the views of others, and he asserted that movements had gone on in the Senate which already had resulted in considerable modification—as, for example, in the Preliminary Scientific Examination. The deputation might rest assured that their views would receive careful attention.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Blackpool Urban District.—The death-rate for Blackpool during 1884 was 19 per 1000, including visitors; but on making the needed corrections the rate was 17·1, which exhibits an excess on that for 1883, the excess being accounted for by the prevalence of autumnal diarrhœa. For much the same reason the infant mortality under one year reached 146 per 1000 births registered, as opposed to 139 in the previous year. These higher death-rates have to a large extent been due to mortality in the summer quarter, and, as Dr. Welch remarks, they are suggestive, in connexion with the overcrowding of the town at that season, of want of cleanliness personal and domestic, and of the general neglect of children. Superadded to these normal conditions, the heat of 1884 was exceptional. But Blackpool, though a principal health resort, is not altogether free from conditions which are distinctly inimical to health. Some of the old large privy-pits, which give off foul vapours and contaminate the subsoil, still exist; many of the ash-pits are uncovered, and are almost as great a nuisance as the privy pits; drainage is defective in nearly all the older houses, and the ventilation of the sewers is by no means perfect. Fortunately, however, sanitary work, which aims at the removal of these causes of disease, is steadily in progress. Thus, no less than 650 ash-tubs replaced offensive ash-pits last year, a house-to-house inspection is securing many improvements as to internal drainage, and Dr. Welch's advice as to conveying the sewer air above the level of the houses and otherwise improving the system of sewerage is being considered. The Sanatorium, which we assume is the same faulty one as formerly, did some substantial good by securing the isolation of twenty infectious cases. Some work of disinfection is also carried out, but it would appear to be hindered from want of proper appliances. Blackpool is so largely frequented by those who are in quest of health, and it is so deservedly a popular pleasure resort, that we hope no efforts will be spared in the direction of getting rid of all removable causes of disease, and in providing the town with suitable modern buildings and appliances for preventing the spread of infection amongst the population.

Aylesbury Rural District.—Dr. Hilliard reports that during the drought of 1884 the sources of the Chiltern Hills water-supply failed to give an adequate service. This is a most unfortunate occurrence, since one of the principal sanitary wants of many places within reach of the company's works, lies in the substitution of the Chiltern Hills supply for the suspicious well waters. Both scarlatina and diphtheria were somewhat severely prevalent in the district, the latter notably at Bierton. Dr. Hilliard refers to the analogy between the two diseases, but expresses the belief that they are distinct in their origin and that neither is capable of producing the other. On the other hand, he admits that the conditions which favour the germination of the scarlatina spore are equally favourable to the development and support of the seeds of diphtheria, so that the two diseases flourish contemporaneously, and in the theory that both may have evolved from a remote common ancestor he sees a harmony with the new favourite evolution theory. The mortality of the district was 18 per 1000 for 1882, in 1883 it was 17, and for 1884 it had fallen to 16.

Sittingbourne Urban District.—The general sanitary work of this district is reported by Dr. Sutton as progressing favourably, and the death-rate for last year is given as 16·6 per 1000. The infectious hospital has again proved to be a great safeguard against the spread of disease. Four patients were attacked with scarlatina, they were removed to the sanatorium, and no other cases ensued. The slaughter-houses and bakeries have been carefully inspected, and such defects as were found in them and elsewhere have been remedied.

Milton Rural District.—Here Dr. Sutton reports a death-rate of only 11·9 per 1000. The prejudice formerly existing against isolation in the Sittingbourne and Milton Joint Hospital is disappearing, and sanitary work is steadily advancing, defective conditions being remedied by such structural alterations as are needed.

Watford Urban District.—In his annual report for 1884 Dr. Brett draws the serious attention of the Local Board of Health to the want of means of isolation for non-pauper patients, the only accommodation available being an iron shed on the workhouse grounds, and even this is not furnished. He also advocates the provision of efficient sewer ventilation, and points out that the iron shafts at present existing are useless for this purpose. Permanent means of sewer flushing are also wanted to replace the work now inefficiently carried out by water-carts. Excluding deaths, occurring in the workhouse, of persons from outlying places, the rate of mortality was 17·8 per 1000.

Hastings Urban District.—The borough of Hastings, with a population now estimated at 46,310, had in 1884 a death-rate of 15·9 per 1000, which is below the average of that which prevailed during the preceding ten years. The zymotic rate was 1·8 per 1000, and it included 28 fatal attacks from diarrhœa, which was more than usually prevalent amongst children. For some of the zymotic diseases the sanatorium was most useful, 45 patients, including 31 cases of scarlatina, being admitted during the year. A thorough system of house inspection is in progress, 790 premises having been overhauled during the past year, and many defects being in consequence remedied. Dr. Knox Shaw also reports an improvement in the removal of house refuse from premises. A Bill is to be presented to Parliament which includes certain clauses as to sanitary matters. One relates to the appointment of a building surveyor, an officer who is really essential in every populous place where the authority are desirous of seeing efficient building bye-laws properly carried out. Another requires notification of infectious diseases from both the occupier and any medical practitioner in attendance. Opposition to that part of this provision which relates to the medical practitioner is being raised by many medical men in the borough. A third clause authorises the construction of a destructor for the treatment of all forms of waste refuse.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5799 births and 3994 deaths were registered during the week ending April 25th. The annual death-rate in these towns, which had been equal to 25·0 and 23·2 per 1000 in the two preceding weeks, rose again last week to 23·4. During the first three weeks of the current quarter the death-rate in these towns averaged 23·9 per 1000, against 24·1 in the corresponding periods of the nine years 1876-84. The lowest rates in these towns last week were 15·7 in Derby, 17·4 in Portsmouth, 18·4 in Leicester, and 18·8 in Birmingham. The rates in the other towns ranged upwards to 31·2 in Sunderland, 32·2 in Preston, 34·9 in Cardiff, and 35·4 in Newcastle-upon-Tyne. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had increased in the eight previous weeks from 377 to 484, further rose last week to 529; they included 218 from measles, 127 from whooping-cough, 45 from diarrhœa, 42 from small-pox, 40 from "fever" (principally enteric), 32 from scarlet fever, and 25 from diphtheria. No death from any of these diseases was registered last week either in Derby or in Bolton; whereas they caused the highest death-rates

in Manchester, Cardiff, Sunderland, and Newcastle-upon-Tyne. The greatest mortality from measles occurred last week in Manchester, Sunderland, and Newcastle-upon-Tyne; from whooping-cough in Cardiff and Blackburn; from scarlet fever in Leicester and Sunderland; and from "fever" in Portsmouth, Salford, and Norwich. The 25 deaths from diphtheria in the twenty-eight towns included 10 in London, 7 in Liverpool, 2 in Preston, and 2 in Newcastle-upon-Tyne. Small-pox caused 72 deaths in London and its outer ring of suburban districts, 1 in Bristol, 1 in Liverpool, and 1 in Manchester. The number of small-pox patients in the metropolitan asylum hospitals, which had increased in the preceding four weeks from 830 to 1062, declined again to 1034 on Saturday last; the admissions, which had been 141, 185, and 307 in the previous three weeks, declined again last week to 246. The Highgate Small-pox Hospital contained 89 patients on Saturday last, 26 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 512 and 449 in the preceding two weeks further declined last week to 382, and were 41 below the corrected weekly average. The causes of 82, or 2·1 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Portsmouth, Bristol, Leicester, and in three other smaller towns. The largest proportions of uncertified deaths were registered in Salford, Oldham, Derby, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 25·0, 23·4, and 23·3 per 1000 in the preceding three weeks, further declined to 22·7 in the week ending the 25th ult., and was 0·7 below the mean rate during the same week in the twenty-eight English towns. The rates in the Scotch towns last week ranged from 12·9 in Leith and 18·3 in Greenock, to 23·7 in Paisley and 27·1 in Glasgow. The 555 deaths in the eight towns included 30 which were referred to whooping-cough, 20 to measles, 14 to diarrhœa, 9 to "fever" (typhus, enteric, or simple), 4 to scarlet fever, 4 to diphtheria, and not one to small-pox; in all, 81 deaths resulted from these principal zymotic diseases, against 68 and 76 in the preceding two weeks. These 81 deaths were equal to an annual rate of 3·3 per 1000, which was 0·2 above the mean rate from the same diseases in the twenty-eight English towns. The deaths from whooping-cough in the eight towns, which had been 34, 17, and 23 in the preceding three weeks, further rose again to 30 last week, of which 19 occurred in Glasgow, 4 in Edinburgh, and 3 in Greenock. The 20 fatal cases of measles showed a decline from recent weekly numbers, and included 19 in Glasgow. The 14 deaths attributed to diarrhœa differed very slightly from the average. The deaths referred to "fever," which had been 10 and 7 in in the previous two weeks, were 9 last week, of which 3 occurred in Glasgow, 2 in Edinburgh, and 2 in Dundee. Three of the four deaths from diphtheria were returned in Glasgow; and the 4 from scarlet fever included 2 in Glasgow and 2 in Paisley. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 134 and 131 in the preceding two weeks, further declined to 118 last week, but were 9 above the number returned in the corresponding week of last year. The causes of 72, or 13 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 32·2 and 33·7 per 1000 in the preceding two weeks, further rose to 34·0 in the week ending April 25th. During the first three weeks of the current quarter the death-rate in the city averaged 33·3 per 1000, the rate during the same period not exceeding 22·6 in London and 18·6 in Edinburgh. The 230 deaths in Dublin last week showed a further increase of 2 upon the numbers in the two preceding weeks, and included 28 which were referred to the principal zymotic diseases, against 29 in each of the two preceding weeks; 15 resulted from measles, 4 from "fever" (typhus, enteric, or simple), 3 from scarlet fever, 3 from diarrhœa, 2 from whooping-cough, 1 from diphtheria, and not one from small-pox. These 28 deaths were equal to an annual rate of 4·1 per 1000, the rate from the same diseases being 3·3 in London and 2·1 in Edinburgh. The fatal cases of measles in Dublin, which had been 19 and 15 in the previous two weeks, were again 15 last week The deaths referred to "fever" showed a decline of 4 from the number in the previous week; while the deaths from the other zymotic diseases scarcely differed from the numbers in recent weeks. Six inquest cases and 6 deaths from violence were registered. Nearly a third of the deaths were recorded in public institutions. The deaths of infants showed an increase upon those in the previous week, while those of elderly persons had declined. The causes of 32, or nearly 14 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

ARMY MEDICAL ARRANGEMENTS IN CASE OF WAR.

IN case of war, the Director-General of the Army Medical Staff is believed to have arranged for the employment on active service of a large number of civilian surgeons at such a rate of pay as to secure the services of really good men—£3 a day is mentioned. It would be cheaper to do this than to give an indefinite number of commissions in the Medical Staff, as in that case, at the conclusion of operations, the number of medical officers would far exceed the requirements of the service. As almost all the officers of the staff would be ordered abroad, the home duties would be performed by retired medical officers and civilian surgeons engaged for the emergency, with perhaps one medical officer on full pay in charge of each important hospital or station.

Surgeon-General Charles Dodgson Madden, of the Army Medical Staff, who served with distinction in the Crimean, Indian mutiny, and Abyssinian campaigns, has taken over the position of Principal Medical Officer to the troops in India, vice Surgeon-General Sir A. D. Home, V.C.

It having been decided to strengthen the medical department at Quetta, in view of the augmentation of troops there, Surgeon-Majors Montgomerie, Blennerhasset, and Fitzroy Maclean, of the Army Medical Staff, have been ordered thither, and several other officers of the same department have also been placed under orders for the same destination.

WAR OFFICE.—Army Medical Staff: Surgeon-Major Tobias Barnwell is granted retired pay, with the honorary rank of Brigade Surgeon; Surgeon-Major Edward Eustace is granted retired pay, with the honorary rank of Brigade Surgeon; Surgeon-Major William O'Byrne White is granted retired pay, with the honorary rank of Brigade Surgeon; Deputy Surgeon-General Edward Malcolm Sinclair, M.D., has been placed on temporary half-pay on account of ill-health; Surgeon-Major William Frederick Ruttledge is granted retired pay, with the honorary rank of Brigade-Surgeon.

INDIA OFFICE.—The Queen has approved of the retirement from the Service of the undermentioned Officers of Her Majesty's India Military Forces:—Deputy Surgeon-General Arthur James Payne, M.D., of the Bengal Army; Deputy Surgeon-General William Pearl, of the Madras Army; Brigade Surgeon Edmund Eyre Lloyd, of the Madras Army; Surgeon-Major Thomas Stick Veale, of the Bengal Army. The undermentioned Officers have been granted a step of honorary rank on retirement:—Deputy Surgeon-General Arthur James Payne, M.D., of the Bengal Army, to be Surgeon-General; Brigade Surgeon William Peyton Partridge, of the Bombay Army, to be Deputy Surgeon-General; Surgeon-Major Robert Pringle, M.D., of the Bengal Army, and Surgeon-Major Thomas Stick Veale, of the Bengal Army, to be Brigade Surgeons.

MILITIA MEDICAL STAFF.—Surgeon Thomas Allman, 3rd Battalion, the Connaught Rangers, to be Surgeon-Major.

ADMIRALTY.—The following appointments have been made:—Surgeon H. S. R. Sparrow, to the *Asia:* Mr. R. F. B. Halpen, to be Surgeon and Agent at Arklow, Mizen Head, and Kilmichael; and Mr. John Macdonald, to be Surgeon and Agent at Ardrossan.

ARTILLERY VOLUNTEERS.—2nd Devonshire: Alfred Hughes Twining, Gent., to be Acting Surgeon.—1st East Riding of Yorkshire: Acting Surgeon William Draper to be Surgeon.

RIFLE VOLUNTEERS.—4th Hampshire: Surgeon Henry Geary Dyer, from the 2nd Hampshire Rifle Volunteer Corps, to be Surgeon; Acting Surgeon Edward Roe, from the 2nd Hampshire Rifle Volunteer Corps, to be Acting Surgeon: Acting Surgeon Justyn G. D. Douglas, M.D., from the 2nd

Hampshire Rifle Volunteer Corps. to be Acting Surgeon. The above-named officers will be considered to have received Commissions of the same rank and date as those previously held by them in the 2nd Hampshire Rifle Volunteer Corps.—2nd Volunteer Battalion, the Worcestershire Regiment: Honorary Assistant-Surgeon William Smith Batten to be Surgeon. 1st Volunteer Battalion, the Princess of Wales's Own (Yorkshire Regiment): Surgeon and Honorary Surgeon-Major Robert Fothergill resigns his Commission; also is permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement.

Correspondence.

"Audi alteram partem."

DR. WEBER'S CROONIAN LECTURES.

To the Editor of THE LANCET.

SIR,—In one of Dr. Hermann Weber's interesting Croonian Lectures on the Hygienic and Climatic Treatment of Chronic Pulmonary Phthisis, which have just appeared in THE LANCET, he expresses a hope that some means may eventually be discovered of destroying the bacillus and its spores, either in the air we breathe or in our tissues, without injury to ourselves. I have long thought that if we are to contend successfully with phthisis, and set some limit to its diffusion, it is in the direction here indicated that our labours may most profitably be expended. For, as Dr. Weber remarks, "when once the system is infected, we do not yet know of any parasite-killing remedies which, in effective doses, would not injure the host together with the parasite." The mischief, in fact, is then done, the fatal seed is sown, the bacilli are protected within the tissues and secretions of the lungs, and antiseptics are comparatively useless. On the subject of disinfectants in their varied bearings much has been written of late years: some apparently coagulate albumen; others oxidise organic matter; while others, again, are fatal to the growth and increase of microzymes. Many of these substances have long been used in cases of sickness, and in numerous instances beneficial results have followed their adoption. But though we are often told that antiseptic gases sufficiently potent to destroy contagium cannot be tolerated by the living tissues, we still know comparatively little regarding the amount of rough usage the respiratory organs are capable of enduring, not only with impunity, but in some cases with apparent advantage. The information we possess on this subject is certainly scanty; still, certain facts have been recorded which tend to show that healthy lung tissues may be beneficially influenced by the action of disinfectants, and at times seemingly protected from the inroads of the bacillus. Whether in such cases these organs become so altered in their chemical composition, or in their vital properties, as no longer to prove a congenial soil for the growth of the parasites, or whether the bacilli and their spores are themselves destroyed, we have at present no means of deciding. In confirmation of these remarks, I would refer to what really may be looked upon as extended experiments on antiseptic remedies, continually and efficiently carried out in the north-western Highlands and islands of Scotland. The great majority of the inhabitants of these districts unwittingly expose their lungs to an atmosphere largely charged with disinfecting fumes, thereby teaching us a useful lesson on the extraordinary tolerance of the respiratory organs to such sources of irritation. I will briefly describe the mode of life of these Highlanders in so far as the construction and heating of their dwellings is concerned, as in this manner the singularly abnormal atmospheric conditions to which they are exposed may be most conveniently studied. The houses to which I refer are known in the Highlands as "bothies," and are the homes of the hardy Crofters to whose grievances public attention has of late been so strongly directed. Many of them live under the same roof as their cattle, and in numerous instances the air of the dwelling reeks with the impure exhalations given off from the excretions of these joint inmates of the cabin. These primitive dwellings are warmed by a peat fire kept constantly burning in the centre of the floor; the luxury of a chimney is often altogether unknown. The smoke which rises from the combustion of this fuel, after thoroughly diffusing itself through every nook and corner of the building, makes its escape by a hole in a corner of the roof. Now, it may be asked, how is the health of these persons influenced by inhaling constantly both by day and by night such an atmosphere as this—an atmosphere so pungent that considerable irritation of the eyes and nostrils is frequently experienced by those exposed to the fumes? Generally speaking, these Highlanders are remarkably vigorous and long-lived, and singularly exempt from the ravages of tubercular phthisis. Indeed, so rare is consumption in these hovels that I was led to investigate the causes of this immunity upwards of twenty-five years ago, and published the results of my inquiries in an article on "The Non-prevalence of Consumption in the Hebrides and along the North-Western Coast of Scotland," which appeared in the *British and Foreign Medico-Chirurgical Review* for October, 1860. At that time I visited most of the districts to which my investigations extended, and from what I saw and heard came to the conclusion that the comparative immunity from phthisis which these persons enjoy is to be ascribed, chiefly at all events, to the inhalation of the peat smoke and the antiseptic ingredients contained therein, the tar, the creasote, and the tannin, together with various volatile oils and resins. Black unctuous peat is rich in these substances. At that time, I need hardly say, nothing was known of the bacillus of Koch. It further appeared that any exemption from attacks of consumption which these Highlanders enjoy was only extended to them so long as they resided in their smoky huts. When they migrated to other parts of the country, or took up their abode in chimneyed dwellings, they often suffered like their neighbours; nor after the lungs once became infected was a return to the homes of their fathers followed by favourable results; the fumes of the smoky cabin then exercised no curative influence. The inference to be drawn from these remarks is sufficiently obvious: when the bacillus has once established itself in the lungs the time for antiseptic remedies has gone by. On the other hand, where there is merely a predisposition to phthisis, whether hereditary or acquired, where also the climatic or social conditions for its diffusion are favourable, and where healthy persons are brought into close contact with those who are suffering from the disease, there it is reasonable to assume that disinfectants may prove of great value as prophylactics. Hence we may anticipate that in the course of time an efficient system of aerial fumigation will not alone assist the physician in warding off disease, but may enable the surgeon also to dispense with the cumbrous appliances associated with antiseptic dressings and the steam-diffusing urn.

I am, Sir, yours truly,

Manchester, April, 1885. JOHN ED. MORGAN, M.D. Oxon.

THE VICTORIA UNIVERSITY, MANCHESTER.

To the Editor of THE LANCET.

SIR,—In reference to the paragraph in your issue of April 25th relating to the facilities for graduation offered by this University to qualified practitioners, I wish to be allowed to state that attendance upon lectures in a college of the University for at least two years is indispensable in all cases before graduation. This is a provision of the Charter empowering the University to grant medical degrees, and is one which the authorities have no power to dispense with. I should be much obliged if you would publish this explanation, as I have received many letters written under an impression that the degree of M.B. is now offered to qualified practitioners on condition only of their passing the Intermediate and Final Examinations for that degree. The new regulation simply excuses those whose qualification is anterior to 1885 the Preliminary Examination in Science and the attendance thereat.—Yours faithfully,

April 29th, 1885. ALFRED T. BENTLEY, Registrar.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

To the Editor of THE LANCET.

SIR,—It would appear that the Council of the College, in their proposed new Charter, desires to perpetuate a grievance, and to still render meetings of Fellows and Members inoperative, by providing that only business shall be entertained which has *the consent of the Council*. What

would be thought if the Government—with the view, for instance, of silencing the Home Rulers—were to enact that nothing should be brought forward in the House of Commons without the consent of the Cabinet? And yet this is the position in which the Council of the College desires to keep the Fellows and Members when proposing to meet in their corporate capacity. I feel that such legislation, or the desire to retain it, by those appointed to represent without fear or favour a great English institution, is much to be regretted. If the right of meeting is to be conceded at all, let it be free and unfettered, or it is not worth having at any price. I trust that a representation will be made to the Home Secretary upon this point, before an unconstitutional regulation is allowed to form part of the revised Charter of our College. I am, Sir, your obedient servant,

Liverpool, April 25th, 1885. REGINALD HARRISON.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

PUERPERAL FEVER AND PRACTITIONERS.

AT an inquest held here last week upon the body of a female who died a few days after her confinement, the cause of death was shown to have been puerperal fever. It appeared that the gentleman who attended at the confinement was unable to attend, on an urgent message being sent as to the patient's condition, but another practitioner went in his place. It came out in the evidence that both had been attending cases of puerperal fever previous to their seeing the deceased. The jury found that death had resulted from puerperal fever, but how she had contracted that disease there was not sufficient evidence to show. They were, however, of opinion that the conduct of the doctor in attending deceased in her confinement and at the same time attending persons suffering from puerperal fever, was highly unsafe and improper. This is one aspect of the case; but there is another not shown. In poor neighbourhoods often very pressing demands are made upon the practitioner as regards midwifery attendance, and if engaged to a case he feels bound to attend, while if he neglects he is equally open to censure from a coroner's jury should any untoward event take place. The moral is that young practitioners, in attending cases, should be more careful of risk to their patients and themselves.

THE VOLUNTEER REVIEW AT GOSFORTH.

A meeting of the Volunteer medical officers has been held in Newcastle, when it was unanimously resolved to form a complete bearer company of the ambulance detachments of the different corps taking part in the review at Gosforth-park on Whit Monday; and to march past in bearer company formation. This is the first bearer company that has paraded at a review in the north. Surgeon-Major Frazer, A.M.D., from the depôt, occupied the chair at the meeting, when it was stated that the general commanding the district would inspect the Gosforth Corps, of whom from 7000 to 8000 volunteers will be present. It may not be amiss to mention an incident which occurred here at a former review, as showing that some little discrimination is desirable in giving tickets to those who are appointed to fall out as wounded and requiring ambulance attention. A corporal was found as wounded, and the bearers from his ticket saw that it was a case of gunshot wound of the leg, and that the corporal would have to be carried to the ambulance tent in the rear, and at a considerable distance. The corporal, whose "fighting weight" was nearly 20 st., was duly and carefully rolled on to the stretcher; but the bearers, being slight lads, found that they could make no progress with their burden, while the "wounded," thinking it rather dull, picked up his rifle and ran back to the ranks.

DEATH OF DR. BOWMAN.

The death of Dr. H. O. Bowman, of Sunderland, has deprived that borough of a well-known physician and magistrate. Dr. Bowman, who was in his sixty-sixth year, had been ailing for some time, but it was not until about a week ago that his illness assumed a serious character. On the 22nd ult. he was known to be in a sinking state, and he died on the following Thursday night. The deceased was a native of Carrickfergus, near Belfast, and had been in practice at Sunderland for forty years, first coming as an assistant to the well-known Dr. Clanny; afterwards he commenced practice on his own account. About eighteen years ago he gave up general practice, but continued acting as a physician until quite lately. He was consulting surgeon to the Royal Albert Asylum, Lancaster, and also a consulting surgeon to the Sunderland Infirmary.

A VERY "CURIOUS" CASE.

"Vomiting an Ask." Under this heading a paragraph has appeared in the *Alnwick Herald*, stating that a boy, aged ten, fell ill about three months ago. He lost appetite and became very weak and emaciated, being at one time treated for gastric fever, but all to no avail until a local practitioner was called in, and he at once administered an emetic, which resulted in bringing forth from the boy's stomach a full-grown newt, locally termed an "ask" (*asker*). Since then the boy has completely recovered health, and has "never looked behind him." I make no comment on the case further than to say that country editors sometimes swallow "queer" things.

Newcastle-on-Tyne, April 29th, 1885.

EDINBURGH.

(From our own Correspondent.)

UNIVERSITY GRADUATION IN ARTS.

ON Wednesday, April 22nd, the annual graduation ceremonial in the Faculties of Arts, Law, and Divinity took place. Honorary degrees were conferred upon several distinguished scholars and authors, amongst whom were M. Renan (conferred *in absentia*), Mr. Leslie Stephen, Mr. Theodore Walrond, and Dr. C. J. B. Williams.

ANNUAL ADDRESS: UNIVERSITY REFORM.

After the formal ceremony of "capping" the graduates was concluded, Professor Crystal delivered an address dealing chiefly with the subject of University Reform, and advocated the adoption of open teaching within the University. Each subject, he said, should be taught by additional teachers as well as by the ordinary professor, and these should be recognised as professors extraordinary or as *privatim docentes*, with a definite academic position. This he would wish carried out in all the Faculties in the University; and the intra-academical competition thus produced would obviate the necessity for an extra-academical school. The provision of increased scope for extra-mural teaching he deprecated on the ground that its main object would be to prepare candidates for examination, and it would thus inevitably bear upon it the stigma of a cramming system. Professor Crystal's reasoning may, and probably does, bear cogently upon the case of an Arts or Philosophical Faculty, but it is directly at variance with what long experience has proved to be the best arrangement in the Faculty of Medicine. The greatest teachers of whom Edinburgh can boast were extra-academic lecturers at one part of their career, and in most cases made their fame as such; and the extra-mural school has kept up the name of Edinburgh as a popular seat of learning during periods when the light within the University was darkness. The historical argument tells strongly against Professor Crystal's view, and it is to be feared that his system, applied in however broad a spirit to the Faculty of Medicine, would not prevent temporary diminutions in the lustre which the present keen competition outside tends to preserve within the University. A plea for the extension of the extra-mural system of teaching under the provisions of the Universities (Scotland) Bill has already been urged by the Edinburgh University General Council Association, and similar representations were recently made to the Lord Advocate by representatives of the corresponding Association of Glasgow University.

ST. ANDREWS AMBULANCE ASSOCIATION.

At a meeting lately held, the Edinburgh branch of the St. Andrews Association gave a series of practical demonstrations of the work carried on under its auspices. The necessary evolutions for the resuscitation of the drowned, the temporary treatment of fractures and other injuries, and a number of ingenious methods of transporting the injured were put into practice by the trained students of the Association before a large and enthusiastic general audience.

UNIVERSITY EDUCATION FOR WOMEN.

In presiding recently at a meeting of the Edinburgh Association for the University Education of Women, the Countess of Aberdeen referred to the presence of clauses in the Universities Bill enabling the Scottish Universities to provide for the graduation of women, and congratulated the Association upon the results of the work which it has carried on in the same direction.

IRELAND.

(From our own Correspondent.)

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE annual election for examiners of this College takes place the first Tuesday in May; but on this occasion the Council, in order to obtain the new supplemental Charter, which is now in the hands of the Lord Lieutenant, have at a recent special meeting adjourned it to the 19th, or the third Tuesday in the same month. By the new Charter lecturers attached to medical schools will now be eligible for examiners. No examiner for the future is to hold office for more than three consecutive years, and if he engages in private teaching his election will be null and void. It is understood that not more than two teachers connected with any one school or hospital will be eligible to obtain seats on the Board of Examiners. These alterations are just and proper, and, by providing for a more frequent change in the composition of the Courts of Examiners, will do away with the long-existing evil. Rumour has it that one or more members of Council under the new regulations will be candidates for examinerships, and if so they must previously resign their seats as councillors. The annual elections for President and Council will take place early in June. Among other candidates for seats in the Council will be Dr. Edward Hamilton, Professor of Surgery in the Medical School of the College, who, it is needless to say, will be duly elected.

VISIT OF THE PRINCE OF WALES.

Among the numerous addresses presented to the Prince and Princess of Wales during their visit to Belfast was one from the President and Professors of the Queen's Colleges, and another from the members of the Ulster Medical Society. In that from the College it was remarked that it was the first University College in Ireland to admit women to its classes. The Prince having replied, Miss Everett, mathematical scholar of the Royal University of Ireland, on behalf of her fellow-students, presented a bouquet to the Princess, in recognition of the interest evinced by Her Royal Highness in the higher education of women. The visit of the Prince of Wales to this country has been a most successful one; but I regret to have to add that two members of our profession conducted themselves in a manner unworthy of their education and social position. Dr. Charles Tanner of Cork, for the part he took among a disorderly mob on the occasion of the visit of the Prince, has received an intimation from the secretary of the Royal Cork Yacht Club at Queenstown that it is the intention of the members to propose his expulsion from the Club. The other person is a Dublin surgeon, who had a black flag attached to his residence during the visit. It is gratifying to note that this conduct has met with a well-merited rebuke, for at a meeting of a Medical Society last week, on his commencing to read a paper, almost all present rose *en masse* and left the room, to express their disapproval of his conduct.

UNIVERSITY OF DUBLIN.

In consequence of the death of Earl Cairns, Chancellor of this University, an election of a successor will take place early in May. The Board have submitted the following to the Senate for their selection—viz., the Earl of Rosse, the Marquis of Waterford, and the Earl of Milltown.

A FOOLISH HOAX.

A very stupid trick was played by some person who inserted in the obituary column of a Dublin newspaper this week a statement to the effect that Mr. Wheeler, a hospital surgeon well known in this city, had died last Sunday. As Mr. Wheeler is still in good health, it is to be hoped that the perpetrator of this hoax will be discovered and punished.

DUBLIN HOSPITAL SUNDAY FUND.

Before leaving Dublin the Prince of Wales handed the Dean of the Chapel Royal a sum of 100 guineas in order to be lodged to the account of the Hospital Fund for 1885.

As regards the statue in memory of the eminent lithotomist, Mr. William Dease, to which I alluded last week, I may add that it will be placed in the entrance hall of the Royal College of Surgeons, and probably will represent Mr. Dease seated instead of standing, as the height of the hall is not such as will permit the latter position.

Dublin, April 28th, 1885.

THE ROYAL COLLEGE OF PHYSICIANS.

AT a Comitia of the Fellows of the College, held on Thursday (30th ult.), Dr. Frederick Farre, Vice-President, in the chair, a large number of Members were duly elected to the Fellowship of the College. (The list is published on another page.)

On the motion of the President, an honorarium of 100 guineas was unanimously voted to Dr. Ord in recognition of his services as Secretary of the Committee and Editor of the Revised Edition of "The Nomenclature of Diseases."

A Report from the Council respecting the Croonian Trust was, after some discussion, received and ordered to be circulated. Owing to the great increase in the sums received under this Trust, it is proposed to take steps to obtain permission to extend its application beyond the payment of an annual lecturer.

A recommendation was adopted from the Committee of Management of the Examining Board for England to the effect that the regulations applicable to the admission of candidates from the English Universities be extended to such of the Scotch and Irish Universities as require a residence of at least two years at the University; and that the Colleges retain the right to withhold such privilege if the examination of any University fail to come up to a certain standard. It was also resolved to accept the diploma of M.D. of the University of Toronto as qualifying for admission to the Membership Examination.

A report of a committee appointed to consider the question of publishing Harvey's manuscript lectures was received, and its consideration adjourned.

On the motion of Dr. Wilson Fox, the College appointed a committee to advise as to steps to be taken with reference to the signing of lunacy certificates.

SHIRLEY MURPHY TESTIMONIAL.

FIRST SUBSCRIPTION LIST.

Samuel Morley, Esq., M.P.	£10	0	0	Dr. James Wakley...	£2	2	0
Dr. Cayley	2	2	0	R. F. Charles, Esq.	1	1	0
Dr. Jas. F. Goodhart ...	1	1	0	Dr. E. Seaton ...	1	1	0
Dr. Thos. Barlow ...	1	1	0	W. Ash, Esq. ...	5	5	0
Rev. A. Godson ...	1	1	0	Miss E. S. Lidgett...	1	1	0
William Wilson, Esq. ...	2	2	0	J. Whitcher, Esq. ...	1	1	0
Chas. Wilson, Esq. ...	1	1	0	Jas. Fraser, Esq. ...	1	1	0
William Hickson, Esq. ...	1	1	0	T. F. Gandar, Esq....	2	2	0
Dr. J. G. Glover	2	2	0	Miss Gandar ...	1	1	0
Thomas Wakley, Esq., jun.	1	1	0	J. A. Heaton, Esq.	2	2	0
J. W. Gandar, Esq. ...	2	2	0	W. Adams, Esq. ...	1	1	0
John Hamer, Esq.... ...	2	2	0	G. C. Ash, Esq. ...	21	0	0
Isaac Butler, Esq.	1	1	0	Berkeley Hill, Esq.,			
A Well-wisher	5	0	0	F.R.C.S.	2	2	0
Lady Henry Somerset ...	20	0	0	John Faulkner, Esq.	2	2	0
P. Bunting, Esq.	1	1	0	Thos. Reynolds, Esq.	1	1	0
A Friend	15	0	0	Morris Lewis, Esq.	1	1	0
J. Northcote Vinen, Esq..	1	1	0	Thomas Wakley, Esq.	2	2	0

The Executive Committee wish it to be understood that the smallest contributions are acceptable.

MEDICAL NOTES IN PARLIAMENT.

Cremation.

IN the House of Lords on the 24th ult., the Earl of Dalhousie, in reply to the Earl of Onslow, stated that he did not quite know what the powers of the Government in the matter of cremation were. Some time ago they were asked to legislate with the view of regulating the practice of cremation by certain safeguards, but the Secretary of State thought at that time that the people of this country were not the least inclined to adopt it as an ordinary mode

of disposing of the dead. He would endeavour to ascertain what the views of the Secretary of State now were.

Lunacy Acts Amendment Bill.

On the 27th ult. the Lord Chancellor moved the second reading of the Lunacy Acts Amendment Bill. The Earl of Milltown, in supporting the Bill, thought it was to be regretted that the Government had not seen their way to vesting compulsorily private licensed houses in some public body, and thus get rid of that most objectionable element, profit. As long as the profitable system was allowed to continue he feared the public would never be altogether satisfied. At any rate he hoped this Bill would eventually and speedily lead to the total suppression of the system. Again, there was an absence of any provision that the proprietors of these houses should be properly qualified and fit persons; that was a point which was well looked after in other countries, and he thought it ought to be provided for in the Bill. Then, again, the Bill contained no provision that the medical officers should be independent persons, and that was a deficiency which he thought ought to be supplied. He could not understand why the Bill did not extend to Ireland. The lunacy laws of Scotland differed materially from those of England, and he could therefore understand why the Bill should not extend to Scotland; but there was very little difference between the law in England and in Ireland, and consequently he thought the Bill ought to include Ireland. The Bill was read a second time; and a Bill for consolidating the laws relating to lunacy was read a first time.

Rags and Small-pox.

In the House of Commons on the 23rd ult., the Lord Advocate, in reply to Dr. Farquharson, stated that he had communicated with the Board of Supervision in regard to the recent occurrence of two cases of small-pox among workers in the Woodside Rag Works, and that the attention of the Board has been directed to the fact that small-pox on more than one occasion had occurred among the operatives in the works referred to, and others. There could be no doubt that in some of these cases the infection had been traced to rags imported from abroad, as well as to the rags collected in this country. The Board's medical officer had made inquiries at the instance of the Board, but as it appeared very doubtful whether, under the Public Health Act, the Board could compel the papermakers to disinfect the bundles of rags before being used, the Board had mainly directed the attention of the local authority to the importance of making provision for the isolation and treatment of the infected persons, so as to prevent the spread of the disease.

The Custody of Lunatics.

On Thursday, Sir W. Harcourt, in reply to Mr. W. Corbet, who asked if his attention had been called to several cases recently reported, in which workhouse authorities refused to receive, even temporarily and pending inquiry, wandering insane persons for whom reception orders were duly made by police magistrates, said that he was clearly of opinion that the proper place for those poor unfortunate persons was neither the police cells nor the gaols, but the workhouse; but great difficulties had been raised by the workhouse authorities. He trusted to be able to insert a clause in the Lunacy Bill, now before the House of Lords, that would clear up the matter.

Obituary.

PAUL BENNETT CONOLLY,

SURGEON, ARMY MEDICAL STAFF.

THIS young medical officer, as we announced last week, died near Korti, on the Nile, of enteric fever, at the age of thirty. The news will cause great grief to a wide circle of friends, and at Charing-cross Hospital (his old school) his untimely death has produced a universal feeling of dismay and sadness. All who knew him predicted for him a brilliant future, and some account of what he has done is here appended. His first experience of war service was in the Russo-Turkish campaign at Bucharest, and he was present at the final attack upon Plevna. He was decorated by the King of Roumania with the Gold Cross. He next volunteered for service at the Cape during the last Zulu war, and was with Sir E. Wood in the many engagements preceding that of Kambula, taking part in the attacks on the Zlobani Hill and in the battles of Kambula and Ulundi. He was mentioned in dispatches for his gallantry at the Zlobani Hill, and at the end of the war received the medal and clasp. On returning to England he determined to enter the Army, and shortly after finishing his course at Netley was sent in command of a bearer company to the Cape during the Boer war. His next active duty was in the Egyptian campaign of 1882, where he was surgeon to the 2nd Bearer Company, and was present at the battles of Kassassin and Tel-el-Kebir, receiving the medal and clasp and Khedive's star. After his return he read for the Primary F.R.C.S., which examination he passed in May, 1884, holding at the time the appointment of Assistant Instructor to the Army Hospital Corps at Aldershot. When the relief of Gordon was determined on he volunteered his services, and was appointed to the light division of the Camel Corps, and has during the campaign been mentioned more than once in flattering terms by those who saw his arduous work between Korti and Gakdul. He was a typical specimen of the soldier-surgeon; pleasant, light-hearted, though sensitive to a degree, he combined a brave heart with a steady hand and a winning manner, with all the highest and essential qualities of a thorough surgeon.

STEPHEN HEMSTED, M.R.C.S.

MR. STEPHEN HEMSTED, whose death occurred recently at Newbury, Berks, was the eldest son of Henry Hemsted, M.D., many years coroner of the borough of Newbury; grandson of Stephen Hemsted, M.D., of Ilsley Hall, one of the coroners for the county of Berks; and great-grandson of Stephen Hemsted, surgeon, of Haverhill. He was born in 1802, and obtained his professional education under Mr. Abernethy at St. Bartholomew's Hospital. In 1825 he obtained the diploma of Membership of the Royal College of Surgeons of London, and commenced practice in Newbury, where he soon acquired an extensive reputation. Mr. Hemsted was universally respected throughout the district in which he resided, and will be long regretted by those who had the pleasure of being intimate with him.

JOHN CAUNT, M.R.C.S.

WE have to record the death of Mr. John Caunt, who for many years resided and practised as a surgeon at Wheeler Gate, Nottingham. He left Nottingham in 1856, and some time after was appointed by the chief inspector of factories, A. Redgrave, Esq., C.B., to a district in London. He discharged the duties of this office faithfully to within a short time of his death. The deceased gentleman was greatly esteemed by a large circle of friends and patients, by whom the announcement of his death will be received with regret, though he had attained the ripe age of eighty-two years. Mr. Caunt died on the 19th ult. at Dudley-place, St. Mary-terrace, Paddington, and was buried at Great Willesden.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following Members have been elected Fellows of the College:—

Carter, William, M.B. Lond., Liverpool.
Davidson, Alexander, M.D. Edin., Liverpool.
Smith, Thomas Gilbart, M.D. Dub., Harley-street.
Herman, George Ernest, M.B. Lond., West-street.
Finlay, David White, M.D. Glas., Montagu-street.
Skerritt, Edward Markham, M.D. Lond., Clifton.
Bennett, Alexander Hughes, M.D. Edin., Queen Anne-street.
Sangster, Alfred, M.B. Camb., Savile-row.
Semon, Felix, M.D. Berlin., Welbeck-street.
Harris, Vincent Dormer, M.D. Lond., Welbeck-street.
Ormerod, Joseph Arderne, M.B. Oxon., Upper Wimpole-street.
West, Samuel Hatch, M.D. Oxon., Wimpole-street.
Smith, Robert Shingleton, M.D. Lond., Clifton.
Smith, David Boyes, M.D. Edin., Netley.
Savage, George Henry, M.D. Lond., Bethlehem Hospital.
Thorburn, John, M.D. Edin., Manchester.
Owen, Herbert Isambard, M.D. Camb., Gloucester-gardens.
Carrington, Robert Edward, M.D. Lond., St. Thomas's-street.
Kidd, Percy, M.D. Oxon., Brook-street.
Sharkey, Seymour John, M.B. Oxon., Portland-place.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examinations for the diploma, were admitted Members of

the College at a meeting of the Court of Examiners on the 23rd ult.:—

Arnold, William, L.S.A., Hale, Altrincham.
Hayes, Julian Philip Swindell, L.K.Q.C.P.I., Tavistock-crescent.
Collins, George Fletcher, L.K.Q.C.P.I., Dublin.
Barendt, Frank Hugh, L.R.C.P. Lond., Liverpool.
Fowler, Thomas Webb, L.S.A., Matlock.
Carrington, George Hedwig, L.S.A., Eccles.
Hughes, Samuel, L.S.A., Liverpool.
Robson, Herbert John, L.R.C.P. Ed., Leeds.
Crosby, Robert, L.S.A., Sunderland.
Armstrong, Leonard Henry, L.S.A., Cambridge-street.
Brown, Thomas Alexander, M.B. Edin., Edinburgh.
MacLaren, Murray, M.B. Edin., Edinburgh.
Barwise, Sidney, L.S.A., Birmingham.
Smith, Franke Chamberlain Hart, L.S.A., Bedford.
Cooper, Chas. Bolingbroke, L.R.C.P. Lond., Liverpool.
Hubbersty, Robert Stephen, M.B. Edin., Stamford.

Admitted on the 24th ult.:—

Whitwell, Alfred Frank, L.S.A., Shrewsbury.
Hodgson, Gerald George, L.S.A., Brighton.
Matthey, Arthur, L.R.C.P. Ed., Southampton.
Hunter, George Holbrey, L.S.A., Frohlake, near Doncaster.
Strong, Henry Barlow, L.K.Q.C.P.I., Bernard-street.
Hebblethwaite, Septimus Montague, L.S.A., Moor Allerton.
Crowdy, Francis Demainbray, L.S.A., Harcourt-buildings.
Scott, Bertal Hopton, M.D. Toronto, St. Peter's-road.
Joberns, William, L.S.A., Walsall.
Cockerill, John William, L.R.C.P. Lond., Portadown-road.
Simpson, James Tracy, L.R.C.P. Ed., Approach-road.
Cook, Henry Samuel, L.S.A., Birmingham.
Beater, Orlando Palmer, M.B. Dub., Dublin.
Melson, George Hyde, L.S.A., Knowle, Warwickshire.
Wigam, William Harper, M.B. Durham, South Shields.
Hall, Gilbert Capel, L.S.A., Birmingham.
Fisher, Thomas Hammond, L.S.A., Southport.
Wakefield, Mark Joseph, M.B. Durham, Gateshead.

Admitted on the 25th ult.:—

Blakeney, Hugh Theophilus Weare, L.A.H. Dub., Dorking.
Evans, Robert, L.R.C.P. Ed., Granville-square.
Basset, Walter, L.R.C.P. Lond., Bristol.
Lysaght, William Connor, L.R.C.P. Lond., Bristol.
Kendall, Hy. Wm. Martindale, L.S.A., Bexley Heath.
Brooks, Jabez Pratt, L.S.A., Torrington-park.
Barnett, Lawrence, L.S.A., Swansea.
West, Charles James, L.R.C.P. Lond., Warwick-street.
Failes, Frederick George, L.S.A., Kings Lynn.
Baker, George Henry, L.S.A., Argyll-road, Kensington.
Brito, Philip Sebastian, M.B. Aberd., Ceylon.
Edginton, Alfred Dudley, L.S.A., Southampton.

Admitted on the 27th ult.:—

Browne, Harold Elliott, L.R.C.P. Lond., Wisbech, Cambs.
Hanson, Albert George, New South Wales.
Morgan, Edward Hume, New South Wales.
Harries, John Frail, L.S.A., Shrewsbury.
Davis, Edward Sandom Stone, L.S.A., Fowey, Cornwall.
Rothera, Frank, M.B. Ed., Nottingham.
Green, Chas. Robt. Mortimer, L.S.A., Morpeth-street.

Admitted on the 28th ult.:—

Blight, John Henry, L.R.C.P. Lond., Sladesbridge.
Cayley, Guthrie Neville, L.R.C.P. Lond., Windsor.
Booth, William Henry, L.R.C.P. Lond., Plymouth.
Smith, Frederick John, L.R.C.P. Lond., Bishopsgate.
Maynard, Frederic Pinsent, L.R.C.P. Lond., Barnes.
Walsh, Charles Lawrence, L.R.C.P. Lond., Oxford.
Armstrong, Hugh, L.R.C.P. Lond., Chalcot-crescent.
Tanner, Herbert, L.R.C.P. Lond., Bicester.
Creasy, Rolf, L.R.C.P. Lond., Ealing.
Garmany, Jasper Jewitt, M.D., Bellvue, Savannah, U.S.A.

Admitted on the 29th ult.:—

Nutting, Philip Henry, L.R.C.P. Lond., Warwick.
Woolmer, Shirley Lawrence, L.S.A., Charrington-street.
Wood, Edward, L.S.A., Tottenham.
Barrett, William Peard, L.S.A., Cheltenham.
Pedler, William Frederick, L.S.A., Tiverton.
Simmons, Harold, L.S.A., Ladbroke-grove-road.

The following candidates passed the Primary Examination in Anatomy and Physiology for the diploma of Member of the College at a meeting of the Board of Examiners on the 16th ult.:—

ANATOMY AND PHYSIOLOGY.—G. Oliver Richards and R. Baxter Booth, Charing-cross; Arthur Gervase Hendley, Arthur Bentham, and W. G. S. Brown, St. Bartholomew's; Jeremiah Penny, King's College; J. Albertus Exton and S. J. Cole, London; Cyril S. Davis, A. E. Poolman, W. E. Tressider, W. G. Brett, and J. E. Moyse, Guy's; A. J. Moss, Manchester; L. W. Powell, University College; Charles S. Vines, E. Lycett Cropp, and G. J. Harris, Westminster; C. F. Rilot and W. H. Charles, Middlesex; J. H. Fardon, Bristol; F. W. Parker, A. H. Ward and E. Le Cronie Lancaster, St. George's; J. C. Barr, St. Mary's; R. F. Walker, St. Thomas's.
ANATOMY ONLY.—Albert Pearse, St. Bartholomew's; E. Stock Bell, St. Thomas's.
PHYSIOLOGY ONLY.—J. L. Johnston and C. H. Smale, Manchester; J. D. O'Sullivan, Dublin; H. B. Seddon, St. Thomas's; J. R. Gallard, London; A. Norman, Guy's; Frank Gilpin, Middlesex; H. Haniton Coates, St. Bartholomew's.

(Candidates referred for three months, 2; six months, 4.)

Passed on the 17th ult.:—

ANATOMY AND PHYSIOLOGY.—W. H. Cooper, W. Wallis Ord, C. H. James, J. H. Lotiz, Frank Fowler, and H. H. Hefferman, St. Thomas's; H. W. Lewis, C. T. Boodlee Maisey, W. Wilfred Williams, Lewis Brown, G. L. Kemp, and Arlingham Carter, Guy's; C. Charan, Sen., and Charles Duer, University College; T. H. Clarke and John Maberly, Middlesex; Nugent E. Smyth, Birmingham; John Norton, Westminster; C. W. Ensor and W. Gostwyck Sargent, London; W. Byam Lane and T. Lakeman, St. Bartholomew's; S. E. Pedley, Charing-cross.
ANATOMY ONLY.—J. Mackenzie Bremner, King's College; W. H. F. Godwin, Westminster; Samuel H. Hughes and Frank Heasman, St. Bartholomew's; Nicholas Tyacke, Middlesex; G. H. Trenfield, Bristol; H. Cockerton, St. George's; G. R. Anderson, St. Thomas's.
PHYSIOLOGY ONLY.—F. Price Drury and A. F. Tyrrell, Middlesex; T. Warne Sargent, London; P. Allison Linnell, Manchester; C. H. Seal, University College.

(Candidates referred for three months, 3; six months, 3.)

Passed on the 18th ult.:—

ANATOMY AND PHYSIOLOGY.—T. J. Dabell, W. Griffith Williams, T. B. Spencer, and Reginald Martyn, St. Bartholomew's; John Forster, William Powell, W. A. T. Twemlow, and A. H. W. Hunt, Westminster; J. Porter Parkinson, E. B. Hastings, R. Foster Gill, and J. E. Gould, University College; Charles H. Eccles, St. Thomas's; W. Heatley, Ernest Baly, and A. B. Davies, London; H. Carlos Barr, St. Mary's; W. J. Radford and J. G. V. Sapp, Charing-cross; G. C. B. Atkinson and W. Gifford-Nash, Middlesex; F. W. Pearce, Guy's.
ANATOMY ONLY.—Albert Lucas and C. R. B. Alexander, St. Bartholomew's; Edwin Webster, St. Thomas's; F. J. Oxley, London.
PHYSIOLOGY ONLY.—F. J. Brown, Middlesex; J. S. Part, Westminster; G. T. Mould, St. George's.

(Candidates referred for three months, 6; six months, 1.)

Passed on the 20th ult.:—

ANATOMY AND PHYSIOLOGY.—L. T. F. Bryett, H. R. Henley, King's College; E. A. Snape, Charing-cross; E. O. Ashe and F. G. Twigg, London; G. Seymour and E. E. Lewis, Middlesex; R. A. Sawyer, Guy's; Charles J. Weekes, University College; C. W. Cooke, St. Thomas's.
ANATOMY ONLY.—G. John Cressy and R. Teale Wallace, Guy's.
PHYSIOLOGY ONLY.—J. Conyers Bell and W. G. Thorpe, Guy's; Isaac G. Modlin, Newcastle.

(Candidates referred for three months, 3; six months, 5.)

[In the list of candidates who passed in Physiology on the 15th ult., for "Cartmil" read Cartmel.]

The Library of the College will be closed on Monday, Tuesday, and Wednesday, 4th, 5th, and 6th of May, at 4 P.M. each day, for the purposes of the examination in Medicine and Midwifery for the diploma of Member; and on Friday, May 8th, for the Primary Examination, 156 candidates having entered for that examination.

UNIVERSITY OF DURHAM.—At the recent examinations for the certificate of proficiency in Sanitary Science, the following satisfied the examiners:—

Roberts, James Reid, M.R.C.S., L.R.C.P.
Walker, Charles Pope, M.R.C.S.

For the above examination only two candidates entered. For the first examination for the degree of Bachelor of Medicine, of sixty candidates thirty-two satisfied the examiners.

UNIVERSITY OF ST. ANDREWS.—The following registered medical practitioners having passed the required examinations, the degree of M.D. was conferred on them on April 24th:—

Anderson, John, M.R.C.S., L.S.A., Brigade-Surgeon Half-pay, London.
Davidson, Chas., M.R.C.S., F.R.C.S. Ed., L.K.Q.C.P.I., London.
Fenn, Edwin, M.R.C.S., L.S.A., Dover.
Knott, Sydenham John, M.R.C.S., L.S.A., London.
Marriott, Charles W., F.R.C.S. Ed., M.R.C.S., L.S.A., Surgeon-Major, A.M.D., Leamington.
Morgan, George, M.R.C.S., L. R.C.P. Ed., L.S.A., Pontypool.
Skelton, Henry, M.R.C.P. Ed., M.R.C.S., Downend, near Bristol.
Stott, William John, M.R.C.S., L.R.C.P. Ed., Haslingden.
Wickham, Richard Henry Brenton, F.R.C.S. Ed., F.R.C.P. Ed., Newcastle-on-Tyne.

The following gentleman also proceeded to the degree of M.D.:

Lowe, George, M.B., C.M. St. Andrews, Wymondham.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—The following candidates have passed the final examination for the triple qualification granted by the above-named bodies:—

Gordon, A. S., M.A., Edinburgh School.
Hill, Andrew, Glasgow School.
Laing, J. B., Glasgow School.
Spittel, Frederick George, Ceylon Medical School.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

The following candidates passed the Final Examination at the April sittings of the Examiners, and were admitted Licentiates:—

Clark, S. P., Glasgow Royal Infirmary.
Modder, Eugene, Ceylon Medical College.
Malcolmson, John F., Dublin and Glasgow.
Plummer, Ed., King's College and Glasgow.
Rugg, J. Foster, L.R.C.P. Edin., St. Thomas's Hospital
Somerville, Wm., Anderson's College.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At meetings of the Court of Examiners held on April 7th and following days, the undermentioned obtained the diploma in Surgery of the College:—

Alfred George Beale, Jeremiah Beahan, Louis Aloysius Byrne, Robert George Christy, Thomas Codd, James Corcoran, Edward George Cotton, Patrick James Curtin, John Cuthbert William Daune, John Joseph Davoren, John Dawson, John Empson, Frederick Hall, Michael St. Lawrence Harford, Patrick Heelan, Arthur Joseph Hogan, George Edgar Hughes, John Keany, Henry T. Knaggs, David Humphreys, Reginald Levinge, Daniel McCann, James Douglas McDonagh, William Arthur Mahon, Matthew John Marmion, John O. Callaghan, John Rogers, William John Russell, Edmond Aloysius Ryan, Jeremiah B. Ryan, John Joseph Savage, James Albert Frederick Sawyer, Robert Dudley Alger Stone, Ernest Hastings Tweedy, Thomas F. Wade, Hugh Whelan, and John Whyte.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 23rd ult.:—

Gifford, George Taylor, King's College.
Hillier, Thomas Ernest, St. Bartholomew's Hospital.
Ritchie, Edward Duguid, St. Thomas's Hospital.

A TELEGRAM from Dongola announces the existence of an epidemic of small-pox at Omdurman.

WOOTTON WARREN, a small village near Leamington, with 700 inhabitants, is credited with having living in it seven persons whose united ages amount to 651 years, or an average of ninety-three years each.

A PORTRAIT of Dr. Fordyce Barker has been presented to the New York Academy of Medicine. The portrait, by Lazarus, represents the ex-president of the Academy in his Edinburgh academical robes, and is said to be an excellent likeness.

AT the Guildhall on the 29th ult., a butcher of Burgess-hill was sentenced to six weeks' imprisonment, without the option of a fine, for having sent four quarters of diseased meat to the London market, the same being unwholesome and unfit for human food.

ASSOCIATION OF PUBLIC SANITARY INSPECTORS.—The next meeting will be held at the rooms of the Social Science Association, Adam-street, Adelphi, on Saturday next, May 2nd, at 6 o'clock P.M. An address will be delivered by the President, Mr. Edwin Chadwick, C.B., entitled (probably) "A Review of the past Session."

AT a meeting of the Paddington Vestry on the 21st ult., it was decided, previous to affixing the seal of the Vestry to the contract for a new sewer, to obtain the opinion of a sanitary expert as to whether the sewer is required, whether it should be a brick or glazed stoneware pipe sewer, and what provision should be made for the ventilation of the sewer recommended.

THE METROPOLITAN ASYLUMS BOARD.—At the meeting of the managers of this Board on the 25th ult., another serious outbreak of small-pox in the metropolis was reported. The disease had a short time ago decreased to such an extent that it had been proposed to close the Western (Fulham) and North-Western (Hampstead) Hospitals, the wards of which were empty. In four weeks, however, no less than 874 cases have come into the hands of the medical officers, and there are now 1039 patients in the eight asylums. The motion for the closing of the two asylums mentioned was accordingly withdrawn.

AT a meeting of the City Commissioners of Sewers on the 28th ult., the Sanitary Committee presented a report stating that they had from time to time considered the question of the advisability of erecting a crematorium that the public might adopt that mode of sepulture should they so wish, and, in order to acquire every information on the subject, they requested the Court's authority to visit some place where the system was in operation, so that they might witness the cremation of a human body. Rome, Milan, or Gotha, were the places to one of which the Committee wished to proceed. The report was negatived by a large majority.

MIDLAND MEDICAL SOCIETY: PRESENTATION TO MR. HARMAR.—At the last meeting of the session, held at the Birmingham Medical Institute on Wednesday, April 22nd, Mr. Harmar, the late treasurer of the Society, who had held that office for eighteen years, was presented with a handsome timepiece, a pair of silver candlesticks, and an illuminated address, subscribed for by 163 members. The President (Mr. T. H. Bartleet), in making the presentation, spoke of the great services Mr. Harmar had rendered to the Society. The address, which was beautifully illuminated, was as follows: "To James Harmar, Esq., M.R.C.S., L.S.A. Dear Sir,—The members of the Midland Medical Society, on your resignation of office as treasurer, are desirous of expressing their sincere appreciation of the zeal, ability, and success with which you have discharged the duties of that office during a period of eighteen years." Affixed to the clock was a plate with an inscription also testifying to Mr. Harmar's valued services.

OXFORD GRADUATES' MEDICAL CLUB.—The chair at the next dinner of this Club is to be taken by Dr. John W. Ogle, of Trinity College, and, it being the anniversary meeting, only members of the Club will attend. The dinner is to take place on Thursday, May 21st, at 7.30 P.M., at Limmer's Hotel, George-street, Hanover-square. It will be remembered that the Club was started only last year, and it already numbers more than one hundred members, a very large proportion of these practising medicine or surgery and holding Oxford degrees. The Secretaries are Dr. Samuel West and Mr. J. H. Morgan, and those intending to be present should forward their names to one of these gentlemen.

HOSPITAL SUNDAY AT ROCHESTER.—Hospital Sunday has been observed as usual in Rochester and Chatham by the Mayor and Corporation attending the Cathedral in state. There were large congregations at both services, as well as at other places of worship in the neighbourhood where sermons were preached in behalf of the fund. At St. Bartholomew's Hospital, Chatham, more than 12,000 patients have received treatment during the past year, and these have come from sixty-one different parishes. The superintendent of St. Paul's Sunday School, writing to the local press, says that by encouraging children to bring their pennies on Hospital Sunday he has collected seventeen or eighteen shillings a year for the fund, and he suggests that this plan might be generally adopted in Sunday schools belonging to both churches and nonconformist places of worship, with the result of considerably augmenting the collections already made.

UNIVERSITY OF CAMBRIDGE.—The preliminary notice of the dates of the examinations for Medical and Surgical Degrees, for Easter term, 1885, has been issued. For the degree of Bachelor of Medicine, the first examination will begin on June 5th, the second on June 9th, and the third (Parts I. and II.) on May 12th and 13th; for the degree of Bachelor of Surgery, on May 16th; for the degree of Master of Surgery, on May 15th and 16th. The names of candidates for the third examination and for the examinations in Surgery must be sent to the prælectors of their respective colleges on or before May 4th; those for the first or second examinations on or before May 26th. The certificates of candidates, accompanied by their postal addresses, must be sent to the Secretary, not less than seven days before the beginning of the examination for which they are entered. The fees for the examination must be paid to the Registrar of the University before the certificates are sent in.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BAKER, THOMAS, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the First District of the Havant Union.

BENNETT, E. A., L.R.C.S.Ed., L.S.A.Lond., L.M.Ed., has been appointed Honorary Surgeon to St. Mary's Cottage Hospital, Southampton vice Wilmer, deceased.

CHAPMAN, GEORGE, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Yoxall District of the Lichfield Union, vice Ramsden.

FERNANDEZ, EDWARD J., L.R.C.P., L.R.C.S., L.M., has been appointed Medical Officer of Health and Port Surgeon under the Bombay Government at Perim Island, Red Sea, Arabia.

FOORD-CLARK, HARRY, L.R.C.P., L.R.C.S., L.M.Ed., has been appointed Government Medical Officer and Public Vaccinator to the Town and District of Moree, New South Wales.

FOWLER, TREVOR, L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer for the Nazeing District of the Epping Union, vice Priest.

HANDFORD, HENRY, M.D., M.R.C.P., has been appointed Physician to the General Hospital, Nottingham.

HELM, ROBERT DUNDAS, M.B. & C.M.Ed., has been appointed Resident Physician to the Royal Hospital for Sick Children, Edinburgh.

MCCRACKEN, JOHN, M.B., M.Ch.Glas., has been appointed Medical Officer for the Kilburn District of the Thirsk Union, vice Stevens.

MACKENZIE, HECTOR WILLIAM GAVIN, M.A., M.B.Cantab., has been appointed Resident Assistant-Physician at St. Thomas's Hospital, vice Percy Smith, M.D., resigned.

MARR, JOSEPH BELL, L.F.P.S.Glas., L.R.C.P.Ed., has been appointed Health Officer for the Shire of Ballan, Victoria.

MYDDELTON-GAVEY, E. H., M.R.C.S. & L.S.A.Lond., has been appointed House-Surgeon at the Leeds General Infirmary.

PARRY, GEO. HALES, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Dorking District and Workhouse, Dorking Union, vice Batson.

POPE, PERCY, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Fourth District of the Havant Union.

ROBINSON, ARTHUR HENRY, M.D.Dur., M.R.C.S., has been appointed Medical Superintendent of the Infirmary, and Medical Officer of the Workhouse and Schools, Mile-end Old Town Hamlet.

SMITH, PERCY, M.D., has been appointed Assistant Medical Officer to Bethlem Royal Hospital.

SYMONS, GEO. FRANCIS, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Third District of the Newton Abbot Union.

WHITELEY, GEO. WILLIAM, L.R.C.P.Ed., L.R.C.S.Ed., M.R.C.S., has been appointed Medical Officer for the Second District of the Alderbury Union.

Births, Marriages, and Deaths.

BIRTHS.

BEAUMONT.—On the 24th ult., at Shirley, Southampton, the wife of Charles G. Beaumont, M.D., of a daughter.

BUNN.—On the 25th ult., at Ferndale, Upper Norwood, the wife of C. Grinling Bunn, L.R.C.P., M.R.C.S., of a son.

HINE.—On the 23rd ult., at Eppingdale, Leytonstone-road, the wife of A. Leonard Hine, L.R.C.P., M.R.C.S., L.S.A.Lond., of a son.

NORTON.—On the 28th ult., at Upper Gloucester-place, the wife of G. Everitt Norton, M.R.C.S. &c., of a daughter.

STOCKS.—On the 22nd ult., at Courland, Wandsworth-road, London, S.W., the wife of Frederick Stocks, M.R.C.S., of a daughter.

MARRIAGES.

HARE—CUMMINS.—On the 23rd ult., at St. Paul's, Brentford, Evan Herring Hare, M.A., M.R.C.S., son of Evan Hare, of Kew, to Emily Lucy, daughter of the late Richard Norris Cummins, of Mortlake.

HIGGENS—GREENWOOD.—On the 22nd ult., at Titchborne, Hants, by the Hon. and Rev. Everard Arundell (cousin of the bride), Charles Higgens, F.R.C.S., 38, Brook-street, W., Ophthalmic Surgeon to Guy's Hospital, to Evelina, eldest daughter of the late Colonel Greenwood, of Brookwood Park, Hants.

KNOTT—HOLMES.—On the 23rd ult., at St. Andrew's Church, Higher Blackley, near Manchester, by the Rev. E. Parker, William Knott, surgeon, of Waterhead, Oldham, to Aimée, only daughter of E. Holmes, Esq., Boothroyden, Manchester.

MATTHEWS—VEVERS.—On the 20th ult., at Holmer Church, Samuel Richard Matthews, M.D., of Hereford, to Maria Elizabeth (May), youngest daughter of Henry Vevers, Esq., of Highmore House, Hereford.

MACQUEEN—COMBERBACH.—On the 22nd ult., at Huyton Parish Church, Thomas MacQueen, M.B., C.M., of Eastbourne, to Edith Mary, youngest daughter of Robert S. Comberbach, of South Park, Huyton.

MOTT—SOLEY.—On the 22nd ult., at Christ Church, Sefton Park, Liverpool, by the Rev. Henry Coote, A.B., Rector of Donaghadee, Fredk. Walker Mott, M.B., B.S.Lond., to Georgiana Alexander, daughter of the late George Thomas Soley, Esq., of Parkfield-road, Liverpool.

RINGER—RICH.—On the 16th ult., at Hardwicke, Aylesbury, by the Rector, the Rev. W. Bigg-Wither, assisted by the Rev. Newton B. Young, Rector of Tillbrook and Rural Dean, Deputy Surgeon-General Theobald Ringer, late 7th Bengal Cavalry, son of the late William Ringer, Esq., of Laugharne, Carmarthenshire, to Frederica Adela, eldest daughter of the Rev. Henry Rich, Great Alne, Alcester, Warwickshire, and formerly Curate of Hardwicke-cum-Weedon.

DEATHS.

ANDERSON.—On the 28th ult., at Abingdon-road, Mark French Anderson, L.R.C.P.Ed., M.R.C.S., in his 51st year.

BLAKEMORE.—On the 19th ult., at his residence, Montpelier-road, Brighton, William Blakemore, F.R.C.S., late of Grosvenor-street, son of the late William Blakemore, of H.M. Exchequer.

CAUNT.—On the 18th ult., at Dudley-place, Paddington, John Caunt, M.R.C.S., formerly of Nottingham, in his 82nd year.

CRERAR.—On the 1st ult., at the Royal Military Asylum, Chelsea, James Crerar, Deputy Surgeon-General.

DIXON.—On the 25th ult., at Lansdowne-terrace, West Brighton, Joseph Dixon, M.R.C.S. and L.S.A.Lond., aged 62.

DUNCAN.—On the 22nd ult., at 6, Harley-street, Cavendish-square, W., after a few days' illness, Ada Mary, the loving and much-loved wife of William A. Duncan, M.D., F.R.C.S.Eng., aged 28.

EDMONDS.—On the 22nd ult., at Fowey, Cornwall, Fredric Edmonds, M.D., F.R.C.S.E., late of Guanajuato, Mexico, aged 75.

FRANKS.—On the 19th ult., at Billesdon, Leicester, William Francis Franks, M.R.C.S., L.S.A.Lond., aged 71.

GARDINER.—On the 23rd ult., at Wimpole-street, G. G. Gardiner, M.D., also of Finsbury-circus, aged 49.

GLADALL.—On the 22nd ult., at his residence, St. George's Villa, Sheffield, James Gladall, F.R.C.S., in his 67th year.

INNES.—On the 23rd ult., at Lyndhurst-road, Hampstead, Surgeon-General Francis William Innes, C.B., aged 73.

WHITELOCK.—On the 27th ult., at Chalcot-crescent, Regent's-park, Surgeon-Major Thomas William Whitelock, in his 70th year.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

Medical Diary for the ensuing Week.

Monday, May 4.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Casual communications by Messrs. E. Lloyd Williams, F. I. Hutchinson, W. A. Hunt, David Hepburn, and C. W. Dunn of Florence (per Mr. Storer Bennett, Hon. Sec. Foreign Correspondence).—Dr. W. St. George Elliott: Bridge Work, with Remarks on Electro Motors.

Tuesday, May 5.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

ROYAL INSTITUTION.—3 P.M. Prof. Gamgee: Digestion and Nutrition.

PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Charlewood Turner: (1) Tumour of the Brain; (2) Posterior Sclerosis of the Cord (card).—Dr. Norman Moore: Malignant Disease of the Cranial Bones in a Child.—Dr. Dyce Duckworth: Sarcoma of the Lung and Brain in a Child.—Dr. G. N. Pitt: The Viscera of a Syphilitic Infant.—Dr. Payne: Varicella Gangrenosa.—Mr. Paul: A group of cases of Primary Carcinoma of the Liver.—Dr. Goodhart: Cirrhosis simulating Cancer of the Liver (card).—Mr. Shattock: Actino-mycosis of the Liver (card).—Mr. Bilton Pollard: Callus of Tibia and Fibula.—Dr. Hadden: Chronic Cerebro-spinal Meningitis.—Mr. Sutton: Typhoid Fever in Animals.—Mr. Battle (for Mr. Croft): (1) Primary Sarcoma of the Kidney (card); (2) Fistula between Small Intestine and Bladder (card).—Mr. Doran: Pedunculated Fibroma on the Outer Wall of an Ovarian Cyst (card).—Mr. D'Arcy Power: Three Specimens of an Encysted Hernia (card).—Dr. Percy Kidd: (1) Intercalar Ulceration of the Tongue (card); (2) Small Fibroma of Cæcum (card); (3) Tubercular Ulceration of the Tongue (card) (for Mr. H. H. Taylor).—Mr. Churchill: (1) Congenital Papillomata of Mouth and Neck (card); (2) Acute Ostitis of Tarsus.

Wednesday, May 6.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department: 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.

OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. Horrocks and others.—Dr. Matthews Duncan: On the Ulceration of Lupus of the Female Generative Organs.—Dr. W. H. Day: Case of Uterine Fibroid complicating Labour treated by Enucleation.—Dr. John Williams: On Serous Perimetritis.

Thursday, May 7.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Tyndall: Natural Forces and Energies.

HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Mr. M. Handfield Jones: Notes on a case of Porro's Operation, with Specimen.—Dr. A. de Watteville: Methods of Electrical Diagnosis in Nervous Diseases.

Friday, May 8.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

MEDICO-PSYCHOLOGICAL ASSOCIATION.—2.30 P.M. Council Meeting.—4 P.M. Quarterly Meeting. A resolution will be proposed to express the feeling of the Association on the retirement of Lord Shaftesbury from the Lunacy Commission. The provisions of the proposed Lunacy Amendment Bill.

CLINICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Hadden: A case of Obstruction of the Arteries and Veins extending over many years.—Mr. J. R. Lunn: Osteitis Deformans.—Dr. Cayley: A case of Hæmoptysis treated by the Induction of Pneumothorax so as to Collapse the Lung.—Mr. Charles Symonds: A case in which, at the request of the late Dr. Mahomed, a Calculus was removed from the Vermiform Appendix for the relief of recurrent Typhlitis.

ROYAL INSTITUTION.—9 P.M. Mr. W. F. R. Weldon: On Adaptation to Surroundings as a Factor in Animal Development.

Saturday, May 9.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. W. Carruthers: Fir-trees and their Allies.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, April 30th, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
Apl. 24	29·65	S.W.	52	48	84	60	45	·18	Cloudy
,, 25	29·37	S.W.	55	51	105	61	50	·07	Stormy
,, 26	29·54	S.	55	50	106	62	49	·05	Cloudy
,, 27	29·71	E.	56	51	97	64	50	·03	Hazy
,, 28	29·75	S.W.	57	51	109	67	47	...	Hazy
,, 29	29·66	S.W.	54	50	104	65	50	·54	Cloudy
,, 30	29·87	N.	53	49	84	60	44	...	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

AN OLD POOR-LAW MEDICAL AGREEMENT.

To the Editor of THE LANCET.

SIR,—Perhaps the following extract from the meetings of the Vestry of West Coker, Somerset, giving the terms of agreement for the "parish doctor," may be of sufficient antiquarian interest as to merit insertion in your columns. It is the earliest notice of the kind that I have seen. Like the present arrangements with the Local Government Board, it will be seen that midwifery and compound fractures are "extras."

I am, Sir, yours faithfully,

West Coker, Somerset, April 27th, 1885. JNO. EADIE.

"1778, May 18th.—At a vestry legally held it was agreed on the part of the parishioners to advance yearly the sum of five guineas to Mr. Shorland of Yeovil for the following purpose: that is to say, that he, the said Mr. Shorland, shall give due and necessary attendance on the poor of this parish when required, and lend them when needful his good assistance as a surgeon and apothecary, compound fractures and midwifery excepted in the first and small-pox in the latter; and Mr. Shorland on his part doth promise faithfully to fulfil the above when required."

(Here follow the signatures.)

Another extract:—

"24th April, 1786.—This agreement then ceased."

"AGORAPHOBIA."

To the Editor of THE LANCET.

SIR,—In reply to Dr. Evans's question in your last issue concerning the treatment of agoraphobia, allow me to refer him to my letter on this symptom in THE LANCET of Jan. 17th last. The best prescription for this disagreeable state of things is a mixture of bromide of potassium with sal volatile. Walking at night is, I find, in these cases much less dreaded than walking in the glare of the day; and by degrees the muscles of the limbs become firmer and more developed, and a general healthy tone takes the place of the former miserable condition of nervousness.

I am, Sir, yours faithfully,

Richmond-terrace, S.W., April 27th, 1885. H. SUTHERLAND.

To the Editor of THE LANCET.

SIR,—In answer to Dr. Evans, I may say that I have found the above condition to be a very frequent, and sometimes the only, symptom of a neurasthenic state characterised by loss of vaso-motor tone and an increased quantity of urea in the water passed by the patient. I have had a considerable number of such cases lately under my care, and, with one or two exceptions, have found that the patients have completely recovered their health in periods varying from a week to a month under the internal administration of three grains of valerianate of soda three times a day, and systematic vibration of the peripheral nerves with the electro-percuteur. I shall be happy to give Dr. Evans any further information he may desire upon the subject.—Yours truly,

Moorgate-st., E.C., April 27th, 1885. GEO. HERSCHELL, M.D.Lond.

"THE PRIMROSE."

THE first number of an amateur monthly magazine christened *The Primrose*, and published on April 19th in honour and commemoration of the late Lord Beaconsfield, has recently appeared. We understand that the magazine is intended for private circulation, and with a view of adding to the funds of the National Aid Society for the care of the sick and wounded in the Soudan. The first number contains many little stories and fragments of an amusing kind. Copies of the magazine may be ordered of A. Wilson Fox, Esq., 67, Grosvenor-street, or of C. L. Sclater Booth, Esq., 74, St. George's-square, London, S.W.

Dr. Golaub Sing is referred to some remarks which appear on another page.

REAL DISEASE OR MALINGERING?

To the Editor of THE LANCET.

SIR,—About a fortnight ago I was asked by a patient to examine a servant in his employment. She was nineteen years of age, and was described as a steady, industrious girl. She complained of palpitation of the heart, with periodical attacks of syncope. I elicited that she had had rheumatic fever, and was subject to irregular and excessive menstruation. But the symptom which caused her employers the greatest uneasiness was the markedly cyanotic appearance of her lips whenever she was seized with one of these attacks. When I saw her, her lips were of a normal colour. Her pulse was slightly irregular in rhythm, but more so in volume. On examination, I detected a very slight mitral systolic murmur. Her lungs were sound. I noticed no embarrassment in her breathing, nor was there any anasarca; the urine was found to be free from albumen. I communicated my diagnosis to the girl's master and mistress, and expressed my ignorance as to the cause of the cyanosis, telling them that, in my opinion, the lesion of the heart had not produced sufficient disturbance in the pulmonary circulation to produce such an advanced symptom. Four days ago I was summoned to see the girl, as she was very much worse. I found her in bed; her face was very pale, and her lips were of a cobalt blue. Examination revealed that the inside of the lips was of the natural colour. With the aid of a moistened towel I proceeded to restore the natural colour to the outside of the lips, and transferred the cyanosis from the lips to the towel, on which I discovered traces of previous attacks of cyanosis. I then informed her employers that it was a case of "fiction founded on fact," and that the girl, through hysteria or for the purpose of malingering, had had recourse to Nature to supply a symptom of which she deemed herself deficient. This they cannot, and will not, believe, remarking that the girl has never sought to profit by her cyanosis, and that a careful examination of her effects had failed to discover the wherewithal for the fraud. The girl, who is very intelligent, has, to me and to her employers, strenuously and in the most indignant manner denied the truth of my statement.

I would esteem it a great favour if in your next issue you would inform me whether my opinion is capable of error in this case, and whether there is really any morbid state capable of producing a cyanosis susceptible of cure by soap and water. You would thus satisfy me, and I would be enabled to satisfy my patients.

I am, Sir, yours faithfully,

FREDK. W. FRIEND,

Hon. Surgeon, Isle of Man General Hospital.

Douglas, Isle of Man, April 20th, 1885.

CONTAGIOUS DISEASE CARDS.

To the Editor of THE LANCET.

SIR,—At page 677 of THE LANCET of April 11th there is a paragraph stating that Mr. Adams "has devised a card" which "embodies a neatly-drawn-up chart, and indicates the presumed normal periods of latency, premonitory fever, duration of pyrexia, and of infectiveness of certain contagious diseases. "It is issued by Messrs. Churchill." I think it is only right that attention should be called to the fact that the figures given by Mr. Adams were previously published in the *Health Journal* of March, 1884, accompanied by a coloured chart, and that the figures and chart were shortly afterwards republished in a pamphlet issued by Mr. Heywood at 6*d*.

I am, Sir, your obedient servant,

Chester, April 18th, 1885. G. A. KENYON.

*** We think it only due to Mr. Francis Vacher, the author of the pamphlet referred to by our correspondent, to insert the above. So far as the chart and tables go, the similarity between the two is absolute; and it is to be regretted that Mr. M. A. Adams has not acknowledged the source from which he apparently derived not merely the idea, but the actual figures of his "card." Mr. Vacher's pamphlet contains the evidence upon which these figures are based, and is well worthy of perusal.—ED. L.

"IS ALCOHOL A FOOD?"

To the Editor of THE LANCET.

SIR,—In my paper on the above subject, which you were kind enough to publish last week, I notice a printer's error, which I trust you will allow me to correct. In page 744, twenty-third line from the bottom of the first column, instead of "sulphate or oxide of chromium" read "sulphate *of* oxide of chromium.—I am, Sir, yours truly,

Potter's Bar April 27th, 1885. T. W. THOMPSON.

SPURIOUS CUBEBS.

To the Editor of THE LANCET.

SIR,—A few days ago a patient of mine who had been taking cubeb powder called on me, complaining of its having made him feverish, with sickness and purging. He looked wretchedly ill and weak; the pulse was feeble, the tongue very much coated, and he had general aching pains all over. He told me that he had taken the powder for a week without its disagreeing with him; then he had to buy some more. The new sample had a more acrid and unpleasant taste, and gave rise to nausea, followed by diarrhœa, &c. He persevered with it for three days, when he became so ill that he could not go to business. He attributed his present condition entirely to the new cubebs, which he brought for me to see. On comparing it with a sample procured at Messrs. Corbyn's, I found that it was lighter in colour, and that on crushing some of it on a sheet of white paper lighter streaks were seen amongst the general brown. The smell was drier, less aromatic, and the taste hotter, more peppery, with less of the aromatic cooling pungency of pure cubebs. It appeared certain that this sample was adulterated with some powder possessing acrid and irritant properties. On inquiring amongst the wholesale houses, I found that a spurious berry had lately been offered for sale under the name of cubebs, and that a certain quantity had been sold; and I feel sure, on comparing the berry with the adulterated powder, that it was mixed with it. I understand that these spurious cubeb berries were offered for sale in the French markets, but were seized by the authorities. The berry somewhat resembles cubebs in its external character, being wrinkled and stalked, but it contains a single hard seed; it is not a pepper, but is the berry of a species of laurel from West Africa. I may add that my patient soon recovered, and is now taking cubeb powder without any bad effect, so that it is clear his recent indisposition was caused by the adulterated sample.

The consideration of this gross example of adulteration shows how impossible it is for us to depend upon the present system of Government inspection, for the bags of spurious cubebs were publicly offered for sale without any hindrance from the authorities, although Mr. Holmes called attention to them in the *Pharmaceutical Journal*. The subject is one of great importance, and I hope that we may look forward to some more perfect means for preventing the wholesale adulteration of drugs than at present exists; for surely it is as important to have the supplies at the drug brokers inspected as it is to test a few drops at the retail chemist's.

I am, Sir, yours faithfully,
Frederick-place, Old Jewry, April 27th, 1885. BUXTON SHILLITOE.

Mr. F. P. Smith (Shepton Mallet).—The firm in question has acted in accordance with the practice of high-class publishers.

"TRANSVERSE HERMAPHRODITISM."

To the Editor of THE LANCET.

SIR,—In THE LANCET of April 25th Mr. J. H. Morgan is reported to have said, in the discussion on a case of Hypospadias at the Pathological Society, that he was uncertain whether the mixture of external and internal organs of different sexes in the same individual had ever been observed. In the last bulletin of the Anatomical Society of Paris will be found the report on such a case. The specimen is in the Museum at Paris. It was that of a full-grown fœtus which died during protracted delivery, and which I dissected, fully believing that it was a male. The penis was well formed but for slight hypospadias, and the scrotal raphé was very marked. The bulb and prostate were extremely well developed, and into the latter opened a vagina, above which were a perfect uterus, ovaries, Fallopian tubes, &c. The other viscera were normal. So far as I have been able to ascertain, this is the first dissected specimen in this country; but cases have been recorded in France in which such a strange condition (well expressed by the term "transverse hermaphroditism") must have existed. Thus M. Petit was consulted by a married man who was sterile, and who had a flow of blood from the urethra every month; so that it is plain that if my case had attained adult life he would have presented no external appearances hindering him from being married. There is no note as to the state of the mammæ in M. Petit's case, but they could not have been large. See also M. Bouillaud (*Journal Hebdomadaire de Médecine*, tome x., p. 406). Transverse hermaphroditism as a rare cause both of sterility and of hæmaturia is worth being kept in mind.—I am, Sir, yours truly,
Cavendish-square, April 27th, 1885. J. HUTCHINSON, Junr.

Mr. G. Heaton.—In 1883 the births of males in England and Wales were 103·5 to 100 of females. The numbers for the United Kingdom are not yet available.

Zero.—We are not aware that anything has been done in the matter to which our correspondent refers.

"CORONERS AND POST-MORTEM EXAMINATIONS IN WORKHOUSES."

To the Editor of THE LANCET.

SIR,—Your Liverpool correspondent, under the above heading, calls attention to the "Croydon Workhouse case" in your issue of April 25th. In all the published reports of the case which I have read, and I think I have perused nearly all of them, the judge was careful to use the word "workhouse infirmary," and not simply "workhouse"—a distinction which carries a great difference.

I am, Sir, yours faithfully,
April 27th, 1885. A MEDICAL OFFICER.

RINGWORM.

To the Editor of THE LANCET.

SIR,—All of us will agree with Mr. Alder Smith when he asserts, in speaking of tinea capitis, that he "considers it extremely difficult to certify that a child who has had ringworm is absolutely well" (THE LANCET, January, 1880); but one rarely has the same experience in mild cases of the disease attacking other parts of the skin. In fact, if no spores are to be found in the epidermis scraped off the spot at the end of two weeks after treatment has been discontinued, it has always been, under ordinary circumstances, in my experience, safe to permit the child to mingle with its companions, and resume school work. That this, however, is not invariably a course free from risk the following case has lately shown me. A little boy, on Feb. 17th last, was observed to have a red spot on the outer side of the right eye. As it increased in size, he was sent to me on the 19th, when it had reached the size of a sixpence; the margin was slightly papular and red, and the centre was much paler and somewhat scaly. The epidermis scraped off and soaked in liquor potassæ showed under the microscope plenty of ringworm spores. After a few days' treatment no spores could be seen. The treatment was discontinued on March 1st. On the 5th there were no spores, the spot appearing almost natural; and a week later the same condition was noted. The child resumed the companionship of his brothers, but had separate toilet arrangements and bed. On April 17th he came again to me. On the outer edge of the old spot a small red papule was seen, and under the microscope a few conidia were found in the epidermis scraped from it. In fact, the ringworm had recurred after five or six weeks of apparent absence on the face of a thin-skinned child, who had not another spot on him, and who had not been exposed to any fresh infection that could be discovered. I may remark that there is much fine downy hair all over the skin, such as is not uncommon in a certain type of children, and the germ that revived probably found a safe hiding-place deep in some of the hair follicles.

The above case has only been narrated with the object of eliciting the observations and experience of others as to the interval after which it is safe to allow a child who has had mild ringworm (not affecting the scalp) to return to school and family life. The fortnight, which I have always considered enough after treatment has been left off and the case apparently cured, appears to be, at all events in some cases, insufficient. I am, Sir, yours faithfully,
East Twickenham, April 23rd, 1885. H. HOWARD MURPHY, M.D.

"DISINFECTING CHAMBERS."

To the Editor of THE LANCET.

SIR,—Permit me to inform "A Medical Officer of Health," in answer to his question under the above heading in your issue of April 18th, that I think he will find Dr. Scott's disinfecting apparatus a most efficient one. It is made by Maguire and Son, of Dawson-street, Dublin, who have been awarded prizes and diplomas of merit for it at various exhibitions where it has been shown. In Dublin it is used at the Cork-street Fever Hospital and at the Rotunda Lying-in Hospital, and gives satisfaction. I believe it has been supplied to several union districts and townships both in England and Ireland, as well as to the War Department for use in military hospitals. One of the chambers is, I know, at the Herbert Hospital, Woolwich, and there is another at Blackpool. By means either of gas or of a coal and coke furnace a temperature of 300° F. can readily be obtained and maintained in them as long as requisite.

I am, Sir, yours truly,
GEORGE F. DUFFEY, M.D. Dub.,
Vice-President, King and Queen's College of Physicians,
Dublin, April 24th, 1885. Ireland.

To the Editor of THE LANCET.

SIR,—In reply to "A Medical Officer of Health," I would beg to draw his attention to Dr. Scott's Patent Self-regulating Gas or Coal Disinfecting Chambers, awarded a gold medal in Dublin, and several special prizes at London and other exhibitions. Several improvements have been recently added, partly on the suggestions of the authorities most interested, and partly from actual experience. An arrangement is made whereby the heated air is caused to circulate within the chamber to maintain even temperature throughout. An appliance is also added by which hot air is forced into the interior of mattresses and feather beds. The various improvements render Dr. Scott's invention the best, the safest, the easiest worked, and the most economical in fuel. The regulator turns down the gas when the desired temperature is reached, and no gas is wasted. A very large number have been supplied to Government and other institutions.

I am, Sir, yours truly,
Dublin, April 22nd, 1885. WM. ROBT. MAGUIRE, F.R.M.S.

Mr. T. H. Buckler (Biarritz).—We have nothing to add to our remarks published in THE LANCET, vol. ii., 1882, page 951.

"AUTUMNAL STONE."

To the Editor of THE LANCET.

SIR,—Could any of your readers give me any information about the "autumnal stone"? It is like a piece of white marble. Does it possess any medical properties? It is kept in cotton wool in a stoppered bottle, and has on the bottle the words "Wuhu No.," with some Chinese writing on. It was given to me by a friend, and came from abroad.

I am, Sir, yours respectfully,
Conway, April 23rd, 1885. ROBERT JONES, Surgeon.

Dr. Sargent (Shadwell).—Although the unregistered practitioner referred to by our correspondent has no legal right to use the official form of medical certificate issued by the Registrar-General "for the use of registered practitioners only," we fear that there is no legal penalty incurred by such misuse of the document, since the unregistered practitioner is careful to guard against any pretence of being registered, which would be a punishable offence. Forms are only issued to persons supposed to be registered practitioners. A certificate signed in such a manner as the one enclosed by our correspondent would not be accepted as a legal certificate by the local registrar, and the cause of death would be entered in the death register as uncertified.

Mr. E. Shoesmith (Rochdale).—So far as we know, data are wanting to show whether injurious results follow the constant use of salicylic acid as a preservative of animal food.

A. B. has not enclosed his card.

AFTER-CARE OF MENTAL CONVALESCENTS.

To the Editor of THE LANCET.

SIR,—The Ladies' Committee of the Association for the After-care of Poor and Friendless Female Convalescents on Leaving Asylums for the Insane propose holding a bazaar at the Town-hall, Kensington, on Tuesday, May 19th, and the following day, in order to raise funds towards the opening of a Home for Mental Convalescents. Contributions may be forwarded to Mrs. Ellis Cameron, 27, Church-street, Kensington, or to me. I am, Sir, yours obediently,

HENRY HAWKINS, Hon. Sec.

Chaplain's House, Colney Hatch, N., April 27th, 1885.

*** This is an excellent charity, and deserves sympathy and practical help.—ED. L.

CASCARA SAGRADA.

To the Editor of THE LANCET.

SIR,—Perhaps some of your readers can inform me whether cascara sagrada possesses two principles, one an hepatic and the other an intestinal stimulant, so that the difference in the action of the two preparations might be explained by the removal during manufacture of one or other of them, or their presence in different proportions in the crude drug. I am, Sir, yours truly,

Glan Menai, Llandudno, April 28th, 1885. T. L. K. DAVIES, M.B.

Late Assistant.—The original letter cannot now be recovered. If our correspondent will repeat his inquiry and append his name, we will endeavour to answer his question.

A M.O.—We cannot decide the question.

Inquirens.—The spirituous tincture should be used.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Buxton Shillitoe, London; Dr. C. E. Saunders, London; Dr. De Watteville, London; Mr. Reginald Harrison, Liverpool; Dr. Luke Armstrong, Newcastle-on-Tyne; Dr. Thin, London; Mr. A. T. Bentley, Manchester; Mr. A. Field, Bradford; Dr. Shirtliff; Dr. Cartwright Reed, Douglas, Griqualand; Dr. Musser, Philadelphia; Dr. Althaus, London; Dr. H. Sutherland, London; Dr. Massy; Dr. Illingworth; Dr. Edge, Salford; Mr. Harvey, London; Mr. Jackson, Somerby; Mr. W. M. Maguire, Dublin; Mr. Pilkington; Dr. H. M. Murphy, Twickenham; Mr. Wm. Donovan, Birmingham; Mr. R. Jones, Conway; Mr. D. T. Richard, Ton Pentre; Mr. Kershaw, London; Mr. A. B. Gemmel, Greenock; Dr. Munro, Jarrow; Dr. Duffey, Dublin; Mr. Collings, Guernsey; Dr. Eadie, West Coker; Dr. Sargent, London; Dr. Eben Watson, Glasgow; Mr. Limont, Newcastle-on-Tyne; Mr. Snell, Sheffield; Mr. Jas. Hardie, Manchester; Dr. J. C. Murray, Newcastle-on-Tyne; Mr. T. F. Chavasse, Birmingham; Dr. O'Dwyer, Gimdagai; Mr. Saberton, Manchester; Mr. Davies, Glan Menai; Mr. Banks, London; Mr. F. C. Montague, London; Mr. Moore, Port Royal, West Indies; Rev. J. Wright; Messrs. Dolman and Co., Haverstockhill; Messrs. Pemberton, Manchester; Messrs. Wood and Co., New York; Mrs. George, Malvern; Messrs. Maguire and Son, Dublin; Mr. J. Carter, London; Miss Roliston, Leicester; Messrs. Byles and Sons, Bradford; Mr. Rodgers, Nottingham; Mr. Rodgers, Binghampton, U.S.A.; Dr. Thomas, Glasgow; Mr. Somerville, Edinburgh; Mr. Wagstaff, Sneinton; Dr. Willey, Sheffield; Mr. Banks, Edinburgh; Messrs. Mackay, Edinburgh; Messrs. Macmillan and Co., Cambridge; Miss Haslam; Dr. Copbold, Lyme Regis; Mr. Medmaine, Newcastle; Messrs. Mulliner and Co., Northampton; Mr. Keeting, Manchester; Mr. Davey; Mr. Durham, London; Mr. Anderson, Glasgow; Miss Pudney, Leicester; Messrs. Oppenheimer and Co., London; Messrs. Eggington and Son, Reading; Messrs. Griffin and Co., London; Mr. Bendley, London; Messrs. Essinger and Co., London; Messrs. Atkinson and Co., Kendal; Dr. McDonald, Dorchester; Messrs. Macmillan and Co., London; Messrs. Slinger and Son, York; Mrs. James, St. John's Wood; Mrs. Carless, Liverpool; Mr. Russell, Liverpool; Mrs. Markham, Portsmouth; Mr. Haggard, Geneva; A M.O.; A. B., Liverpool; Medicus, Liverpool; Spes, Peterborough; L.R.C.P., Manchester; W.; Sartorius; A Patient.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Cornish; Mr. Barnes, Knightsbridge; Mr. Gray, Cannock; Mr. Billycald, Nottingham; Mrs. Griffith, London; Mrs. Henbrough, Waltham; Dr. Sykes, Southsea; Mr. Saunders, Camden-town; Mr. Cuckson, Gainsboro'; Mr. Parsons, Hastings; Mr. Darke, London; Mr. Knott, Oldham; Mr. Hodgson, London; Mr. Field, Bradford; Mr. Moore, Linkinhorne; Messrs. Richards and Co., London; Mr. Puddicombe, Portsmouth; Messrs. Kilner Bros., London; Messrs. Squire and Co., London; Mr. Field, Bradford; Dr. Needham, Gloucester; Mr. Crisp, Keynsham; Mr. Leiterschofen, Homburg; Messrs. Porteus and Co., Glasgow; Mr. Newsholme, Sheffield; Messrs. Bywater and Co., London; Mr. Clark, Thetford; Dr. Duncan, London; Mr. Page, Taunton; Mr. Dingle, Barnstaple; Messrs. Oliver and Boyd, Edinburgh; Dr. B. Squire, London; Dr. Hawthorn, Uttoxeter; Mr. White, Bayswater; Commander Blount, R.N., Chelsea; Mr. Marret, Chipe Woodford; Mr. Fleet, Westgate-on-Sea; Mr. Waite, Devonport; Mr. Palmer, Eardesley; Mr. Barrows, Notts; Mr. Brown, Westgate-on-Sea; Dr. Eberle, Thirsk; Dr. Seaton, Sunbury; Miss Chrisman, Kensington; Dr. Martin; Mr. Simpson, Hoxton; Messrs. Merritt and Hatcher, London; Mr. Morgan, Stoke Newington; Mr. Laird, Birkenhead; Mr. Casella, London; Messrs. Brake and Co., Stratford; Miss Davidson, Shirley; Mr. Mason, Sudbury; Mr. Brain, Wandsworth; Messrs. Ellis and Co., London; Mr. Winkworth, Shefford; Mr. Webb, Honiton; Messrs. White and Co.; Mr. Turner, Finchley; Dr. Spowart; Mr. Montgomery, Londonderry; Dr. Bower, Bedford; Mr. Mayfield, St. Helen's; Mr. Brewitt, Natal; Dr. Finch, Salisbury; Mr. Heard, Dublin; Messrs. Beal and Co., Brighton; Mr. Walker, Middlesboro'; Dr. Armstrong, Harperhey; Mr. Crosweller; Messrs. Sydenham, Bournemouth; Medicus, Birmingham; Glengar; Medicus, New Brompton; W. S., Durham; A. J. N., Liverpool; Surgeon, Maltchard Bishop; Beta, Liverpool; X. Y. Z., Southport; J. W.; Lady Superintendent, Newcastle-on-Tyne; H. B. G.; X., Carlisle; Treasurer, Royal College of Physicians; J. C. F., Aberdeen; B. C.; M.R.C.S., Edinburgh; T. J. B.; F.S.A., Wye; Medicus, Ipswich; Tibia; Medicus, Southport; Medicus, St John's Wood; Venator, Nelson; Registrar, Bath; Medicus, Liskeard; V., London.

The Child's Pictorial, The Lady's Journal of Decoration, Liverpool Post, Manchester Guardian, &c., have been received.

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The Annual Oration

DELIVERED ON MAY 4 AT THE

MEDICAL SOCIETY OF LONDON

ON

OLD AGE AND THE CHANGES INCIDENTAL TO IT.

By G. M. HUMPHRY, M.D., F.R.S.,

PROFESSOR OF SURGERY AT THE UNIVERSITY OF CAMBRIDGE.

MR. PRESIDENT AND GENTLEMEN,—Old age acquires a gradually increasing interest as advancing civilisation enables a larger number of persons to attain to it, and affords them additional means of enjoying it and profiting by it. From the schoolboy day, now full fifty years ago, when the "De Senectute" of the great Roman orator made a lasting impression upon me, the subject of old age has had some fascination for me, though multifarious avocations have prevented my giving much attention to it. In the past year the Collective Investigation Committee of the British Medical Association, at my instance, commenced an inquiry respecting aged persons, and issued a form, with a memorandum, for the purpose of collecting information of various kinds respecting the condition, habits, &c., past and present, of persons who had attained to advanced age. The minimum age for the subjects of inquiry was fixed at eighty. We are indebted to many members of the profession, and to some others, for the returns they have taken the trouble to make, which at the present exceed 500, the number of males and of females being nearly equal. These have been, in part, carefully tabulated and analysed by myself, with the aid of my friend and assistant, Mr. A. Francis. It is not to be supposed that from this, or other investigations of the like kind, any very startling results will be obtained; for the hill of knowledge is mounted with slow and laborious steps, and we must be content to advance little by little. Moreover, I do not propose to weary you with many of the details of this inquiry, which, I may observe, is not yet completed, but to make a few remarks upon the subject of old age, which will be to some extent based upon information derived from the inquiry just mentioned.

We are, I think, too much accustomed in our ideas to limit the work of development to the periods of adolescence and maturity; and, indeed, the surpassing wonders of that work—I say surpassing wonders, for unquestionably the processes of development of an animal body are the most marvellous, the most mysterious, and the most interesting in the whole range of the physical world—are most fully demonstrated in the early periods of life. But they do not end in them, or even when the body has been brought to its fully matured condition. They continue in a definite and orderly manner, though with lessened and lessening activity, to the termination of life, at whatever period that termination may occur. The march of changing events in the human body, from the age of forty or fifty to one hundred, is as regular, as orderly, as developmental, though less quick, and therefore less apparent, as it is from birth to adolescence, or from conception to birth. It is one of the resultants of that inscrutable *vis*, call it what you will, and refer it to what you will, which makes all nature one, which determines the course and end of each animate and inanimate object, and by which, in the well-known words of Keble,

"To its funeral pile this aged world is borne."

A main feature of the "ascending," if we may so call it, development, the development from birth to maturity, is an increase of material, an increase of activity, and an increase of strength of passive or resisting, as well as of active, strength; and the main feature of the "descending" development, the development from maturity onwards, is a lessening of material, a lessening of activity, and a lessening of strength. In the normal "ascending" development, material and strength are added to the several parts of the body in due relation to their respective requirements, so that they may all grow on *pari passu*, and the proper harmony of proportion may be maintained between them; and in the normal "descending" development, the relative proportions of the several structures and organs are preserved, while weight, force, and activity are being lowered by gradual and well-adjusted diminution of material and of nutritive activity. During the time that the bones are becoming lighter and less capable of offering resistance, the muscles become, in like proportion, lighter and weaker, and with a narrowing range of action; and the associated volitional and other nerve-apparatus exhibits a corresponding lowering of energy and force. The loss of will to run, jump, and indulge in athletic sports is, or should be, commensurate with the inability of the muscles to effect the requisite movements, and of the bones to bear the requisite shocks. There should not even be a sigh for what is gone, or a longing for its return, though great, perhaps greater than ever, may be the pleasure in beholding the perfection of bodily form and in witnessing the manifestations of strength and activity in the supple frames of the young. The weakening of the heart and the diminished elasticity of the arteries provide a proportionately feebler blood-current; and a lower digestive power and a lessened appetite provide a smaller supply of fuel to feed, not enough to choke, the slowing fires. Thus the capacity for action is diminishing, and the demand for it and the material for it are diminishing also; and all are diminishing in due ratio to one another. It may be said, indeed, that at all periods of life the healthy and well working, and especially the enduring, quality of the body, depends upon a good adjustment, a good balance, of the several parts; and it is upon the well-ordered, proportionately or developmentally regulated, decline in the several organs that the stages which succeed to maturity are safely passed, and that crown of physical glory, a healthy old age, is attained.

A time comes at length when, in the course of the descending developmental processes, the several components of the machine, slowly and much, though equally, weakened, fail to answer to one another's call, which is also weakened, when the nervous, the circulatory, and the respiratory organs have not force enough to keep one another going; then the wheels stop rather than are stopped, and a developmental or physiological death terminates the developmental or physiological decay. The old man who had gone to bed apparently much as usual is found dead in the morning, as though life's engine had been unable to repair itself in sleep sufficiently to bear the withdrawal of the stimulus of wakefulness. Or some exertion may be followed by too great exhaustion. Dr. Willis, the attendant upon King George III., at the age of ninety, after a walk of four miles to see a friend, sat down in his chair and went to sleep, or was thought to be asleep, but he did not wake again. Or some slight, unusual, scarcely noticed excitement may have the same result. A cattle-dealer, aged ninety-eight, who attended Norwich Cattle Market on a Saturday in December of last year, soon after talking and laughing somewhat heartily with a few friends on the following Tuesday was found to be dead. Or a slight indisposition, further lowering the status and force of some organ, fatally disturbs the feebly maintained equilibrium. A lady, aged ninety-four, attended the early service at church, to which she walked a distance of a quarter of a mile to and fro, caught a slight cold, and died in the night.

How much may those who pass gently into this natural or physiological death be envied by the many sufferers under the protracted and painful pathological processes which too often induce a premature extinction of life! The most distressing part of medical duty is the being called upon to witness, with the inability to arrest, the onward course of disease, such, for instance, as that of a slowly but surely growing cancer, boring its way into the strong and sturdily resisting frame; and the great hope and aim of medical study is to prevent such fatal interferences with the developmental processes, and to enable these processes to work out, in their own uninterrupted way, the quiet, easy, gradual method of dissolution.

Yet, strange and paradoxical as it may seem, this gradual natural decay and death, with the physiological processes which bring them about, do not appear to present themselves in the ordinary economy of Nature, but to be dependent upon the sheltering influences of civilisation for the opportunity to manifest themselves and to continue their work. For the needs of the first, or infantile, period of helplessness Nature has made a sufficient provision in the parental

instinct which protects and nurtures the young. But this lasts only so long as the requirement for it exists. It ceases as soon as the young has the ability to help itself; and it does not return and is not supplemented by anything of its kind. It gives way before that struggle for existence which is the engenderer of selfishness, dominating over all other impulses and shutting out all heed for the worn and weary, for the feeble and the decaying. These, being unable to help themselves, are crushed out by the various provisions which Nature makes for their destruction. The good result of this great seeming evil being that all in the natural, or primitive, animal world is in the ascendant to, or in the enjoyment of, bodily perfection. All teems with budding life or full health and strength. To falter is to fall; forasmuch as the first evidences of weakness and the beginning of decay arrest themselves by preventing the power of self-maintenance in the weak and the decaying.

The same with disease. It, in like manner, stops itself. Indeed, it can scarcely be said to be allowed to enter into the pure realm of Nature. Sick animals are not there provided for, have no abiding-place there, and soon perish; so that there is no wasting and pining, no lingering fevers, no destroying cancers, no decrepit frames. Neither the bird that fails to elude the hawk nor the hawk that fails to seize the bird can long continue in existence. Each animal has its so-called enemy ready and at watch to deliver it from feebleness and disease; and the sudden destruction which awaits them all, without fearful premonition and with little pain—this killing in lieu of death—instead of being, as it is sometimes regarded, a cruel feature in Nature's plan, is a happy provision for deliverance from the slower death which increasing failure or progressing disease would have involved.

Thus, in the economy of Nature, death is swift, and comes early, as soon, at least, as failure of strength renders the animal unable to protect, or provide for, itself; and man, it would seem probable, had no exemption from this sharp, though, on the whole, beneficent law of animal life. In early times, when the race was to the physically strongest, when health, and strength, and activity were necessary to provide the hand-to-mouth means of sustenance, and to give defence, when men and animals were much on a par in this and many other respects, early death must have been the common fate, being brought about by climacteric agencies or by the tooth of the hungry beast, or by the hand of man himself. This, indeed, we still find to be the case among some of the rude races of mankind. But in man was the germ of a better order of things, the germ of sympathy with, of feeling and love for, others, which was besides and above the mere parental instinct, and which was calculated to counteract and over-ride the selfish bent, and to raise man in this, as in some other respects, above the mere animal. This has already done much, and it has still an ample field for future development. Through the growth of this germ it was given to man to introduce a new factor into the economy of Nature, and, by forethought, by mutual co-operation, and by care for others, which are the very essence, at any rate the very best feature, of civilisation, to prolong life, when by this very forethought and sympathy life had become more valuable, and when the prolongation of it had, consequently, become more desirable; and scope was thus afforded for the carrying out of those descending or senile developmental processes which must have been nearly dormant in the earlier periods of human existence.

It was not to be expected that this good seed should be without a blending with tares, and the scope thus given for the fuller development of the physiological processes gave scope also for the development of the pathological processes, and enabled the various diseases to spring up and take their course, afflicting not man only, but those animals also which come under his fostering or protecting influence. It may therefore be said that the prolongation of life into and through the periods of decay, and into and through the processes of disease—indeed, almost, if not quite, the very existence of decay and disease—is the result of human forethought and sympathy. In other words, decay and disease are, by civilisation, substituted for quick and early death. Without attempting to balance the *pros* and *cons* of this, we know it to be a position from which there is not, and ought not to be, any disposition to recede; and if there were the wish, there is not the possibility. The onward march of civilisation is a necessity, and the onward progress of disease will tend to go with it. But it does remain for forethought and sympathy to narrow the range of the evils they have themselves engendered, or which have sprung up with them; and it is pre-eminently the noble work of our profession to contribute to this—to weed out and check the growth of the morbid tares, and to help the good seed to grow on to its full harvest,—to prevent, that is, the origin, and to arrest the advance, of disease, and to give to the body the best opportunities for health and longevity. In this great physical work, let it be remembered, we shall not to any great extent succeed, unless our efforts are accompanied by equal efforts to carry out the higher and more important work of removing those impurities in the moral atmosphere for which civilisation has so much to answer, and with which the sources and spread of disease are closely—more closely, perhaps, than we think—associated.

The first requisite for longevity must clearly be an inherent or inborn quality of endurance, of steady persistent nutritive force, which includes reparative force and resistance to disturbing agencies, and a good proportion or balance between the several organs. Each organ must be sound in itself, and its strength must have a due relation to the strength of the other organs. If the heart and the digestive system be disproportionately strong, they will overload and oppress the other organs, one of which will soon give way; and as the strength of the human body, like that of a chain, is to be measured by its weakest link, one disproportionately feeble organ endangers or destroys the whole. The second requisite is freedom from exposure to the various casualties, indiscretions, and other causes of disease to which illness and early death are so much due. Now, in both these—notably, in the second—woman has the advantage over man, and she consequently attains to greater age. In the report of the Registrar-General for 1873, eighty-nine persons were returned as dying at or over the age of 100. Of these, ten only were males; and the superiority of female life is well known by insurance offices to exist, notwithstanding the higher rate of mortality that has been observed during the child-bearing period, and which, there is reason to think, is now slowly disappearing. That this superiority is not entirely due to the comparative freedom from exposures and to the greater temperance in the woman, but is partly a result of a stronger or more enduring inherent vitality, is shown by the fact that, even in the first year of life, when the conditions and exposures of male and female infants are the same, the mortality of girls is less than that of boys. A somewhat larger number of boys are born, but they are more difficult to rear; so that the females soon gain the numerical lead, and maintain it, with almost steadily increasing ratio, to the end. This superiority may be to some extent associated with the less wear and tear in the smaller machinery of the woman's frame as compared with that of man; and one might expect that the small persons in both sexes would live longer than those of greater stature. This, however, scarcely seems to be the case. We find from our returns that the average height of the woman above eighty is about 5 ft. 3 in., which, allowing an inch for the shortening incidental to age, makes it to fall little, if at all, short of the average middle-age stature. The men also we find to be 5 ft. 6 in., which, making a corresponding allowance, gives them a good average height. It may also be observed, which we should not have expected, that the rate both of the pulse and respiration is quicker in the longer-lived sex; the average pulse in the women over eighty being 78 to 79, while that in the men is 73; and the respiration in the women is 22, while that in the men is 18 to 19.

It is a point of interest, in connexion with the inborn or hereditary quality, that phthisis is reported to have appeared in some of the immediate relatives—father, mother, brothers, or sisters—of 82 of the 500 aged persons; in 51 of the relations of the 250 females, and in 31 of those of the 250 males. In the reports of some of these, it is stated to have occurred in several members of the family; and, in a few instances, the disease was manifested in both father and mother. It is evident, therefore, that the delicacy, or peculiarity, whatever it be, of constitution, which is associated with the tendency to the development of tubercle, is not only not incompatible with longevity, but is not unfrequently associated with it. No other special peculiarities have been shown in sufficient numbers to deserve notice here. The greater proportion are reported to be of long-lived families, to have enjoyed good health throughout their lives, to have had good appetite and good digestion, requiring little or no medicine, to have been moderate or small eaters, to have taken little alcohol, and,

commonly, not much meat; they have been good sleepers; and they show no traces of gouty or rheumatic affection in the joints of the hands.

I have said that the main features in the downward, or senile, developmental process are a diminution of material and a diminution of force; and I apprehend that in the normal state it should be simply this—such a diminution, with, perhaps, a slight addition to the amount of oily matter naturally existing in the tissues; and that the other changes and degenerations that are incidental to age are no part of, but are rather to be regarded as deviations from, or morbid departures from, the natural phenomena. Let us consider the changes which take place in the skeleton, forasmuch as they are most appreciable, and, in many respects, the most interesting. The bones which, up to maturity, had been gaining in weight and size, now gradually lose weight, but do not ordinarily diminish in size, as they do in atrophy, from paralysis; indeed, they not unfrequently rather increase in size from the continuance of a slow process of subperiosteal ossification. To this, in part, may be attributed the sharp outlines which the figure of old persons commonly acquires, except in the case of those who become corpulent. The absorption takes place first and chiefly in the more vascular and cancellous parts, the bony plates becoming thinned and removed, and the cancelli and the canals being enlarged and filled with marrow, while the bony tissue itself becomes often, though not always, more impregnated with oily matter. Hence, although the walls of the shaft are being gradually thinned from within, the ends of the bones are first and most affected, which explains the greater liability to fractures near the joints in old persons than in the middle-aged. This change, with the proportionate liability to fracture, is especially remarkable in the trochanteric and cervical parts of the thigh-bones, the strength of which is so much dependent upon the strength and disposition of the cancellous plates.

This change takes place earlier in women than in men, which may be a consequence of the earlier cessation of active occupation in them, and the less amount of out-door exercise they usually take, or it may be due to some natural predisposition in them, associated with a greater tendency to adipose degeneration in other parts, and evincing itself occasionally in an exaggerated manner in the production of osteomalacia. The greater frequency of fracture of the neck of the thigh-bone in them is to be attributed to the greater weakening which the part thus undergoes, as well as to the more near approach to a right angle which the neck naturally forms with the shaft in women than in men.

The vascular and cancellous character of the alveolary processes of the maxillary bones renders these parts peculiarly liable to undergo wasting or absorption, causing the loosening and falling out of the teeth. This takes place earlier in women than in men; the average number of teeth, according to our returns, in men above eighty being 6 and in women 3. Of 221 males, 57 are reported to be edentulous, and of 234 females, 113 are said to be in that condition. The process of absorption and loosening of the teeth also bears a relation to the sponginess of the alveolary processes, being greatest in the upper jaw, in which the teeth in 455 of our octogenarians, in whom an account of the teeth is given, are 736, those in the lower jaw amounting to 975. For the same reason they are greater in the molar and premolar regions than in the incisor and canine, the numbers of teeth remaining being 559 molars and premolars, 409 canine, and 743 incisors.

This absorption of the alveolary processes and consequent removal of a part of the bodily machine which is in full and daily use is remarkable, though it has something of a parallel in the removal of another cuticular appendage—namely, the hair of the head. For the reasons I have given it can scarcely take place in the condition of struggle for existence of the natural animal world, or in man in his primitive state; and it is accordingly commonly observed that the unearthed skulls of our early ancestors are well provided with teeth. The loss of teeth would imply a decay which the early man could scarcely have survived. What effect in more modern life this loss has upon the general health and the duration of the body is not easy to determine. It is often survived for many years; and it may be noted that, as before stated, it takes place more in women than in men, though they are the longer lived. Civilisation is doing something to supply the deficiency which it thus brings in its train by providing artificial substitutes; and they are at any rate free from some of the disadvantages, such as disease and decay, associated with the natural organs.

It is remarkable how completely the alveolary processes become cleared away, so that scarcely a trace of them remains above or below; and the whole framework of the face, which ministered with them to mastication, is attenuated, and the body of the lower jaw is reduced to the narrow bar of its hard lower margin. At the same time, the resistance of the teeth being removed, the direction of the pull of the muscles upon the jaw is altered so as to open out the angle of the bone and bring the ramus and the body almost into a horizontal line. Thus the form of the lower jaw returns nearly to that of the infant. But there is this great difference, that whereas in the infant the bone consists mainly of the tooth-bearing or alveolary part, and the subalveolary portion scarcely exists, in the senile condition the latter only remains, the former having been cleared away.

A similar alteration of form in a bone, from an alteration in the direction of muscular force, or from pressure by other cause, may, as we know, be produced in any part of the skeleton, and at any time of life; and a very analogous change to this in the lower jaw may be observed to take place in the neck of a thigh-bone after amputation in the thigh; for the nearly horizontal pull of the muscles upon the trochanter, not being resisted by the vertical weight of the body upon the head and shaft of the bone, will have the effect of widening or opening out the angle. Some years ago I placed in the Pathological Museum at Cambridge two specimens illustrating this; and the fact is not without its interest in connexion with the often-debated question whether the converse of this change takes place in old age—that is, whether the angle between the neck and the shaft of the thigh-bone becomes lessened. A change of the kind certainly takes place in the ascending period of life, the angle being widest in infancy and lessening during growth; and this change is more marked in females than in males, the difference in the angle of the thigh-bone between the two sexes taking place, in all probability, about the time of puberty, when the pelvis is widening in the female and the hips are becoming more prominent. But does this alteration continue in the descending period? I have taken some pains to ascertain this, and have made several measurements of the angle at the junction of the neck with the shaft of the thigh-bone in old people; and though I have in some instances found it less than in the adult, in the greater number of cases it was not so. I have not had the opportunity of making sufficient measurements to settle the question, but, so far as my observation goes, the change is the exception rather than the rule; and I am not aware that a change of the kind takes place in any other bone as a mere consequence of senility—without, that is to say, there being some alteration in the direction of the pressure or forces exerted upon the bone. In the bent back of old age the vertebræ become modified in form; but this is a consequence of the stoop, from enfeebled action of the dorsal muscles, throwing the weight of the trunk too much upon the fore part of the spinal column.

The changes which take place in the skull during old age are interesting. Commonly they correspond with those in the facial part, and the whole cranium becomes lighter and thinner, and therefore smaller. In some cases, however, it acquires an increase of thickness, by deposit of bone on the interior of the brain-case, and chiefly of the calvarial part, which seems to depend upon the lessened pressure there, and the consequent greater afflux of blood caused by the shrinking of the brain. The increase is usually most marked in the frontal region, which accords with the fact that the shrinking is most pronounced in the frontal lobes of the brain. In not a few instances I have found, as mentioned in my treatise on the skeleton, that there has also been an increase in the density and weight of the brain-case to such an extent that, in spite of the loss of the teeth and of the alveolary processes of the jaws, and the atrophy of the face, the weight of the entire skull exceeded that of the average adult skull. In a woman reputed to be 103, whom I examined, the contrast between the thick, dense, heavy skull, and the extremely attenuated light thigh-bone, both of which are in the Cambridge Museum of Anatomy, is very striking. In connexion with this change and the cause to which it is referred, it may be observed that other parts of the osseous system, particularly the harder parts, are liable to undergo similar changes, leading to enlarged and

sclerotic conditions, when at any period of life and from any cause they are subject to an increase of blood-supply.

The cartilaginous parts of the skeleton become somewhat thinner, which accounts for the loss of height in the aged; but I do not think that they usually undergo any other perceptible change in ordinary healthy old age. I have invariably found the costal cartilages soft in old people in whom I have had an opportunity of making an examination after death; the body of Old Parr, as described by Harvey, therefore presenting in this respect, as I believe, no exception to the general rule. And I regard the calcification of them to be a morbid rather than a senile change a degenerative change to which the body is liable, as it is to cataract, bronchitis, and some other conditions, when it has passed maturity; and not one of the natural senile developmental processes. At whatever period of life it occurs—and it is not unfrequent about sixty—it omens ill for the further prolonged wear of the fabric. It is not quite easy to put the condition of these cartilages to the test, especially in elderly persons. It may, perhaps, be best done by estimating the elasticity perceived when gentle pressure is made upon the lower part of the sternum, though there are obvious difficulties and objections to this method; and of 274 returns in our inquiry upon this point, it is as much as can be expected that the elasticity should be stated to be distinct in 126; in the remaining 148 it is said to be indistinct.

It may, I think, in like manner, be said, with regard to the calcification of the arteries, that it is the result of a morbid process intruding itself upon, interfering with, and arresting, the normal progress of senile development. That it is not, at any rate to a perceptible amount, a usual accompaniment of old age is shown by the fact that in 362 returns respecting the condition of the arteries in persons over eighty these vessels are stated to be knotty in only 40, and even in 257; they are noted as being tortuous in 71. Moreover, the pulse is reported as compressible in 311, and incompressible in 72, in the returns relating to it. In the majority of cases, therefore, the arterial system appears to present a healthy condition in those who attain to great age.

The rate of the heart's beats, according to our returns, does not vary much as age advances. From eighty to ninety, it averages 73 to 74 in men, and 78 to 79 in women. It is stated to be regular in 322, and irregular or intermitting in 85.

The respiration in 110 returns of men between eighty and eighty-five averages 17 per minute. In 47 returns of men between eighty-five and ninety it averages 19 to 20; and in 16 returns of men at and over ninety it averages 23; in women it is a little quicker. Thus, in 86 returns of women between eighty and eighty-five it averages 22; in 54 between eighty-five and ninety it is also 22; and in 37 at and over ninety it is 23. It has to be borne in mind, however, that the not unfrequent occurrence of bronchitis in the aged raises somewhat the average rate of respiration in them.

The failure of nutritive force in the brain manifests itself in the lessening of that power of concentration and quickness of attention upon which the sharp stamping of impressions and the ready recall of them depend; hence the memory for recent events is commonly impaired. The old man meanders on in his conversation unconscious that he is repeating himself; he remembers the tales of long past times, but forgets that he has just told them. This may go on to the condition of senile dementia. Happily, it does not often do so; and it is satisfactory to note how many of the very aged are in good possession of their mental faculties, taking a keen interest in passing events, forming a clear judgment upon them, and full of thought for the present and future welfare of others. It is no less satisfactory to find that the active, even severe and long-continued, functional activity of the matured brain seems in no way to impair its enduring qualities, and that good earnest useful employment of body and mind are not only compatible with, but even conducive to, longevity. A good example of this preservation of mental and bodily faculty to extreme old age was presented by Titian, who is related to have been engaged in painting a picture, which has its place in the gallery at Venice, when in his ninety-ninth year he was cut off by the plague. The wasting of the cerebral hemispheres, which is the accompaniment of failure and feebleness of the intellectual powers, diminishes the pressure in the cranial cavity, and so causes an increase of fluid in the subarachnoid lymph-spaces between the convolutions, and sometimes, as I have already mentioned, an increase in the thickness of the skull. A similar effusion into the connective tissue of other parts of the body, especially the lower limbs, probably also from deficiency of pressure upon the vessels, or lowered tension of the several tissues, is liable to take place, constituting a "senile œdema." This is no uncommon thing in the aged, and is sometimes induced by temporary causes, so that recoveries from it are not unfrequent.

Of the 157 males from eighty to eighty-five, only 6 are stated to have, or to have had, disease of the prostate or bladder; and of these, 3 had recovered from it, 1 at the age of seventy-nine, although the trouble had been of six years' duration. In one, the difficulty of micturition had existed for thirty years. Thus far, the evidence was favourable, and gave rise to a hope that, when a certain period of life had been attained, this serious and painful malady would be escaped. I find, however, that of the 72 males between eighty-five and ninety 17 are reported to be more or less sufferers from urinary troubles. In 4 of these, micturition is stated simply to be slow. In others, there is more or less irritability, or incontinence, or retention. One gentleman of eighty-eight has been entirely dependent upon the catheter for forty years. In 1 only of the 30 returns of men above ninety is there any mention of affection of this kind. On the whole, therefore, although the prospect of escape from diseases of the bladder and prostate gland is not quite as good as I had anticipated from the returns of the men between eighty and eighty-five, it is evident that the aged are, to a considerable extent, free from this source of trouble. Indeed, the aged body does not seem to be, on the whole, prone to disease. Few of the returns indicate the presence of any special malady. We know that even cancers, when they attack old persons, often make slow progress in them, and sometimes fail to make way at all, remaining stationary, or even withering; and the susceptibility to contagious diseases appears to decrease from infancy to old age. The nutritive processes seem to be most easily led astray in early life, when they are in greatest activity, when there is most receptivity and excitability, and most quick communication of impressions from part to part, and from organ to organ.

In the *British Medical Journal* of the 12th of July last I offered some remarks on the repair of wounds and fractures in aged persons. I had frequently noticed that it, as well as the healing of ulcers, takes place as quickly as in middle life—indeed, sometimes more quickly; and I gave the results of a collective investigation on a small scale, which were confirmatory of that view. Since then many instances have been communicated to me by medical men which lead to the same conclusion. I there remarked that "the statement must be qualified in a manner which savours rather of the paradoxical—namely, that wounds in old people heal quickly, provided they do not slough. That is to say, the apparently opposite tendencies exist at this time of life—namely, the tendency to slough and the tendency to heal quickly. Such, for instance, is the experience of oculists, whose testimony on the subject I have asked. They find that the cornea sometimes sloughs after the operation for cataract in old people; but that, when it does not slough, the wound heals quite as quickly as, or more quickly than, at an earlier time of life. So in other operations. The old person may sink, or the wound may slough or ulcerate; but, if these eventualities be escaped, a quick healing may be expected. Certainly this would not have been anticipated. We should not have thought, when the nutritive forces are generally failing, when strength and weight are diminishing, when repair is each year less and less able to keep pace with wear, as evinced, among other things, by the fact that exhaustion is more quickly induced and less quickly recovered from; when the brain is shrinking and memory and other mental powers are lowering, and when the circulation is becoming weaker—that, under these circumstances, the nutritive or reparative processes concerned in breach-closing—in the healing of wounds and ulcers—should manifest an increase of energy, at any rate of rapidity, in carrying on their work. I do not know well how to explain it; but this exceptional phenomenon of nutrition is not peculiar to old age. It may be observed in some other lowered conditions. The wounds in patients exhausted by large losses of blood usually heal quickly, as they also do after operations for cancer, and in many other debilitated conditions. I do not mean in persons of naturally strumous temperament, but persons who have been weakened by illness or in other ways. So do, commonly, the gaps caused by carbuncles and bedsores; and very remarkable is

the quick healing of the stump left by senile gangrene; that is to say, this evidence of vital energy is manifested in the part next above that which was unable to keep alive at all. An exception must be made of certain impaired conditions of the nervous system in which wounds and sores are sometimes very troublesome."

The fact that the fracture of the neck of the thigh-bone, which may be regarded as the old person's fracture, rarely unites, will be urged in support of the opposite and more generally accepted view on this point. "It is well known, however," to quote again from the same paper, "that this failure depends, not upon the age of the patient, or on any peculiarity in the structure of the bone, or upon any changes that take place in it during the later periods of life, though those changes are such as to cause rarefaction of its cancelli and greater liability to fracture, but upon other causes. Such causes, more particularly, are the separation of the broken surfaces, which commonly occurs; the buried position of the inner fragment in the cavity of the acetabulum, which prevents any overlapping of the fragments and any throwing out of uniting matter all around it; as well as the comparative absence, and, when the fibrous covering of the neck is torn though all round, the complete absence, of tissue in which that material can be produced, and also the bathing of the fractured surfaces by the synovial fluid. That these conditions, which are found to be more or less prejudicial to bony union of fractures into other joints, and not senility, are the real causes of failure in the case of the neck of the thigh-bone, is proved by the fact that union of bone will take place at this part of the skeleton as well as elsewhere, if the fractured surfaces be fixed in apposition, either by any kind of impaction or by well-adjusted appliances;" and that this will occur in the aged, there is ample evidence in our museums.

The same remark does not, I fear, apply to the repair after exhaustion from fatigue. The old person is soon tired, and does not recover quickly. The restorative processes of sleep are not so brisk in him as in the young. I have often, however, been surprised at the quick recovery of health and strength by old persons who have been depressed by indisposition and illness; and I have attributed this rallying power to the general soundness of the system, and the good working balance of the several organs which has brought them to old age. To what extent it is, as a general rule, shared by the aged and may be relied upon in them, I must leave to wider experience to decide.

After all, length of life is to be really estimated not by numbers of years so much as by good work done, not by the amount of time spent in the tame fruitless manner indicated by the pithy words of Cowper—

> "For fourscore years this life Cleora led:
> At morn she rose, at night she went to bed"—

nor by endeavours solely to advance our own fortunes, or reputation, or comfort, but by persevering efforts to promote the welfare of our fellow-men.

Thus considered, how large have been the lives which many of you have spent in long laborious days and watchful nights, with little present gain or prospect of future requital, in the out-patient and post-mortem rooms of our hospitals, by the midnight lamp, or by the bedsides of the sick in this vast metropolis, where civilisation has worked out its best and its worst results. While wishing you yet many years of the like usefulness and its assured reward, I must express the feeling that it is not right or just that, in this the wealthiest city the world has ever seen, and in this very wealthy land, so much of the time and energies—the best time and energies—of many of the younger members of our profession should be devoted to attendance upon out-patients, and so much time of a far larger number of the profession should be employed in the onerous and anxious duties of the Poor-law service with such very inadequate pecuniary remuneration. For the sake of all concerned reform is needed here.

I will only further add that there are many points in relation to longevity which I have alluded to only briefly or not at all; that it will be evident from the few figures I have given we need more information; that the forms and memoranda issued by the Collective Investigation Committee can be obtained from the Secretary to the Committee at the office of the British Medical Association, 161A, Strand; and we shall be obliged if any of those present or other members of the profession will contribute to our store, especially by making returns of persons who have attained or exceeded the age of ninety years.

ON THE

SIGNIFICANCE OF A PECULIAR MURMUR IN RELATION TO THE DIAGNOSIS OF INTRA-THORACIC DISEASES.[1]

BY J. S. BRISTOWE, M.D. LOND.

THE various cardiac, arterial, and venous murmurs are for the most part well understood at the present time, although from various causes difficulties still, and probably ever will, arise to interfere with their correct appreciation in particular cases. Cardiac murmurs, at any rate such as are due to the valvular orifices, occur during either the cardiac systole or the cardiac diastole, never occupying the whole duration of either of these actions, and are never prolonged continuously from one of these actions into the other. The nearest approach to anything of the kind is when the first sound of the heart is preceded by a presystolic mitral and followed by a systolic mitral, an exception which, however, is apparent rather than real. Venous murmurs are continuous, and this continuousness characterises them even when they swell and sink more or less rhythmically. Arterial murmurs are of two kinds:—First, murmurs conducted by the blood stream from the aortic orifice, which, therefore, are simply basic systolic, or diastolic, murmurs slightly delayed in proportion to the distance from the heart at which they are heard; and, second, murmurs which are developed in the arteries themselves, in consequence of narrowing or dilatation of their channels, of roughness of their walls, or of some other abnormal condition. The former kind of arterial murmurs needs no consideration at the present moment; it is the latter which interests me. These murmurs are for the most part systolic—that is, they are developed during the diastole of the arteries and while the blood is flowing with its greatest rapidity along them. They are said to be also occasionally diastolic—in other words, to attend the arterial systole, at which time the blood-stream is comparatively sluggish. And hence it is often taught, I believe, that murmurs of arterial origin may be either systolic or diastolic, and may consequently, like true cardiac murmurs, be double. I doubt the truth of this teaching, and my doubts are not removed even by the able paper on this very subject recently published in the *British Medical Journal* by Dr. Finlayson. There is no alternate backward and forward flow of blood in the arteries, and consequently alternate direct, and regurgitant, murmurs cannot arise in them. In the early part of the aorta the blood remains almost stagnant during the cardiac diastole, and it seems practically impossible that its movement can at this time and in this place be productive of sound. As we pass, however, further and further from the heart, the flow of blood during the cardiac diastole becomes more and more active, until at length it gets nearly, if not quite, uniform, during the whole of the cardiac cycle of events. Now, here it seems to me quite obvious that a murmur might run through both the cardiac systole and the cardiac diastole, and that anyone taking the cardiac beat or the pulse for his guide might assume the presence of a double murmur. My belief is that such murmurs are single, that they commence at the moment the effects of the cardiac systole are felt, that they are continued through the whole of the cardiac systole while the blood is flowing rapidly, and that they are continued without break into the period of the cardiac diastole, generally with some modification of character, and die away before the occurrence of the next pulse. In other words, my belief is that arterial murmurs developed at some distance from the heart are due to the onward flow of blood, that they occur during that period in which the blood is flowing with sufficient force to produce a murmur, that they are hence apt to be prolonged beyond the period of the cardiac systole, and that it is a needless refinement, if not an error, to regard them as double in the same sense as an associated aortic systolic and diastolic murmur is double. I have on several occasions, in connexion with abdominal aneurysms, observed murmurs of the kind here referred to, which some have

[1] Read before the East London and South Essex District of the Metropolitan Counties Branch of the British Medical Association, March 19th, 1885.

regarded as double, but I have held to be single, and which I have elsewhere briefly described. Murmurs closely resembling these, if not actually indistinguishable from them, may often be heard in cases of aneurysmal varix or communication between an artery and vein. But here the murmur is said generally to be continuous, and in this respect to resemble a venous hum, associated, however, with rhythmical exacerbations, due to the cardiac systole. Such murmurs may also be heard in cases of communication between the aorta and pulmonary artery, or one of the auricles. These remarks are intended to be introductory to the description and discussion of two or three cases which have many points of independent interest, but in which the presence of the kind of murmur just discussed was both a subject of dispute and an important item in forming a diagnosis.

CASE 1. *Pulsating cancerous tumour of right scapula, both iliac bones, and second dorsal vertebra; paraplegia; bedsores; death; autopsy.* — Catherine B——, thirty-seven years of age, was admitted under my care on July 12th, 1878. She had been married five years, but there was nothing in her history to throw light on the origin of her disease. It was after the birth of an eight months' child in the previous January that the symptoms of her present illness first showed themselves. When she got up after her confinement she felt a good deal of pain in the back between the shoulder-blades, and much pain also in the epigastrium; and these have continued ever since. She has not had much cough, but she says that of late she has spat a good deal of blood, sometimes as much as a pint in the week. She has lost flesh and strength.

The patient is a woman of healthy complexion, and looks well nourished. She complains of pains, between the shoulders running up into the neck, in the chest, in the right shoulder, and in the hips, knees, and ankles. It hurts her to move, and she generally lies on her back. The right side of the neck is somewhat puffy, the veins are large, and there is some pulsation, apparently due to the veins. Also there are a few slightly enlarged glands high up in the neck. The lung resonance and respiratory sounds are fairly normal in front. There are murmurs in connexion with the heart and large vessels which present some peculiar features. In the first place, there seems to be a systolic murmur at the apex, due to the mitral orifice; in the next place, at the base of the heart there seems to be a double murmur, which may be frictional; and, in the third place, there is a loud prolonged systolic murmur audible in the aortic area, and extending thence to the outer extremity of the right clavicle, where it seems to be especially loud; it is also distinctly audible on the right side of the neck. The heart's area of dulness is somewhat increased, and its apex is a little displaced outwards. Its action is regular, and it is thought that the pulses in the carotid and radial arteries of the right side are a little larger than the corresponding pulses on the left side. Abdomen healthy. Tongue clean; appetite poor; bowels regular; urine of high specific gravity, and containing a trace of albumen; temperature normal.

It was assumed at first that the patient had either some obscure cardiac disease or an aneurysm, and all the symptoms were attributed to this cause. But she had not drawn attention to some important features in her case, and our own examination had been incomplete and misleading. A few days after admission, a more exhaustive inquiry was made, and on stripping the chest it was found that a somewhat elastic pulsating tumour occupied the whole of the infra-spinous fossa of the right scapula. This was fairly smooth and rounded, projected about an inch beyond the level of the left scapula, yielded a sensation as of dilated vessels, and did not crackle on hard pressure as if containing plates or spicula of bone. Further examination revealed two similar pulsating tumours, one on either buttock, growing apparently from the subjacent iliac bones. The right, which was the larger of the two, appeared to be of the size and shape of a penny bun. They were round in outline, projected half an inch or so above the general level, and felt as though formed by plexuses of dilated vessels; and large, apparently varicose, veins were visible about their margins and extended from one to the other. All the tumours presented a well-marked murmur. Some of those who examined them regarded the murmur in each as double: as comprising an element corresponding to the cardiac systole, and an element corresponding to the cardiac diastole. My own view was, and repeated further examinations confirmed me in the correctness of it, that the murmur was single, but much prolonged; that it commenced with the arterial pulse or cardiac systole, continued throughout the whole of the cardiac systole, and was prolonged with some change of character into the period of the cardiac diastole. I also came to the conclusion that the sounds heard in the front of the chest were due mainly, if not entirely, to the scapular tumour, and that the supposed double murmur at the base and between the base and the clavicle was a single murmur prolonged through the systole into the diastole. This murmur, as before stated, was loudest at the outer angle of the clavicle, where its continuity was unmistakable, and diminished in intensity as the aortic area was approached, where it most presented the semblance of being an ordinary double murmur. At the apex a systolic murmur only could be heard. It was difficult to be sure whether this was simply the before-described murmur, of which the loudest portion only was transmitted, or an independent mitral murmur. There was much diffused pulsation over the whole of the cardiac area; and on deep expiration pulsation and a thrill were perceptible in the inner part of the left second intercostal space. It was further discovered that there was undue prominence of the upper three dorsal vertebræ, and much tenderness in the neighbourhood of the second and third. It may be added that she suffered from dyspnœa; and that examination of the larynx and retinæ showed these parts to be quite healthy.

The patient gradually got worse. She grew weaker and thinner, suffered constantly from severe pain referable to the regions before indicated, had considerable dyspnœa, and her tumours slowly increased in size. Latterly her pains were referred chiefly to the epigastrium, buttocks, and lower extremities; and early in November she began to show signs of paraplegia, which about the middle of the month became complete. At this time she had lost feeling and voluntary motion in the legs and control over the rectum and bladder, and a large bedsore had formed over the sacrum. Subsequently great œdema of the lower extremities supervened, a purpuric eruption appeared on the arms, and an abscess formed in one of the thighs. She became extremely emaciated and feeble, and (though continuing quite sensible) very apathetic, and died worn out on the 23rd of January, 1879, as nearly as possible six months after admission into hospital and twelve months from the beginning of her illness.

Necropsy.—The upper half of the body was much emaciated, whilst the lower part of the trunk and the legs were enormously swollen with œdema. The buttocks especially were enlarged, partly from œdema, partly from the presence of tumours. Over the sacrum was a very large bedsore, extending down to and exposing the bone. The arms and hands were studded with purpuric spots, many of which presented central vesicles. The pleural cavities were healthy, the lungs congested and œdematous. The pericardium contained an ounce or two of serum, and over the anterior surface of the right ventricle was a large milk patch, and at the apex of the heart some old thickening. The heart was generally hypertrophied and dilated, but all its valves were healthy and apparently competent. The peritoneal cavity was normal. The capsule of the liver was somewhat thickened, and the centres of the lobules were congested. Spleen small, healthy. Stomach and bowels free from disease. The urinary bladder was dilated and injected. The right ureter and kidney were healthy, but the left ureter and the cavity of the left kidney were congested and dilated. This kidney was somewhat swollen and congested, and white patches studded its cortex, and white radial streaks its medulla. Suprarenals normal. A few very small fibrous tumours were present in the uterine walls. The pelvis was removed in mass in order to be minutely examined and to form a museum specimen, but unfortunately it was allowed to spoil, and no exact record of its condition was made. The posterior part of each iliac bone was connected with a large carcinomatous mass, which had grown backwards, caused stretching and attenuation of the glutei muscles, and closely approached the cutaneous surface. Large veins meandered over the tumours and through the substance of the muscles. The hip-joints were unaffected. The tumour of the right scapula had originated in the portion of the bone below the spine, and had destroyed its whole substance with the exception of a narrow strip along the vertebral edge. Many dilated veins were seen upon the surface of the tumour, and many vessels entered its substance. Shoulder-joint healthy. The second dorsal vertebra was softened and wholly destroyed by a growth which had originated in it

and grown backwards, pushing the periosteum, ligaments, and membranes of the cord before it, and thus causing compression and softening of the cord at that spot. The cord and membranes were not, however, directly involved in the growth. The brain was healthy.

Clearly there was nothing discovered in the condition of the heart or pericardium to explain the murmurs heard over the front of the chest. And I think, therefore, I am justified in concluding that the view I took of the auscultatory phenomena during life was the true one—namely, that the murmurs were due to the vessels of the tumours, and, for reasons already stated, to the arteries rather than to the veins. I was inclined at the time to attribute the loudness of the murmur at the acromion process and about the clavicle and sternum to its conduction from its seat of development in the scapula along the continuous chain of bones. I think this explanation is adequate.

(*To be continued.*)

ON THE

NON-MALIGNANT TUMOURS OF THE SPERMATIC CORD, AND THEIR DIAGNOSIS FROM HERNIA.

BY EBEN. WATSON, M.A., M.D.,
SENIOR SURGEON TO THE GLASGOW ROYAL INFIRMARY.

(*Concluded from p. 793.*)

So much, then, for the fluid tumours of the spermatic cord. I now come to the much more difficult subject of the solid tumours of this organ. My difficulty here arises, not so much from the want of cases in point as from the want of cases with definite and demonstrable results. The indubitable facts of ordinary anatomy, however, help us in our understanding of these cases; for it reveals to us that tmixed with the common areolar tissue of the pelvis and of he cord are numerous small masses of fat. These are more abundant within the pelvis, but are also sometimes found in the cord itself. Now this is true for subjects of all ages and free from morbid affection of these parts; but it is well known that at and about the middle period of life fat naturally increases in the body, and especially in the abdomen. Nothing, then, is more likely than that these nodules of fat should at that time increase so as to deserve the name of tumours. Hence we are well prepared to receive the statement of pathologists that non-malignant tumours of the cord are either fatty or fibrous (areolar), or a mixture of both, and my experience, so far as it goes, confirms this statement; but I have not more than one actual dissection[1] to contribute to those already on record, for most of my cases are still alive, and therefore perhaps still doubtful. A good example is the following:—

A middle-aged man from the country called at Mr. Hilliard's shop to get a truss for what he thought was an inguinal hernia; but Mr. Hilliard, on examining it, differed from him, and at least thought it was so unusual in its characters as to induce him to advise the patient to see a surgeon when in Glasgow. He therefore consulted me, when I found a small soft inelastic tumour passing from the right inguinal opening. It could not be separated from the cord when the patient was standing up. It gave a distinct but slight impulse on coughing, and entirely disappeared in the recumbent position. It was noticed, however—and this I think important,—that whenever the patient stood up the tumour was there in its old place, as if it simply hung forward again owing to the patient's change of position. When the patient coughed while in the recumbent position the impulse given to the tumour could be both felt and seen, but whenever the cough ceased, or in the intervals between his coughs, the tumour disappeared. This would not likely be the case with a recent oblique inguinal hernia, which, when coughed down, generally remains down until put back by the hand. Of course the tumour *in this case* had no gurgling as if it contained bowel, but *felt smooth* and soft, and slipped readily from the fingers to either side of the inguinal opening, into which it could be easily pressed in any position of the body. It had existed probably for a long time, and the man could not tell how his attention had been drawn to it, but when he discovered it he at once consulted his doctor in the country, who advised him to wear a truss, but it had not kept it up rightly, and hence his visit to Mr. Hilliard. I did not think this a hernia, even of omentum, but a small portion of fat—a lipoma, in short, connected with the upper part of the cord, or possibly an instance of what Cloquet actually found on dissection, and described in his work on Hernia—viz., a portion of fat belonging naturally to the areolar tissue of the pelvis, which had increased uuduly and protruded through the inguinal canal. This would no doubt better account for the impulse on coughing and the disappearance of the tumour in the recumbent position. I therefore did not press the continuance of the truss; but as it relieved the man's mind to wear it, I advised that it should be of the slightest power of spring. It is nearly two years since I saw this man, but I have heard from Mr. Hilliard that he lately saw him, much improved in health, but with the little tumour quite unchanged in size or appearance.

I could relate, if necessary, the details of other two cases, which I still occasionally see, of precisely similar kind, only they have to my knowledge continued much longer without appreciable change. In one of these cases a slight truss has long been worn, in the other no artificial support has been employed, and both patients are very active in their habits, and enjoy quite good health. It may be worth mentioning that in the latter of these cases a truss was at first applied by the advice of another surgeon, but it was found that the little tumour constantly slipped to one side of the pad, and caused a disagreeable sensation of pinching to the patient. He therefore gave up using it, and without any increase of the tumour, though it is nearly ten years since he first accidentally noticed its presence.

I believe that these are cases regarding which there may be much difference of opinion, especially when stated in writing without examination of the patients, or unless those who read them have had experience of some such cases for themselves. I can only say that these tumours differ from omental herniæ, with which they are alone comparable, in that they are absolutely painless and quite destitute of that dragging feeling characteristic of true epiploceles. They are quite smooth, of a regular oval shape, almost fluctuant, and slide about more widely than herniæ. These characters of tumours of the cord may be so far definitely given and appreciated without further explanation. It is not so, however, with the other two, which are perhaps the most important of all—viz., the impulse on coughing and the disappearance in the recumbent position. Let us, therefore, consider these a little more particularly.

1. When the tumour is situated high up the cord, and indeed belongs partly to the abdomen, the impulse on coughing may be as distinct as that of an omental hernia, because in such an act pressure is made equally on all the contents of the abdomen, and must tell on the tumour as it would on an omental protrusion; but as the tumour grows and descends towards the scrotum, which it naturally does by its own weight, this impulse on coughing greatly diminishes, and so it happens that in most cases, before a surgeon is consulted at all, that sign is absent, or at all events quite distinguishable from the direct and forcible impulse given to a hernial protrusion, for it is then easily perceived that the tumour only partakes of the general succussion given to the whole side of the abdomen.

2. In like manner, when the patient lies down, the tumour, if small and soft and partly contained in the abdomen, may entirely disappear into the loose areolar tissue above the internal inguinal opening; but when it grows larger it cannot wholly disappear, and must remain partially in the canal, where it may be felt rolling under the surgeon's finger, and whence it falls out apparently by its own weight, more quickly than a hernia, whenever the patient stands upright. In this, perhaps, it is assisted by the elastic reaction of the posterior wall of the inguinal canal, and the tension of the conjoined tendon produced by the action of the abdominal muscles; for it is only by weakness, or at least, relaxation of that tendon, that the tumour is permitted to conceal itself in the canal. It must be remembered, too, that the spermatic cord slips up or is pulled up by the cremasteric muscle much higher in some subjects than in others;

[1] When operating in a case of strangulated hernia, on May 3rd, 1885, I found a small fatty tumour, about the size and thickness of one's thumb, connected with the outside of the hernial sac. I excised it before introducing a suture into the inguinal opening.

and of course any tumour of its substance, if soft and yielding like lipoma, would go along with it, and this has suggested to me to try if traction on the cord would make the tumour descend. I think this manœuvre, if done very gently, does somewhat change the position of these tumours, and I am quite certain that it greatly diminishes the impulse given to them on coughing. Of course this arises from the traction freeing the tumour from contact with the posterior wall of the canal, and would afford good corroborative evidence of its real nature in a doubtful case. In some of these cases, however, the tumour grows both a great deal harder and larger in time, and loses many of the above characters, becoming much like incarcerated omental hernia, as in the following example:—

A man, aged forty-four, was admitted into the Glasgow Royal Infirmary on March 19th, 1884, and told us that he believed he had had a rupture on the right side for many years. It was small and reducible at first, but about seven years ago it greatly enlarged in the groin and gradually descended into the scrotum, where it still further enlarged. He averred that even then it was reducible in bed. He wore a truss, which did not at all keep it up, and seemed only to have pressed on the neck of the tumour. For the last eighteen months it had been quite irreducible and almost quite hard, but was painless to the touch. Such was the state of matters when on March 13th, six days before admission, the man was seized with violent pain in the lower part of the abdomen, but not any in the tumour. His bowels were easily and freely moved with medicine, and he had no sickness. Fomentations were applied and opiates given, so that when he came to the hospital the pain had been very greatly relieved. But the tumour is thus described in the ward journal: "It is about the size and shape of a large Duchess pear, the thin end passing up into the inguinal canal, while the bulk of it occupies the right side of the scrotum. It is at present painful to the touch, because the skin over it is red and œdematous. It is quite irreducible, and gives no impulse on coughing." His bowels had been freely opened the day before admission. Fomentations were applied, and next day castor oil was administered, and acted freely. The pain of the abdomen had ceased, but the tumour was unchanged, and remained so until April 2nd, when I explained to the man that without an operation he could not be relieved. To this he consented, and next day, having put him under chloroform, I cut down upon the tumour, and found it covered by the sheath of the cord, and closely adherent to it and to the testicle. There was not a particle of fluid in the sheath, and it was with difficulty separated from the surrounding parts; this was, however, effected by dissecting from beneath upwards. It was then seen that the narrow part of the tumour was enclosed in the inguinal canal, and adherent to it all round, and giving no sign of its passage into the abdomen. I incised fully one-half of the canal to make sure of this, and then, being quite satisfied that I had simply the fibrous neck of the tumour to deal with, I pierced it with a needle armed with a long chromatised catgut ligature, both ends of which I tied so as to surround the transfixed part, and then I cut it off below the ligature, having succeeded in saving both cord and testicle from injury. Lastly, I made a free opening through the lowest part of the scrotal cavity, which had contained the bulk of the tumour, and, having inserted a drainage-tube, stitched up the main wound. The usual antiseptic dressings were applied. On cutting into the tumour, it was found to be fibrous in its nature, and quite hard and solid throughout its entire extent; but on submitting sections of it to microscopical examination, it was found that the fibres were here and there separated by small masses of fat. In the future progress of the case nothing remarkable occurred. For a few days there was some swelling of the soft parts on the wounded side of the scrotum, and very little discharge of pus. Nevertheless, the wounds healed slowly, and it was not till April 26th, twenty-three days after the operation, that it was noted that they had quite closed up. The scrotum had then regained very nearly its natural size, and there was no hernial protrusion to be detected on the most violent coughing, whatever the position of the body. The patient was kept under observation in the hospital for some weeks longer, and then dismissed cured.

I must remark on this case that its early history does not seem to me quite reliable, but it is clear enough that the truss did not and could not do any good. Nay, I believe it rather increased the irritation and hastened the growth of the tumour by pressing on its neck. Of course it would, in some respects, have been better had the patient applied earlier for surgical assistance, for the tumour would then have been smaller and less adherent to the sheath of the cord. Indeed, one feels amazed that the very weight of the tumour did not cause him to seek its removal; but the truth is that these tumours seem to be so devoid of pain, and to affect the health so little, that few patients would submit to an operation even if proposed to them at an earlier period in the history of the growth, and such growths naturally increase so slowly that, unless irritated by wearing a truss, they may never cause trouble or inconvenience at all (even by their weight and bulk), and therefore may be safely let alone, especially if the patient is at or beyond middle age. Nevertheless, all such cases ought to be watched from time to time, and if there should occur pain or much increase of size, or any decided fixation of the tumour as from adhesions between it and the parts of the cord, an operation may then be considered desirable for its removal; but I do not, as a general rule, advocate a too ready recourse to the knife in such cases.

The only question which remains for consideration is the advisability of the patient's wearing a truss at the first. Now, take the case—and a rare one it must be—where one sees a patient while the tumour can be completely reduced above the internal opening of the canal. It may well be asked, What good could it do to keep the tumour inside the abdomen? and would its increase there not do more harm than if allowed to pass out of the canal? Then, in the commoner case, in which part of the tumour remains in the canal, it is obvious that the pressure of a truss may do harm, especially if the patient is a working man. But if it is allowed to remain there, it may next be asked, Will there be no danger of permitting the descent of a real hernia by the dilatation of the internal inguinal opening and of the canal itself caused by the presence of the tumour? Now, for my part, I think this fear unnecessary, for the tumour rather protects from such an occurrence by its presence and by the consolidation of the infundibuliform fascia which it naturally causes, and which was abundantly evident to me when operating in the case last related in this paper. Besides, there is, in all such cases, the unimpaired form and saccular continuity, if I may so call it, of the peritoneum, which we have good reason to think is in itself a protection against a hernial protrusion. On the whole, then, I do not recommend the use of a truss in these cases unless it relieves anxiety in the mind of the patient; but I should certainly forbid it if it caused any irritation or pain in the tumour. I need hardly add, in conclusion, that whenever symptoms of strangulation are present, it is the duty of the surgeon, without delay, to cut down on any tumour in the inguinal region, however doubtful he may be of its exact nature, and then to deal with it according to what he finds it to be.

A CONTRIBUTION TO THE

CLINICAL STUDY OF THE LIVER VIEWED THROUGH THE URINE.[1]

BY GEORGE OLIVER, M.D. LOND.

No. II.—THE PHYSIOLOGICAL AND CLINICAL ASPECTS OF THE BILE SALTS IN THE URINE.

AT the last meeting of the Leeds and West-Riding Medico-Chirurgical Society I demonstrated the capacity of an acidified solution of peptone as a practical test for the detection and quantitative observation of the biliary salts in the urine; and I showed how well adapted it is to serve clinical requirements in this direction. I now propose to bring forward such physiological and pathological data as this new instrument of clinical observation has brought within my grasp.

1. *The Renal Elimination of Biliary Salts in Normal Urine.*

Bile salts in healthy urine indicated by the peptone test.—Some few years ago that sagacious observer, the late Dr. Murchison, remarked that "not only in jaundice, but in health, a portion of the bile pigment, as well as of the bile

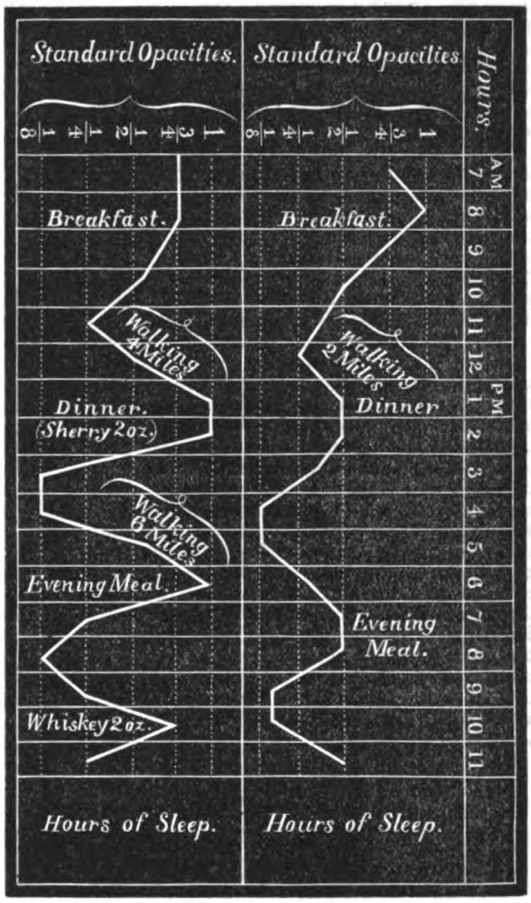
[1] Read before the Leeds and West-Riding Medico-Chirurgical Society, May 1st, 1885.

acids, formed in the liver is absorbed into the blood"; if so, may we not expect to find a small quantity of the central components of the bile (the biliary salts), or a derivative of them, in healthy urine?—providing, of course, they are not completely broken up by chemical action,[2] and the mode of direct testing is sufficiently delicate for the purpose of detection. When it is remembered that in man the liver secretes on an average each day not less than four ounces[3] of bile salts, it will surely not be surprising if a fraction, as it were, of this large quantity should, under the ordinary conditions of health, get adrift from the portal into the general circulation, and be discharged by the kidneys; in fact, were the amount of these leading biliary constituents but half that just indicated, the non-appearance of a small portion of it in the urine would, I think, be regarded by most physiologists as improbable, being contrary to anticipation suggested by kindred data.[4] Certainly so far the biliary salts of the blood have not been isolated; but their absence cannot be inferred from this negative evidence, for the quantity is doubtless too small for separation and detection by the methods hitherto employed. It is not so, however, with the urine; for the bile acids have been separated by Naunyn and Draggendorf in healthy non-jaundiced urines; and lately Lépine and Guérin have shown that the greater part of that portion of the unoxidised sulphur present in the urine which is oxidised with difficulty by reagents is derived from the bile by the reabsorption of taurocholic acid.[5] Then, again, it has been demonstrated that taurin—derived from taurocholic acid—is eliminated in small quantity by the healthy kidney. I therefore conclude that the diminutive reaction of the peptone test solution with normal urines accords with the presence of a trace of bile salts discovered in them by physiological chemists.

The amount of bile salts present in the normal urine of the same individual varies at different periods throughout the twenty-four hours; the causes of variation.—A large number of observations on the urine of healthy persons with the peptone solution has demonstrated the fact that the colourless biliary derivatives are discharged by the kidneys in varying proportions at different times in the course of the day. Though always present, they are increased at certain periods and diminished at others, and I find this variation definitely hinges on the digestive act.

The subjoined diagram represents hourly estimations of the bile salts in the urine of a healthy adult, aged forty-four, on two consecutive days, when every sample of urine was reduced to the uniform specific gravity of 1008, and the degrees of opacity, induced by mixing sixty minims of the diluted urine with the same quantity of the test solution, were registered according to a determined scale represented by the figures 1, ¾, ½, ¼, ⅛. It will be observed that the maximum amounts appear during the periods of fasting, as in the urine passed in the morning and before meals, and that the proportion falls quickly, generally in an hour, after each meal, and attains its minimum in from three to four hours. It would therefore appear that the renal elimination of the biliary salts is the converse of the bile flow into the duodenum; for, according to the facts provided by biliary fistulæ established in the dog, the discharge of bile into the bowel rises rapidly immediately after eating, reaches its maximum in from two to six hours, and returns to its minimum by the time of the next meal, but never ceases, even though fasting is prolonged. According to my observations, this central fact is modified by various hygienic conditions, among which exercise is the most powerful. On comparing the diagrams—one representing the subject walking only two miles, and the other ten miles—we note that, when the exercise was insufficient, the waves of increased elimination before dinner and the evening meal were imperfectly developed, attaining to merely the half standard opacity, and that when the walking was extended to ten miles the renal discharge of the biliary salts following the digestive fall reached the highest degree. It is pretty clear that moderate exercise invigorates the digestive process; for with a fair amount of walking between meals, the withdrawal of the bile salts from, as well as the return of them to, the urine, is rendered more decisive and speedy than when a lounging life is led. Indolence therefore either favours the retention of these colourless excreta within the systemic blood (cholæmia), or causes them to linger within the limits of the portal circulation, and prolongs each digestive effort. The systemic overflow of the biliary salts is probably influenced by other hygienic conditions: such as meteorological changes of temperature[6] and of atmospheric pressure, the nature of the diet, and alcohol. Though I have not yet studied with sufficient care the effects of alcohol on the renal elimination of these elements, I think I am justified by the few data observed in expressing the belief that in the first instance

The hourly Elimination of Bile Salts by the Urine, showing the Effects of Digestion and Exercise.



it is a checking agent, and then—after inducing congestion of the liver—it brings about an increased discharge, which may be even detected during the periods of digestion, when ordinarily the renal overflow of the biliary excreta is at its minimum. Should these positions be confirmed by further observation, it would seem as if alcohol should be classed with indolence as a cause of cholæmia and congestion of the portal system, and is therefore the opposite of exercise. It should be remembered that the urine of patients does not present such great variations in the amount of bile salts as are indicated by the diagrams constructed from hourly observations; for as a rule it is allowed to collect in the bladder for several hours together, and thus acquires a more uniform charge. When, however, the bladder is cleared just before a meal, the urine voided two or three hours afterwards will in health show the digestive withdrawal of the biliary salts. In order to judge of the renal elimination of these constituents the observer should select the urine of

[2] Frerichs as well as Murchison believed that the bile acids normally absorbed into the blood from the liver were metamorphosed by oxidation into other products.

[3] According to Bidder and Schmidt, the daily bile flow of a man weighing 140 lb. is about 50 oz., and the charge of bile salts over 9 per cent., or a little over 4 oz. If it be supposed that a portion of the bile discharged into the bowels is absorbed into the portal blood and is re-secreted, the fact of a large quantity of bile salts constantly circulating in the portal system still remains.

[4] My experimental data, derived from the observation of the viscera of the ox and sheep, show that during digestion the mesenteric glands contain more of the colourless biliary elements than the parenchyma of the liver. The amount that passes by this channel towards the blood is indeed very considerable. I hope to refer to this subject in the addendum to this paper.

[5] See THE LANCET, vol. i. 1885, p. 307.

[6] A chill, for instance, increases the urinary bile salts. This fact has, I take it, some bearing on the etiology of so-called "catarrhal" jaundice and hæmoglobinuria.

fasting, before breakfast, and of digestion, two hours after breakfast; or he should obtain a sample of the whole twenty-four hours' discharge.

2. *The Clinical Significance of the Renal Excretion of Biliary Salts.*

Data provided by experiments on animals.—A review of the facts provided by the injection of the bile salts into the blood of animals (mainly dogs) forms a fitting introduction to the study of the clinical aspects of the renal excretion of these colourless biliary derivatives. The following symptoms and structural changes have been recorded by several observers (Feltz, Ritter, Röhrig, Albers, and others). (*a*) Pulse and respiration retarded. (*b*) Arterial tension and temperature lowered. (*c*) Food refused, and loss of flesh rapid; vomiting of bile and blood. (*d*) Diarrhœa: bilious, sometimes bloody. (*e*) Hæmolytic changes, capillaries obstructed and hæmorrhages. The blood more fluid than normal, and less coagulable. The red discs dissolved,[7] and the serum red-coloured from liberated hæmoglobin, and milky from fat granules and increase of fat. The passage of the blood obstructed in the capillaries: the red discs flow together *en masse*. (*f*) Parenchymatous degeneration of glands, muscles, liver, kidneys, &c. (*g*) Tetanic convulsions, followed by coma and death. (*h*) Urine albuminous, and red from dissolved hæmoglobin. The symptoms and tissue changes vary with the amount of bile salts injected: thus, it is always needful to administer certain large and repeated doses in order to induce convulsions, coma, and death; but a small quantity will produce the analogue of a bilious attack, when there is merely observed retardation of pulse and respiration, lowering of arterial tension, refusal of food, vomiting, and perhaps diarrhœa.

The balance between production and elimination.—The biliary products discharged into the bowels are mainly utilised in digestive work; and a certain comparatively small portion of them must pass out with the fæces, or good health is out of question; unless, perhaps, the renal elimination can in some degree compensate for the intestinal failure. As a rule, however, when either of these channels, by which biliary matter is normally excreted, is obstructed, and, above all, when both are embarrased or blocked, the blood becomes surcharged with the poisonous excreta (cholæmia), and then the experiments on animals become living facts in our clinical experience: the form of blood-poisoning being acute or chronic, mild or severe, or individualised by idiosyncrasy of tissue, or by special concomitant conditions, such as fever and the like. When, therefore, the balance which subsists in health between the production of these poisonous products and their elimination is disturbed, disorder or disease is induced; as surely as the smoky atmosphere of a room is the natural consequence of a narrowed or obstructed chimney. The clinical observation of the bile salts in the urine appears to me to resolve itself into the detection of an excess and of a check to elimination or of an insufficient discharge.

(To be continued.)

A NEW METHOD OF ADMINISTERING AND ECONOMISING NITROUS OXIDE GAS.

BY FREDERIC HEWITT, B.A., M.B. CANTAB.,
ADMINISTRATOR OF ANÆSTHETICS TO CHARING-CROSS AND THE NATIONAL DENTAL HOSPITALS.

IT has been stated that pure nitrous oxide gas when inhaled is not decomposed, and that the expired gases from a patient under its influence contain no products of decomposition which can be attributed to chemical changes in the gas during its period of association with the circulating blood. Experiments have been made not only in support of this statement, but also to prove that nitrous oxide gas is absorbed to a considerable extent by the blood.

If nitrous oxide is exhaled in much the same condition as it is inhaled, what are the reasons against our employing a comparatively small amount of it over and over again for anæsthetising a patient? If a bag containing two gallons of gas be taken, and its contents inhaled and exhaled through a face-piece devoid of valves, an imperfect form of anæsthesia is as a rule obtained. I have tried this method on several patients, some of whom have been satisfactorily anæsthetised; but as a general rule struggling and excitement supervene and become more marked during the ensuing operation, whilst the corneæ retain their sensibility for a considerable period. Sometimes, indeed, it becomes impossible to render a patient sufficiently unconscious for operative procedures. The reason of these untoward manifestations is obvious; the air which was originally present in the respiratory passages dilutes the small amount of gas to such an extent that the usual evidences of the gas having become mixed with atmospheric air ensue. The carbonic anhydride which is exhaled is supposed by many to intensify the action of the nitrous oxide; but may it not have the effect in the above experiment of rendering the nitrous oxide anæsthesia imperfect, considering that such a small amount of gas is taken for inhalation? Mr. Coleman was in the habit of causing the carbonic anhydride to be absorbed by passing the exhaled gas over lime. By these means he endeavoured to economise the nitrous oxide, but the method soon fell into disuse. The apparatus he used was cumbrous, and I do not know whether he ever took means to prevent the air originally present in the lungs from becoming mixed with the gas.

If we admit that nitrous oxide is not decomposed by the blood, and if means are taken to first get rid of air in the lungs—to wash out, as it were, the respiratory passages by nitrous oxide,—it seems to me that, with a small amount of the latter gas, it should be possible to induce a satisfactory form of anæsthesia by allowing the patient to breathe the gas over and over again. The carbonic anhydride which will still be exhaled will, according to some, be rather an advantage than otherwise; but if there is reason to believe that this gas intensifies the action of the nitrous oxide by producing an anæsthesia of its own, or if there is reason to suppose that it acts somewhat as a diluent to the nitrous oxide, then it follows that, by first flushing out the lungs by nitrous oxide, and, secondly, by depriving the circulating gas of its carbonic anhydride, it should be possible to employ a comparatively small amount of nitrous oxide with the same satisfactory result as that which obtains when a large amount is inhaled and exhaled in the usual manner.

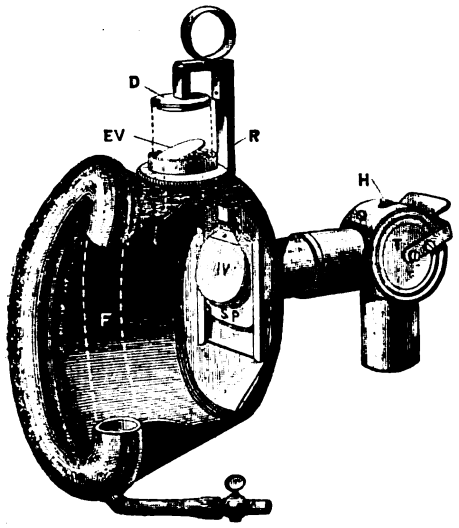
With the object of inquiring into the above interesting questions I had occasion to devise a face-piece which I shall describe below. By the use of this face-piece I was enabled, without removing it from the patient's face, to allow a portion of the contents of a two-gallon bag filled with nitrous oxide to escape, after inhalation, through an expiratory valve, and then, by suddenly depressing a small rod, to cut off all valve action, and to allow the patient to inspire and expire the gas remaining in the bag. I spoke to my friend Dr. Percy Frankland, and he has been kind enough to make with me some analyses of expired gas from patients under the influence of nitrous oxide. These analyses we hope to be able to publish shortly. In the meantime I venture to describe the face-piece used in my experiments, as by its employment I have anæsthetised satisfactorily more than a hundred patients at the National Dental Hospital, using for each administration not more than two gallons of gas.

I have collected samples of expired gas under three different conditions:—1. Two gallons of gas employed. Face-piece without valves. 2. Two gallons of gas employed. Face-piece as in woodcut. Varying amounts of this gas exhaled into air before allowing the patient to breathe in and out of the bag. 3. Several gallons of gas inhaled from a gasometer and exhaled into air; having thus disposed of air in the chest, the patient was made to breathe and rebreathe two gallons of gas, previously placed in communication with the face-piece. When employed with certain simple precautions, the method adopted in the second series of experiments gave, as a rule, very satisfactory results. With regard to the carbonic anhydride exhaled, I shall abstain from making any remarks until the analyses are completed. The method which I have used for absorbing this gas is to allow the inhaled and exhaled gases to pass between two thin-walled cylinders of india-rubber sponge, soaked in a saturated solution of caustic potash. I have not made a sufficient number of experiments to arrive at any definite conclusion as to the advisability of absorbing carbonic anhydride when a small amount of gas is used for inhalation. The method I shall presently describe does not provide for the absorption of carbonic anhydride.

[7] When a solution of the bile salts is added to a drop of blood, under the microscope the corpuscles rapidly disappear. Hünefed was, I believe, the first to record, some forty years ago, the fact that bile dissolved the blood-corpuscles.

Whether the absorption of this gas would have the effect of rendering the anæsthesia even more perfect remains to be seen by experiment.

I now propose to describe the apparatus before alluded to, (see woodcut). The face-piece (F) is furnished with two valves, an inspiratory valve (IV), and an expiratory valve (EV). The inspiratory valve (IV) is mounted upon the sliding plate (SP), which can be moved up and down by the rod (R) which is attached to it. When the plate (SP) is raised, as in the woodcut, the valve (IV) is in contact with the orifice of the tube coming from the two-way stopcock (T), and gas rushes past it during inspiration, but not during expiration; when, however, the plate is pushed down by the rod (R), the valve (IV) is also displaced, and gas can pass backwards and forwards through the orifice previously guarded by the valve (IV). The expiratory valve (EV) is situated upon the upper part of the face-piece. When the rod (R) is raised, as in the woodcut, the valve (EV) is capable of acting during expiration; when, however, the rod (R) is depressed, the circular damper (D) is pushed down upon the valve (EV), and the latter is rendered inactive. It will therefore be seen that when the rod (R) is raised, both valves are capable of acting; when, however, the rod (R) is depressed, all valve action is suddenly abolished, and gas can only pass in and out of the orifice of the tube previously guarded by the valve (IV), the rod (R) which necessarily comes over this orifice offering practically no obstruction to the passage of the gas. The two-way stopcock (T)



is fixed on the one side to the face-piece (F), and on the other to a piece of tubing connected to a Cattlin bag holding two gallons of gas. The latter (as is commonly the case) is filled from the gas-bottle through a stout piece of india-rubber tubing; and I have found it convenient to have a small stopcock with a bayonet joint interposed between the bag and the gas-bottle, so that the two may be quickly and readily disconnected, if necessary. The anæsthetist can, under these circumstances, attach the bag by any simple contrivance to his coat button, and with the two gallons of gas and the face-piece he is equipped for most short operations.

The following are the details of the method: the bag and the tubing between it and the face-piece having been filled with gas (by placing the two-way stopcock as in the figure), the face-piece (which is also arranged as shown), is accurately fitted to the patient's face. It will be seen that the face-piece is so made that it can be grasped firmly at its back part by the hand of the anæsthetist, whose forefinger and thumb will then be able to press its sides over the nose of the patient. Inspiration now takes place through the air-hole (H) of the two-way stopcock, and expiration takes place through the valve (EV). I am in the habit of testing the fitting of the face-piece by placing my finger for a moment over the air-hole (H), and then asking the patient to "try to breathe." If no air enters at any part, the sides of the face-piece will be observed to fall in as the tendency towards a vacuum is set up; whereas if air should gain admission (as it sometimes does) between the face-piece and the face, there will be slight, if any, falling in of the sides of the former, and, in all probability, some noise of in-rushing air will be audible. Having adjusted the face-piece satisfactorily, gas is turned on at the stopcock (T), and a certain number of expirations are allowed to escape through the valve (EV). As far as my experience goes, it is best to allow nearly one-half of the contents of the bag to be inhaled, and then exhaled into the surrounding atmosphere; and to effect this, four or five respirations are usually requisite. The rod (R) is then depressed. The patient now breathes directly in and out of the bag, and the usual evidences of anæsthesia ensue. The total number of respirations necessary will, of course, vary with each individual patient; the average number in one hundred cases was forty-five. I usually wait for some slight twitching of the muscles before removing the face-piece. The period of anæsthesia which ensues is, I think, not quite so long as that which is met with under ordinary circumstances, although Mr. Read, one of the dental surgeons at the National Dental Hospital, assures me that he sees no difference in this respect between the anæsthesia which is obtained by using plenty of nitrous oxide and that induced by administering two gallons in the manner I have described. I have been unable to ascribe any unusual after-effects to this mode of administering the gas. Further experience is necessary before more detailed comparisons can be made between the anæsthesia thus induced and that obtained by employing several gallons of gas.

The experience I have had in the above method of administering nitrous oxide gas has led me to the conclusion that it can be employed in all short operations, especially in hospitals where economy has to be considered. I believe that the average amount of nitrous oxide used for each patient at the National Dental Hospital is five or six gallons when the ordinary apparatus is employed. At hospitals where small fees are charged for the privilege of having the gas administered, it might be possible to reduce or abolish these fees, except under special circumstances.

Economy in nitrous oxide is doubtless to be secured in others ways than that which I have mentioned. Many anæsthetists use the "Supplemental Bag," which can be adapted to ordinary face-pieces, and by its use less gas is certainly necessary than under ordinary circumstances. How much less will, of course, depend upon various conditions. I believe, however, that, as a rule, it is necessary to use a great deal more than two gallons of gas. If two gallons of gas will suffice for short operations, it may be found practicable for the anæsthetist who is called to administer gas to one patient either to dispense with the heavy gas-bottle or to substitute for it a much smaller and more portable one.

Mr. Hawksley of 357, Oxford-street, is the maker of the face-piece; and I have to thank him for the care and attention with which he has carried out my instructions.

Somerset-street, Portman-square, W.

NOTE ON A

CASE OF OSTEO-ENCHONDROMA OF THE CEREBELLUM.[1]

BY CHARLES ATKIN, F.R.C.S. ENG.,
HOUSE SURGEON, INFIRMARY, SHEFFIELD.

MR. SHAW, of Attercliffe, Sheffield, in making the post-mortem examination on the body of a boy aged eleven, found a hard bony substance in the right lobe of the cerebellum. The cause of death was meningitis following otorrhœa of only three weeks' history. In the right lobe of the cerebellum, embedded in the substance of the organ underneath the grey matter, was a hard body about the size of a bean, half an inch by three-eighths of an inch, weighing seventeen grains. It was not enclosed in a cyst or surrounded by any undue vascularity or softening, and had apparently nothing to do with the cause of death. It was single, no smaller one being in the neighbourhood, quite firm and hard, giving at once the idea that it consisted of bony tissue. The mother stated that he has always been a delicate boy, especially up to the age of four, suffering from "water on the head," that he was late in teething, had

[1] Read before the Sheffield Medico-Chirurgical Society, April 23rd, 1885.

never had scarlet fever or measles, and had always been lively, attentive, and quick at learning. The parents were apparently healthy, though the father had a strumous phthisical appearance, and three brothers aged respectively nineteen, fourteen, and nine all had otorrhœa.

The interest of the case lies chiefly in the origin and nature of the growth. After decalcification the bony tumour was carefully cut in two, one half being cut up into sections for the microscope and the other preserved in spirit. On viewing the cut surface the growth was seen to consist of two portions: one, a central nucleus with prolongations, and the other surrounding tissue of evidently different structure. Under the microscope four different tissues are seen—first, the stellate nucleus, consisting of fine granular matter readily taking aniline colours, staining yellow with picrocarmine; secondly, well-marked hyaline cartilage, forming a complete capsule for the nucleus, which sends its prolongations in and amongst it in a very irregular manner; thirdly, some true bone, and most externally parallel bundles of fibro-cellular tissue, which were, previous to decalcification, as hard as bone. There is no doubt that the tumour is perfectly innocent; it is not a chondrifying or calcifying sarcoma; it is not a mass of brain sand. In the granular centre, brain elements, such as Deiter's cells or Purkinje's corpuscles, are absent. One might imagine that it might be degenerated additamentary corpus dentatum, but even then the stellate cells are wanting. Is the nucleus of the tumour hypertrophied neuroglia due to circumscribed encephalitis? I have searched for records of similar growths, but have found nothing at all comparable to it. Calcifications of tumours of the brain are uncommon, but still well known. Bevan Lewis has recorded a calcified angioma, and Ross quotes one by Meschede. As well as with regard to its seat and the fact of its causing no symptoms, it is curious in another way—viz., that it is an exception to the rule that heterologous enchondromata are generally malignant.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

GUY'S HOSPITAL.

DISTENSION OF FRONTAL SINUS TREATED BY INCISION AND DRAINAGE; CURE.

(Under the care of Mr. HIGGENS.)

DISTENSION of the frontal sinuses from the accumulation of fluid is somewhat rare, especially when the fluid is non-purulent. Incision, with the application of the trephine, when the bone has not been absorbed from pressure or removed by disease, followed by free drainage, is the best treatment. In addition to the ordinary external opening, Mr. Higgens made one from the distended sinus into the nasal cavity, thus providing further drainage and allowing the external wound to close at an earlier date.

Eliza H——, aged eleven, admitted July 20th, 1884. The history was that usually given in these cases—a blow across the nose from a fall six or seven years previously. Some eighteen months later the child had scarlet fever, and at that time a small abscess formed at the inner canthus of the right eye; this burst and gave no further trouble. Two years ago the right eye began to water, and a swelling appeared at the side of the nose; this has gradually increased. On admission there was a fluctuating swelling surrounded by irregular bony edges, situated at the inner angle of the right orbit rather above the position of the lacrymal sac. The swelling is rather larger when the patient is in the erect position than when lying down; it is also rather smaller in the morning than later in the day.

July 21st.—An incision made into the swelling gave exit to a large quantity of thick, opaque, yellowish discharge; the finger passed through the incision entered a considerable cavity. An opening was made through the lower part of the cavity into the superior meatus of the nose, and a drainage-tube passed through it and out at the right nostril, and left with one end projecting through the incision and the other through the nostril. The drainage-tube remained in position till November 10th (nearly four months), when it was removed.

Dec. 8th.—Opening where drainage-tube projected quite closed; replaced by small depressed cicatrix. An irregular bony edge can still be felt, but the fluctuating swelling has entirely disappeared.

LIVERPOOL ROYAL INFIRMARY.

SUICIDAL WOUND OF NECK TREATED BY TRACHEOTOMY AND THE INSERTION OF DEEP SUTURES; REMARKS.

(Under the care of Mr. REGINALD HARRISON.)

FOR the following notes we are indebted to Mr. H. Pearson.

H. O——, aged fifty-six, no occupation, a weakly and ill-nourished looking man, was brought to the Royal Infirmary early on the morning of July 29th, 1884, with a severe wound in the neck, as follows: There was a deep cut on a level with the upper border of the thyroid cartilage, and extending, on the surface, about two inches to either side of the middle line; this wound, inflicted by a razor, passed horizontally backwards, so as to divide all the structures attached to the upper border of the thyroid cartilage, and, still deeper, dividing the pharynx nearly half way through. On making efforts at swallowing, the thyroid cartilage moved upwards and forwards through the wound in a most curious way. It was stated that he had lost a quantity of blood, but there was no bleeding of consequence on his arrival at the hospital. The following treatment at once suggested itself: to perform tracheotomy, and then to bring the divided parts together with strong deep wire sutures. To the attainment of this object the patient was anæsthetised, and the trachea opened above the isthmus; a large tube was inserted so that respiration might be as free as possible; next, the base of the epiglottis, which on being released from the thyroid cartilage had become tilted upwards and backwards, was drawn down and fixed to the centre of the upper border of the thyroid cartilage by means of a medium-sized wire suture; then, by means of a curved mounted needle, a strong wire was passed on either side through the upper part of the lateral wing of the thyroid cartilage and carried around the hyoid bone; on tightening these two sutures the deep soft parts were brought neatly together, and the hyoid bone maintained in its proper relation to the thyroid cartilage; finally, the surface wound was neatly closed over the deep sutures by means of fine silver wire. The man was kept in bed surrounded by a tent, the temperature of the room maintained at 65°, and the air constantly moistened by a steam kettle; two ounces of sanitas to each large kettleful of water served very well to keep the atmosphere pleasant and sweet. He was ordered to have milk and beef-tea thrice daily through an œsophageal tube, also beef-tea night and morning by the rectum. He was troubled a little with slight bronchial irritation for a few days afterwards, but his temperature never rose above 102·2°. The greater part of the wound united rapidly, leaving only a fine fistulous tract leading from the pharynx to the right angle of the cicatrix. As this opening showed no tendency to heal, a plastic procedure was resorted to on Aug. 29th—viz., the tract was thoroughly scraped with a Volckmann's spoon, and the walls of the fistula brought together by means of a strong deep suture; this was then covered in by bringing together the edges of the previously dissected up skin. This wound united kindly, and on Sept. 12th the tracheotomy tube was removed, and on the 18th (a week before his discharge), this last wound having closed, the patient was permitted to take soft solid food by the mouth.

Remarks by Mr. HARRISON.—This wound was so large that it was quite out of the question to leave it to heal without maintaining the divided structures in good position, and moreover, to this end, it appeared a necessity to have free respiration below the site of injury. Similar treatment seems to suggest itself as commendable and safe for wounds of much less extent than the above, if not, indeed, to all cases of cut-throat whenever the pharynx or larynx has been laid in communication with the surface of the neck. The four deep sutures used had, up to the time of the

patient's discharge, shown no symptoms of causing any trouble. The man has not been heard of at the infirmary since his discharge in a mood far from penitent.

SHEFFIELD GENERAL INFIRMARY.

A SERIES OF UNCOMMON GROWTHS.

(Under the care of Messrs. FAVELL and A. JACKSON.)

FOR the following notes we are indebted to Mr. Charles Atkin, house-surgeon.

CASE 1. *Congenital Coccygeal Tumour; Removal; Death; Necropsy.*—M. L——, aged four months, was brought to the infirmary for a swelling of the upper part and right side of the buttock. The lump was noticed at birth, and it was doubtful whether it had increased at all since, but the parents wished something to be done if possible, as they imagined it interfered with the well-being of the child. The father is phthisical; the mother, strong and healthy, gives a history of fright and a fall whilst pregnant with the child, which at its birth had "convulsions." Up to the present it, however, had only suffered from sleeplessness and gastric disturbances. On examination a semi-solid mass the size of a small orange was found protruding from the right side of the sacrum; it apparently increased in size on crying; the skin over it was adherent, nævoid, and puckered; it involved the coccyx, no extremity being detected. On the left side of the middle line the sacrum was entirely wanting, and the movement of the abdominal contents could easily be detected when the child cried. Double equino varus was also present. Mr. Jackson determined to explore it; so a small incision was made on the most solid portion of the swelling and the skin carefully dissected away. On the growth being removed, it was discovered that the rectum lay uncovered beneath. The tumour was then seen to consist of a mass of lobules, chiefly of hard dense fat bound together by connective tissue; interspersed were small cartilaginous masses, and one or two cysts about the size of a pea, containing opaque pale-green fluid, which under the microscope showed nothing but epithelial and cellular débris. The child progressed favourably for three days, taking the breast well, and then, unaccountably, rapidly failed and sank. At the autopsy the remains of a tumour were found attached by a pedicle to the right half of the sacrum; the left side was deficient, being only represented by a fibrous band. The growth did not encroach on the anterior surface; there was no meningitis, and the organs were healthy. Microscopically, the greater portion of the tumour removed was found to consist of fat and bundles of wavy fibrous tissue; the arteries were numerous and well formed; masses of hyaline cartilage, of most irregular shapes, were embedded in fibrous tissue; there were cysts, with thin regularly concentric walls, filled with semi-transparent yellowish granular material; and, most curious of all, transverse sections of what appeared to be well-made ducts lined with nucleated columnar-celled epithelium. These ducts were closely aggregated together in a mass of fibrous tissue; in some the epithelium was so well developed that it completely filled up the lumen of the tube, and gave the appearance of a rosette, a central axis with radiating spokes; in others the cells had shrunken from the walls towards the centre; in others, again, the cells were absent, no doubt washed away in the process of mounting. In no place was there any trace of sarcomatous or carcinoma cells, or any arrangement of tissue or cells at all resembling them. There was no trace of any bony tissue or hairs.

CASE 2. *Epithelioma of the Ear, involving the Facial Nerve.*—T. H——, aged seventy-seven, was admitted into the infirmary in a very debilitated condition. His previous history had been very good; never had syphilis or any serious illness; no history of cancer in the family. Had noticed a wart on his left ear for the last five years, which used to bleed when it was knocked or rubbed by his hat. He went to a quack, who cauterised it with some strong acid twelve months ago; the wart never returned, but the sore thereby induced never healed. It has gradually increased in size, and occasionally bleeds very violently, especially after a fit of coughing. On examination the whole of the pinna was found to have been replaced by a mass of ulcerating new growth; the edges were raised, everted slightly, and indurated; the neighbouring skin, especially about the mastoid region, was dusky red and brawny, evidently infiltrated with new growth. The discharge consisted of sanious pus, foul smelling, but not very profuse. Under the microscope epithelioid cells were found. On the whole there were well-marked evidences of "new growth," though so much ulceration was present. There were also inability to close the eye, falling of the angle of the mouth, deviation of the tongue to the left on protrusion, all tending to show that the infiltration had reached and invaded the facial nerve. He was also completely deaf on the left side. The case having evidently gone too far for operation, he was kept in and watched, for some months he lingered, ultimately dying of exhaustion, partly induced by extensive bedsores which he had acquired previous to his entry into the infirmary. Microscopic sections of the growth showed it to be a typical epithelioma.

CASE 3. *Congenital Sublingual Dermoid Cyst; Operation; Recovery.*—E. O——, a girl of seventeen, applied at the infirmary with a swelling underneath her tongue as large as a small orange; it filled her mouth, nearly completely forcing the tongue up against the palate, so that she could not possibly swallow solids. She was otherwise healthy, and stated that she had always a small lump there as long as she could remember, but that it had only increased in size the last nine months. She had already been under a medical man, who had first treated it with a seton and then incised it; but it had returned and increased beyond its former bulk. On seizing the front portion of it with forceps and snipping away a considerable part of the anterior wall, a large quantity of thick sebaceous matter presented itself, in which hairs were intermixed. The wound rapidly contracted and healed, and there has been no return, nine months after.

CASE 4. *Large Epithelioma of the Lower Lip in a Female: Operation; no Recurrence a year later.*—R. W——, aged thirty-seven, stated that she was married, no children, always been very strong and healthy, and knew of no "lumps or sores" in the family. Ten months ago she first noticed something wrong with her lower lip; a pimple formed at the edge, then a crack, which continually scabbed over. On examination, the edge of the lower lip was found to consist of a dirty, dark, discharging ulcer, extending from the median line to the angle of the mouth on the right side. Below it the skin was hard, tender, dark-red, and irregularly raised, extending two inches and a half downwards and outwards; in fact, the ulcer and infiltrated skin comprised the whole distance from the edge of the lip to the lower border of the jaw, and behind to the anterior edge of the masseter muscle. In appearance she was stout and plethoric-looking. She had no sharp bad teeth, no mole on the lower lip, though there was on the upper. She can assign no cause, as she has never irritated her lips. The ulcer and neighbouring skin were completely removed by Mr. Favell, the parts coming together only at the expense of the size of her mouth; however, healing took place perfectly, and though her mouth was very much diminished in size, she went out very well satisfied with her personal appearance. It is now exactly twelve months ago since the operation, and there has been no recurrence of the disease. Under the microscope the specimen is seen to be a perfect one of epithelioma.

CASE 5. *Scirrhus of the Prostate Gland: Suppression of Urine; Death; Necropsy.*—W. S——, aged sixty-nine, was admitted with hæmaturia. He was remarkably hale and active for his age, with plenty of colour, and stated that he had always been a very sober and healthy man. His father and mother had both died at a very advanced age. Six or seven months ago he noticed that his water scalded him and was tinged with blood. On admission he complained of pain at the end of the penis and in the perineum, especially when he had his bowels moved. Riding and jolting had not been noticed to increase the pain, which was very severe, however, during micturition. The stream of urine never stopped suddenly. Never passed any gravel, but occasionally clots. Never remembers any matter or slime coming away from him. He stated that he had got much thinner and weaker lately. Examination with the sound yielded no results, nor did microscopical examination of the urine. By the rectum the prostate was detected to be increased in size, and was evidently very tender. For some time he was treated with astringents, and enjoined rest in bed; he apparently improved, till one day he found he could not pass any urine. A catheter was passed, but only a few drops came away; this state of things happened each day; percussion and palpation, as well as sounding the bladder, showed that it was always more or less

empty. However, he gradually got weaker; and though the temperature was normal and the pulse slightly accelerated, he only complained of thirst, and protruded a dry brown tongue. He had no uræmic symptoms, so-called, no twitchings, delusions, or coma, and was quite sensible up to his death, which seemed to occur simply from asthenia. At the post-mortem examination the bladder was found empty, with thickened walls, but no pouches or evidences of cystitis. The ureters were slightly dilated; the kidneys large and pale, but otherwise healthy; the prostate was enlarged to three or four times its usual size, the growth, however, not interfering with the patency of the urethra. On section it presented unmistakable appearances of new growth, being firm in parts, fibrous, and of a yellowish-white colour. There was no ulceration of the mucous membrane. Microscopically it presented the arrangement of a scirrhous carcinoma.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Tumour of Brain.—Malignant Disease of Bones in a Child.—Sarcoma of Lung and Brain.—Primary Carcinoma of Liver.—Hypertrophied Callus of Tibia and Fibula.—Chronic Cerebro-spinal Meningitis.—Actinomycosis.—Typhoid Fever in Animals.

THE last meeting but one of the present session of this Society took place on Tuesday last, Dr. H. Charlton Bastian, F.R.S., Vice-President, in the chair. The proceedings were of a very interesting character, and good discussions followed the reading of most of the papers. The specimens of actinomycosis showed by Mr. Shattock prove that the disease, though but recently recognised, is certainly not new, seeing that the specimens exhibited were at least a quarter of a century old. The specimen of hypertrophied callus shown by Mr. Bilton Pollard was remarked upon as one of an exceedingly rare kind, and on the motion of Mr. Butlin the specimen was referred to the Morbid Growths Committee for special report.

Dr. CHARLEWOOD TURNER showed a Cerebral Tumour, situate in the fourth ventricle, with a secondary deposit on the posterior surface of the cord, and with lesions of the posterior columns of the cord. The specimen was taken from a girl aged fifteen, who had had symptoms of cerebral tumour for nine months; amaurosis had been noted for two months; vomiting, headache, and pain in the left leg and side were present, and also double optic neuritis. The pupils were widely dilated, but active. There was slight paresis of the left side, but no loss of sensation. The deep reflexes were absent. The superficial reflexes were active. The intellect was unaffected. Paralysis of the left side of the face, followed by an epileptiform attack, ushered in death. A soft sarcomatous growth was found filling up the fourth ventricle, from the walls of which it appeared to have grown, invading the cerebellum and medulla oblongata. Microscopical examination showed much exudation in the posterior columns of the cord. The greater liability of the posterior surface of the cord to be affected with new growths was commented on. The limitation of the spinal lesion to the posterior columns in this case, and the occurrence of early sclerosis of the same columns, were regarded as illustrating the especial liability of these columns of the cord to be the seat of pathological lesions. This afforded an explanation of the frequency of locomotor ataxy as compared with the symptoms referable to primary lesion of other tracts of the cord. The occurrence of cases where the characteristic symptoms of locomotor ataxy are independent of spinal lesion is not inconsistent with the general conclusions from an investigation of thirty years. They prove that these symptoms are not essentially spinal. Symptoms due to lesion of centripetal fibres of the posterior columns result most frequently from interference at the least protected part. There were no facts to show that there is a greater liability for this to occur in the brain, and no evidence of a cerebral lesion in cases of ataxy in general to which the posterior sclerosis could be regarded as secondary.

Dr. NORMAN MOORE exhibited a specimen of Sarcoma of Bones and Viscera in an Infant. The specimens were taken from a boy aged one year and a half, who died in St. Bartholomew's Hospital in one of Dr. Gee's wards. The whole anterior part and most of the base of the skull were infiltrated with huge masses of a tough reddish new growth, which microscopic sections showed to be a round-celled sarcoma. Many other bones were infiltrated. The ten upper left ribs and nine lower right ribs, the whole pelvis, and both femora were infiltrated, and had upon them many bosses of the sarcoma. All the lumbar and cervical glands, the right lobe of the liver, and the right suprarenal body contained masses of the new growth. The case began with pain in the right hip in October, 1884. In December a swelling was noticed over the eye. This was rapidly succeeded by swellings on other parts of the skull. Both eyes were extremely depressed, and the corneæ sloughed away. The growth increased very fast, and the child died on March 3rd, 1885.

Dr. DYCE DUCKWORTH showed specimens of Sarcoma of the Lung and Brain. The case was that of a man aged fifty-two, who was admitted into St. Bartholomew's Hospital in February, 1885. At Christmas last a left hemiplegia developed after an apoplectiform attack. The early symptoms of the lung disease were cough with copious expectoration. There was impaired expansion of the right side of the chest, with dulness over the lower half of the right side, where the vocal fremitus was absent, and the breathing was very weak. Weakness, pain in the chest, and cough, with hæmoptysis, were the symptoms prior to admission. There was slight fever. Death followed eight days after admission into the hospital. In the corpus striatum of the right side was a pinkish velvety mass about the size of a hazel nut, and many similar nodules were found in the roof of the lateral ventricles and elsewhere. A new growth penetrated the right lung, apparently commencing at the root of the organ; the growth followed the course of the bronchi, but did not find its way through the mucous membrane of the tubes, and remained entirely outside the bronchi. There were about six nodules in the liver and one in the pancreas. The growth was a round-celled sarcoma. He had not found any similar case on record in the Society's Transactions.—Dr. CHARLTON BASTIAN asked what was the condition of the temperature.—Dr. NORMAN MOORE said that the temperature chart showed a general rise in the evening to about 101° F.; occasionally the temperature was 103°. He thought that Dr. Duckworth's case was a most interesting one.—Dr. ORMEROD spoke of the means of distinguishing between the hemiplegia resulting from a tumour and that resulting from vascular disease; if optic neuritis were present, then a tumour might be diagnosed.—Dr. DYCE DUCKWORTH said that the case had not been diagnosed during life. The eyes had not been examined.

Mr. PAUL showed a group of specimens of Primary Tumours of the Liver. These specimens represented good types of the different varieties of epithelial new growths of the liver. The first specimen was taken from a woman aged forty-four; there was a bright-green-coloured nodule, encapsuled and attached to a large branch of the portal canal in the centre of the liver. In the midst of the growth was some inspissated material of a green colour. This tumour was an innocent growth of glandular type. The remainder of the liver was cirrhotic in character. The second specimen was removed from a woman aged fifty who died of pleuritic effusion. The liver was in a state of red atrophy, with fatty infiltration. Several white nodules, not encapsuled nor differentiated from the surrounding tissue, were composed entirely of liver tissue. The cells had a trabecular arrangement, and they had a luxuriant growth, and the capillaries were not largely dilated, as they were in the remainder of the atrophied liver. The next specimen was one of primary carcinoma of the liver, which had also a green colour. It was removed from the body of a Scotchman aged sixty-nine; there was no emaciation. Malaise followed by jaundice and ascites, with rapid death from exhaustion, were the chief clinical features. The growth had spread into the portal vein, and the liver weighed 110 ounces, and was very large. The tumour was soft and diffluent, and of a bright-green colour. There were no secondary growths. The dark-green inspissated material was apparently secreted by the cells of the carcinoma. The hepatic character of the cells was commented on. The fourth case was one of scirrhus and cirrhosis of the liver. The fifth case was that of a woman aged forty-eight, who had had jaundice and ascites with hæmorrhage into the peritoneum. The new growth was of a green and yellow colour, and extended

into the portal vein. The cells were more uniform and more strikingly hepatic in nature than those of the previous specimen. There was evidence of a direct conversion of the hepatic cells into carcinoma. The sixth specimen was one of cirrhosis and a soft form of carcinoma, which infiltrated the organ and the portal vein. The liver weighed sixty-six ounces, and the tumour was of a bright-yellow colour, probably from rapid fatty degeneration; it was an alveolar carcinoma. The last case was one in which rapid emaciation took place, and the disease lasted three months; the portal vein was distended with carcinoma, and in this specimen also a rapid fatty degeneration had taken place. The first two specimens were examples of growths of an innocent character. The acinous and tubular varieties were illustrated. The other growths were examples of the acinous form of carcinoma; specimens of the tubular form of carcinoma had been brought before the Society by Drs. Mahomed, Greenfield, Pye-Smith, and others.—Dr. C. TURNER asked whether the first two specimens might not be regarded as examples of local hypertrophy of the liver, such as was met with in the suprarenal capsules and in the thyroid body.—Mr. PAUL thought it difficult to draw a hard-and-fast line between local hypertrophy and adenoma.—Mr. S. G. SHATTOCK had seen a specimen the exact counterpart of the third specimen; it had a curious pigmented appearance, which Dr. Bernays found to be due to biliary constituents. He suggested that the presence of such pigment proved that the growth had originated in the hepatic cells, and might thus serve to distinguish it from growths originating in bile-ducts or mucous follicles.—Mr. PAUL agreed with this suggestion.

Mr. BILTON POLLARD showed a specimen of Hypertrophied Callus of Tibia and Fibula, removed by amputation from a female child aged five years, who was a patient in University College Hospital, under the care of Mr. Marcus Beck. The child had a fall which injured the affected leg at the age of one year. A year and a half later a painless swelling was noticed at the middle of the leg. The swelling gradually increased. On admission the central portion of the tibia was found to be much enlarged, and another swelling was detected at the junction of the lower and middle thirds of the fibula. The leg was amputated in the belief that the disease was malignant. The tibia was found to be the seat of a new growth of fusiform shape, and was bent above and below the tumour. A layer of compact bone was present at the concavity of each bend, apparently thrown out as supporting structures. The tumour of the fibula was independent of that on the tibia. The knife could easily cut sections of the tumours. The new growth consisted throughout of well-formed bone, which was undergoing a process of remodelling just as occurs in the normal growth of bone. The soft tissues of the growth were made up mainly of spindle-shaped cells with a few round and stellate cells. The growth was indistinguishably blended with the osseous tissue of the shaft of the affected bones. The duration of the swelling (two years and a half); the uniform consistence of the growth; the existence of two separate growths; the history of an injury, which was possibly a fracture all pointed to the view that the growth was hypertrophied callus. Mr. Pollard had met with one somewhat similar instance on the bones of the forearm. The views that the tumour was of a sarcomatous or a simple inflammatory nature were discussed, but rejected as not harmonising with the ascertained facts, though it was allowed that the difference between a hypertrophy of callus and some forms of sarcoma might be a mere question of degree.—Mr. S. G. SHATTOCK asked whether the growth might have been syphilitic.—Mr. H. T. BUTLIN said the specimen was a very remarkable one. He regarded it as a sarcoma, but the fact that both bones were affected and that there was bending of the bones rather went against this view. Still, he thought that it was a sarcoma.—Mr. BILTON POLLARD said there was no history, and no evidence of syphilis.

Dr. W. B. HADDEN showed a specimen from a case of Chronic Cerebro-spinal Meningitis, taken from a boy aged eleven, who died in St. Thomas's Hospital under the care of Mr. Mason. There was a history of phthisis in the mother's family. Fifteen months before admission the boy was hit on the head with a piece of iron. Next day he complained of his head and began to vomit, which continued till death. A year before death the symptoms suggested to Mr. Willmer Phillips cerebellar tumour. Two or three months later the legs became weak, and he lost control over the bladder. He had fits of an epileptic character. The sight had been failing for about two months. On admission, he complained of pain in the head, was drowsy and nearly, if not quite, blind. The pupils were equal, dilated, and sluggish; the eyeballs continually oscillating. There was occasional sickness whilst he was under observation, but no fits. He passed his evacuations into the bed. At the necropsy there were no signs of injury to the bone, and the dura mater was healthy. Both the upper and under surfaces of the cerebellum were covered with an opaque white material one to four millimetres thick. It was beneath the arachnoid, which was for the most part free, but here and there adherent. The tips of the temporo-sphenoidal lobes were similarly affected, but to a less degree. There was much thickening and opacity about the optic tracts and chiasma, and the edges of the fissures of Sylvius were adherent. There was no tumour, and no naked-eye appearances of miliary tubercles. There was a thick white layer beneath the arachnoid over the posterior surface of the entire lumbar and lower dorsal regions of the cord. The arachnoid was adherent to it over the greater part, but here and there it was free, the surface presenting numerous small bleb-like elevations. There was a caseous nodule at the apex of the left lung and a few miliary tubercles in the kidneys and liver. On microscopical examination the thickening over the cerebellum and cord were found to be really organised lymph, but no tubercles were seen. The symptoms followed so directly on the head injury that it is very probable there was a relation of cause and effect. Possibly the injury set up a meningitis of tubercular nature running a chronic course. The limitation of the disease to the base favours this idea. But, on the other hand, the spinal cord was affected—an unusual accompaniment of tubercular meningitis. Pathologically, the disease was a chronic inflammation of the pia mater, but the relation of this to the head injury and to the tubercular diathesis is less clear.—Dr. ANGEL MONEY had seen a case of chronic purulent cerebro-spinal meningitis in a girl aged three years. There was a history of a fall down a flight of stairs, and the symptoms began soon after this fall. Headache, vomiting, and fits of screaming were the early symptoms. The disease lasted twenty-six weeks. Fever, vomiting, universal rigidity, and unconsciousness were the main clinical symptoms. At the autopsy the body weighed only 17 lb. There was much thickening of the meninges, both of the base of the brain and of the spinal cord; a collection of pus existed beneath the cerebellum; extreme internal hydrocephalus was present, and the fluid was purulent in the lateral ventricles, where the ependyma was much congested and coated with velvety lymph. There was no disease of the internal ear. In another case, marked by the same clinical symptoms, extensive syphilitic arteritis of the cerebral vessels was present, with atrophy and sclerosis of the brain and spinal cord, but without meningitis. — Dr. CHARLTON BASTIAN referred to a case in which there was remarkable rigidity. The child had sustained a severe fall about eight or nine months before the disease began. At the autopsy a white sarcomatous growth was found at the base of the brain and extending down the spinal cord, which was thereby ensheathed in the new growth, which was a quarter or a third of an inch in thickness. The disease appeared to have developed as a direct consequence of the fall.—Dr. GOODHART spoke of cases of chronic meningitis in children, and referred to the thickened velvety lymph which adhered to the meninges, and to the presence of pus in the ventricles. Although in a case he specially referred to there was no perforation of the membranæ tympani, still pus was present in the middle ear. In his experience it was not rare for tubercular disease to extend to the spinal membranes.—Dr. NORMAN MOORE spoke of a class of cases which had been described by Drs. Gee and Barlow under the name of cervical opisthotonos; these cases were really examples of cerebro-spinal meningitis, and in many there was a definite history of an injury which seemed to play a causative part in the occurrence of the disease.—Dr. WILKS said it was difficult to diagnose such cases from the clinical symptoms; for although a distinct physiological condition probably underlay them all, yet the pathological lesion was not always the same. The commonest cause of rigidity in his experience was meningitis, and even in Pott's disease accompanied by rigidity there was frequently nothing but a localised meningitis, without sclerosis of the cord. It was very difficult to distinguish between a new growth and an inflammatory product, and he instanced the disease known as

cervical pachymeningitis, in which, although there were the causes of inflammation, the material thrown out might not unreasonably be regarded as of the nature of a tumour.

Mr. SHATTOCK showed two specimens of Actinomycosis of the Liver, which he had found in the museum of St. Thomas's Hospital. There was no doubt about the presence of the fungus, and sections were placed under the microscope. With one of the specimens there was a history. The specimen came from a girl aged fifteen, who was believed to have died from "scrofulous" disease, which affected chiefly the ovaries and Fallopian tubes. [In our leading article last week by an oversight we forgot to allude to a case of actinomycosis published in THE LANCET, vol. i., 1884, p. 107, by Dr. Knight Treves. We have to thank Dr. Neale, the author of the "Medical Digest," for correcting this oversight.]

Mr. BLAND SUTTON read a paper on Typhoid Fever in Monkeys. Dr. Budd and Professor Axe considered that the typhoid fever, purple or red-soldier, was the same disease as typhoid fever in man, but Dr. Klein had found that there was nothing in common with the disease in man. Mr. Sutton had reported some cases of typhoid fever which occurred in lemurs living in the monkey-house of the Zoological Gardens. Payer stated that in 1839 M. Serres reported an outbreak of typhoid fever among the monkeys in the menagerie attached to the Museum of Natural History, Paris. The symptoms were diarrhœa, increased frequency of the pulse, and fever, ending almost always in death. In January of the present year there arrived at the Zoological Gardens six Canadian beavers apparently in the best of health. In the course of four or five weeks after their arrival four out of the six animals died, and the remaining two were sent away and recovered. The younger ones were the first to succumb, but in all ulcerated Peyer's patches were found both in the agminate and solitary forms; the ulcers were typical of the disease. In the young specimens the various stages could be seen from the normal Peyerian patches through the infiltration and sloughing stages, with the bile-stained débris still hanging to some of them. Small whitish specks could be seen in the liver of two beavers; these were due to disintegration of minute areas of the hepatic tissue. Despite the negative results of inoculation, Mr. Sutton thought his cases proved that typhoid fever could occur in monkeys.

The following card specimens were exhibited:—

Dr. Charlewood Turner: Posterior Sclerosis of the Cord.

Dr. Goodhart: A case of Cirrhosis simulating Cancer of the Liver.

Mr. Battle, for Mr. Croft: (1) Primary Sarcoma of the Kidney; (2) Fistula between small Intestine and Bladder.

Mr. Doran: Pedunculated Fibroma on the Outer Wall of an Ovarian Cyst.

Mr. D'Arcy Power: Three specimens of an Encysted Hernia.

Dr. Burnet: Much Contracted Right Lung (recent specimen).

Dr. Charlewood Turner: Typhoid Infiltration of Ileum (recent).

Dr. Percy Kidd: (1) Tubercular Ulceration of Tongue; (2) for Mr. H. H. Taylor, another specimen; (3) Small Fibroma of Cæcum.

Mr. Churchill: (1) Congenital Papilloma of Chin, Buccal Mucous Membrane, and Middle Line of Neck; (2) Acute Ostitis of Tarsus following Excision.

Dr. Hale White: (1) Rupture of Aorta; (2) Fracture of Sternum with Disatriculation of Costal Cartilages.

MEDICAL SOCIETY OF LONDON.

Syphilitic Disease of the Brain.—Treatment of Cancer of the Cervix Uteri.

AN ordinary meeting of this Society was held on the 27th ult., Dr. W. Miller Ord, F.R.C.P., President, in the chair.

Dr. ALTHAUS read a paper on a case of Syphilis of the Brain. The patient was a clerk, aged twenty-eight, who had had a hard chancre about four years ago, and after having been apparently well for three years was affected with ophthalmoplegia of the left eye, and six months afterwards with hemiplegia of the right side. When admitted into the hospital he showed almost complete paralysis of all the muscles supplied by the third, fourth, and sixth nerves, including the iris and the ciliary muscle. The intellect was impaired; and there was incomplete hemiplegia of the right side. Dr. Althaus argued that this group of symptoms could only be due to syphilis. With regard to the hemiplegia, he laid chief stress on the age of the patient, the fact that there had been no apoplexy when the stroke occurred, and that the paralysis had been incomplete from the beginning. Ordinary hemiplegia did not occur in the prime of life, except where there was heart disease, or diabetes, or tabes spinalis, or alcoholism; it was almost invariably ushered in by apoplexy, and was complete at least for the first few days or weeks; nor was it accompanied with palsies of the ocular muscles. A peculiar symptom in the present case was an enormous exaggeration of the tendon reflexes in the palsied limbs, out of proportion to the degree of paralysis as well as of muscular rigidity which were present; and Dr. Althaus was inclined to consider this as a pathognomonic symptom by which syphilitic hemiplegia was distinguished from ordinary hemiplegia. With regard to the nature and seat of the pathological lesion, he argued that there was a gumma at the base of the brain, near the inner surface of the crus cerebri, close to the pons Varolii, which, by compression had caused paralysis of the three cranial nerves mentioned, and by further extension later on to the crus itself, which contains the crossed pyramidal strands, caused softening of these parts and thereby hemiplegia. He concluded with some remarks about the prognosis of syphilitic lesions of the brain generally, stating that specific treatment was only successful in primary and truly specific lesions; but where a gumma had already caused wasting of the cranial nerves and softening of cerebral tissue—that is, secondary and non-specific lesions—no amount of mercury and iodide of potassium could effect a cure. From this he drew the conclusion that an energetic specific treatment should be adopted as soon as the slightest symptom of syphilitic brain disease was observed, so as to disperse the primary specific lesions and prevent the occurrence of incurable secondary lesions.—Dr. ORD referred to the difficulties of localisation of the lesion causing the various symptoms in this case. With regard to the symptom specially commented on by Dr. Althaus—exaggeration of the deep reflexes—he should very much like to hear the value of this symptom discussed.—Dr. DRYSDALE said it was since 1858 that our knowledge of cerebral and spinal syphilis had been gained. He referred to cases of syphilitic lesions of the brain which had come under his notice.—Dr. K. FOWLER was interested in the exaggeration of the deep reflexes; he had observed this symptom in neurasthenia from almost any cause. The occurrence of hemiplegia at the period of life mentioned in the paper was not, in his opinion, conclusive of syphilis.—Dr. CLARK asked whether headache had been present in this case. He believed that muscular tone exercised an influence on the deep reflexes. He had seen a case of hemiplegia in the course of renal disease in a young girl.—Dr. ALTHAUS said that in aphasia due to syphilitic lesion the prognosis was gloomy. The deep reflexes were not exaggerated in the side which was not paralysed. Cephalalgia was not present in this case.

Dr. HERBERT SNOW read a paper on the Free Use of Caustic Potash in the Treatment of Cancer of the Cervix Uteri. He reviewed the statistics of extirpation of the uterus, and showed the severe mortality which followed the abdominal or the vaginal operation. In many cases the écraseur was unable to remove the whole of the disease of the cervix uteri. The actual cautery had too superficial an action to be of any great service. Chloride of zinc caused much pain and distress, which lasted a long period. These objections did not hold with regard to potassa fusa. Half an hour or an hour was recommended to be spent in the employment of successive sticks of potassa fusa, for the treatment must be thoroughly carried out. None of the cases suffered from peritonitis; and unless the patient get up too soon after the operation, nothing distressing need be feared. All the cases were greatly benefited, and no alarming symptoms were encountered. Fixation of the uterus and infiltration of the vaginal wall were regarded as prohibiting the employment of this method of treatment. It was only by degrees that he had ventured to apply the caustic so freely as he now advocated. He illustrated the paper by narrating several cases in which the treatment had been adopted. The object of the paper was to show that potassa fusa could do all that the vaginal cutting operation could perform without running the risk of the severe operation.—Dr. EDIS said that he had performed

Marion Sims's operation of the removal of a conical portion of the cervix with much benefit. He did not believe that potassa fusa could exercise any curative influence on malignant disease of the cervix.—Dr. C. H. ROUTH was struck with the circumstance that in the cases narrated the patients died in from four to nine months. He believed that cancer, if left alone, would last longer than if operated on. Potassa fusa in his hands had proved harmful; bromine was the most effectual. External vegetations were best healed by tincture of gall-nuts or hazeline.—Dr. ROGERS said that potassa fusa had been used for all sorts of uterine ulceration; in his hands it had set up so much irritation of the bladder that he was compelled to give up the use of it.—Dr. HEYWOOD SMITH said that potassa fusa was of value in areolar hyperplasia of the cervix uteri. He had observed that Chian turpentine changed the character of the secretions, and in other ways proved beneficial.—Dr. H. SNOW briefly replied.

Mr. SPENCER WATSON showed a case of Exophthalmic Goitre in a female, with slowness of speech and dulness of intellect, in which tonic treatment had been beneficial.—Dr. ORD said that in some of the cases of myxœdema which he had seen he had observed in the early stage symptoms which usually accompanied exophthalmic goitre.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

AT the meeting on April 17th, Dr. J. ORME DUDFIELD, President, in the chair,

Dr. THOMAS STEVENSON read a paper on Sewage Disposal. The author commenced his paper by expressing regret that the possibility of dealing with excreta directly on the soil with Arcadian-like simplicity was confined to the very few. He said that the processes, inorganic and organic, by which effete matters are got rid of by the soil can be but feebly imitated by man; yet it is by the study of these processes and their more exact imitation that we must look for a more satisfactory disposal of sewage in the future. The author traced the different methods of excrement-disposal, from the primitive privy to the introduction of the watercloset in 1810, since which time the latter has become the common, although by no means universal, method of removal, notable exceptions being found even in large towns such as Leeds, Bradford, and Birmingham, in which there were many houses without waterclosets, while in Stafford a watercloset was phenomenal. At the beginning of the present century, and for long afterwards, cesspools were universal in London, and although sewers existed it was penal to use them for sewage. At this time the river water at London-bridge was drinkable, and many persons still living remember the waterworks opposite Fishmongers' Hall, which were used for the supply of the city. The use of waterclosets increased the volume of water in the cesspools and necessitated an overflow to the sewers, so that in a few years the state of the law underwent a complete reversal; and now, instead of the discharge of sewage into sewers being a punishable offence, it is penal not to drain into a sewer if one be accessible. The author said that the composition of sewage varied much less than might be expected, and that the difference was one of degree rather than of kind; that there was little difference between the sewage of a watercloseted town and a non-closeted town. Taking the average of the community, the dry solid excrement is 1 oz. per head per day, which is distributed through 300 lb. of water—say, 15 grs. per gallon; and as for the urine, whilst the major portion, of that of adult males, never finds its way direct into the sewers, of the 2½ oz. solids distributed through 300 lb. of water, 1¾ oz. only is organic, one-half of which, urea, is speedily converted into innocent carbonate of ammonia. Although the solid excrement forms the most important polluting agent of sewage, it is by no means the greatest in aggregate amount, and, indeed, forms only a small fraction of the total polluting material, which comes from the innumerable articles of domestic economy. He thought that in no British town could the difficulties attending sewage disposal be greater than those which presented themselves in London—a site much of which is below river level, an immense area, a city remote from the sea, with no available area close to its boundaries, and a situation near the upper end of the tidal reaches. He considered that much credit was due to those who had hitherto dealt with the disposal of the sewage of London, and great blame would rest on the responsible authorities if they did not at once manfully set themselves to do all that can be done to mitigate and abate the nuisance of the filthy condition of the Thames. When fresh and freely exposed to air, as in sewers only partially filled, sewage has little odour, and can scarcely be considered as offensive; but once let it accumulate in large quantities and come to comparative rest, putrefaction sets in, and it becomes vilely odorous—a seething mass full of those minute organisms which live, and grow, and multiply in an airless, deoxygenated medium. To prevent this, sewage must be dealt with in one of three ways: (1) The sewage may be at once thrown into a large volume of water, a river, or the sea, where it can be carried away by currents, diluted by diffusion, and oxygenated by the dissolved oxygen, without appreciable nuisance. (2) It may be applied directly to land, if sufficient area be obtained to dispose of the sewage without offence. (3) It may be treated with chemical agents, such as either destroy the organic matter, or those that destroy the agents of putrefaction, the lower organisms. The author briefly discussed the first method, but only to condemn it, as causing nuisance and danger to health. In speaking of the second method, utilisation on land, he said that while in principle this was no doubt the right one, the fertility of the land being dependent on the restoration to it of the mineral constituents of the food grown upon it, the method from a pecuniary point of view could rarely be profitable, and commonly entailed loss. He estimated the value of a ton of London sewage (the quantity yielded per head of the population per week) if its manurial constituents were in a solid and portable form, at twopence; but when sewage had to be utilised on land in a highly diluted form, and in all weathers, the actual value was found to be only a halfpenny, and this leaves no margin for cost of transport, so that when the sewage had to be pumped the cost of pumping exceeded the value of the article pumped. There is, however, no agent which so efficiently deodorises sewage as the soil, which acts not only as a checker of putrefaction but also absorbs the gases of sewage, and, further, is the nidus of the wellnigh demonstrated nitrifying agent—i.e., the bacterial organism—by which ammonia and nitrogenous organic matter, immediately or through the intermediate stage of ammonia, are converted into nitrates. The author referred to the researches of Schœsing and Müntz and of Warington to show that it is probable that such a bacterium does exist, and plays some such part in nitrification, as yeast in a saccharine infusion does in setting up alcoholic fermentation. A point of great practical importance referred to in this connexion was that the nitrifying action is limited to the superficial layers of the soil, decreasing as we descend, until, at 18 in. below the surface, the action entirely ceases. This points to the possibility of economy in the cost of carrying out the process of intermittent downward filtration, as, by keeping the superficial layers of the soil in good condition for nitrification, the great expense of deep excavation and preparation of the soil may be saved; while broad irrigation, where a sufficiency of land is available, offers a satisfactory mode of sewage disposal, and is one which holds out more likelihood of realising some portion of the value of sewage than any other. It is seldom, however, for obvious reasons, applicable to the sewage of large towns. There is an erroneous notion prevalent that sewage can be effectually treated by means of chemical substances alone. Any chemical which will effectually destroy the spores of bacteria, or deprive them of potential life, will certainly render the sewage unfit to be disposed of anywhere, for by such addition it becomes a poisonous fluid. Chemical treatment directed to the end of clarifying sewage, but not of rendering it non-putrescent, is a great advantage, for the suspended solids of sewage are the chief source of difficulty in treating sewage. As to the agents to be used for clarification, the author said if the sewage is to be used for broad irrigation, simple straining will suffice; when land filtration is the plan to be adopted, something more is advisable; and when the effluent is to be turned into a stream without any other treatment than a chemical one, efficient clarification is indispensable—such a clarification as leaves less than a grain of suspended solids in each gallon of effluent, and even with this degree of efficiency no effluent ought to be turned into a stream unless the volume of running water is enormous in proportion to the sewage it is to receive. The chemicals to be used for precipitating sewage may be varied. Of these lime has been largely used both on account of its being reasonably

efficient and because of its cheapness; it should be dissolved previous to its use. Fifteen grains of lime to each gallon of sewage is an ordinary proper proportion, but it is better to accurately adjust the quantity to the degree of hardness of the water of the district—i.e., one grain of lime per gallon of sewage for each degree of hardness of the water-supply. An excess of lime is hurtful, for subsequent putrefaction is apt to occur; it may kill fish, and according to Warington may entirely prevent nitrification. The addition of a little sulphate of aluminia is beneficial, as it carries down a flocculent precipitate, entangling the lower organisms and their spores, difficult to remove by lime alone. Moreover the use of alum neutralises any excess of lime which might occur in the effluent. Sulphate of iron is another salt which may be usefully employed, but it is questionable whether this is a useful addition when the sewage is subsequently applied to the land. The author concluded his paper with the following remarks: "So far as I can foresee, the sewage disposal of the future for our large towns will be one where application to land supplements a preliminary precipitation process; and the land treatment will be a filtration process by which the area of land requisite will be limited. Such a combined process fulfils all the requisites of good purification, and is based upon these fundamental data. The sewage must be dealt with speedily before putrefaction has begun; and the agents of putrefaction, the bacteria, must be removed by clarification, which secures the removal of most of the bacterial organisms. The precipitated and clarified sewage is then to be brought as speedily as possible under oxidising influence, and nothing more effectively does this than the nitrifying organism. Putrefaction and nitrification are antagonistic processes; and so long as nitrification is going on, putrefaction is, I believe, impossible. Sewage, when clarified by any simple process—and the simpler the better—and then passed through land is odourless, and this cannot, strictly speaking, be said of sewage simply precipitated; and is also insusceptible of putrefaction. Anything that falls short of the result obtained by the combined process I have referred to cannot be considered a very desirable mode of sewage disposal, albeit a less efficient process may under certain circumstances be permissible.—In the discussion which followed Drs. Drysdale, Edmunds, Bernays, C. E. Saunders, and Messrs. Rogers, Field, Corner, Edmunds, Jacob, and Winter Blyth took part.

ACADEMY OF MEDICINE IN IRELAND.

A MEETING of the Surgical Section was held on January 23rd, the President, Dr. E. H. Bennett, in the chair.

Professor STOKES, in a paper on Astragaloid Osteotomy in the Treatment of Flat-foot, commenced by drawing attention to the usually accepted theories as regards the etiology of flat-foot—viz., ligamentous relaxation and a paralytic condition of certain muscles connected with the ankle and foot. He adduced various arguments to disprove these views. Attention was drawn to Professor Ogston's researches in this direction, and an account given of the operation he has devised for the cure of the deformity in question; and objections to it were taken, based on the operation being complicated and difficult, and followed necessarily by an obliteration of the medio-tarsal joint. Mr. Stokes believed that the defect causing flat-foot is due, primarily, to alteration in the tarsal bones, notably the astragalus, which change in it may be either congenital or the result of disease—probably rickets,—and that this stretched rather than relaxed condition of the ligaments is a secondary rather than a primary change. In illustration of this view, he exhibited a specimen of the deformity taken from the museum of Trinity College, and for which he was indebted to Professor Bennett. Having regard to the fact that in the irreducible cases of flat-foot osseous deformation is the chief factor, Professor Stokes believed that the rational treatment for such cases should be to deal exclusively with the deformed astragalus, and to do so without necessarily obliterating Chopart's joint. This he did in the case of a youth aged fourteen, and with complete success. The parts to be operated on were rendered perfectly aseptic, and an incision an inch and a half in length along the inner edge of the foot made, the centre of which incision was the prominence caused by the head of the astragalus. At the centre of the incision another was made at right angles to it, a little behind the situation of Chopart's joint, and the two triangular flaps of skin dissected back for about half an inch. A wedge-shaped piece of bone from the enlarged head and neck of the astragalus was then removed with an osteotome, and it was then found that by adducting and supinating the foot the arch was perfectly restored. The wound during its union was aseptic throughout, and the patient afebrile. The method Professor Stokes adopted for keeping the foot in a position of adduction was by the application of a Dupuytren's splint applied as in a case of Pott's fracture of the fibula. The result of the operation was most satisfactory, and casts of the foot, taken before and after the operation, were exhibited.

Mr. KENDAL FRANKS gave the details of a case in which he had performed Ogston's operation for Flat-foot on Oct. 16th last. The paper was illustrated by two impressions, taken in charcoal, of the foot, before and after operation. The first impression showed the foot resting on the length and breadth of the sole; a remarkable prominence on the inside, corresponding to the astragalo-scaphoid articulation, showed where this joint rested on the ground. The second impression showed that the arch of the foot had been restored, so that when the sole of the patient's foot was blackened with charcoal, and she was placed standing on a moistened sheet of paper, the paper received an impression only of the heel, the outer side, and the anterior portion of the foot. The operation wound was perfectly healed on the sixth day, and the highest temperature recorded was 99·2°.

The adjourned discussion on the Operation for Flat-foot took place on February 20th, when Mr. CORLEY said he was satisfied that the disease commences in the ligamentous and tendinous structures; that if the bones eventually exhibit deformity, it is from growth in some direction from which natural pressure has been removed.—Dr. SWAN said that he considered most of Mr. Stokes's statements were misleading, and some of them appeared to him to be erroneous. Mr. Stokes had stated that the deformity of flat-foot was due to a mal-development of the bony structures of the tarsus, and, without considering the degree or state of the affection, he condemned all methods of treatment as useless except the operations, in which doubtless he included Ogston's as well as his own. He had himself seen thirty-four cases in minor or greater degree, and had observed it under three distinct phases. It commenced with the sliding of the astragalus inward and the upper surface of the os calcis relaxing, the ligament connecting the outside of the astragalus with the calcis. This produced, as Mr. Corley observed, an obliquity at the ankle-joint. The axis of the weight was thrown on its side. Next, there was a relaxation of the plantar ligament. Looking at the anatomy of the parts, the outer division of the plantar ligament fills up the sinus pedis, which prevents displacement of the head of the astragalus, but the interval between the os calcis and the scaphoid is lengthened. Mr. Stokes stated he had observed this in persons of robust health; that was not, however, his experience. In the second stage it was accompanied by a fusion of the muscular structures, which were chiefly of the anterior portion of the foot. The adductor pollicis and the muscles on the inner portion of the foot were atrophied, and the bones could be distinctly felt through those muscles. The tibialis posticus was involved. The third and last stage was one for which no doubt an operation of some kind would be desirable—namely, when the sole of the foot was altogether flattened and the head of the astragalus came upon the ground, and he believed also occasionally the projecting point of the scaphoid. With regard to treatment, it would be too much to admit that all those cases which in the first and second stages did not present serious inconvenience were suitable for operation. The true clue to the treatment of the affection in the earlier stages was to approximate the extremities of the tendinous structures binding the bones together. If bony enlargement or mal-development caused the affection, how was it that in all those cases the foot could be reduced to its pristine symmetry by manipulation? That could not be done in the case of bony deformity. There was a distortion and rotation inwards of the astralagus, as Mr. Corley observed, but there was no enlargement until the last stage, when osteitis was the cause of the enlargement of the bone. He had seen spontaneous cures of the affection. In the case of a patient condemned to long-continued rest the foot regained its natural shape. Ogston's seemed to be the natural method to restore the arch of the foot,

allowing the gradual restoration of the ligamentous structures, which appeared to be untouched in the operation.—The PRESIDENT (Dr. Bennett) suggested the excision of a wedge-shaped piece from the side of the astralagus without opening the ankle-joint. The first and second stages of the affection were most painful.—Mr. STOKES briefly replied.

Mr. ARTHUR BENSON read a paper describing a case of a gentleman, aged thirty-three years, on whom he had successfully removed an Ivory Exostosis from the Auditory Meatus. He had first used electrolysis to destroy the vitality of the periosteum, and produced thereby a superficial necrosis of the apex of the bony growth, which separated after six weeks. Five months later, the effect of the electrolysis not being sufficient, he employed the dental engine, and, with the assistance of Mr. Arthur Baker, removed the remainder of the exostosis. The patient was seated in a dental chair, and whilst under ether a deep vertical slot was cut in the base of the tumour with the dental saw. Into this a small chisel was inserted, and a slight blow from a hammer served to separate the remainder of the base, and the growth was removed. Recovery was perfect, and when last seen (January, 1885, a year after the operation) there was no sign of a return in the position of the growth, and hearing was perfect. The operation was, contrary to the recommendation of almost all authorities, undertaken before the canal was completely closed by the growth. Mr. Benson advocated the early operation, in such cases, as probably easier to perform, less dangerous to the patient, and, on the whole, more in accordance with the progress of surgery, than the plan of waiting until "total deafness had occurred in both ears," as most authors recommended. The mode of operating adopted in the case seemed to offer excellent facilities for the earlier removal of such growths, without the dangers attendant on the use of the drill or gouge. The cause of the growth was supposed to be bathing in a river, which produced pain in the ears.—Mr. STORY gave a brief description of a case of aural exostosis, in which he had some three years ago obtained excellent results by the application of Vienna paste after drilling and electrolysis had failed. The membrane of the drum was perforated during the treatment, but it rapidly healed up, and for the past three years the patient has had no relapse. Exostoses near the external orifice were easy to deal with either by the hammer and chisel or by the dental saw, which seemed an admirable proposal; but growths deep down in the meatus taxed the utmost resources of the most skilful and experienced operators, and should not be touched except in the case of the most urgent necessity.—Mr. SWANZY could hardly imagine a better mode of operating than the one which had been adopted; but he would not have operated in the case in question, deafness being extremely rare as the result of exostosis in the external meatus. Such growths were among the common diseases of the ear, but absolute or serious deafness was uncommon. He would wait until the growth threatened serious and permanent deafness.—Mr. BENSON, replying, said the exostosis was a distinct enlargement of the true bone. The whole question was, how much danger there was in the operation. Most patients would prefer one operation than to go once a month to a doctor to have deafness removed.

Mr. STORY read a paper entitled Operations for Trichiasis and Entropium of the Upper Eyelid, in which, after criticising the operation proposed by Dianoux, which Mr. Story was the first to introduce to the notice of oculists in these islands, he proceeded to describe the manner in which he now operates both for entropium and trichiasis. The method is, with some trifling modifications, the same as that described by Dr. Van Millingen of Constantinople—a transplantation of the ciliary border, without removal of any palbebral skin, the requisite elevation of the cilia being effected, after the completion of Flarer's inter-marginal incision, by inserting a strip of mucous membrane, taken from the patient's mouth, into the space left exposed by Flarer's cut.

After a brief discussion, in which Mr. Swanzy, Mr. Stokes, and Mr. Benson took part, the Section adjourned.

DISUSED BURIAL-GROUNDS.—At a sitting of the Consistory Court of London, held on Monday in St. Paul's Cathedral, before the Chancellor, Dr. J. H. Tristram, Q.C., faculties were granted for the use of the burial-grounds of Holy Trinity Church, Gray's-inn-road, and of St. John's, Clerkenwell, as recreation-grounds.

Reviews and Notices of Books.

Cocaine, and its Use in Ophthalmic and General Surgery. By H. KNAPP, M.D., Professor of Ophthalmology in the Medical Department of the City of New York. With Supplementary Contributions by Drs. F. H. BOSWORTH, R. J. HALL, E. L. KEYES, H. KNAPP, and WM. M. POLK. New York and London: G. P. Putnam's Sons (the Knickerbocker Press). 1885.

The New Local Anæsthetic, Hydrochlorate of Cocaine. By LAURENCE TURNBULL, M.D., Ph.G., Aural Surgeon to Jefferson Medical College Hospital, Philadelphia. Philadelphia: P. Blakiston, Son, and Co. 1885.

IT is with much pleasure that we record the appearance of these new works on the subject of cocaine. Dr. Knapp points out that no modern remedy has been received by the profession with such general enthusiasm, none has become so rapidly popular, and few have been found to cover so extensive a field of useful application. He has collected in a convenient form almost all that has been written on the subject. He commences with a translation of Dr. Karl Köller's classical paper on the Use of Cocaine to anæsthetise the Eye, and shows that at least a fortnight before the appearance of this contribution in the *Wiener Med. Wochensch.* of Oct. 25th and Nov. 1st, American physicians were well acquainted with the substance of it. Muriate of cocaine was at that time procurable in New York, and they without a moment's delay organised a systematic research into the properties of the new anæsthetic, and managed to find out for themselves pretty well all that was known about it long before Dr. Köller's or any other European publication reached them. The first notice of the new remedy which appeared in any American paper was written by Dr. H. D. Noyes of New York, then travelling in Europe. The first original communications on the subject published in America appeared on October 18th, and were by Dr. C. R. Agnew, Dr. W. O. Moore, and Dr. J. L. Minor. The *New York Medical Record* of October 25th (issued on the 24th) contained elaborate papers by Dr. H. Knapp and Dr. D. B. St. John Roosa. The *New York Medical Journal* of the same date also contained records of cases treated by Dr. W. F. Mittendorf, Dr. E. Gruning, and Dr. D. C. Cocks. Since then hardly a week has passed without the appearance of a dozen or more papers on the subject, the results of which have been recorded and analysed by Dr. Knapp, who justly remarks that they afford a striking illustration of the enthusiasm, energy, and quickness with which the American mind seizes upon everything that is of practical importance. It must be admitted that the English reports were at first very guarded, and that some weeks elapsed before it was fully realised that we were in possession of a new and valuable local anæsthetic. "It is characteristic of conservative England," says Dr. Knapp, "that medical men were waked up to the remarkable advantages of a new remedy six weeks later than their American brethren, whereas with an equal spirit of receptiveness and progressiveness they ought to have been two weeks before them." In reply to this charge we have little or nothing to say; we simply plead guilty. At the same time it is only fair to point out that in some of the London hospitals the restrictions as to the use of new remedies—"trying experiments" it is usually called by committees of management—are so oppressive that the medical officers are precluded from doing their best for the patients under their care. In addition to Dr. Knapp's contributions, the present volume contains articles by Professor Bosworth on Cocaine in the Upper Air Passages, by Dr. R. J. Hall on Cocaine in General Surgery, by Professor Keyes on its use in Genito-urinary Affections, and by Dr. Polk on its employment in Gynæcology and Obstetrics. Dr. F. P. Kinnicutt of New York,

referring to its value in the treatment of neuralgia, says:—"I have used cocaine in a number of cases of facial neuralgia with very satisfactory results. My experience coincides with Dr. Murrell's in regard to the necessary strength of solutions for external application in this affection—a 10 or 20 per cent. solution is required. I have employed oleic acid as a solvent rather than the oil of cloves recommended by Dr. Murrell. I rub in with the finger eight or ten minims of the oleate along the course of the painful nerve, with the effect of affording speedy and marked relief." An interesting case is recorded of spasmodic asthma relieved by the application of cocaine to the nasal cavities. Dr. Knapp's book is in fact full of interesting cases, and we cordially recommend it to the attention of our readers. It reflects great credit on the author.

Dr. Turnbull's work covers much the same ground, but is less comprehensive. He refers at some length to the value of oleate of cocaine in dental affections, and calls attention to the fact that the preparations in ordinary use are not nearly strong enough. Disagreeable symptoms have in some instances been recorded, but they are of little importance, and for all practical purposes cocaine is perfectly safe. Dr. Turnbull thinks that for hypodermic injection or internal use the dose should not exceed a third of a grain, or at most half a grain, but English observers have recorded the administration of larger quantities without bad effect. Dr. Turnbull's book contains much that is of interest.

The Colloquial Linguistic Faculty and its Physiological Groundwork. By W. H. WALSHE, M.D. London: John Bale and Son. 1885.

THE profession and the public are alike to be congratulated that Dr. Walshe finds time in the intervals of professional work to take up and analyse such a question as that which is treated in the little book which is the subject of this notice. A year or two since Dr. Walshe published a work on the criticism of dramatic singing, remarkable alike for its fresh originality, its deep learning, and its knowledge of the art which he so well expounded. The present work, though smaller, has the same characteristics as the former, to which it seems to us to form a fitting sequel, and we can only hope that the two may eventually be published in one volume. As a teacher of medicine, Dr. Walshe was noted for the minute and painstaking accuracy of his investigations into the cases under his care, for a marvellous acuteness of hearing when engaged in auscultation, for his lucid and elegant style of exposition, and for his flashes of incisive humour, which served to fix the attention even of the greatest dullards. Those who have benefited by the teaching of the physician will be glad to spend an hour or so with their old master, and to recognise the same power and qualities brought to bear upon a subject of the very highest importance; for is it not true, as was said we fancy by Lord Chesterfield, that "he who knows two languages is twice a man"?

Dr. Walshe believes that the real colloquial acquisition of any tongue other than the mother tongue is given to very few, and that the faculty of acquisition is extremely rare. He says:—

"In sober truth, an absolute practical and critical mastery of even the humble number of two or three languages has seemed to me, in my life's journey, a form of accomplishment of singular and in some sense unaccountable rarity. Let me, in justification, instance a pair of languages—those of England and France—countries whose inhabitants are placed in circumstances of locality and of political, commercial, and social relationship (antagonistic though it often be) tending in the strongest manner to familiarise each of the two nationalities with the language of the other. Now, to graduate as a thorough master of both tongues a man of education should be able to read Shakespeare and Corneille, Shelley and Lamartine, Moore and Béranger with a cultured native's keen intellectual and emotional perception of every shade of beauty in their lines; to seize with equal facility the uproarious fun of a burlesque at the 'Gaiety' and the double meaning of a scampish farce at the 'Palais Royal'; to follow with a like ease the eloquent exposition of a Tyndall anent the origin and destiny of man, and a poetic rhapsody at the Sorbonne by Michelet (were he still alive to electrify the historical student) on the ferocities of mediæval barbarism; to lose no single point in a chansonette by Chaumont, or a serio-comic street-arab ballad of Nelly Farren; to hold his own equally well in money disputes with the cabmen and laundresses of Paris and London; to enjoy as thoroughly the humour of *Punch* as the wit of the *Charivari*, and the grave polemics of the *Revue des Deux Mondes* as those of the *Quarterly Review;* to possess the financial vocabulary of the Bourse and of Capel-court; to speak the two tongues with at least a fair share of the intonation, inflection, vocal ring, pronunciation, accent and fluency, distinctive of a native's delivery of each; and, finally, to translate from either language into the other with correct phraseology, word collocation, and idiom, an epigrammatic article on the topics of the day, and a serious disquisition on a problem of art or literature. Now, how many men are likely to be found thus qualified on either side of the Channel? Would Mezzofanti, on these lines, have taken a bachelor's degree in any notable minority of—heaven save the mark!—his forty familiar tongues?"

That persons possessing the colloquial faculty in the degree above sketched, or in anything approaching it, are excessively rare will be at once conceded. The faculty consists, as Dr. Walshe is at great pains to show, in the fortuitous concourse in the same individual of a variety of conditions, physiological and social, and his work goes to prove that the man who has a "genius" for talking foreign tongues is born with it, and that education can add something only to the congenital faculty.

The conditions regulating the colloquial linguistic faculty are, according to Dr. Walshe, (*a*) cerebral (1, formative word-centre; 2, emission word-centre; 3, audition centre; 4, tone centre; 5, motor word-centre; 6, imitative faculty; 7, memory; 8, automatism; 9, unconscious cerebration; 10, anastomotic association); (*b*) muscular; (*c*) sensuous (organs of sight and hearing); (*d*) social (international intercourse, foreign marriage, social status); (*e*) personal, sex, age, temperament, health, heredity; (*f*) national.

Our readers will at once see how unanswerable are many of the arguments foreshadowed in the above tabular statement. But those who wish to be both instructed and amused must read the arguments as put forward by Dr. Walshe, whose book deserves to be widely read, containing as it does much important matter of practical use to many sections of the public, including physiologists, schoolmasters, and ministers of education.

Studies from the Biological Laboratory of the Johns Hopkins University, Baltimore. Edited by NEWELL MARTIN and W. K. BROOKS. Vol. ii., No. 4.

THIS number contains—1. Notes on the Development of Panopæus Sayi, by E. A. Birge, with four plates. 2. The Structure and Growth of the Shell of the Oyster, by Henry L. Osborn, with one plate. 3. The Nervous System of Porpita, by H. W. Conn and H. G. Beyer, with one plate. 4. The Presence of Ciliated Epithelium in the Human Kidney, by A. H. Tuttle, with one plate. 5. On the Effects of Variations of Arterial Pressure on the Duration of the Systole and the Diastole of the Heart-beat, by W. H. Howell and J. S. Ely, with one plate. 6. Notes on the Medusæ of Beaufort, Part ii., by W. K. Brooks, Ph.D. 7. The Action of Ethyl Alcohol upon the Dog's Heart, by H. Newell Martin and Lewis T. Stevens. 8. The Direct Influence of Gradual Variations of Temperature upon the Rate of Beat of the Dog's Heart, by H. Newell Martin. Vol. iii., No. 1:—1. H. W. Conn: Significance of the Larval Skin of Decapods, with two plates. 2. By the same author: Life History of Thalassema. 3. Henry

L. Osborn: Of the Gill in some forms of Prosobranchiate Mollusca. Vol. iii., No. 2:—1. W. H. Howell: Notes on the Composition of the Blood and Lymph of the Slider Terrapin. 2. By the same author: The Origin of the Fibrin formed in the Coagulation of the Blood. 3. H. G. Beyer: On the Action of Carbolic Acid, Atropia, and Convallaria on the Heart, with some Observations on the Influence of oxygenated and non-oxygenated Blood, and of Blood in various degrees of Dilution, with a plate. 4. The Action of Intermittent Pressure and of Defibrinated Blood upon the Bloodvessels of the Frog and the Terrapin, by L. T. Stevens and F. S. Lee.

New Inventions.

POCKET CASES FOR HYPODERMIC MEDICATION.

THE new complete pocket case for hypodermic medication brought out by Messrs. Burroughs, Wellcome, and Co. is admirably adapted to the purposes for which it is intended. Its small compass, its compactness, its inexpensiveness, and its completeness render it an invaluable addition to the physician's armamentarium. It contains a hypodermic syringe with two sharp needles, a miniature glass pestle and mortar, and ten small tubes containing the compressed tablets of the various medicaments mostly employed in hypodermic injections. The compressed tablets, of which we have already given our judgment, are easily crushed in the little mortar, and readily dissolve in a few drops of warm water. We can testify to the ease and rapidity with which a hypodermic injection can be prepared from these compressed tablets, which are made up with sulphate of soda. In our experience the use of these tablets has not been followed by any local irritation or unpleasant effects.

ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE first annual general meeting of this Association was held on Tuesday last, at 4 P.M., at the Westminster Town Hall. The chair was taken by Dr. G. Danford Thomas, the coroner for Central Middlesex. The meeting was very numerously attended.

The CHAIRMAN, in opening the proceedings, endeavoured to show what an important part of the medical profession the Members of the Royal College of Surgeons were; they constituted the rank and file of the profession, and it was to their efforts that we owed whatever of medical reform had been brought about. Though much reform was still needed in the cause of medical education, yet this could not be accomplished without the passage of a Medical Act Amendment Bill through Parliament. Meanwhile it behoved the profession to look at home, and he considered that there was good cause for reform in the Royal College of Surgeons. The Council of the College had almost estranged the Members of the College from their *alma mater*, and he considered that by their recent action the Council had treated the members with marked discourtesy. He intimated that the Association of Members was in communication with the Privy Council, and it was certain that no new Charter would be granted to the Council of the College without the Members of the College having a voice in the matter. The Members of the College should not cease to exert themselves until they had obtained their just electoral rights. Although the projected new Charter sought to effect some reforms in the constitution of the College, yet he ventured to believe that there was need for much greater reform than that sought by the Council. The first object to be attained by this Association was the direct representation of the Members of the College on the Council; other rights would then necessarily follow. At Liverpool, on May 1st, a large number of Members of the College had held a meeting, which pledged itself to support the objects for which the Association of Members had been founded.

Mr. ASHTON ELLIS, one of the hon. secretaries, then read the first annual report of the Association. The report gave an account of the transactions which had taken place during the past year, including the causes which had given rise to the formation of the Society, and the various means which had been adopted to effect the purposes which the Association had at heart.

Dr. W. C. STEELE then read the financial report, which showed that considerable expense had already been incurred.

The CHAIRMAN proposed that the reports of the Secretaries be received and adopted.

The following list of officers for the ensuing year was proposed and accepted:—President: Dr. Robert Collum. Vice-Presidents: Mr. Joseph Smith, Dr. Danford Thomas, Mr. R. Hicks (Ramsgate), Dr. G. H. Batterbury (Wimborne), Deputy Surgeon-General E. McKellar. Hon. Secs. and Treasurers: Dr. Warwick C. Steele, Mr. J. Nield Cook, Mr. W. Ashton Ellis. Central Committee: Dr. T. Stretch Dowse, Mr. Kenneth Cornish, Dr. C. Royston, Mr. G. Brown, Dr. R. Paramore, Mr. M. G. Biggs, Dr. T. Robinson, Mr. J. Brindley James, Dr. J. W. Barron Mason, Mr. T. H. Sawtell, Dr. Joseph Rogers, Mr. F. J. Pearse, Mr. Horace Watts, Mr. W. G. Dickinson, Mr. John C. Smith, Dr. A. W. Orwin, Mr. W. Outhwaite, Mr. Maurice Clifford, Mr. A. H. Robinson.

Dr. COLLUM moved the following resolution:—"That this meeting protests vigorously against the conduct of the Council of the Royal College of Surgeons in refusing all the demands of the Members of the Royal College of Surgeons."

Mr. JOSEPH SMITH seconded the resolution, and referred to the deputation from the Association which the President and Vice-Presidents of the Royal College of Surgeons received in the early part of the year. The result of that deputation consisted in an answer but recently received, in which the Council of the Royal College of Surgeons practically refused to acquiesce in the demands of the Association. He said that it was probable that the Association of Members would go hand in hand with the Association of Fellows. He read extracts from the letter of Mr. Reginald Harrison which appeared in THE LANCET last week.

Mr. JABEZ HOGG spoke on the resolution, which was unanimously carried.

Dr. JOSEPH ROGERS proposed: "That this meeting urges that immediate steps be taken to prevent any alteration of the said Charter until it has received the general sanction of the Members, for which purpose the Privy Council be requested to receive a deputation to explain the views of the Members, supported by a petition to the House of Commons."

Mr. OUTHWAITE seconded the resolution, which was unanimously carried.

Mr. HORACE WATTS proposed the third resolution: "That this meeting considers that no alterations in the Charter of the Royal College of Surgeons should be allowed without provision being made for the due representation of the Members upon the Council."

Mr. H. T. SHAPLEY (Leamington) seconded the resolution, which was also unanimously carried.

Mr. HOPPER said that the feeling of the Members at the meeting at Liverpool coincided with that which existed at the present meeting, and the Liverpool meeting had passed resolutions to the same effect as those now adopted.

Mr. KENNETH CORNISH considered some modification should be introduced in the bye-laws respecting the mode of election of members of the Board of Examiners.

The meeting then agreed that a copy of the resolutions should be forwarded to the Council of the Royal College of Surgeons and to the Secretary of State for the Home Department.

THAMES VALLEY DRAINAGE.—The Acton Local Board has issued a communication to the various local boards of the western and northern districts of the metropolis, asking their co-operation in the carrying out of a combined drainage scheme prepared by Sir Joseph Bazalgette. The salient features, which comply as far as possible with the recommendations of the Royal Commission on Sewage Disposal, are the laying of a main collecting sewer from Chiswick to Acton, Ealing, and through Willesden, and northwards through the parishes of Leyton, Edmonton, Tottenham, and then eastwards to Barking, where the sewage will be treated before it is passed into the River Thames. The liquid sewage, after it has been chemically treated at suitably constructed works, will be filtered through a certain area of land. Some of the boards have refused to entertain the proposal, while others have promised to give it consideration.

THE LANCET.

LONDON: SATURDAY, MAY 9, 1885.

SEVERAL important meetings have taken place during the past two or three weeks in which this subject had an important place, and the progress of the movement has been one steady advance all along the line. On Monday last a conference was held between the members of the Sub-committee for Medicine of the Association for Promoting a Teaching University for London and a numerous body of delegated representatives from the London Medical Schools, and the outline of a plan for the constitution of such a University was submitted for consideration, and met with an almost unanimous reception. It will be composed of Faculties of Medicine, Science, Arts, and Laws; Boards of Studies; and a Governing Body, and to the constitution of a Faculty of Medicine, comprising all the *bonâ-fide* teachers in the medical schools, there was a cordial assent on the part of those who were present. The consideration of the constitution of the Boards of Studies and of the Governing Body was postponed to the next meeting on the 18th inst. It is expected that the faculties will elect Boards of Studies to conduct the examinations and lay down the conditions of degrees, and that the teachers will be directly and substantially represented on the Governing Body. The great defects in the constitution of the present university are, as we have pointed out, the non-existence of Boards of Studies as a medium between the teachers and the executive, and the absence of teachers on the executive, as the result of the present method of selection and nomination. These defects cannot exist by the proposed constitution on the new body, and the members of the executive will only be elected for a term of years instead of for life. It will thus be seen that the executive of the new Association has formulated a distinct and well-considered scheme, based on the experience of the older Universities, and essentially different from the present constitution of the University of London, and that such a scheme is in accord with the wishes of the teachers, and will be the basis of the reform which the University of London must prepare to grant if it is to stand in its present position as the Metropolitan University. The charge of vagueness in the aims of the Association is no longer tenable, and the name of a Teaching University is sufficiently justified by the scheme of its promoters. Whether one University is to rule education in London, or whether a rival is to be founded, will depend on the attitude of the members of the Senate of the existing institution; and as we should regret that two rival bodies should exist in London for the direction of the higher medical education and the conferring of degrees, we are glad to see that there are already some signs of a departure from the old *non possumus* on the part of the authorities of the present University. As was so ably urged by the deputation of the Metropolitan Counties Branch of the British Association, students who are well taught and of average industry should be able to obtain degrees, but for these they are obliged to leave London and reside at schools of medicine elsewhere. At the recent First M.B. Examination of the University of Durham, held at Newcastle-on-Tyne, only three students who passed had been taught locally, and the remaining twenty-nine, who came from Birmingham and the metropolis, will have to spend a year in Newcastle in order to obtain a degree, when they might pass that time in observing the greatest variety of medical and surgical practice and attending to the best clinical instruction in the kingdom by a residence in the metropolis. The reasons for the large entry of students at schools where degrees can be fairly obtained are obvious, and have but little to do with the teaching at such schools, and this is attested by such an exodus from London in the third or fourth year of studentship as that to which we have just referred. Every student is now aware that mere qualifications have not the same commercial value as a degree or title, and he will leave the best teaching if he can obtain a degree at another place. The greatest impediments to obtaining degrees in London are the non-medical examinations—viz., the Matriculation and the Preliminary Scientific M.B. Each of these requires special training, and a failure, owing to the absence of due facilities, so increases the time necessary to go through the curriculum, and the expense attendant thereon, that comparatively few, even well-informed and well-taught students, care to incur the risk. We are pleased to find that the Senate has come to a wise resolution regarding the Preliminary Scientific Examination, which should have been passed many years ago, and for which it would then have been thanked as a considerate reform, whereas now it is only supposed to have yielded to the pressure of the new movement. It has determined "that the Preliminary Scientific M.B. Examination be held twice a year; once, as at present, for Pass and Honours, in July, and once for Pass candidates only, in January." We believe that this resolution only awaits the sanction of the Home Secretary to come into force, and that students who pass in two subjects will not be re-examined in those subjects. A report by the Annual Committee to Convocation, at the meeting on the 12th inst., will give the Senate the opportunity of dividing the subjects of the Matriculation Examination in a similar manner, and we hope that it will make use of the occasion to alter the conditions of what is perhaps the most ill-judged, as well as the most stringent, preliminary examination in existence. But for the constant supervision of regulations and the guidance of the examiners, Boards of Studies are a necessity, and life-senatorships must be abolished before any real sympathy can be looked for between the students and the teachers on the one hand, and the executive on the other. Unless these reforms be forthcoming, the demands for a title or a degree by the members and licentiates of the Royal Colleges will gather strength, and we therefore welcome these suggestions of the promoters of a Teaching University, and are pleased to know that conclusions practically identical will soon be placed before the Senate of the University by the Sub-committee of the Convocation of the University. As a result of pressure from within and pressure from without, the Senate must yield to one of the most urgent educational demands of our time.

"MENE, MENE, TEKEL," is written on the walls of the council-room of the Royal College of Surgeons; but there

is apparently no DANIEL there to interpret the signs. The Fellows and Members are in revolt; but the Council, shut up in a fool's paradise, hears and sees nothing but assurances of absolute confidence and goodwill. A rude awakening may, however, be at hand. The Association of Fellows has proposed a scheme of reform which it will not sacrifice to the obstinacy or complacency of the Council; and it will be seen from the report in another column that the Association of Members has adopted even a more spirited and daring policy. Deliberately excluded from participating in the affairs of the College, and persistently ignored by the executive, the Members of the College of Surgeons have hitherto been denied and refused any corporate rights whatever beyond the payment of the fee of initiation. Numerically constituting sixteen-seventeenths of "the body politic and corporate," the Members have hitherto had no higher political status than that of *Licentiates*. For eighty-five years "THE ROYAL COLLEGE OF SURGEONS OF ENGLAND" has been the four-and-twenty gentlemen who have, by any means, succeeded in gaining admission into the Council. For forty-three years, or more than one-half of its total existence, this body of gentlemen was self-elected, and members of Council held office—which not seldom was highly lucrative—for life. This abuse was abated somewhat forty-two years ago, when the order of Fellows was instituted, from and by whom members of Council have since been elected. But the benefits that might otherwise have arisen from this extension of the franchise were craftily controlled and checked by the conditions which were imposed as to eligibility of candidates for seats in the Council and as to the mode of voting. Even under the amended Charter of the 15th of Victoria, it is provided that only Fellows who are of fourteen years' standing, and who are in practice of their profession of *surgeons*, are eligible as members of the Council; while the Charter of the 7th of Victoria provides that the voting shall be in person only. The effect of these conditions is, firstly, to render ineligible every Fellow of the College who does not practise what is called "pure surgery," and thereby to exclude all persons practising as physicians, apothecaries, or general practitioners, or who are devoted to biological science; and, secondly, to reduce the electorate to the two or three hundred Fellows who are able or willing to vote in person. Hence, practically, less than one hundred of the seventeen thousand members of the body corporate are eligible as members of Council, and of these any one may be elected into the Council by less than one hundred votes. Nor is this the worst. Once in the Council, a Member becomes henceforth and wholly irresponsible and unaccountable to those whom he nominally represents. Criticism and attempts to control the Council have been alike resented, and until within a few years many of its members lacked only the power, not the will, to make any published report of its transactions a penal breach of privilege. Under cover of its factitious sanctity the Council has perpetrated almost every form of corporate injustice and abuse. Its members have been permitted, as examiners, to appropriate one-half of the total revenue of the College; and undertakings which materially affect the status of the Fellows and Members, and alter the relations and constitution of the College, have been entered upon without even the knowledge of the Fellows and Members. For instance, the Fellows and Members were not consulted as to the wisdom, prudence, or propriety of the compact with the College of Physicians to hold a combined examination, nor have they been asked to sanction the arrangement which the Council has entered into to devote several thousands of pounds of the College funds to the erection of a building in Long-acre for the purpose of holding this conjoint examination.

Happily for the interests of medical education and practice in England, this autocratic career of selfishness, exclusiveness, and irresponsibility is nearly run. The Fellows and the Members of the College have developed active organisations for the eradication of these evils and for the effectual reform of the Council. Indeed, the danger at present is that the reaction may be too violent. It will be remembered that the Association of Fellows has recommended that *any* Fellow of ten years' standing shall be eligible as a member of the Council, whatever his sphere of practice or study, that not more than one-half of the members of the Court of Examiners shall have seats in the Council, and that no alteration shall be made in the constitution or relations of the College without the consent of the Fellows and Members. These recommendations, though unacceptable to and unaccepted by the Council, have been cordially approved by the Association of Members, and thus supported will no doubt commend themselves to the Secretary of State, to whom an appeal from the Council is about to be made. From the report of the annual meeting of the Association of Members, published in another column, it will be seen that this body is determined to extend to the utmost limit the sweep of reform, and to secure for the Members of the College direct representation upon the Council. The reasonableness and substantial justice of this endeavour cannot be called in question. It only remains for the Association to define what it believes to be the "due representation" of the Members, and to devise some scheme whereby these may be most easily and safely obtained, with the single aim and purpose of securing for the College that place in public and professional confidence and respect to which it is at present a stranger, but to which it is entitled by its importance and influence as an examining body and by the number and status of its *alumni*.

IT was in 1857 that the Royal College of Physicians first undertook the compilation of a catalogue of diseases and morbid states, for the purpose of rendering the registration of disease more precise, and it was in 1869 that the first issue of the "Nomenclature of Diseases" was made to every member of the medical profession in Great Britain and Ireland. The work was issued subject to decennial revision, and accordingly in 1880 the College took steps for prosecuting the work anew. The Joint Committee, eventually formed, included members specially familiar with different departments, and the fruit of their labours is now being distributed throughout the kingdom. Of the need and value of the work it is hardly necessary to speak; the widespread use to which the Nomenclature has already been put affords sufficient testimony on that head. Statistical tables are drawn up on its plan, systematic treatises are written within its lines, and opportunity is given for greater precision in returns than

could have been possible before. But with advancing knowledge and clearer insight into the nature and relations of morbid processes, there must of necessity be changes in terminology; and this the first revision of the Nomenclature illustrates in a striking manner. Terms that have fallen into disuse have disappeared, names of conditions which have become differentiated by more strict analysis are introduced, and the work marks the standpoint at which we have now arrived. That errors of omission may have occurred in the progress of so difficult a work is only natural, and that—as one critic has recently pointed out in our columns—there are even some errors committed is not to be wondered at; but the work as a whole represents well the most complete, and at the same time the simplest, attempt at a nosology that exists in literature.

It would scarcely be within the province of this article to analyse in detail the pages of this Nomenclature; but it may be well to indicate its general principles, and to illustrate some of its features by examples. In the first issue great pains were taken to supply a definition to each of the diseases included under the head of General Diseases. However useful such a plan might be, it had obvious disadvantages, for a precise definition of some diseases is hardly attainable. It is almost conterminous with a description Moreover, if such definitions were essential they should be applied to every section of the work, with the result that it would not only attain undue proportions, but would become a dictionary rather than a catalogue. All such definitions have therefore been rigidly excluded from the revised work; and although synonyms are freely introduced, a limit has been placed upon them wherever they have not received the sanction of a tolerably general employment. Thus, we do not find Dr. CARTER's term, "spirillum fever," placed among the synonyms of relapsing fever, although "pythogenic" is retained as a synonym for "enteric" fever. The phrase "simple continued fever" is retained with the synonym "febricula"; but this lax expression, which medicine has as yet been unable to dispense with, is guarded by a definition that leaves it as indefinite as ever. The term still figures in mortality returns, and is a standing protest against the lack of diagnostic precision, just as under the cover of "infantile remittent," typhoid fever and tuberculosis have often been concealed. Amongst the new terms introduced in the list of general diseases are "epidemic rose-rash," a rather cumbrous equivalent for the expressive German word "rötheln"; "typho-malarial fever," the modified typhoid that prevails so much in the United States and elsewhere, but is practically unknown in this country; "malarial cachexia," "myxœdema," "parangi," of which a definition would have been welcome; "leucocythæmia," unqualified by the terms "splenic" or "lymphatic"; "hæmophilia"; "idiopathic anæmia," with its synonym "pernicious"; and "glycosuria." It will be observed also that the Committee have reverted to the terms "rheumatic fever" and "rheumatism" instead of acute, subacute, and chronic rheumatism; that they employ "osteo-arthritis" in preference to "rheumatoid arthritis," and "gonorrhœal arthritis" in preference to "gonorrhœal rheumatism." In all these directions we think they will meet with approval, as also in the omission of the term "puerperal fever" from the list. This authoritative step should do a great deal towards the discrimination of puerperal disease. The enumeration of morbid processes which opens the work is a new feature, as also is the nomenclature of syphilitic and tubercular conditions, all of which are in constant use in the description of local diseases. In the appendix, are to be found lists of parasites—of course exclusive of the boundless class of fungi and bacteria, but of truly remarkable length; lists of malformations and of tumours, the latter obviously based upon VIRCHOW's classification.

Turning to the sections devoted to local diseases, one is struck by the fact that terms which were formerly current, being descriptive of symptoms rather than of the morbid states underlying them, are gradually being dropped. It will of course be very long before pathology is sufficiently advanced to enable us to give a name to every condition that is met with; and in the section on nervous disease the Committee, have decided to draw up a double list—one as it were denoting the pathological, the other the clinical, aspects of the affections met with. The section on diseases of the eye is much elaborated, and presents in several aspects—e.g., in the case of cataract—the more thorough and extensive knowledge which has been gained since the first issue of the work. Among diseases of the larynx we find "croup" retained without any qualification, and perhaps the Committee felt that it was best to leave it so than to introduce the adjective "membranous." Yet we would fain have seen this word eliminated, except in the symptomatic sense. Again, why are the terms "acute pneumonic" and "chronic pneumonic" prefixed to "phthisis"? and for what reason is it preferred to use the phrase "black induration" rather than "iron-grey induration" of the lung? or to retain "millstone-maker's phthisis," "grinder's asthma," and "miner's asthma," instead of recognising the existence of a group of diseases due to inhalation of dust, and classing silicosis, anthracosis, &c., as their varieties? There is altogether a lack of grasp in this section, or at any rate a want of appreciation of the distinctions created by modern pathological inquiry. "Acute nephritis" has been, and rightly, preferred to "acute Bright's disease," and practically the phrase "Bright's disease" is to be limited to "granular kidney." The list of surgical operations has been very much extended, and a comparison with the former edition will show how numerous have been the new operations introduced in the past decade. On the whole, we are well satisfied with the manner in which the work has been presented, and believe that it will do much to ensure accuracy in the description as well as in the registration of disease.

SELDOM have the Fellows of the Medical Society of London been more fortunate in their selection of Orator than in choosing Professor HUMPHRY, whose address on Monday last was highly appreciated. Our readers will be enabled to judge for themselves of the manner and matter of this philosophical contribution to a subject of universal interest, for Professor HUMPHRY dealt with his theme—old age—in a manner which could not but compel the attention of his whole auditory. By a most skilful use of antithesis he contrasted the natural life with the actual life as seen in Nature, and once more illustrated the truth of the statement that civilisation with its attendant sympathy defeats the

operation of the law of so-called natural selection. For, as he so powerfully sketched, in nature the victory is to the strong, and decadence is anticipated by early death from lack of ability to contend against superior force. And yet if the animal body were suffered to pass unchecked through all its physiological changes, it would be seen that the decline of life proceeds as regularly and as harmoniously as the rise towards maturity. Just as all the constituent parts and organs are evolved from the germ, and co-operate in due proportion and harmony to the sustenance of the body, so when maturity is past and the downward process of development sets in, it does so in an orderly manner, without any derangement of the same harmonious working that was essential in the time of vigour. The body fails, as a whole, just as it is built up from a mass of protoplasmic cells; and healthy old age terminates in physiological death, which may be brought about by the slightest external interference, or by the inability of the vital organs to continue any longer to labour. This ideal picture is, however, the exception, for most men die prematurely. The survival of the fittest still obtains among mankind, but in a different sense from that in which the biologist employs it. Longevity implies the continual maintenance of health—that is, the preservation of each and every part of the bodily mechanism in its due proportion. Hence it is that only those who, by inherent quality of tissue, or by freedom from exposure to external influences that act injuriously upon the frame, or by strict regulation of habits and modes of life in accordance with the capabilities of the organs of the body avert untoward influences, who can expect to attain true old age and be eventually liberated by a painless normal death. Civilisation, that has done so much to prolong life by caring for the aged and helping those who are no longer able to help themselves, has done quite as much to defeat this object by rendering humanity more liable to disease, and even by introducing disease among mankind. Nature therefore asserts her sway, and premature death is still the rule; so that, when one considers how multifarious are the ways whereby degeneration and disease may attack the body, how insidious often is their approach, and how much they are favoured by the artificial and arduous existence of a restless and laborious community, we may be thankful that, in spite of all, the ideal old age sketched by Professor HUMPHRY is not only possible, but is probably year by year becoming more likely of attainment.

Many of the facts concerning the physical characters of aged persons collected by Professor HUMPHRY, by means of the Collective Investigation Committee, are at first sight contrary to preconceived ideas. That females are longer lived than males is to be expected, but it is interesting to learn that members of a phthisical family may attain great ages; indeed, in such proportion that the assertion is warranted that "the delicacy or peculiarity, whatever it be, of constitution, which is associated with the tendency to the development of tubercle, is not only not incompatible with longevity, but is not unfrequently associated with it." One can imagine that having lived through the period at which such individuals would be most disposed to tubercular infection they have lost the liability to it, for phthisis is pre-eminently a disease of adolescence and early maturity. Professor HUMPHRY dwelt at some length upon the skeletal changes that occur with advancing years, showing that the absorptive changes which take place in the cancellous tissue, and which so predispose to fracture of the neck of the thigh-bone and determine the loosening and falling of the teeth, are combined with increased ossific deposit on the surface of the long bones, whilst in the skull there is often a great increase in thickness, determined apparently by the shrinking of the brain. The statement that the rib-cartilages retain their elasticity, and the inference that their calcification is a morbid and not a natural process, will come upon most of us as a surprise, and so also will the statements made with regard to arterial degeneration and to the other processes which have hitherto been regarded as senile. It is a remarkable fact that in 362 persons above the age of eighty, the arteries were tortuous in only 71, and that in 311 the pulse is returned as being compressible. In the male, prostatic affections are not so frequent as is generally supposed; but on this and other points it will be well to await further evidence before drawing conclusions. It is doubtless true that the aged body is far less prone to disease than the young and mature; whereas the reparative power after wounds would, according to Professor HUMPHRY, seem to be remarkably active—a fact for which we have not as yet a sufficient explanation, although, as he pointed out, the same ready tendency to heal is to be seen in subjects otherwise debilitated. In this, as in other parts of his address, Professor HUMPHRY has suggested lines of inquiry which will well repay extended and careful investigation; and we doubt not that his words will greatly stimulate others to join in the work.

Annotations.

"Ne quid nimis."

OUR TROOPS IN THE SOUDAN.

IN our last issue our Special Correspondent in the Soudan, Surgeon C. L. Cunningham, forcibly draws the attention of our military authorities to the peculiarities of the climate, and at the same time warns them of the great danger likely to be incurred by leaving our officers and men exposed to its extraordinary summer severity. In this opinion we quite concurred, and had in these pages previously drawn attention thereto. Although our representative has spoken out fearlessly, and put forth statements that appeared almost incredulous regarding the terrible temperature of the Soudan during the hot months, and under which our troops would be compelled to eke out a truly miserable existence, we were scarcely prepared to receive so early a verification of it. The graphic and startling letters just come to hand from that hot quarter tell a sad tale of mournful suffering, and go far to prove that our representative has rather under- than overstated facts as regards the rapidly-increasing temperature that sets in about the beginning of May, whilst they show that the prognostications put forth in our columns a week ago respecting the physical torture and mental suffering likely to be endured by our poor fellows when it becomes even warmer, are already, unhappily, more than fulfilled word for word, judging by that agonising appeal made publicly for relief from their protracted sufferings by

those officers who have reluctantly been compelled to pen the letters in question. Take the following as a specimen:—

"Each day is twenty-four hours of physical torture and mental suffering. Seven of our men have died of enteric fever in the last twelve days, and although we only began to form our camp here five weeks ago, we have already 150 sick here. The food is bad, and we are still in rags, as no clothing has come up yet. No one speaks, thinks, or hopes anything but to go down. Anyhow, if they do keep the troops here all the summer, none will be left worth a straw. For God's sake write about it, and get other correspondents to take it up. They are generally the best friends the troops have, and now they are gone everything is concealed, and there is no one to say a word for the soldiers. Believe me, half of us will be lunatics before long."

SMALL-POX RISKS.

WHILE some members of Parliament are trying to make themselves conspicuous by attempts to disparage vaccination, the plague of small-pox is extending its deadly work in London and some of the provincial towns in a most painful manner. Mr. Hopwood bores the authorities of the Local Government Board with attempts to find out whether a case of small-pox has not somewhere occurred after revaccination—not content with the fact that for fifty years revaccination has been protective enough to save all the *employés* of the Highgate Small-pox Hospital from an attack, excepting one unfortunate man, a temporary gardener, who refused the boon and paid for his folly with his life, and the similar experience of all the hospitals in London, not only as to the security of the revaccinated, but the almost unfailing attack of those who neglected or refused to be revaccinated. It is not necessary to pretend that revaccination is an absolute protection; but it is very nearly so. Small-pox itself does not absolutely protect from small-pox. Unreasonable people every now and again turn up who have a second or even a third attack. Good revaccination in adult life seems a much more complete protection than a previous attack of small-pox. But no sensible person would be surprised at an exceptional case of small-pox after revaccination. The broad and undoubted protection conferred by revaccination remains, and staggers the detractors of a discovery which exceeds all others in its beneficence. It is most lamentable to have to record the occurrence of small-pox in Colonel Kennedy and others of the Canadian boatmen, since their arrival in London, on their way home from services so efficient on the Nile. There is a marked increase in the admissions of cases in the hospitals of the Asylums Board. It cannot be too plainly stated that no one is safe who has not been successfully revaccinated. Revaccination that does not take is a delusion and a snare. Let no one rely on Leicester impunity. The isolation of cases in this metropolis if ever practicable, is not so now. The turn of Leicester will come some day. Meantime, every unrevaccinated person is liable to an attack of the disease.

PUBLIC LAVATORY ACCOMMODATION.

PUBLIC LAVATORY accommodation for men and women has for many years been one of the most pressing wants of the metropolis. The want is admitted on all sides, but from various causes the provisions for meeting it have been, and still are, inadequate. It is satisfactory therefore to note that the vestry of Paddington have had the matter under consideration. So long ago as March, 1884, a special committee was appointed to consider and report as to whether lavatory accommodation could not be provided in such a way as to be a boon to the immediate vicinity in which it is placed, instead of being a nuisance, as must be the case more or less where structures for this purpose are erected in the centre of public thoroughfares. The area of Paddington alone is about 1280 acres, and in 1881 the population was 107,218, and yet but for private enterprise there would not be a public convenience in the whole parish, nor sanitary accommodation of any kind for women, except in connexion with the baths and wash-houses in the Queen's-road. On the 1st inst. the committee adopted a report for presentation to the vestry, in which they recommend that each licensed victualler should be called upon to provide proper and convenient accommodation, with suitable automatic flushing cistern; that better designed structures than those at present in use should be employed, each as far as possible being in charge of an attendant; and that two new underground public lavatories should be constructed. The subject is unquestionably one of considerable importance to the community, and should the suggestions of the committee be adopted *in toto* by the vestry, something at least will have been done to remove what is a great drawback to the comfort and health of the inhabitants of the metropolis.

THE PATENT MEDICINES STAMP ACT.

THAT the Chancellor of the Exchequer should have consented to a modification almost amounting to a repeal of the Patent Medicines Stamp Act is a subject for congratulation. The news will be received with feelings of pleasure by the public in general, and by the medical profession in particular. The stamp, we are told, will be so altered as to make it clear that it affords no guarantee of the genuineness of the preparation. Medicines are in future to be regarded as taxable only if proprietary. The term "proprietary" is somewhat vague and indefinite, and will be found difficult of definition, and still more difficult of application. We have occasion from time to time to call attention to special preparations of pharmacopœial and other drugs, which are introduced by chemists as being manufactured with exceptional care, and perhaps by some new process. The use of such remedies, which are neither secret nor patent, is a distinct benefit both to doctors and patients, and it would be most undesirable to hamper the progress of knowledge and discovery by taxing improvements. It would be better to substitute for the word proprietary the term "secret." With this exception the decision of the Chancellor of the Exchequer is all that could be desired. Secret remedies should undoubtedly be heavily taxed, for their use is a fruitful source of danger.

ATROPHY OF MUSCLES IN PLEURISY.

WHEN synovitis attacks a joint, the muscles which effect the movements of the articulation are prone to waste in a rather rapid manner. The muscular atrophy cannot reasonably be explained on the ground that the muscles are not used, for the atrophy is one which recalls the wasting of muscle seen in cases of infantile palsy, not only in the rapidity with which it occurs, but also in the behaviour of the affected muscles to electrical examination. The wasting of the muscles of the shoulder and thorax on that side which has been the seat of pleurisy seems to us to belong to the same category of phenomena as the wasting of muscle from joint disease; and although the comparison is a trite one, yet we may remember that serous and synovial membranes are regarded as analogous structures. The subject of muscular atrophy resulting from inflammation of tissues in the neighbourhood of the muscles is one deserving of much attention. The most probable explanation is that the abnormal excitations proceeding from the inflamed tissues along the sensory nerves have a direct influence on the motor nerve cells controlling the nutrition of the muscles concerned; the bones may waste as the result of a similar

"reflex" influence. A valuable paper on the atrophy of muscles of the thorax and shoulder in pleurisy was contributed to the Société Médicale des Hôpitaux on April 10th (see the *Bulletins et Mémoires de la Société*, &c., April 22nd). The author of the paper, M. Desplats of Lille, contends that the muscular atrophy is rapid and frequent in the subjects of pleurisy, that the atrophy plays an important part in the deformities of the skeleton resulting from pleurisy, and that the atrophy is the indirect cause of tuberculosis of the lungs. He recommends that the atrophy should be prevented from coming on by early surgical treatment of any pleuritic effusion, and that measures should be adopted for arresting or combating the atrophy by the use of general and local stimulants, and more especially by faradisation, respiratory gymnastics, compressed air, and so forth.

THE DEATH OF PROFESSOR PANUM.

WE regret to have to record the death of Professor Panum of Copenhagen, the President of the last International Medical Congress. Professor Panum has for many years been known as one of the ablest workers in the field of medical and physiological science. His observations have been made largely in the field of scientific pathology, and he has left behind him many a mark in one of the most difficult fields of medical research. Panum exhaustively treated the subject of transfusion by physiological experiments, and in the work in which this subject was dealt with he gave an account of an elaborate series of experiments on artificial embolism of the various vessels of the body. He showed that fibrin is not necessary for resuscitation by transfusion, and that even with the greatest care it may act injuriously by clotting. His work on Embolism ranks with the classical writings of Virchow and O. Weber. Panum long ago worked at the nature of the virus of septicæmia, and came to the conclusion that it was independent of the agency of living organisms. His address on Food Rations for Man in States of Health and Disease, delivered at the International Medical Congress last year, contains valuable suggestions on the physiology of diet. Some of his latest work related to the formation of "physiological fistulæ" into the small intestine, with a view of studying the nature and properties of the intestinal juice uncontaminated with other secretions. The death of the Professor of Physiology of Copenhagen is a great loss to medical science.

FRACTURED RIBS AND SCURVY IN LUNATICS.

COMPLAINTS are made in the Russian medical press of intriguing and underhand behaviour on the part of the administrative body of the Odessa Hospital towards the medical staff. Relations seem to have been strained for several years past, for in 1879 the late Dr. Kleberg, who was principal medical officer, and his successor, Dr. Siljujanoff, both resigned their posts after a short tenure. Recently Dr. Grjasnoff, tired out by the vexatious and worrying treatment to which he was subjected, has also resigned. Dr. Andrusski, the chief of the lunatic department, has been hastily dismissed, most unjustly as it appears to the journal from which we quote, on account of fractured ribs having been found in the bodies of two of the patients who died. At the official investigation it was proved by the medical evidence that the bones in both cases were diseased, and might have been very easily broken by the pressure of the thorax on the edge of the bed. One patient had general paralysis and scurvy; the other chronic meningitis, pulmonary tuberculosis, Bright's disease, and scurvy, the whole osseous system, especially the ribs, being in both cases in a highly pathological condition. If the fractured ribs had anything at all to do with the death, it could only have somewhat accelerated the fatal issue of totally incurable diseases. Fractured ribs are sometimes found in the bodies of lunatics in this country, and explanations are usually offered depending upon the pathological condition of the osseous system of lunatics. But scurvy is not a frequent disease in English asylums. Surely the occurrence of two such cases should indicate to the Odessa hospital authorities the propriety of an investigation into the dietary scale to which the patients are subjected.

MEDICAL SOCIETY OF LONDON.

A LARGE and distinguished audience listened to the annual oration of the Medical Society of London, delivered by Professor Humphry, F.R.S., on Monday last. The oration, which will be found in full in another place, was frequently applauded. Sir Joseph Fayrer proposed, and Mr. Arthur E. Durham seconded, the vote of thanks which was heartily accorded to Professor Humphry. Dr. W. Miller Ord, the President, expressed the wish of the Society that the oration should be published in separate form. The conversazione was enlivened by the exhibition of many objects of interest, including water-colour drawings, wood-carvings, Japanese books and prints, old medical works from the library of the Society, autotypes, etchings and engravings, microtomes and microscopes, whilst the band discoursed the lively airs of many a well-known dance. It must be owned that with its annual dinner and conversazione the Medical Society of London serves in addition to its other functions, the useful and pleasing purpose of bringing together the diverse elements of which the medical profession is composed.

PHTHISIS IN THE ARMY.

THE mortality of soldiers from phthisis is just now attracting some attention, and has been the subject of many random statements. The Army Medical Report for 1882 gives the mortality from "tuberculous diseases" among the troops serving in the United Kingdom during that year "as equal to 2·00 per 1000 of the average strength, against a mean rate of 2·33 in the preceding three years. The *United Service Gazette* compares this rate among soldiers with the rate among the entire population of England and Wales, during the same year, which was 1·84 per 1000, adding that, having regard to the favourable sanitary conditions of the army, the rate should rather be compared with that prevailing in some of the healthy districts of England—for instance with 1·17 in Rutlandshire, 1·31 in Leicestershire, and 1·33 in Hertfordshire. Our contemporary admits that for exact statistical comparison these figures are open to criticism; the amount of fallacy involved, however, by such a comparison can lead to but one conclusion—namely, that no such comparison should have been made. The incidence of phthisis mortality upon males of different ages varies from 0·41 per 1000 between five and fifteen years to 4·12 between thirty-five and forty-five years. To compare, therefore, the mortality of soldiers from phthisis with that prevailing in the entire English population, male and female and at all ages, is worse than useless. The mean annual death-rate from phthisis among males in England and Wales aged from twenty to forty-five years during the ten years 1871 to 1880 was equal to 3·68 per 1000, which is not far short of double the rate that prevailed in 1882 among the soldiers serving in the United Kingdom. We are very far from asserting that the comparison of the death-rate of soldiers from phthisis with that of all males living at similar ages is by any means free from objection. If we accept the deaths from tubercular diseases in the army, as signifying the deaths from phthisis, there is still the source of error due to discharges on account of disease to be dealt with. On the other hand, we are scarcely inclined to accept our con-

temporary's favourable estimate of the healthy conditions of a soldier's life. Soldiers are in a certain sense selected men, but the habits of too large a proportion of our soldiers are, we fear, not unlikely to develop phthisical tendencies; and under present circumstances it would not be surprising to find them suffering from a death-rate from phthisis as high as the mean rate among males at the same ages in the general population. It is to be regretted that the statistics of the Army Medical Report are not sufficiently precise to render possible the calculation of the true death-rate from phthisis among soldiers, but we see nothing in the figures given to justify the alarm of the *United Service Gazette*.

STATE SANITARY SURVEY IN ILLINOIS.

THE Secretary of the Illinois State Board of Health has issued a circular, in which he points out that whenever cholera has prevailed as an epidemic in Europe it has eventually reached the United States, and has caused great havoc there. Until quite recently there was little or no sanitary organisation in Illinois, and this, coupled with the fact of the unrestricted immigration, places the State in a condition favourable to the reception of cholera. Under these circumstances, municipalities, communities, and individuals are urged to see that their surroundings are wholesome, and forms have been prepared with a view of facilitating the needed inspections on which the required action must be based. The survey proposed is different from the one now being undertaken in this country. Here, the inspectors of the State make cursory inspections with a view of stimulating local action; but in Illinois it is expected that the inspections shall be altogether carried out by local officers, and take the form of a house-to-house inspection. The forms on which the information acquired is to be filled in are extremely useful, and the preparation of a ground plan, with lines at intervals indicating a scale of feet, will be most helpful in enabling the local inspectors rapidly to draw trustworthy plans of houses and other premises. Dr. Rauch in his circular does not fail to point out that to which prominence has also been given by Dr. Buchanan in this country—namely, that even should cholera not reach the country to which the inspections relate, the work advocated will, if properly carried out, go far to save the State from many other diseases which are allied to cholera in so far as the conditions causing them are concerned.

STRANGULATED HERNIA.

AN inquest was held at Stockport on April 25th touching the death of a woman named Elizabeth Jackson, aged forty-two. From the evidence it appears that for some years deceased had suffered from an umbilical hernia, which had from time to time given her some trouble owing to its becoming obstructed. On April 11th Mr. Gardener, a graduate of the University of Bonn, practising at Partwood, was called in, and he continued in attendance until April 18th. On the latter day the woman was seen by Mr. Buist, assistant house-surgeon of the Stockport Infirmary, and this gentleman diagnosed strangulation of the rupture, and gave the patient "medicine which was intended to set the bowel at rest," as he did not think it safe to reduce it at that time. Death occurred on April 22nd, without relief to the symptoms, although Mr. Buist says he performed taxis successfully on the Monday before the patient died. At the inquest Mr. Buist seemed inclined to join issue with Mr. Gardener, both as regards the exact nature of the malady and its appropriate treatment. In the absence of any record of a post-mortem examination, it seems to us that there can be little doubt that the deceased had obstruction of the prolapsed bowel, and that this passed on to complete strangulation, for the history of the case relates what comes too frequently within the experience of hospital surgeons. We cannot quite understand why Mr. Buist should desire to censure Mr. Gardener for not recognising that the bowel was strangulated, as evidenced by the continued stercoraceous vomiting, and yet not take the steps to relieve that strangulation by the only rational means which he himself contended ought to have been adopted. Mr. Buist's own evidence and the questions he put to Mr. Gardener are inconsistent with one another. It may be, however, that we are not correctly informed on this head. One thing is certain, if the symptoms and signs were as manifest as they were described to be, neither medicine in the earlier, nor taxis in the later, stages was likely to avail much. It cannot be too strongly insisted on that the danger is not from operating too early, but not early enough. It is not altogether improbable that the taxis, as performed by Mr. Buist, was accompanied by rupture of softened gangrenous bowel, and that what appeared a satisfactory event was, in all truth, a fatal calamity. It is but just to Mr. Buist to say that he clearly recognised the condition of the patient; and further, that even had herniotomy been performed when he first saw the case, the prognosis would still have been grave to a degree. It may be useful here to draw attention to a fact of paramount importance—viz., that a hernia which for several hours has given rise to acute local and reflex symptoms should be subjected to the most careful examination and prompt efficient treatment. If we mistake not, many a student leaves our medical schools without having ever seen, from its incidence to its close, a case of acute strangulated hernia. This we mention, not by way of reproof, but with a hope that our hospital surgeons will endeavour, by all the means in their power, to give facilities to the general run of pupils to investigate for themselves the phenomena of hernia, and the accidents to which it is liable.

PUBLIC SCHOOL POLICE.

THE approval which greeted Sir William Harcourt's announcement in the House of Commons that he had directed an inquiry to be made by the Public Prosecutor into the fatal case of "bullying" at King's College was an expression of a very general mistrust in the management of our public schools. We have from time to time called attention in our columns to a growing dissatisfaction on the part of those most interested in the development of our public school system. The prospect of little boys of twelve years of age mingling freely with other boys of various ages up to eighteen or nineteen, often much to the injury, physically and morally, of all, is far from satisfactory. Parents scarcely at present realise the terrorism so aptly referred to by the Home Secretary which the bigger boys exercise over the smaller and weaker. We should be glad if we could think that the association of little boys with bigger had its worst phase in the exercise of "terrorism," for, unfortunately, we know too well that there is a "social evil" in this association which parents, as a rule, shrink from realising. It is only too well known in the medical profession that the ruin of many a little boy may be traced to the evil influences of immoral bigger boys. We know of no "social evil" which has been so unsuccessfully dealt with. Important as the suppression of "bullying" is, it sinks into insignificance in comparison with the larger question of the moral relations between big and little boys in unrestrained intercourse. The governing authorities of our schools, as a rule, meet three or four times a year. The most they do is to express approval or disapproval of some prominent subject brought under their notice by the head master. It is seldom that they are minutely acquainted with the working of the school. The more distinguished they are socially, the less useful are they as governors. It was once publicly remarked by the late Archbishop of Canterbury that his experience as

school-master and governor taught him that the highest function of a school governor was to learn not to interfere with the head master. Thus the head master, in reality, becomes responsible for the educational, physical, social, and moral relations of the hundreds of boys committed to his charge. Many of these boys pass through his school, if a large one, scarcely known to him either in name or person. His influence over them is, in reality, very small. It rests chiefly with the assistant masters and tutors to guide boys aright; and their intercourse with them out of class, where most danger prevails, is very limited. It would be unreasonable to expect men worn out by six or eight hours' class work a day, to say nothing of the additional labour of looking over exercises and conducting correspondence, to discharge the duty of a kind of "police." Yet some system of school police is a growing necessity to keep in check the too free secret intercourse between big and little boys, and suppress the great "social evil" of our public schools.

EXCISION OF THE PYLORUS.

AT a recent meeting of the Hamburg Medical Society (*Deutsch Med. Woch.*, No. 17) Dr. Lauenstein reported a successful case of excision of the pylorus, and exhibited the patient, a sailor, thirty-four years of age. The portion removed, which was the seat of colloid cancer, measured eleven centimetres long, with a circumference at its gastric end of twenty-six centimetres. The patient was admitted into hospital on Dec. 20th, 1884, having suffered for several months from vomiting, and having lost about forty pounds weight. A moderately large, slightly mobile tumour was present in the epigastrium, but the stomach was not notably dilated. The stomach was thoroughly washed out before operating. The incision was made in the median line, and the pylorus, after being separated from the great and small omenta, was marked off from the duodenum, which was temporarily ligatured. Some adhesions of the posterior wall of the stomach were detached, and the segment extirpated according to the usual method. There was no disease of the glands in the vicinity. The abdominal cavity was closed after washing out with boracic solution, and the whole operation lasted two hours and a half. Recovery was rapid, and in about a fortnight solid food was given by the mouth. On the nineteenth day the patient had an attack of herpes, with fever and bronchial catarrh, but at the close of the third week he was able to leave his bed, and had an "enormous" appetite. The author remarked that during the past two years the results of this operation had been more favourable, and there was reason to hope that, by improvement in its method, a still greater reduction in the mortality would be attained.

THE LEWES LUNACY CASE.

WE entirely agree with Lord Coleridge that the so-called "examination" of Mr. Hillman was a farce. It is not, of course, for us to offer an opinion as to the *legality* of the examination conducted by the magistrates in this case. It may be that the Lord Chief Justice is wrong and that Sir James Hannen and Lord Justice Lindley are right. Perhaps the law may be satisfied by the fact of two magistrates looking into a carriage at an alleged lunatic already in custody, while he is actually on his way to an asylum, and after a couple of commonplace questions, such as "How are you?" signing an order for his consignment to the asylum, to which, as a matter of fact, he was then being forcibly taken. We say it *may* be that the law is satisfied with such a procedure; but if it be, we must be excused for adding, so much the worse for the law. We fail to see any difference, except in degree, between such a proceeding as that which took place in this case, and the fact of a judge—for convenience, to avoid taking a person out of the prison van—looking into that vehicle, and after asking the accused some ridiculous questions, sentencing him to prison and telling the coachman to drive on. If this is the way in which justice is to be administered, it ought to be generally understood. For ourselves, we can only say that anything more slipshod or ridiculous than this case throughout we cannot imagine. It is certainly high time a Lunacy Law Amendment Bill were passed; but this case ought to be a warning to the promoters of such a measure to see that provisions are incorporated to ensure that the justices, to whom so much more than has heretofore been left is to be now confided, may be compelled to discharge their duties efficiently. It must be assumed that no one does right, unless to leave right undone, not less than to do wrong, be illegal.

THE BUDGET.

WE must content ourselves with one or two plain criticisms of the proposals of the Chancellor of the Exchequer, leaving minute criticisms to financial authorities. First, we cannot but deplore that under a Ministry so professedly peaceful such an enormous Budget should have become necessary. No more striking proof could be afforded that statesmanship does not consist in passing mere Franchise and Ballot Bills, but in skilful recognition of the wide relations of the Empire and its corresponding risks. Next we must protest against the rough process by which the income-tax is applied to those whose income represents labour, and is precarious compared with those whose income is assured and arising from accumulated property. We approve of the higher taxation of spirits and beer. The amount of both of these articles consumed by the British public is disgraceful and disastrous, and any taxation which will reduce the amount will tend to diminish the disease and misery which come from drunkenness.

HEALTH OF CAVALRY HORSES.

The Report by Mr. Fleming, Principal Veterinary Surgeon to the Army, on the Health of the Horses serving in the United Kingdom during the year 1884, shows very satisfactory results. The average strength on the establishment was 12,054, the cases of disease and injury during the year were 7431, the deaths including horses destroyed were 207, and the number cast was 1272, being respectively in the proportion of 616 cases, 17·17 deaths, and 105·6 cast per 1000 of the strength. The sickness and mortality have been lower than in any of the three preceding years, and the casting lower than in any except 1881, when it amounted only to 93·8 per 1000. A striking feature in the returns is the almost complete absence of glanders and farcy, only one case of the former and none of the latter having occurred during the year. The case of glanders was in the 3rd Hussars at Hounslow, in which eight cases had occurred in the preceding year. Mr. Fleming remarks that "this is the last of the outbreak which took place in that regiment while it was stationed at Aldershot, the infection which led to the outbreak having been caught, in all likelihood, in billet stations in the East of London (where the disease always more or less prevails) while the regiment was on the march from Colchester to Aldershot in 1883." He apparently has forgotten that the disease "was contracted from an officer's charger which became infected at Alresford." The measures adopted in the army to stamp out this disease appear to have been attended with marked success. Accidents and injuries have been the most frequent cause of admission into the infirmary, and account for rather more than half of all the cases. Diseases of the digestive organs have been the most fatal class, enteritis being the most prominent disease, but those of the respiratory apparatus have been very nearly as fatal.

The most frequent cause of casting was old age, upwards of one-half of the cases being on that account; the average length of service of the horses so cast was thirteen years and a half. The highest proportion of admissions into the infirmary occurred among the four-year-old horses, a result probably of the number of new horses brought into the service at that age and of the consequent change of work and feeding. The death-rate was also highest among them and the five-year olds until the age of fifteen was reached, when it began to increase rapidly. There were 1274 horses purchased during the year at an average price, including expenses of journey, of £44 6*s.* 10*d.*, and there were 1189 cast and sold at an average of £11 5*s.* 2½*d.* We are glad to observe that Mr. Fleming has added to the value of his annual return by prefixing to it a report on several points which appear likely to be useful and instructive. We would suggest to him that an additional table, showing the average loss of time by sickness or injury—the mean daily sick of the horses,—would add much to the value of his returns. We sincerely congratulate him on the satisfactory state of the department over which he presides, as shown by the interesting tables in his report.

COCAINE IN EYE OPERATIONS IN ST. PETERSBURG.

DR. LANGE of St. Petersburg has extirpated two eyes under cocaine. He not only applied a 20 per cent. solution to the conjunctiva before the operation, but had it dropped on during the whole procedure. In one case complete anæsthesia was induced, the patient feeling no pain during the section of the ciliary or optic nerves. In the second case there was throughout considerable flinching on the part of the patient, due perhaps to mental reaction, as the eye preserved the power of vision, and was being removed for an injury. Dr. Lange has also performed an operation on the eyelids, applying previously an ointment of cocaine with vaseline, and after each cut a solution. The pain was very slight. The patient wished to have the other lid operated on without cocaine, but the suffering was so great that the drug had to be employed.

THE INTERNATIONAL INVENTIONS EXHIBITION.

ON Monday last, at noon, the Inventions Exhibition, the third of the series held at South Kensington, was formally declared opened by the President, the Prince of Wales. The opening ceremony took place in the conservatory, in the presence of the Princess of Wales, the Princesses Louise, Victoria, and Maud of Wales, the Duke and Duchess of Edinburgh, Prince and Princess Christian, the Duke of Cambridge, and a large and distinguished company of visitors. Sir Frederick Bramwell, as Chairman of the Executive Council appointed to organise and carry out the Exhibition, welcomed his Royal Highness within its walls, and delivered an address briefly reporting upon the labours of the Council up to the time of opening. He publicly expressed to the contributors to the guarantee fund the sincere thanks of the Council, stating that, instead of £50,000 which had been contemplated as the amount that might be raised, more than £87,000 had now been guaranteed, and that this total is being augmented week by week. He pointed out that considerable additions had been made to the Exhibition buildings. Many small annexes had been swept away, and in their place spacious galleries had been erected. Not only had greater exhibiting space been thus obtained, but the gardens, which are so great a source of attraction to visitors, had actually been enlarged. He said that as the employment of electricity for the purposes of lighting was undoubtedly one of the most striking instances of the application of science to the purposes of daily life, special prominence had been given to the subject. The incandescent electric lamp was to be employed for the garden illumination in a manner and on a scale which, the executive believed, had never before been attempted. With regard to the "music" division of the Exhibition, he stated that, with a view of stimulating the love of music in this country, a series of choral and brass band competitions were being organised, and would be held in the Royal Albert Hall during the autumn. His Royal Highness, in his reply, expressed his wish that the efforts of the Council would be rewarded by a success as great as that which attended the previous two exhibitions. He then declared the Exhibition open. We think there can be little doubt that the Prince's wish will be fully gratified. Although much remains still to be done, there is ample evidence of the interesting and widely varied nature of the exhibits included in the divisions "Inventions" and "Music;" the latter will indeed probably render the illuminated gardens, already in themselves on a hot summer's evening sufficiently attractive, peculiarly appropriate and additionally popular, forming as it does one of the *raisons d'être* of the Exhibition. The subway from South Kensington Station is a decided success, and will not only add to the comfort of visitors, but will remove a source of annoyance to inhabitants of the district.

THE PREVENTION OF YELLOW FEVER.

DR. DOMINGOS FREIRE, in a recent communication to the *Rio News*, gives an account of the inoculations practised in Rio de Janeiro with the attenuated liquid culture as a prevention against the dangers of contracting yellow fever. From Dec. 22nd last up to March 22nd of the present year, 1109 persons of different nationalities, and whose ages ranged from one month to sixty years, were submitted to subcutaneous injections in the deltoid region of the arm with the said liquid. All, with the exception of one or two cases, experienced elevations of temperature, varying from 37½° C. to 40° C., frontal headache, pains in the articulations, general indisposition, and, in some, slight epigastric oppression,—symptoms which ceased after from twenty to forty hours, and without any medical intervention. In many cases these injections were practised in houses where, a few hours before, deaths had taken place from yellow fever; nevertheless in the cases specified, and under disadvantageous hygienic circumstances, not one single serious accident is said to have happened. Most of the inoculations were performed in the presence of the two medical men commissioned by the Spanish Government to specially study yellow fever in Brazil.

KINDNESS TO ANIMALS.

THE celebration of May-day in London seems likely to take a new and very sensible form. It has long been the custom in some provincial towns, we believe, to hold an annual procession of cart-horses on May 1st, and this year the metropolis has made an effort in the same direction. We say an effort, because probably for want of organisation and publicity only about one hundred teams attended this May-day parade on the Thames Embankment. It is stated that there were no prizes, and therefore no competition; but each driver received an illuminated card commemorative of the gathering, acknowledging the evidence afforded of "care, attention, and kindness to animals." It is with this feature of the show that we are mainly concerned, and we trust that next year the idea may be carried out on a larger scale, and that prizes may be given to encourage kindness to animals. In this connexion we would repeat a suggestion we have already made, that prizes for kindness should be offered at the various cattle, horse, and agricultural shows throughout the kingdom. At Chobham, in Surrey, a prize

of this sort, which is given annually, has been very successful. "Want of thought" is responsible for much evil, and such prizes would be the means of doing a great deal of good.

UNIVERSITY OF LONDON.

THE following important change in the examination for the degree of Doctor of Science is announced in the new Calendar of the London University:—The existing syllabus of the D.Sc. Examination with its division into sixteen branches is withdrawn. Any Bachelor of Science desiring to proceed to the degree of Doctor of Science shall be required to submit an original essay, dissertation, or thesis as the foundation of his qualification for the Doctorate. If the thesis be accepted, the candidate shall be examined upon the subject-matter thereof, and in such further cognate subjects as in the opinion of the examiners may appear necessary to test his knowledge of the branch of science which he professes. The examination for the degree of Doctor of Science shall take place annually within the first twenty-one days in June.

MEDICO-LEGAL ASPECTS OF THE LATE EXPLOSION AT THE ADMIRALTY.

THE conclusion which has been arrived at as to the position of the gentleman who was injured by the explosion is as follows. He was probably about to leave the office and had partly risen from his chair, placing his hands on the desk in front to assist himself, when, hearing a noise, he turned sharply to the left in the direction of the cupboard. The scalp wounds, all in the anterior part of the scalp, were in a line from before backwards, and from left to right. The large wound of the left conjunctiva, caused by a splinter, which was removed soon after the explosion, was from without inwards in the direction of the lacrymal bone, and was unaccompanied by wound or injury of the eyelids. The backs of both hands, also the inner side of the left and the outer side of the right, were dotted with grains of gunpowder; the scalp was extensively dotted in the same manner, chiefly over the left frontal region; the hair, eyebrows, and eyelashes were singed. The patient was found lying near the cupboard, with his head in that direction, and not towards the right in the direction of the force applied.

TRICHINOSIS IN ST. PETERSBURG.

A CASE of trichinosis has recently occurred in St. Petersburg. A gentleman named Von Bach and his guests were infected by ham. Altogether about twenty persons suffered. The occurrence has produced some alarm, and the trade in pig-meat has sensibly diminished. It is, however, gratifying to note that this seems to have been the only case of the kind occurring in St. Petersburg for some years past. The immunity is due to the establishment by the municipal council of institutions where pork and ham are carefully examined. The first of these was established in 1881, but was not very successful; as during the first five months only five carcases and 133 hams were offered for examination, notwithstanding the smallness of the fees charged and the certainty of an indemnity at market price in case trichinæ were found. In May, 1882, a different system was established, and during the next twelve months no less than 30,000 examinations took place, requiring the services of two veterinary surgeons and about a dozen assistants. Afterwards branch institutions were established, some of them by the traders themselves, and microscopical examinations systematically carried out. Last year there were examined 30,650 carcases, 2362 hams, 18 portions, and 11 wild boars. Those free from trichinæ are marked, all infected meat being destroyed. An interesting engraving of the chief institution is given in a Russian illustrated journal, in which a number of young women are represented seated at a table each with a microscope before her.

THE MEDWAY GUARDIANS AND THE LUNACY LAWS.

THE subject of the Lunacy Laws has been under discussion by the Medway Board of Guardians, who propose to memorialise the Local Government Board on the subject, suggesting that "all cases which come under the relieving officer's notice should be certified to by the medical officer and then removed to the workhouse for a period not exceeding fourteen days, when they could be taken before a magistrate who could order chronic harmless cases to the workhouse and others to the asylum." Dr. Buchanan said they had recently had a case in point. Mr. Athawes had to hold a court on Sunday to make an order for the removal of a woman to the asylum; this patient, until the recent decision, would have been temporarily removed to the workhouse. The woman had to be taken to the police-station and placed in a cell, after having attempted to strangle one of her children. Other parochial authorities also have had the matter under consideration, and the Whitechapel guardians have adopted a petition to the House of Lords on the subject.

MEDICAL MISSIONARIES.

WE learn from the *Church Missionary Intelligencer* that Dr. E. Downes has decided not to return to his former charge of the Mission Hospital in Kashmir. The committee accepted his resignation with regret, and placed on record their appreciation of his valuable services. They have recently accepted the offers of Mr. F. J. Harpur, B.A., M.B., B.Ch., of Trinity College, Dublin, and of Mr. Henry Martyn Sutton, M.R.C.S., L.R.C.P., L.S.A., for service as medical missionaries.

MILITIA SURGEONS.

WE would again draw the attention of the militia surgeons to the fact that Sir E. Wilmot's motion to refer their case to a Select Committee of the House is fixed for May 19th (Tuesday); and we would urge on every militia surgeon to use his influence to obtain members from both sides of the House to support the motion, which is not a party one.

THE municipal authorities of St. Petersburg and Moscow have had under consideration the measures to be adopted in case of the appearance of cholera. The St. Petersburg town council has given the town sanitary commission a credit amounting to 30,000 roubles for preventive measures, erection of cholera hospitals, &c. The Moscow council has voted 98,000 roubles for a similar purpose. Both the municipal councils have agreed to petition the treasury for assistance to the extent of 300,000 roubles in case a cholera epidemic should make a larger outlay requisite.

THE International Cholera Conference will open in Rome on the 15th inst., when it is expected that the delegates of the British and Indian Governments—namely, Sir W. Guyer Hunter, M.D., K.C.M.G., and Dr. Thorne Thorne on behalf of this country; and Sir Joseph Fayrer, M.D., K.C.S.I., and Surgeon-Major Timothy Lewis for the Indian Government—will be present.

THE Caucasian Medical Society has made Dr. Hoyer, Professor of Histology, Embryology, and Comparative Anatomy in the University of Warsaw, an honorary member in recognition of his services to science.

DR. DIOMEDE PANTALEONI, Senator of the Italian Kingdom, one of the leading members of the Academy of Medicine of Rome, and for many years a physician in high repute with the Anglo-American Colony in the city, died there, at an advanced age, on Sunday the 3rd inst. We hope to give next week some account of his career.

ACTING on the suggestion of Mr. J. Mills, the inspector of cattle disease for Madras, the Government of India some time ago decided to test the efficacy of M. Pasteur's vaccine for the protection of animals against anthrax. From official papers recently published, it would seem that the results have been satisfactory.

BY an advertisement in our present issue it will be seen that the courses of clinical lectures for the summer session, to be delivered at the Hospital for Sick Children, Great Ormond-street, by the physicians and surgeons of the institution, will be commenced next week.

AT a meeting of the Cork County Club held last Monday, Dr. Charles Tanner, for his conduct during the recent visit of the Prince of Wales, was expelled from the membership of the Club. Ninety-one members voted, and of these eighty-nine were for his expulsion.

THE Master of the Rolls has dismissed the appeal in the case of Hugall *v.* M'Kean, an action brought against a landlord for an alleged breach of covenant to keep drains in good order, in which judgment for the defendant had been entered by Mr. Justice Wills.

A CONFERENCE upon cholera was to meet at Berlin on Monday last, and Professor Pettenkofer was expected to attend. We have not yet received the reports of the meeting, at which, doubtless, Professor Koch will have detailed his recent researches.

THE Italian Prime Minister has given an emphatic denial to the statement that there had been two cases of Asiatic cholera at Rome.

DR. ROBERT KOCH has been nominated Professor of Hygiene at the University of Berlin.

LUNATICS IN WORKHOUSES.

AT a meeting of the Council of the Poor-law Medical Officers' Association, held at 3, Bolt-court, Fleet-street, on Tuesday, the 5th inst., certain of the clauses of the Lunacy Law Amendment Bill, now under consideration in the House of Lords, were passed in review, and considered in their bearing on the duties and interests of workhouse medical officers, especially Clause 10 and Sections 1 to 7. Sections 1, 2, and 3 provide that an alleged lunatic may be kept in a workhouse for fourteen days from its date by a certificate, containing the usual proviso, from the medical officer, and drawn according to Form 8 in the schedule. Section 4 provides that no person shall be detained in a workhouse as a lunatic for more than fourteen days, without an order under the hand of a justice of the peace having jurisdiction in the union where the workhouse is placed, which shall be drawn according to Form 9 in the schedule. The Council feel that this section will be found to be cumbrous and unworkable. Section 5 provides that the order is to be made on the application of the relieving officer, supported by a medical certificate according to Form 6 in the schedule under the hand of a duly qualified medical practitioner, *not being an officer of the workhouse*, and by the certificate under the hand of the medical officer of the workhouse drawn on Form 8 in the schedule. The Council holds that this is a gratuitous affront to and reflection on the medical officer, as he is to have the care and custody of the lunatic for fourteen days—it may be for more,—and then some medical man from outside is to step in, fill up the certificate, and be paid the fee, to the entire exclusion of the workhouse medical officer, who, in some workhouses, will sustain a very considerable diminution of the income he has hitherto derived from this source. Section 6 provides that when an alleged lunatic is in a workhouse, and the medical officer thereof has not signed such certificate as in this section is mentioned, or if at or before the expiration of fourteen days from the date of the certificate an order is not made under the hand of the justice for the detention of the lunatic in the workhouse, the medical officer shall give notice in writing to the relieving officer to take the requisite measures for the removal of the lunatic to an asylum; and by Section 7 it is decreed that, if he omits to give such notice, then for every day or part of a day he is in default he shall forfeit the sum of £10. It will be noticed that under the provisions of this clause every case, whether lunatic, idiot, or imbecile, now kept in the workhouse, must be notified by the medical officer, taken before a justice of the peace, and decided upon, not by the official, who knows all about him from daily observation, but by an absolute outsider, to the prejudice of the workhouse medical officer, and at an unnecessary cost to the guardians, who will be called on to pay a fee in each case; and as in many workhouses there are from 50 to 100 of such cases, the expense will be considerable. The Council feel that this Bill is framed in the harshest, most unjust, and most ungenerous spirit towards workhouse medical officers, and therefore earnestly calls on all such officers to use whatever influence they may possess to prevent this clause of the Bill from becoming law.

Signed on the part of the Council.

JOSEPH ROGERS, Chairman,
May 6th, 1885. J. W. BARNES, Hon. Sec.

RUSSIAN OPINIONS ON ANTIPYRIN.

AT a recent meeting of the St. Petersburg Medical Society, Dr. Grimm related a case of severe Erysipelas in which he used Antipyrin three times. The first time the remedy was successful and effected a cure in three hours; the second time no effect was produced; the third time, though nausea was produced, the cure was effectual. He gave a gramme three times hourly.—Dr. Barthel stated that in the clinical hospital generally five grammes were ordered (two, two, and one, at intervals of an hour), and with good results. Collapse had never been caused, and nausea but seldom; never vomiting or rigors on a rise of temperature.—Dr. Hinze confirmed this from his experience in a series of cases of erysipelas.—Dr. Moritz had used antipyrin largely both in the Clinical Hospital and in the Alexander Male Hospital. Besides typhus cases, where the remedy was not well borne, he had given it for three or four weeks in a case of acute joint rheumatism in which salicylic acid was useless; the quantity of antipyrin given was about four grammes per diem. The effects were prompt and satisfactory, reducing the fever with perspiration, without any nausea. It was worth remarking that intelligent patients observed that the taste of the remedy varied a good deal, so that the preparations were evidently not all alike. This might, perhaps, explain the different effects observed by Dr. Grimm in his case. Dr. Moritz had used antipyrin in pneumonia, but could not say that the course of this disease was shortened by its means.—Dr. Börling had seen antipyrin used in Strasburg in typhus and pneumonia, and had employed it himself in private practice with good results, especially in a case of abdominal typhus in a child of five years of age. The temperature fell after the first series of three doses (double as many grains as the child's age in years, so in this case ten grains). After the second series it fell to 36·5°, and remained for two days below 38°. As soon as it rose to 39° the antipyrin was again given. The illness lasted about three weeks. The child recovered. Dr. Börling generally gave the drug in syrup, and found children liked it in this way.—Dr. von Grünewald had used antipyrin often, but had several times seen vomiting produced.—Dr. Hüber confirmed Dr. Moritz's observation that antipyrin, like other antipyretic remedies, though capable of reducing temperature in a longer or shorter time, did not shorten the course of diseases.

OUR WAR CORRESPONDENT'S EXPERIENCES IN THE SOUDAN.

(*Concluded from page 818.*)

THE days a correspondent spends out in the Soudan are by no means dull. There are few hours, indeed, in which a man keen for inquiry cannot somehow or other find material in which to interest himself, or those on whose behalf he is acting. A visit to the town of Sawakin on one occasion—a sort of by-day—repaid me well for the trouble in doing so. It had been blowing strongly from the N.N.W. since daylight on the date in question, and raising such a dust-storm over the plain, camp, and shipping in harbour that everything a few yards distant was periodically quite hidden from view, and military movements had in consequence to be suspended for a time, whilst those who were on shore, and were unfortunate enough to be living in tents on the border of this extensive sand desert, had not only their nostrils, eyes, and ears filled with fine gritty particles of sand, but their hands were kept pretty busy in brushing off the yellow-coloured dust from articles of diet, as well as that quantity that had collected to the depth of half an inch or more on their bedsteads, their seats, accoutrements and saddles, and other tent belongings. To the poor sick and wounded this *dust-storm* proved irksome and distressing to a degree. Towards four o'clock, however, on the wind lessening in force and shifting more easterly, a subsidence of the disagreeables took place. People then could both see and breathe better than they could an hour earlier, and by five o'clock, with a little extra brushing up, matters had smoothed a bit and settled down to their normal condition.

Mr. Walter Truscott, the energetic representative of the *Pictorial World*, and myself, in company, determined to pay the Arabian quarters in the town of Sawakin a visit, and landing in the cool of the afternoon close to a large building now in the possession of and occupied by a number of our marines, we went in search of some of the lions of this town. Now, to judge by the numbers of friendly Arabs we met in passing from street to street (if these irregular and tortuous by-ways deserve such an appellation), as well as the unmolested character of our peregrinations, one could scarcely realise that at that very moment perhaps a desperate fight was being waged, and not very far off either, between our troops and these lithe-limbed fellows' kinsmen. Moreover, on passing from store to store, from stall to stall, and seeing the brisk business carried on by the squatting, cross-legged date-sellers, the jabbering fish-vendors, &c., it was evident to me that there were at least some sensible followers of Mahomet who did not up to the present believe in the glory of war, and that there was yet a remnant of the true believers of the Koran who, in fear and trembling of our powerful display of an armed force, had not deemed it desirable to quit their customary occupation and join their fathers, their brothers, or relatives in yonder plain. We observed two or three drinking dens, bearing French titles, "Hôtel de Ville," "Hôtel de Lesseps"; they were not sufficiently inviting, however, in their exterior to tempt us, so we did not enter them. On walking through a sort of main street lined on either side with rows of dirty-looking shops in which Arab merchants and dusky-coloured craftsmen were exposing their offensive-smelling fish and fly-covered merchandise and wares for sale, we arrived at a sort of square filled with human beings collected from every nation under heaven, and on the further side of which stood quite a handsome-looking edifice, built of quadrangular blocks hewn out of white coral brain-stone (all the buildings and all the walls in this town are composed of this beautiful coralline substance), and which the bystanders asserted to be

OSMAN DIGNA'S TOWN HOUSE.

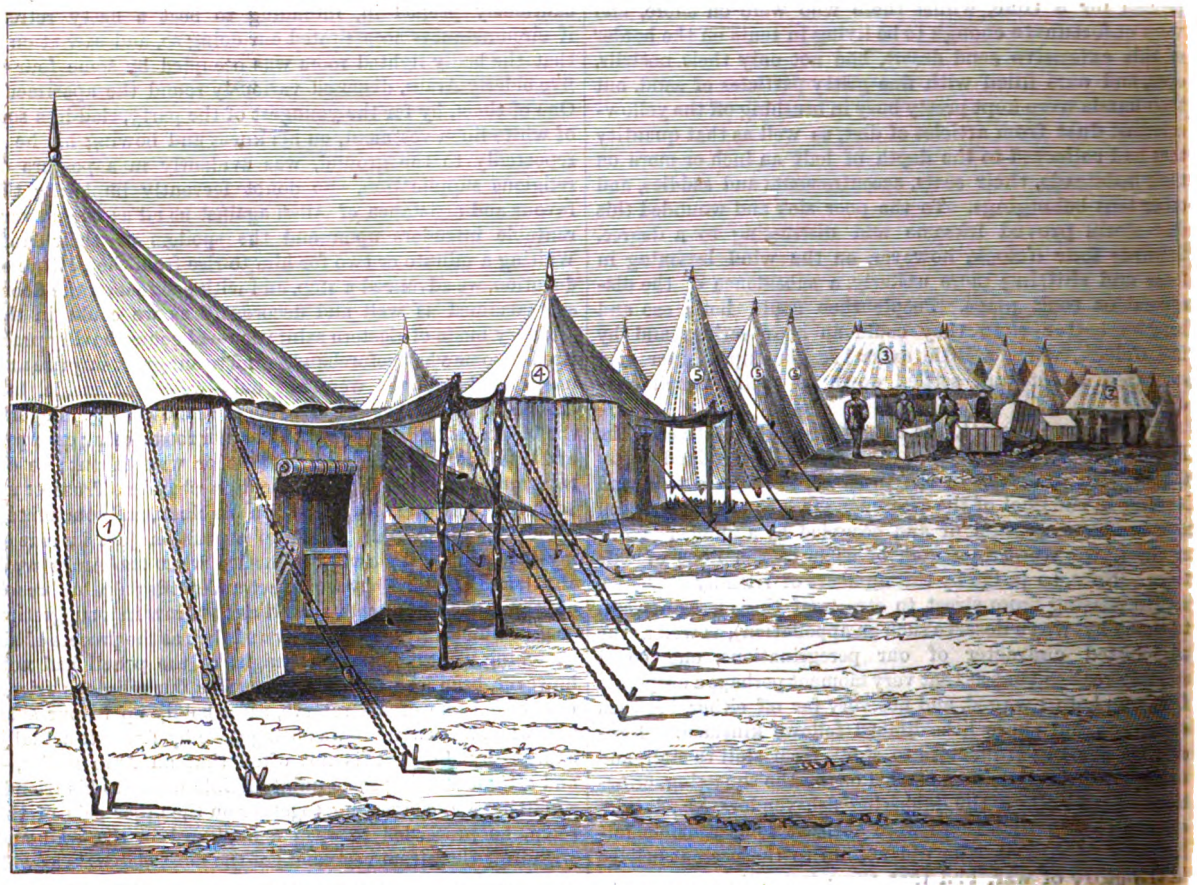
Of course Truscott would sketch the inside, whilst I determined to try my hand at the outside of the mansion—that is to say, if the tenants now in possession of it would grant us permission, and let us enter to do so. So, wending our way through the motley ill-conditioned crowd, we arrived opposite the solidly built double front door, one-half of which happening fortunately to be just open, we cautiously peeped in, intending to beat a hasty retreat if circumstances necessitated our doing so, and saw at once that the badly lighted room was occupied by some four or five elderly Arabs, disposed variously round the apartment. One of them, by far the youngest of the party, clad in a sort of white linen vestment, on his knees and bowing his head repeatedly to the ground, was evidently in a posture of religious supplication,—no doubt fervently imploring the favour and assistance of Allah against us all as the unwarrantable intruders upon and the spoilers of their land. Waiting a minute or two for him to rise from the posture of devotion, we advanced a step, and with one foot on the door-sill salaamed as well and decorously as we could in the ordinary mode of Eastern salutation—of course having practised it somewhat beforehand,—and to our great surprise and unspeakable delight were not only welcomed inside, but offered an inspection of the whole of this dwelling. Beyond the basement hall (the upper and other rooms being cramped and small), there was little to note or write about; so on returning to Osman Digna's reception-chamber, Truscott up with his sketching stool, out with his block, and commenced operations forthwith. I took up a position just in rear of my colleague, with a view to notice what the Arabs were about, and see how they would act under this palpable breach of etiquette on our parts, as well as to throw in a suggestion or give him an artistic hint now and then as the process of his sketching went along. The knight of the pencil had not, however, been long at his work before our religious friend threw off some of his reserve, came boldly up to our side, and when he saw what was being done by Truscott actually smiled—by Jove! it is not often that an Arab smiles,—and after muttering some unintelligible words to his friends squatting and conversing together on the other side of the room, he proceeded to open a cupboard in the wall and withdrew therefrom vestments of the most elaborate as well as costly description. Divesting himself of his toga alba he quickly assumed another of a widely different character both as to colour and textile condition. First of all came a light azure-blue-coloured and flowing satin skirt; and, gathering in its ample folds, he next encircled his slight waist with a cream-coloured girdle of twisted silk; then over his sloping shoulders, carelessly, still very artistically, was thrown a bright-golden-coloured ribbed silk shawl from which hung fringe of the same quality at least six inches deep. After this appeared on his head a huge turban of rich yellow and maroon silk, and then, with a glance in a small hand-mirror which he held and a twist or two of his jet black moustache, he finished his get-up, evidently much to his own as well as to his companions' satisfaction. Truscott stopped work to look in astonishment at this modern example of an Arabian Nights transformation, whilst I was equally lost in amazement at the wonderful change that had come over the religious devotee since the first moments of our self-forced introduction.

Subsequently it transpired we had (quite by accident) hit upon the day of the sheikh's "at home," as several elderly white-headed old patriarchs called upon him during the afternoon of our visit, giving him most deferential bows on entry, and receiving from him in turn that *bonhomie* courtesy which alone is the outcome of position, patronage, and power. A question now naturally arose betwixt us,

"WHO IS HE,

as a respected tenant in this Osman Digna's house?" "Is he a brother, is he a cousin, or in what relationship, if any, does he stand to that Mahdi's lieutenant, who has so long and so pluckily defied the British arms and power?" How we longed to know how and by what means the present holder had been permitted to remain in occupation of this domicile! But any further surmises on our part were suddenly cut short by the introduction of coffee, which, in small chased silver cups, was handed round by an attendant to all present. On the same being presented to me I incautiously proceeded to tip the Nubian slavey, and received a well-merited rebuke from mine host for my thoughtlessness and want of manners on this occasion. With some degree of diffidence I brought the tiny metallic receptacle to my parched lips. I was very thirsty at the time, and swallowed an ounce or two of the strongest infusion of Mocha I ever tasted in my life; and although the dictates of conventionalism amongst the Arabs forbid a guest to reject proffers of edibles or drinkables not actually forbidden by their religious tenets, I think I must have refused a second edition of the coffee—"thick stuff" Truscott called it—if brought round again, and was very glad to find there was no repetition of the courtesy. I was wearing at the time a brown leather cross-belt, to which was attached a cartouch-box for carrying a small surgical case in. To-day within it there happened to be a consignment of cigars. A thought struck me. I'll offer my guest one of them. So, bringing the box round from my back, I was in the act of undoing it for the purpose of extracting a veritable "Henry Clay," when I saw a look of consternation on the face of my host and his other native guests. I grasped the situation in a moment. They thought I carried firearms, and was going to use the same against them. It took but a moment to undeceive them, for in a second or two afterwards a cigar was out from where a cartridge was expected to issue, and presented with due formality to His Excellency, while I explained to him at the same time that I was not a fighting man. My business out in the Soudan, and amongst his people, partook more of a pacific than a fighting character, and my desire was for peace rather than war. I assured him I had never lifted hand or weapon against him or his people, and, more than that, I trusted I never should. This explanation gave him confidence, and the fear formerly depicted on the countenance of my host was speedily changed to a look of astonishment, whilst a considerable amount of amusement was created amongst the guests present by the *dénouement* to which my cigar-case had so unexpectedly given rise to. He gracefully declined my offer, saying he never smoked; but from that moment I was always a welcome guest at the house. I should scarcely deem the above incident worth recording were it not for

H REDOUBT AND BASE HOSPITAL.



1. Dr. Trotter's tent. 2. Hospital stores tent. 3. Operating tent. 4. Medical officers' tent. 5, 5, 5. Tents of orderlies and attendants.

WHAT CAME OF IT AFTERWARDS.

Two or three days elapsed before I again paid the town a visit; when I did so I called in to see my sheikh friend, and was welcomed more cordially than before. Presently an elderly Arab entered and commenced a very animated conversation with mine host. I listened—who will blame me for doing so?—and through possessing a slight knowledge of Persian and Arabic, gained during my studies in the Hindustani language, and from carefully watching the manual demonstrations by the informant, putting this fragment and that fragment of conversation together, I was enabled to gather

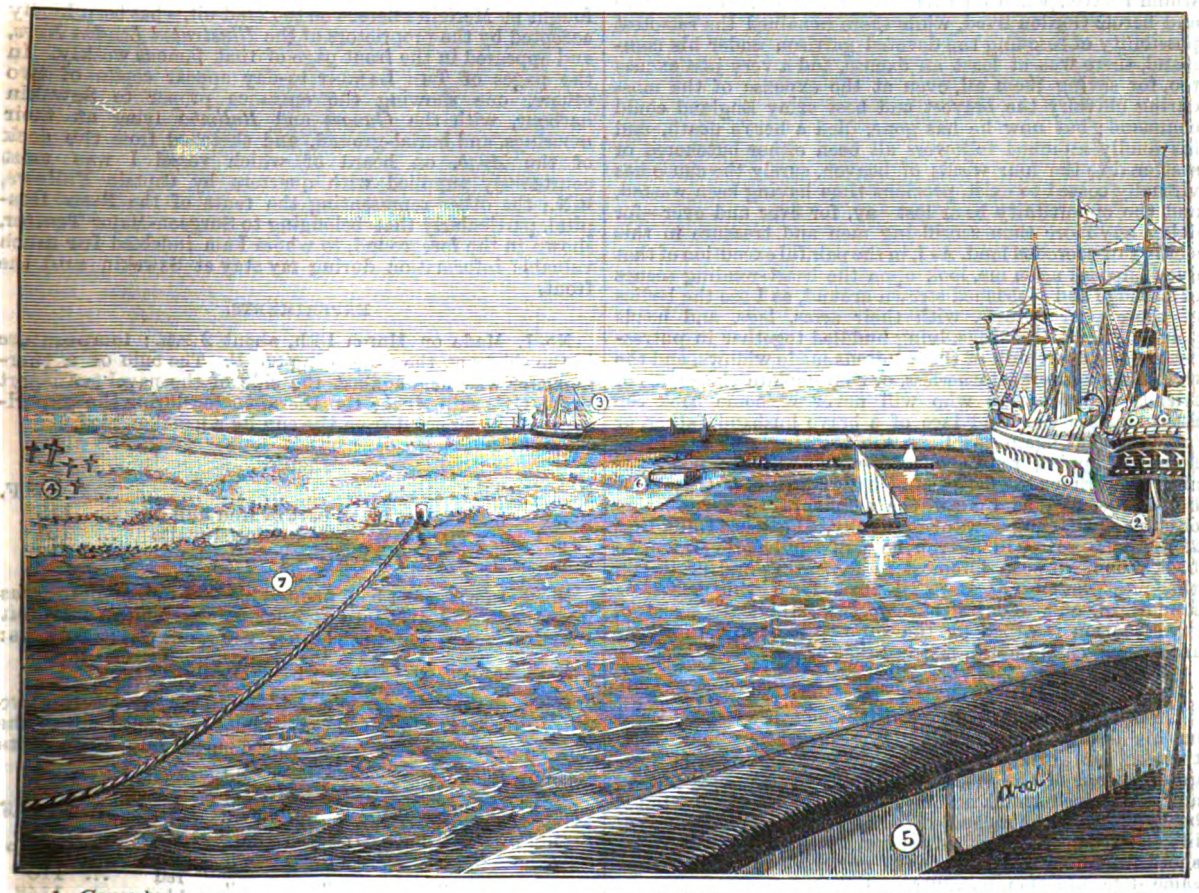
that not only had something unusual happened amongst their Arab forces, but, if I mistook not his meaning, a sad fatality had overtaken the Amara and Samara tribes by some fatal blunder—i.e., they had been mistaken, it appeared, in the smoke for English soldiers, and by getting between the fire of our troops and the riflemen on Osman Digna's side had lost nearly a thousand of their number by their stupidity and blundering. This was indeed a most welcome "find" for me. A thought at once struck me: "That old fellow knows more than he has told; I'll try to get hold of him for further information." With this idea in view I set to work, and within a few hours he was attendant on me in one of Messrs. Lucas and Aird's tents, and a willing agent in my service into the bargain. I proceed to give the dialogue *verbatim* as it occurred between us in the presence of one of the ablest interpreters attached to the British camp.

Q. What is your name? *A.* Al-Abed.—*Q.* What country-man are you? *A.* Arab by birth.—*Q.* Where do you live? *A.* Principally at Jeddah.—*Q.* How is it that you are here in Sawakin? *A.* I am a travelling merchant sheikh, and have been so for a number of years.—*Q.* Do you know Osman Digna? *A.* I do, very well indeed.—*Q.* Now, are you friendly with the English? *A.* Yes, quite so; I do not think the English will do me any harm.—*Q.* How is it that Osman Digna and your brethren in arms do not think so too, and come in and be making money by working on the rail as the friendly disposed are doing? *A.* Because they are silly men, and do not know better.—*Q.* Now tell me, have you heard that any of Osman Digna's troops have been killed through an accident? *A.* I do know it to be perfectly true that several hundred men of the Amara and Samara tribes were shot by getting in between the fire of the English and our men.—*Q.* Is there any dissatisfaction amongst Osman Digna's party? *A.* Yes, there is considerable disapproval amongst them at being forced to fight outside when many of their friends are staying inside the town not fighting, and earning plenty of rupees by so doing.—*Q.* What is your opinion about Osman Digna's surrendering himself to the British, and upon what terms? *A.* On account of the many people leaving him, I think it highly probable Osman Digna would surrender himself on certain terms being granted him.—*Q.* Give me your ideas of his terms, and I will see what can be done for you. *A.* First, the lives of himself and all followers must be spared; secondly, that he on surrender be treated as a patriot, not as a rebel, and *with no less consideration than Arabi was;* thirdly, that work be found on the railway for the people when they do come in and lay down their arms.—*Q.* Could you carry to, and bring back a letter from, Osman Digna? *A.* No, not myself, I am too old for the journey; but I can get a man to do it, if the General will grant a pass through the British lines, and the messenger is paid for going. — *Q.* Where is Osman? *A.* I cannot tell you. It would cost me my life.

And with this our interview terminated. Then getting the principal items of our conversation jotted down and signed by the interpreter present as a witness to its veracity, I posted off with it to the tent of General Ewart at the base, who took such a well-disposed interest in the matter that he at once despatched me in company with his aide-de-camp to head-quarters, so that the officer in charge of the Intelligence Department should be made aware of the facts without a moment's delay. What transpired between myself and Major Grover for the purposes of this paper need not be known; but the public may rest assured that no stone has yet been, nor ever will be, left unturned to bring about a

ENTRANCE OF SAWAKIN HARBOUR.

(Sketched from the deck of the steam transport ship "Arab.")



1. *Ganges* hospital ship.
2. B.I. steam transport ship *Bulimba*, Captain Clark, R.N.R.
3. H.M. gunboat lying at entrance of harbour.
4. Old burial-ground, where the late Lt. Dallston, of the Guards, lies.
5. Rail and bulwarks of *Arab*.
6. Henhouse of *Ganges*.
7. Showing shallowness of water over coral formation.

pacific as well as an honourable termination of this most calamitous campaign. This happened on Saturday, March 21st. Sunday followed with all its train of distressing and disastrous events. Who knows by the sparing of our troops from that Sunday's march out what might by God's mercy have been brought about? I never saw my sheikh friend again; so turning my thoughts from our friendly Arabs (for there are many such) and casting my eyes plainward, what a ghastly sickening spectacle of war lies there! Upwards of twenty heaps, each one containing about a hundred carcases of human beings just ready for burial or cremation, as the urgency of the circumstances may demand. On beholding such an unnatural exhibition, what is the exclamation that escapes the lips of every officer and every man you meet with out there?—Horrible! And is it not also asked everywhere you go—

FOR WHAT PURPOSE IS ALL THIS EXPENDITURE OF HUMAN LIFE?

Ah! we may well ask ourselves that question. All to whom I have spoken on this subject feel that whilst brave and heroic Gordon lived, while there remained the remotest possibility of rescuing the devoted garrison under his command, there was at least an excuse, and a very just excuse too, for saving them all, even at the expense of the most daring chivalry the bravest and best army England could command; but now he has gone, died a hero's death, and his fondly attached followers all been either butchered or scattered to the four winds of heaven, surely the cause has virtually ceased to exist, precious time having been wasted, and the opportunity been lost—ay, for ever and ever—for doing any more than sacrificing men and treasure in this sickly sun-scorched land. As I, in the painful execution of that duty imposed upon me, look upon the heart-rending scenes of carnage and bloodshed strewn around, as I see the bodies of those poor fellows, with their arms, legs, and heads pointing in all directions, lying huddled together in putrescent heaps, as I think of the hundreds made widows, and the thousands rendered fatherless, or contemplate the scores of friends and relatives who will never welcome back the return, or see the kind face of a brave husband, father, or loving friend again; as I see the seething and devouring flames wrapping round, one after another, the poor, yet after all perhaps the happiest of happy homes, of these poor barbarians, and as I view the smoke of that desolation circling and curling upward to the sky,—I can but think that if there be a God in heaven he will surely bring some to book who have been foremost in fomenting and urging on this most unholy of wars. I turn from this spectacle homeward, and arriving once more at the Base Hospital, my attention is called by the surgeon in charge to a very interesting case, indeed, it being that of

A POOR ARAB LAD SHOT THROUGH BOTH THIGHS.

On my entry into the hospital tent he was observed lying on his left side, and certainly appeared not more than thirteen, or at most fourteen, years of age. He is recognised as one of the brave leaders who made a most plucky and determined attack on our lines, for, with nothing but a banner in hand, he rushed on our ranks, utterly regardless of life or the consequences, until he was brought to earth, being shot through both legs by one of our marksmen. With the same determination, however, and the same patience as he exhibited during the fight, in the presence of his captors he bore his pain and sufferings now, and they must have been excruciating at times. Although the bullet had penetrated and passed through the fleshy part at the juncture of the middle and upper thirds of both limbs, I never even heard him moan; not a cry, not a groan, ever escaped his parched and swollen lips, and there was little to tell, beyond the visible application of a quantity of antiseptic dressing wrapped round the limbs, that he had ever been wounded at all. Poor fellow, he lay so quiet—never moving, save to brush away occasionally some irritating fly that had settled on his fever-heated brow; but never would he let it be known that he felt pain, or that he suffered any inconvenience whatever from the active and plucky show he had made in yonder fight. Now and then he would try to, and did, remove the dressings and bandages from his extremities, and it kept the nursing staff pretty busy preventing him from oftener repeating the offence.

I think in my last letter I spoke of the ship *Ganges* being suitably painted white; why I did so is because most of the transports are painted of a slate-grey colour, for what purpose I am at a loss to conjecture, when, for all purposes of health or mitigating the effects of heat, these vessels might as well have been clothed in a darker colour. From experiments made by myself and others, most carefully conducted by a naval officer some time ago in Bombay dockyard, it appears that a very great mistake is made in coating ships of a hue anything approaching an ash-grey tint.

I append the results of these experiments to prove the accuracy of my statements, with the view that some interest may be awakened in those who are responsible for the transport arrangements, and have the interest as well as the health of our soldiers and sailors at heart.

My experiences in the Soudan are now drawing to a close, as having been offered by the Principal Medical Officer at the base, and accepted, a charge, in conjunction with another medical officer, of some sick and wounded bound to Suez, I proceed on board the *Deccan* to take up my duties before night has finally closed in.

Already one of my rough sketches—that of the battle fought at McNeill's Zereba on the 22nd ult.—has been kindly accepted by the proprietors of the *Illustrated London News*, and appeared in the front page of that famous weekly. In the pages of THE LANCET to-day appear copies of two others, one showing the entrance proper to Sawakin harbour, with the *Ganges* and *Bulimba* lying at their moorings, and burial-ground, and sketched from the deck of the *Arab*, on board of which vessel I was most courteously supplied with quarters by Captain Fellows, R.N.; the other representing the tents of the Base Hospital, particularly that belonging to Surgeon-Major Trotter, shown in the foreground, to whom I am indebted for much valuable information during my stay at Sawakin and the front.

EXPERIMENTS.

No. 1. Made on March 18th, about 2 P.M.; temperature in the shade at the time being 85° F. The bulb of a thermometer was held against the side of the naval transport Union Co.'s ship *Arab;* the thermometer during the experiment being screened from the sun by a handkerchief.

Result.

Temp. of air in shade	85° F.
" " against black part of iron hull	113°
" " against a portion painted white ...	104°
" " against a portion painted lead-colour	112°

No. 2. In a wooden box, painted black, a thermometer was introduced, and also into another painted white (both left standing for one hour in the sun). The result was as follows:

1. Black ... ... 117° F. | 2. White ... ... 102° F.

No. 3. Six thermometers I hung up in the sun, having two parts of new bunting of different colours wrapped round the bulbs and lower ends of each thermometer (also exposed to the sun for one hour).

Result.

Temp. of the air in shade	91° F.
" 1st thermom. cov. with 2 parts of white ...	106°
" " " " yellow ...	109°
" " " " red ...	110°
" " " " blue ...	114°
" " " " light-blue	115°
" " " " black ...	117°

This experiment shows the advantage of light-coloured clothing and awnings in the tropics. Having no lead-coloured bunting, I was unable to test results with this.

No. 4. Procured ten tin biscuit-boxes, and painted them variously as under. Into each one was introduced a thermometer, which was simply left standing up in the boxes on the side opposite that exposed to the sun. Time, 3 P.M. Temperature of external air in the shade, 88° F.

1. White	100° F.	6. French-grey...	106° F.
2. Yellow	103½°	7. Lead-colour...	109°
3. Red	104°	8. Dark-green ...	110°
4. Stone-colour...	102½°	9. Light-green ...	109°
5. Blue	106°	10. Black	114°

N.B. These tin biscuit-boxes were closed, and left standing in the sun for about two hours.

No. 5. Three square tin biscuit-boxes were next painted and whitewashed variously, to test the relative merits of same.

Results.

Aa.	Painted white, and exposed to the full rays of the sun	100° F.
	Painted French-grey, and exposed to the full rays of the sun	111°
	Painted dark-grey, and exposed to the full rays of the sun	112°
A.	Painted with one coating of grey over white	108°
	Painted with two coatings of grey over white	116°
	Painted white, and exposed to the sun ...	100°
	Whitewashed	98½°
B.	Biscuit-box, painted French-grey	111°
	Over this paint one coating of whitewash applied...	102°
	With two coatings of whitewash	96°
C.	Biscuit-box, painted lead-colour	112°
	Over this paint one coating of whitewash applied...	103°
	With two coatings of whitewash	97°

The results of these experiments go far to prove the vast superiority of white to *grey* as regards coolness for coating anything that is subject to exposure to the sun in the tropics, and would also lead to the inference that white, if allowed to become dirty or grey-like, would thereby be rendered much less cool than it originally was when in a cleanly condition. Moreover, the results of experiments carefully and patiently made by Staff Commander Pounds, R.N., of Malta Dockyard, go very far to corroborate in every respect those of my own.

Erratum.—In our correspondent's letter published last week, an important typographical error escaped correction. Each of the officers' hospital tents is there stated to have *contained* "eighty" beds. The number should, of course, have been eight.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Poplar.—In the last monthly report issued as to the Board of Works for the Poplar District, reference is made to he visit of Dr. de Chaumont, on behalf of the Local Govern-ient Board, in connexion with precautions which may be ecessary as to cholera. From what is said, it would appear hat the central authority are advising all port and riparian uthorities to be provided beforehand with means for olating cases of that disease; and that it has been laid own as desirable that cholera cases should not be subjected o a journey of more than a mile when isolation is intended. or the metropolis this would mean the establishment of a rge number of hospitals; but, having regard to the sym-oms of cholera and their rapid progress, we believe the mit of one mile to be a wise one; and should the disease pear in our midst we hope the requisite number of tem-rary hospitals will be forthcoming.

Huddersfield (Urban).—A report issued by Dr. Cameron ows that the death-rate in Huddersfield during the irteen weeks ending April 4th was equal to 22·4 per 1000, which 2·0 was due to the principal zymotic diseases. th those rates were slightly below the mean rates during e same period in the twenty-eight English towns, hough they somewhat exceeded the low rates that pre-iled in Huddersfield in the first quarter of 1884. The aths last quarter included 36 from measles; and Dr. meron points out that little can be done to check the read of this disease until it is added to the list of diseases be notified to the sanitary authority. It is pointed out, reover, that 4 deaths were referred to typhoid fever, and t 19 "supposed" cases of this disease were notified during quarter, suggesting the probability of another outbreak his disease next autumn unless preventive measures are orously enforced. Infant mortality in Huddersfield last rter exceeded the average rate in the twenty-eight towns, ng in great measure to the epidemic prevalence of sles.

Stretford (Urban).—The report upon the sanitary condition of this suburban district of Manchester during 1884 states that the birth-rate and death-rate were equal to 27·5 and 17·3 per 1000 respectively. The estimate of population upon which these rates are calculated is, however, omitted, which materially detracts from the value of the rates. The population of this district increased from 11,945 in 1871 to 19,018 in 1881, and Mr. Pettinger appears to have estimated the population in 1884 at 20,000. This is considerably below what the estimate would be if based upon the rate of increase between 1871 and 1881. The death-rate given (17·3) exceeds that recorded in recent years, and no account appears to be taken of the deaths of residents recorded in public institutions situated outside the district. With regard to child mortality, we are told that the deaths included 139 children under five years, "showing a death-rate of 6·95 children under five years of age." It may be presumed that this means that the deaths under five years were equal to 6·95 per 1000 of the population at all ages. Such a rate is utterly valueless as a test of child mortality, which can only be measured by the proportion of deaths of children to the number of children living at the same ages. We are not told that the deaths of infants under one year were equal to 144 per 1000 of the children born, which is a trustworthy test, and shows for such a district as Stretford a remarkably high rate of infant mortality. The zymotic death-rate is given as 1·9 per 1000, and was mainly due to 9 deaths from scarlet fever and 24 from diarrhœa. Bearing in mind the suburban character of the population, and its large quota of domestic servants, the sanitary condition of the district, in spite of a comparatively low death-rate, cannot be considered satisfactory.

New Windsor (Urban).—Dr. Casey is able to report very favourably of the health of this municipal borough during 1884, the death-rate having been but 13·3 per 1000, which is satisfactorily low, even after due allowance for the abnormal character of the population, including as it does a large proportion of soldiers. The population of the borough is estimated (evidently on the basis of the rate of increase between 1871 and 1881) at 12,441. The birth-rate was not more than 26·8, influenced, as was the death-rate, by the number of soldiers and of domestic servants in the population. The deaths, including those in the union workhouse, and excluding those of non-residents in the Royal Infirmary, were fewer than in any recent year, and were 74 below the number that would have occurred had the rate in the borough been equal to the mean rate in the whole of England and Wales. Two exceedingly favourable features in this report are: (1) the low rate of infant mortality, which was only 72 per 1000, and less than half the general rate; and (2) the low zymotic death-rate, which did not exceed 0·88 per 1000. The statistical part of the report, especially that which gives the rate of mortality during the past five years at each of four groups of ages, is highly commendable, and corroborates the satisfactory evidence of the low death-rate at all ages. Two unfavourable features in the report should, however, be noted. It is stated that no means exist in the borough for the isolation of cases of infectious disease, which, in view of the four cases of small-pox that occurred last year, cannot be considered satisfactory. It appears, moreover, that the town, especially in the older parts, abounds with "dangerously polluted wells." The favourable mortality statistics of last year should not depreciate the value of the warning implied by Dr. Casey in pointing out these defects in the sanitary condition of the Royal borough.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5792 births and 3601 deaths were registered during the week ending the 2nd inst. The annual death-rate in these towns, which in the preceding two weeks had been 23·2 and 23·4 per 1000, declined last week to 21·1. During the first four weeks of the current quarter the death-rate in these towns averaged 23·2 per 1000, against 23·9 in the corresponding periods of the nine years 1876-84. The lowest rates in these towns last week were 15·1 in Hull, 15·1 in Derby, 15·2 in Bolton, and 15·9 in Brighton. In the other towns the rates ranged upwards to 30·1 in Blackburn, 30·6 in Manchester, 32·7 in Preston, and 34·4 in Newcastle-upon-Tyne. The deaths referred to the principal zymotic diseases in the twenty-eight towns,

which had steadily increased in the preceding nine weeks from 377 to 529, declined last week to 449; of these, 176 resulted from measles, 127 from whooping-cough, 36 from small-pox, 33 from scarlet fever, 30 from diarrhœa, 20 from diphtheria, and 22 from "fever," principally enteric. The lowest death-rates last week from these diseases were recorded in Brighton and Derby, and the highest in Sunderland, Cardiff, and Newcastle-upon-Tyne. Measles caused the highest proportional fatality in Sunderland, Liverpool, Manchester, and Cardiff; whooping-cough in Blackburn, Cardiff, and Preston; scarlet fever in Preston, Newcastle-upon-Tyne, and Sunderland; and "fever" in Norwich and Leicester. Of the 25 deaths from diphtheria in the twenty-eight towns 15 occurred in London, 3 in Bristol, 2 in Portsmouth, and 2 in Liverpool. Small-pox caused 66 deaths in London and its outer ring of suburban districts, 2 in Manchester, 1 in Liverpool, and 1 in Halifax. The number of small-pox patients in the metropolitan asylums hospitals, which had been 1062 and 1034 at the end of the preceding two weeks, rose to 1282 on Saturday last; the admissions, which in the previous two weeks had been 307 and 246, rose to 354 last week, and exceeded the number in any week since June last. The Highgate Small-pox Hospital contained 87 patients on Saturday last, 20 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had declined in the preceding three weeks from 512 to 381, further fell last week to 337, and were 59 below the corrected weekly average. The causes of 91, or 2·5 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Plymouth, Nottingham, and in three smaller towns. The largest proportions of uncertified deaths were recorded in Hull, Halifax, Salford, and Oldham.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which in the preceding four weeks had declined from 25·0 to 22·7 per 1000, further fell to 22·4 in the week ending the 2nd inst., but exceeded by 1·2 per 1000 the mean rate during the same period in the twenty-eight English towns. The rates in the Scotch towns last week ranged from 11·4 in Leith and 15·2 in Aberdeen, to 27·5 in Glasgow and 30·8 in Paisley. The 546 deaths in the eight towns included 27 which resulted from whooping-cough, 14 from measles, 9 from diarrhœa, 7 from scarlet fever, 4 from "fever" (typhus, enteric, or simple), 3 from diphtheria, and not one from small-pox; in all, 64 deaths were referred to these principal zymotic diseases, against 76 and 81 in the preceding two weeks. These 64 deaths were equal to an annual rate of 2·6 per 1000, which corresponded with the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 17, 23, and 30 in the preceding three weeks, declined last week to 27, and included 15 in Glasgow, 3 in Edinburgh, 3 in Paisley, and 3 in Perth. The 14 deaths referred to measles showed a further decline from recent weekly numbers, and were all recorded in Glasgow. The fatal cases of scarlet fever, which had been 7 and 4 in the previous two weeks, rose again to 7 last week; 3 occurred in Edinburgh, 2 in Glasgow, and 2 in Paisley. The 4 deaths from "fever" were fewer than those recorded in any recent week, and included 2 in Edinburgh. Of the 3 fatal cases of diphtheria 2 were returned in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 131 and 118 in the previous two weeks, were 124 last week, and exceeded by 8 the number returned in the corresponding week of last year. The causes of 78, or more than 14 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had risen in the preceding three weeks from 32·2 to 34·0 per 1000, declined to 33·5 in the week ending the 2nd inst. During the first four weeks of the current quarter the death-rate in the city averaged 33·4 per 1000, the rate during the same period not exceeding 21·9 in London and 18·8 in Edinburgh. The 227 deaths in Dublin last week were within 3 of the number in the preceding week, and included 40 which resulted from the principal zymotic diseases, against 29 and 28 in the previous two weeks; 17 were referred to measles, 9 to "fever" (typhus, enteric, or simple), 5 to scarlet fever, 5 to diarrhœa, 4 to whooping-cough, and not one either to small-pox or diphtheria. These 40 deaths were equal to an annual rate of 5·9 per 1000, the rate from the same diseases not exceeding 2·9 in London and 1·7 in Edinburgh. The deaths referred to measles, which had been 15 in each of the preceding two weeks, rose to 17 last week. The fatal cases of "fever" showed an increase of 5 upon the number in the previous week, and exceeded those recorded in any week since the end of January last. The deaths from scarlet fever, whooping-cough, and diarrhœa also exceeded those returned in recent weeks. Five inquest cases and 5 deaths from violence were registered, and 64 deaths occurred in public institutions. The deaths of infants showed a further increase, while those of elderly persons showed a slight further decline from those returned in recent weeks. The causes of 35, or more than 15 per cent., of the deaths registered during the week were not certified.

Correspondence.

"Audi alteram partem."

THE CUSTODY OF LUNATICS.

To the Editor of THE LANCET.

SIR,—In your annotation last week on this subject your advice to the medical officers of workhouses is "Let the authorities get out of the difficulty as best they may." Does this advice imply that the medical officers are not to deal with the lunatics placed under their charge? If so, such advice is impossible to be followed, as the medical officer seems to me to be obliged to give a certificate on the request of the master or relieving officer as to the state of a patient's mind and the advisability of letting a supposed lunatic go free. Should any damages be assessed to the medical officer from illegal detention on such a certificate, the parish will have to pay such damages, and such a custom has been followed in all the cases that have come to my knowledge. There is no reason, therefore, at present why workhouse medical officers should depart from their usual routine. I cannot admit the truth of the next sentence, where it stamps as a mischievous practice the sending of suspected lunatics to workhouses, or "that a workhouse is not the place for such cases," or "that a prison is better." Your solution "of the difficulty is to provide reception and probation wards in connexion with the public asylums for lunatics."

Now, as regards our large urban workhouses, most of which possess a staff of trained nurses, responsible male officers, resident medical officers, and suitable wards, why cannot wandering lunatics be attended there temporarily just as well as in asylums? They cannot be attended there permanently so well as at asylums, only because workhouses are in the crowded towns, and it is necessary for the welfare of the insane that they should live in the country. How the bridewells can be better than the workhouses I would like to know. In the bridewells there are neither nurses nor resident medical officers, nor suitable wards. The "prisons" have hospitals, but patients cannot be sent to prisons at midnight. If you provide suitable wards at all the bridewells, with resident medical officers and nurses, then the patients may be treated as well as in the lunatic wards of a workhouse; but I fail to see how they can be treated better. But this would be an unnecessary innovation, and, consequently, an unnecessary expense. It must be remembered that most of these suspected lunatics have to be dealt with in the night-time, and in the majority action must be taken at once—i.e., the patient must be taken into custody at once. You say these should be sent to probation wards in connexion with the large asylums. We will see how this would work in the parish of Liverpool. During the year 355 suspected lunatics were admitted into the lunatic wards of the Liverpool Workhouse. That is, according to your plan, that every twenty-four hours a magistrate would have to be looked for, and a journey of from ten to sixty miles or more made to Rainhill, Whittingham, Lancaster, or Prestwich Asylum, according as each place could or could not afford accommodation at the time. Under the present system, however, 152 only required to be removed to asylums, 203 recovering in a few days, and discharged to town, or taken charge of by friends, or sent into the work-

house as destitute. Many of these 203 went back to their work without any "insane" stigma upon them. They were looked upon as being "off it" for the time, through drink, grief, anxiety, or any of the other causes of temporary insanity that are rife in a large city. There is no stigma amongst the poor so hard to shake off as having once been in an asylum. No one will employ quondam lunatics; but if they have only been in the workhouse hospital a few days no such stigma attaches to them. It is true, that the workhouse stigma may be altogether eliminated by having a special hospital for such cases, but that would only be a change of name. Nor would it be necessary, as the great majority of these cases are destitute, and belong to the class cared for by guardians. The 152 are now pauper lunatics, 79 of the others were discharged to the workhouse. Some of the remaining 124 had friends who when communicated with by the parish authorities came forward and took charge of them, defraying expenses; but the majority of these, had they continued insane, would have become chargeable to the parish. Why, therefore, should another authority be constituted to deal with cases that from the nature of things will have eventually to be handed over to the present authority to support and look after?

It is only amongst those temporarily or permanently destitute that any trouble will arise. The better classes can procure assistance at any hour of the day or night to prevent their insane relatives from injuring themselves or others pending the preparation of the necessary forms and the arrival of a convenient time for allowing their removal to an asylum. But the poor cannot do this, and their insane relatives must be taken off their hands promptly. By the method practised in Liverpool this has been done for years, with the greatest possible advantage to all concerned. I sincerely trust the Local Government Board will legalise beyond all doubt such a system as has been used with us, as it will prove the most workable and most beneficent to the poor creatures concerned of any that has yet been proposed. It will provide for such cases when found half naked and dangerous in the streets, the bridewells, or in the homes of the poor. To take away this provision because relieving officers have in isolated instances removed respectable and harmless lunatics from comfortable homes is unnecessary, and very like yielding to panic on the part of the authorities. Any argument derived from some workhouses not having sufficient proper accommodation or attendance woule be met by insisting on suitable accommodation and attendance being provided in such places.

I am, Sir, yours truly,

WM. ALEXANDER, F.R.C.S.,
Visiting Surgeon, Liverpool Workhouse Hospital.

Liverpool, May 4th, 1885.

*** We do not suggest that medical officers should do less than their duty. All we desire to urge is that they should not do more. By all means sign certificates, but leave to the authorities the discovery of a way out of the difficulty which the absurd arrangements at present in force have created.—ED. L.

METROPOLITAN ASYLUMS BOARD.

To the Editor of THE LANCET.

SIR,—On Jan. 12th last I paid an independent and totally unexpected visit to the Darenth Small-pox Camps, and the general result of my inspection appeared in your journal on the 17th of that month. That the scale of diet, clothing, &c., was not illiberal was perhaps all too plain; indeed, the condition of the unfortunate inmates of that convalescent hospital was nearer akin to that of luxury than the opposite. The revelations now taking place with regard to the Homerton hospitals are still more striking, and prove, with the evidence of my own visit to that at Darenth, the absolute necessity of the speedy appointment of a thoroughly competent inspector or superintendent-general of all the institutions under the management of the Asylums Board. I therefore offer no apology for inviting the aid of your powerful pen in urging such a measure. At present each medical superintendent appears entirely free, and at liberty to tax the public purse to any extent his professional whims and fancies may suggest. What appears to me to be required is a firm and capable head, with full powers, but acting in concert with, and to some extent in subordination to, the responsible and able medical advisers of the Local Government Board, to organise a more or less uniform system with regard to the food, clothing, hospital comforts, and necessaries, and all the other details of the Asylums' *régime*. The idea, in all its fulness, will, I am sure, be at once clear and commendable to you, and therefore its further developmint appears to me quite unnecessary.

I am, Sir, yours truly,

JOHN INCE, M.D.,
H. M.'s Indian Medical Service (retired list).

Farningham, May 5th, 1885.

THE LATE DR. TIBBITS OF BRADFORD.

To the Editor of THE LANCET.

SIR,—Will you kindly allow me, through your columns, to appeal for help for the widow and nine children of the late Dr. Tibbits, physician to the Bradford Infirmary.

A rapidly fatal attack of pneumonia put an end to his valuable life on April 14th, before he had had any opportunity to lay by money for his very large family of young children. All the property, inclusive of books and furniture, which he left behind, when realised and invested safely at 3½ per cent., is calculated not to produce more than £20 per year. His friends and medical brethren are raising a fund for the maintenance of his widow and children. If my letter should meet the eye of any of his old college friends who were contemporaries of his at University College, I think they may be induced to lend a helping hand. The case is truly necessitous and deserving. For ten years he laboured and maintained his large family without private income of any moment beyond that which he derived from physician's practice. The little capital he possessed on first starting consulting practice was trenched upon year by year to maintain his family, and just as this little store was approaching exhaustion, and just as success in practice was beginning to come, his life was suddenly brought to its close. Any contributions will be thankfully received by me or by Mr. Wm. Maw, the Secretary to the Bradford Infirmary.

I am, Sir, yours very truly,

J. APPLEYARD, F.R.C.S. & M.B. Lond.

1, Clifton Villas, Manningham, Bradford, Yorks, April 29th, 1885.

ROYAL COLLEGE OF PHYSICIANS.

To the Editor of THE LANCET.

SIR,—The number of Fellows elected last Thursday, though twenty for the double year, does not reach your proposed annual average of fourteen or fifteen; and as the selection for the last three or four years has been exclusively from Members within the decade 1870-80, at least thirty-seven out of thirty-eight being within this date, might not the complement be justly made up from senior Members, who otherwise will seem to be permanently excluded?

I am, Sir, yours truly,

A MEMBER (BY EXAM.) OF LONG-STANDING.

May 4th, 1885.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

NORTHERN COUNTIES HOSPITAL FOR DISEASES OF THE CHEST.

THROUGH the resignation of Dr. John C. Murray a vacancy occurs in the honorary medical staff of this young but useful institution. The committee have made canvassing a disqualification, and I think the rule will have a good tendency, and might be well copied in like cases by some of our older medical institutions. Dr. John C. Murray is one of the founders of our Chest Hospital here, and has done good work in connexion with it. He is, I understand, about to release himself from the toils of town practice, and is removing to the south of Scotland. Dr. Murray a few years ago published a very successful work on the Use and Abuse of Tobacco.

THE MORTUARY QUESTION AT DURHAM.

Dr. Barron, at a late meeting of the Durham Sanitary Authority, in his farewell report as medical officer of health for the city, pointed out the urgent need which existed for

a public mortuary being added to the sanitary conveniences of the city. A correspondent in the *Durham Chronicle* also refers to this want, which was painfully apparent in a case occurring a few days ago, and which became the subject of a coroner's inquiry, a remark from that official tending in the same direction. It appears that lately an old man who arrived from Newcastle by a day train was suddenly seized with an attack of illness which unfortunately proved fatal. It seems that the body remained in the ticket office for nearly three hours, and was exposed to the gaze of all passing in and out of the room during the time. No blame is cast on the railway officials by the writer; the painful occurrence was solely caused by the want of a public mortuary. The matter is to be brought before the committee of the Sanitary Authority with a view to its arrangement; but this is just one of those matters which are apt to be dropped under various excuses, unless prominently kept before the authority.

EPIDEMIC OF MEASLES AT JARROW.

A very serious and extensive outbreak of measles is reported at Jarrow, causing considerable mortality; indeed, there seems to be a wave of this disease passing slowly over our northern towns. At Jarrow, the Town Council, at a meeting presided over by the Mayor, decided to close at once all the week-day and Sunday schools in the borough.

CARLISLE MICROSCOPICAL SOCIETY.

At the meeting of the above Society an able and exhaustive paper on "Micro-organisms" was read by Dr. Lediard of Carlisle. An animated discussion followed the paper, and the lecturer received a cordial vote of thanks from a large meeting.

MUNIFICENT BEQUESTS TO THE TYNESIDE CHARITIES.

The late Mr. Frederick Glenton, many years a merchant in Newcastle, left a considerable amount of money to be distributed in charity, the chief scope of his charitable bequests being in the direction of institutions that had mainly for their object the befriending of children. The following local medical charities may be mentioned as having been benefited, among others, by cheques from the surviving executor, Mr. Wm. Nesham of this city—viz., Hospital for Sick Children, £500; Eye Infirmary, £500; Deaf and Dumb Institution, £400; Lying-in Hospital, £100.

The information which I gave you in a former letter respecting the regulations of the University of Durham appeared previously in one of our local and usually well-informed papers.

Newcastle-on-Tyne, May 4th.

EDINBURGH.

(From our own Correspondent.)

OPENING OF THE SUMMER SESSION.

THE summer session in the University and Schools of Medicine commenced on Monday, May 4th. Notwithstanding the awkward arrrangement by which lecturers were obliged to commence their teaching on a day when many students are almost necessarily absent—an arrangement for which the University authorities are responsible,—the classes are reported as more than usually crowded. In the Extra-Academical School are several new courses of lectures, amongst which there are a short series of lectures on "Mental Disease," by Dr. J. Batty Tuke; and a class of Operative Surgery, under the direction of Mr. C. W. Cathcart; whilst within the University, in addition to the ordinary work of the session, a series of special courses is announced in the Faculty of Arts, conducted by the assistants to the professors in the various subjects.

PROFESSOR RUTHERFORD AND THE ANTI-VIVISECTIONISTS.

For some years the anti-vivisectionists have made great capital by depicting the Edinburgh Professor of the Institutes of Medicine in most sanguineous hues as the repulsive figure-head of a craft which is searching for the pole of some Tartarean sphere of scientific fallacy. His laboratory has been publicly likened to a slaughterhouse, and himself—even more explicitly than by mere inference—to the presiding genius of such a place. From time to time in past years the Professor has repelled these attacks—at times, in fact, in such strong terms as to increase the thrill of horror by which the adverse camp is constantly possessed. These reprisals are, however, things of the past; and of late the Professor has supplied an excellent example of the patient bearing of the cross. This might have continued indefinitely had not a recent attack of more than ordinary bitterness, supported by sweeping misstatements and championed by three clergymen, roused the long-suffering Professor to an energetic vindication of his own position in the matter. In a lengthy letter addressed to the local papers Professor Rutherford details the causes, nature, and results of his experiments on the liver, concluded some eight years ago, which have received wide recognition as of great scientific value, and which have since proved a never-failing source of bitterness to his opponents. What his present defence lacks in "wingéd" words, it more than makes up for in the calmness of its statements and the clearness of its reasoning; and, although public discussion of professional topics is apt in general to do more harm than good, as it usually lowers professional dignity, it is still to be hoped that, in the present instance, the public mind may be stimulated to reject the nauseous bolus of narrowness and fallacy which has of late been so vigorously thrust upon it.

CHARITIES AND THE POOR LAW.

Last week a public conference on the above subject was held in Edinburgh, at which several important papers were read by gentlemen whose position gave them the authority of specialists. Amongst other topics, the prevailing custom of employing paupers as nurses in union infirmaries was discussed, and all but unanimously condemned.

Edinburgh, May 5th.

PARIS.

(From our Paris Correspondent.)

PROFESSOR VULPIAN AND THE RECENT EXPERIMENTS ON THE SEVERED HEADS OF CRIMINALS.

THE question has again been mooted as to whether those who have been decapitated suffer; and after additional experiments on the head of Gamahut, who was guillotined on the 24th ult. for the murder of a widow lady in Paris, coupled with those related by Claude Bernard, the presumption is that they do, for under the influence of transfused blood the blanched features recovered almost their normal expression, the eyelids were slightly open, and the lips quivered for a few seconds, as if to express some perception communicated from the brain. The conclusion, then, is that, so long as the brain contains any blood, the head of the decapitated person, which falls into a receptacle prepared for the purpose, is capable of seeing, of hearing, and of knowing that it is separated from the body. This view, however, was repudiated by Professor Vulpian at the last meeting of the Academy of Medicine on the following grounds:—A strong blow applied to the head, or a less severe one to the stomach, would cause instantaneous syncope; that is to say, consciousness would for the moment be entirely abolished. So it would be in the case of the severed head, but of course without any possibility of recovery; the weight of the guillotine falling upon the neck would produce the same result. Moreover, syncope would be occasioned by the sudden division of the carotid arteries, and the consequent emptying of the arterial system of the brain. Therefore, at the very moment that the brain ceases to receive the vivifying fluid from the heart, it loses all power of excito-motility, as well as all power of sensation; all this transpires as quickly as thought, and its duration may be compared to a flash of lightning. It happened opportunely that a dog that was undergoing some experiments in Professor Vulpian's laboratory was suddenly seized with hæmorrhage. Advantage was taken of this circumstance to immediately expose the brain and submit the latter to faradisation. Scarcely half a minute had elapsed between the arrest of the circulation and the galvanic irritation. It was impossible to obtain any movements in the legs. The effects of the electricity produced in the muscles of the head and nose were not, according to Professor Vulpian, due to the physiological transmission effected by the brain, but to the neighbourhood of the source of irritation; the brain, having lost all power of excito-motility, would in this case act as a mere sponge; and if such a condition was found to exist for only half a minute after the arrest of the circulation, the interpretation

put on the effects said to be produced on severed heads by other experimenters must certainly be considered erroneous.

THE MICROBES OF CHOLERA DEJECTIONS.

Dr. Bochefontaine is persevering in his efforts to prove the innocuousness of the microbes cultivated in the diarrhœa of cholera patients, whether they be introduced into the system by the stomach or by hypodermic injection. He cultivated the microbes of the diarrhœal liquid in peptonised gelatine, with which he performed a series of experiments. At four different times he swallowed a quantity of this gelatine, containing bacilli of the second and third cultures, without feeling in the least any abnormal phenomena. In the next place, he injected hypodermically into guinea-pigs, and then into himself, a mixture composed of equal parts of water and of cultivated gelatine. These different experiments would, according to the author, show that the ingestion of the cultures of cholera microbes may not produce any morbid symptom in man; they prove that the hypodermic injection of these cultures in man and in animals may, if they are injected in comparatively large doses, produce inflammatory phenomena of a more or less grave character. If, on the contrary, the proportion of the microbic culture is weak, the injection produces no effect whatever. If we compare the results of these experiments, in which were employed microbic cultures, with those that were furnished by ingestion by the stomach and by the hypodermic injections of diarrhœal liquid, which formed the subject of a previous communication made by Dr. Bochefontaine (see my letter in THE LANCET of Nov. 22nd last), we are led to believe that the physiological troubles produced by this liquid are due to the action of a special substance, and not to the development of the microbic germs which it contains. These experiments further show that the blood of man and of animals in a normal state possesses the property of destroying the microbes of the diarrhœal liquid of cholera patients cultivated in peptonised gelatine.

Paris, May 5th.

SHIRLEY MURPHY TESTIMONIAL.

Amount of first Subscription List £118 5 0

SECOND LIST.

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The Executive Committee of the Shirley Murphy Testimonial Fund have, since Mr. Murphy's return to England, had the opportunity of ascertaining his wishes with regard to the movement which had been inaugurated during his absence, and in deference to his desire, they do not intend to proceed further with the presentation of a testimonial. The course which will be adopted in the disposal of the fund must necessarily be in the hands of the subscribers, who, we understand, will be immediately consulted. The Committee, however, propose to forward to Mr. Murphy an address as previously stated.

THE SERVICES.

THE RUMOURED EMPLOYMENT ON ACTIVE SERVICE OF CIVIL SURGEONS.

We are authorised to state that the rumour to which we referred in our last issue as to arrangements having been made for the employment on active service of civil surgeons at £3 per day is incorrect. No such posts are being made, or are in contemplation on the terms stated.

INDIA OFFICE.—The Queen has approved of the transfer to the half-pay list of Surgeon George Augustus Cones, of the Bengal Medical Establishment.

ADMIRALTY.—Staff Surgeon Michael Upington Greany, M.D., has been placed on the retired list of his rank.

The following appointments have been made:—Staff Surgeon Robert Grant, to the *Pembroke;* Staff Surgeon Robert W. Biddulph, to the *Orontes;* Staff Surgeon Richard V. M'Carthy, to the *Rupert;* Staff Surgeon Cecil Drake, to the *Duncan;* Staff Surgeon George Curtis, to the *Devastation;* Staff Surgeon Nicholas T. Connolly, to the *Ajax;* Staff Surgeon Mark A. Harte, to the *Hotspur;* Staff Surgeon William B. Fletcher, to the *Repulse;* Surgeon Frederick J. Lilly, to the *Devastation;* Surgeon George F. Dean, to the *Hotspur;* Surgeon George Welch, to the *Ajax.*

YEOMANRY CAVALRY.—Suffolk: Surgeon Robert Macnab, M.D., resigns his commission.

ARTILLERY VOLUNTEERS.—1st Worcester: Surgeon Geo. Wyndham Crowe, M.D., resigns his commission; Acting Surgeon Robert William Edginton, M.D., to be Surgeon.

RIFLE VOLUNTEERS.—2nd Cheshire (Earl of Chester's): Henry William King, Gent., M.D., to be Acting Surgeon.—10th Lanarkshire (Glasgow Highland): Donald Campbell Black, Gent., M.D., to be Acting Surgeon.—1st Volunteer Battalion, the Worcestershire Regiment: Arthur Robert Waddell, Gent., M.D., to be Acting Surgeon.

MEDICAL NOTES IN PARLIAMENT.

Cremation.

IN the House of Lords, on the 5th inst., the Earl of Dalhousie, in reply to the Earl of Onslow, stated that the Government did not consider it any part of their duty to encourage or to discourage the practice of cremation. The Government possessed no power at present to act in the matter.

Medical Act (1885) Amendment Bill.

In the House of Commons, on the 30th ult., Dr. Lyons moved the second reading of the Medical Act (1858) Amendment Bill. On the motion of Mr. T. P. O'Connor the debate was adjourned.

Burgh Police and Health (Scotland) Bill.

On the 1st inst. the following were named to act on the Select Committee on this Bill:—The Earl of Mar and Kellie, the Earl of Minto, Lord Balfour of Burleigh, the Duke of Argyll, the Marquis of Lothian, the Earl of Dalhousie, and the Marquis of Tweeddale.

Small-pox at West Ham.

Mr. G. Russell, in reply to Mr. Hopwood, said that there had been a severe epidemic of small-pox in the West Ham sub-district, and the returns for the last three years showed that the number of children unaccounted for, as regards vaccination, had been greater than in other districts in the neighbourhood of the metropolis. There had been insufficient hospital accommodation in the district; but, apart from that, he was not aware that defects in sanitary precautions had been the cause of the disease and mortality.

The Volunteer Medical Staff Corps.

On the 4th inst. the Marquis of Hartington, replying to Sir S. Northcote, said that an application had been received by the War Office from the officers of the Edinburgh University Volunteer Medical Staff Corps, asking that the corps might be included in the new Volunteer Medical Staff Corps. The Volunteer Medical Staff Corps was in some sense an experiment, and although it was hoped to extend the scheme, it was not considered desirable that there should be more than one corps at present.

Vaccination.

Mr. G. W. Russell, in reply to Mr. Hopwood, stated that at the Sheffield Hospital in 1882 the medical officer and a ward-servant who had both been revaccinated had attacks of small-pox so mild that scarcely any rash appeared. The cook, who had not been revaccinated, but who had previously had small-pox, had an attack in a modified form. The only severe case in the hospital at the time was that of a patient who had never been vaccinated; this patient died. A nurse who had not been revaccinated had an attack of a qualified nature, and the only severe case was that in which the patient had not been vaccinated and died. In reply to an inquiry by Mr. Hopwood as to whether he had communicated to the authors of the "Facts concerning Vacci-

nation," published with the sanction of the Local Government Board, his view of the unguarded nature of the statement that no hospital nurse had been attacked with small-pox after revaccination, Mr. Russell replied that the National Health Society had been informed of the reply which was given on the subject on the 31st of March last.

Sewage Works at Tottenham.

On the 5th inst., Mr. Russell stated, in answer to a question by Mr. J. Stuart, that the Local Government Board have sanctioned a loan of £13,000 for works in connexion with the sewage outfall of the Tottenham district, with a view to the purification of the sewage before it is discharged into the Lea.

Small-pox Hospitals.

In the House of Commons on Thursday, Mr. Russell, in reply to Sir Lyon Playfair, who asked whether in the case of officers and servants for the service of the Metropolitan Asylums Board hospitals a proper interval was always allowed to elapse between their revaccination and their entering on their duties, and whether it was the fact that certain officers or servants at the Fulham Small-pox Hospital had entered on their duties without revaccination, said that inquiry had been made, and it was found that in the case of the North-Western, South-Eastern, and South-Western Hospitals an interval is allowed to elapse between the revaccination of the officers and servants and their entering on their duties. In the first-mentioned hospital the interval is stated to be forty-eight or seventy-two hours. As regards the Eastern Hospital, it has been the custom to revaccinate the officers and servants on the day of arrival at the hospital or the day following. At the hospital ships no interval elapses between the revaccination and exposure to small-pox infection. At the Western or Fulham Hospital the officers and servants are usually revaccinated on the day of their entering on their duties. There have, however, since May, 1884, been two instances in which the revaccination was not performed until some days after the assistants had commenced discharging their duties, and this was in consequence of an omission to report the cases to the medical superintendent.

The Health of the Troops on the Nile.

Lord Hartington, in answer to questions by Viscount Lewisham and Colonel Dawnay, said he telegraphed to Sir Redvers Buller an inquiry with reference to statements which had appeared in the *Standard*, and received a reply that the hutting was not finished at Debbeh, Merawi, and Kurot, but would be this week. The troops had had day shelter for more than three weeks. The percentage of sick was 7·1 per 100; the health of the troops was not very good, but it was not materially worse than at the time of the last report, on April 15th.

Obituary.

EDWARD T. TIBBITS, M.D. LOND.

AT Bradford, Yorkshire, on April 14th, at the age of forty-five years, Dr. Tibbits fell a victim to acute pneumonia. Worn out by an anxious attendance upon his eldest daughter, through an attack of the same disease, he became an easy prey himself. After ten years of anxiety—which those alone can appreciate who have struggled and waited for the slow growth of consulting practice,—the subject of our notice was called away just as the sky looked brighter, and as the fruits of patient labour appeared almost to be within his reach. In him the town of Bradford, and especially the medical charities, have sustained a grievous loss, which it will be difficult to make good.

Dr. Tibbits was educated at Repton School, and at University College, London. As a student, he held the posts of physician's assistant to Sir William Jenner and ophthalmic assistant to Mr. Wharton Jones at University College Hospital, clinical assistant at the Brompton Consumption Hospital, and house-surgeon to the Coventry and Warwickshire Infirmary. He gained the exhibition and gold medal in Chemistry in 1860 at the 1st M.B. Examination of the University of London, and passed his M.D. in 1869. Ten years ago he relinquished general practice at Rugeley in Staffordshire, chiefly on account of health, and was elected physician to the Bradford Infirmary, and a little later to the Fever Hospital and to the Institution for the Blind. These institutions he served faithfully to the time of his fatal illness. In 1879 and 1880 he was president of the Bradford Medico-Chirurgical Society, and always took a lively interest in its proceedings.

Naturally unpretentious and modest, yet somewhat impulsive and obstinate in nature, and possessing at all times the courage of his opinions, it was no easy matter to turn him aside, or to prevent him from carrying out any measure which he believed to be right. Cultured and refined as he was, he gathered round him a large circle of friends, who deeply regret their loss.

He was twice married, and has left behind him a widow and nine children, who, from no fault of his, are almost absolutely without provision for the future.

During his later years Dr. Tibbits held very decided views on the germ theory of disease, and on the bacillar hypothesis of woolsorters' disease in particular. He was a frequent contributor to the pages of THE LANCET, and notably a paper on the "Modern Theory of the Action of Digitalis" (THE LANCET, 1881). In religion he was a staunch Churchman and in politics a Liberal Conservative. Dr. Tibbits was buried at Clayton Church on April 17th, when large numbers of his fellow-townsmen attended to pay tribute to his memory.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Members of the College on the 30th ult.:—

Ball, James Barry, M.D. Lond., Belgrave-road.
Batten, Rayner Winterbotham, M.D. Lond., Gloucester.
Davies, Arthur Temple, M.B. Camb., Finsbury-square.
Gamgee, Arthur, M.D. Edin., Manchester.
Griffiths, Herbert Tyrrell, M.D. Camb., Brook-street.
Martin, Sydney Harris Cox, M.D. Lond., Gower-street.
Phillips, John, M.B. Camb., Harley-street.
Rockwood, William Gabriel, M.D. Madras, Colombo, Ceylon.
Stewart, Edward, M.D. Brussels, Harley-street.

On the same day the following were admitted Licentiates:—

Anderson, James, M.D. Toronto, Portland-road, Dublin.
Armstrong, Hugh, Chalcot-crescent.
Barber, Halford Vaughan, Sandmere-road.
Barendt, Frank Hugh, Hampstead-road, Elm-park, Liverpool.
Basset, Walter, Knowle-road, Bristol.
Berkley, Ernest James Gibson, Camberwell-road.
Bird, Henry, Vicarage Villas, Neasdon.
Blight, John Henry, Chobham-road.
Booth, William Henry, Plymouth.
Bown, John Quinton, St. Mary's Hospital,
Browne, Harold Elliott, University-street.
Caley, Guthrie Neville, Clarence Villas, Windsor.
Childe, Charles Plumley, Bexhill, Hastings.
Clarke, Fincastle George Barlow, Fordwych-road.
Clift, Samuel Leonard, Tresillian-crescent.
Coleman, William Edward, Albert-street.
Cooper, Charles Bolingbroke, Gambier-terrace, Liverpool.
Creasy, Rolf, Guy's Hospital.
Emmett, Richard, St. George's Hospital.
Fowler, Charles Owen, London Fever Hospital.
Freeland, Ernest Harding, Middlesex Hospital.
Gentles, Thomas Lawrie, Derby.
Green, Charles Robert Mortimer, Rotherhithe New-road.
Growse, William, Bethlem Hospital.
Harcourt, Vincent Ximenes, Duncan-terrace.
Howard, Herbert, Trinity-square.
Hugill, George Frederick, Rosedale, Chislehurst.
Jackson, Herbert Francis, Talbot-road.
Jackson, Percy Vaughan, Portsdown-road.
Jessop, Edward, St. Bartholomew's Hospital.
Kershaw, James Edward, Brompton-square.
Kidd, Hugh Cameron, Leamington-road Villas.
Lamb, Hugh, St. Thomas's Terrace.
Lee, William John, Harcourt-road, Brockley.
Lipscomb, Edgar Richard Senhouse, Southwark-park-road.
Lysaght, William Conner, Frederick-place, Clifton, Bristol.
Mathew, Charles Pynsent, Milman-street.
Mathews, Frank Edward, Lansdowne-terrace, Richmond, Surrey.
Maynard, Frederick Pinsent, Barnes.
Meeson, Alfred, High-park-street, Liverpool.
Morris, Herbert Mackinlay, Henrietta-street, Covent-garden.
Norris, Edwin John, Barndale-road.
Nutting, Philip Henry, Lady Margaret-road.
Page, Harry Marmaduke, Westbourne-park.
Phillips, Lawrence W. Kinglake, Hove Dispensary, Brighton.
Pietersen, James, Lambeth-palace-road.
Pinhorn, Richard, Warwick-gardens.
Plowman, Sidney, St. Thomas's Hospital.
Rhys, Watkin Llewellyn, Crofton-road.
Roberts, Henry, Colebrook-row.
Smith, Frederick John, Bishopsgate Without.
Southern, Francis Gerald, Ludlow.

Soutter, James, Hull.
Steer, Adam William Thorburn, St. Bartholomew's Hospital.
Tanner, Herbert, St. Mary's Hospital.
Underwood, John Charles, Ashford.
Walsh, Charles Lawrence, St. Bartholomew's Hospital.
Whishaw, Reginald Robert, Cornwall-street.
Williams, John Frederick, Infirmary, Westmoreland-road.
Willis, Arthur Keith, West End-lane.
Willoughby, Alfred Harvey, Aberdeen-place.
Wunderlich, Otto Frederick, St. Luke's Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 30th ult.:—

Ackland, Charles Kingsley, L.S.A., Bideford, Devon.
Curgenven, John Sadler, L.S.A., Craven-hill-gardens.
Fooks, Henry, L.S.A., Kennington.
Gould, Ernest Edward, L.S.A., Exeter.
Lewis, Jenkyn, L.S.A., Llanon, Cardiganshire.
Richards, George William, M.B. Durh., Stourbridge.
Ritchie, Edward Duguid, L.S.A., Wimbledon-park.
Stedman, Frederick Osmund, L.S.A., Leatherhead.
Willan, Leonard James, L.S.A., Stoke Newington.

Admitted on the 1st inst.:—

Clift, Samuel Leonard, L.R.C.P.L., St. Johns.
Farmer, William Henry Francis, Anerley.
Gruchy, Charles William de, L.R.C.P.L., Ludlow.
Hehir, Patrick, L.R.C.P. Ed., Calcutta.
Howard, Herbert, L.R.C.P.L., New Beckenham.
Lee, William John, L.R.C.P.L., Devonport.
Martin, Joseph Henry Walklate, L.S.A., St. Albans.
Pietersen, James, L.R.C.P.L., Lambeth-palace-road.
Pinhorn, Richard, L.R.C.P.L., Warwick-gardens,
Roberts, George Augustus Edward, L.S.A., Twyford.
Smith, John Turville, L.S.A., Manchester.
Steer, Adam Wm. Thorburn, L.S.A., Jamaica.
Sutton, Alfred, L.S.A., Brockley.
Tronson, William Francis, L.S.A., Oxford-gardens.

Admitted on the 4th inst.:—

Bown, John Quinton, L.R.C.P.L., Nottingham.
Chick-Lucas, James Robb Goodman, Portsea.
Elkington, Henry Percival George, Gillingham-street.
Ellis, Donald Mackay, Chudleigh.
Fegen, Charles Milton, Bedford.
Godfrey, Henry William, M.B. Aberd., Hornchurch.
Harthan, Herbert Dumville, Sandbach, Cheshire.
Henderson, George Christopher, Natal,
Lever, Frederick, Epsom.
Lewis, Charles James, Liverpool.
Moore, Walter Francis, Preston.
Parsons, Henry Compton, Hampton Wick.
Pearson, Albert Edward Alexander, Horsforth, near Leeds.
Postlethwaite, Frank, Oxford-road.
Pott, Francis Henry, Cornwall-gardens.
Wethered, Frank Joseph, L.S.A., Clifton.
Woods, Frank, Warrington.

Admitted on the 5th inst.:—

Apthorp, East, Hornsey.
Austin, Herbert Ward, Devonport.
Beard, Frederic, Trinity-square.
Calrow, Thomas, Bury, Lancs.
Eales, George Young, Yealmpton, Devon.
Jabboor, Habeeb, Beyrout.
Jervis, Arthur, Connaught-square.
Podmore, Robert, Eastbourne.
Pratt, George Arthur, Wolverhampton.
Price, Alfred Edward, Clapham.
Pritchard, Joseph James Gauler, Blackheath.
Ramsay, Herbert Murray, Redhill.
Scott, George Henry, Osset, Yorks.
Tuke, Thomas Seymour, Albemarle-street.
Whishaw, Reginald Robert, Liscard, Cheshire.

Admitted on the 6th inst.:—

Bent, George, Gladstone-street.
Bindloss, Edmund Frederick, Leighton-road.
Calvert, James, Grenville-street.
Clark, John Stallard Foot, Saltash, Cornwall.
Dill, Robert Charles Gordon, Burgess-hill.
Dornford, Charles Thomason, L.R.C.P. Ed., Wantage.
Green, Albert, Forest-hill.
Hailey, Percy Oswald Ward, Newport Pagnell.
Helps, George Crawford, Weston, near Bath.
Knaggs, Francis Henry, Putney.
Richmond, William Stephenson, Stanwick-road.
Scatliff, Philip Melanethon, Macaulay-road.
Smith, George Francis, St. Anne's-terrace.
Wylde, Harry Frank, Manchester.

UNIVERSITY OF OXFORD.—At a congregation held on the 1st inst. the degree of M.D. was conferred on

Lloyd, Francis, Jesus.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 1st inst. Dr. P. H. Pye-Smith was appointed an elector to the Professorship of Physiology, and Professor Robertson Smith was appointed an elector to the Professorship of Sanskrit. The degree of M.D. was conferred on

Lane, James Oswald, St. John's.
Lyon, Thomas Glover, Emmanuel.

UNIVERSITY OF GLASGOW.—The following gentlemen passed the Third Professional Examination for the degrees of M.B. and C.M. in April last:—

Adam, Basil J.
Aird, Alex. W.
Alexander, W. M., M.A., B.Sc.
Beattie, Robert M'G.
Brown, James A.
Brown, Walter F.
Campbell, Arch. T.
Carmichael, Alex.
Crawfurd, Robert K. B.
Cullen, John R. F.
Currie, John.
Davidson, James F.
Davis, George W.
Dewar, Daniel M'K.
Duff, Jas. K., M.A.
Fergus, Wm. Henry.
Gardner, R. Irvin.
Goff, Bruce E.
Haddow, R. W. T.
Hamilton, Robert.
Hay, Walter.
Henry, Robert.
Hickin, Herbert.
Manners, Wm. H.
Marshall, John.
Marshall, William.
Mathieson, Alex. L.
Miller, Alfred E.
Monteagle, Henry W. B.
MacColl, Donald S.
M'Conechy, James.
M'Houl, Hugh M.
MacKechnie, C. A.
MacKeith, Alex. A.
MacKeith, John.
M'Lachlan, James.
MacLeod, David T.
Macquarie, John A.
Pyle, William.
Ramsay, Robert.
Ritchie, John.
Robertson, Robert.
Robertson, William.
Rowat, John.
Roxburgh, Alex.
Sinclair, H. W.
Stewart, John (Renfrew).
Steil, James W. H.
Thorburn, John.
Wallace, Wm. (Glasgow).
Wallace, Wm. (Greenock).
Watson, James.
Wyllie, James.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 30th ult.:—

Curgenwell, John Sadler, St. Bartholomew's Hospital.
Gaudevia, Merwanjee Nowrojee, Bombay.
Graham, Charles Nicol, Guy's Hospital.
Pinhorn, Richard, St. George's Hospital.
Roberts, Arthur, London Hospital.
Smith, John Turville, Manchester School of Medicine.
Sutton, Alfred, Guy's Hospital.

At the Preliminary Examination in Arts held at the Hall on April 30th and May 1st and 2nd, the following candidates were successful:—

FIRST DIVISION.

*Lindsay, Herbert Stott.
*Stradling, Henry R. Skynner.

SECOND DIVISION.

Aylward, Walter Charles.
Biddle, Henry George.
Blakeman, Charles Smith.
Bromley, Francis Edward.
*Burditt, Ralph Austin.
Cory, Ernest Richard.
Dryland, Leslie Winter.
Elgee, William.
Farncombe, Wm. Turberville.
Goddard, Bertram.
Harrison, Chas. Alan.
*Jones, Frederick Warner.
Kirby, William Owen.
*Livesey, Edgar Wm.
Marder, Nicholas.
Mole, Alfred Ernest.
Montagu, William.
McTaggart, Norman E. B.
*Osborne, Oswald.
Parish, Beauchamp Frederick.
Pearce, Charles Ross.
Richards, J. Barrow Osborn.
Steele, Geo. Herbert.
Templeton, Percy.
Wade, Albert Holland.
Yonge, Eugene.

* Passed also in Elementary Mechanics.

Passed in Elementary Mechanics alone:—

Andrew, Francis William.
Gane, E. Palmer Steward.
Greene, Arnold James.
Linstead, Edward Flatman.
St. Cedd, R. G. Whitworth.
Smith, Alfred.
Spilsbury, Frank Hands.
Webb, Frank.

Passed in Greek alone:—

Fraser, Frank.
Fraser, Elias.

Passed in German alone:—

Newington, John S.

Passed in Chemistry alone:—

Andrew, Francis William.

THE Prince of Wales has contributed one hundred guineas to the Dublin Hospital Sunday Fund.

THE annual conversazione of the Royal Society was held on the 6th inst.

WESTMINSTER HOSPITAL.—The Frederick Bird Prize and Medal for 1885 have been awarded to Mr. Alfred S. Gubb.

THE PHARMACEUTICAL SOCIETY.—The annual dinner of this Society will be held at the Holborn Restaurant on the 19th inst., at 6.30 P.M.

ROYAL INSTITUTION.—Professor Odling will give the first of two lectures on "Organic Septics and Antiseptics" on Saturday, May 16th.

THE Committee of the Leeds Harehills Cycling Club, being strongly of opinion that members intending to compete in the road competitions arranged for by the Club should be physically fit, recommend that all intending competitors furnish medical certificates to the secretary at the time of entering.

SUPERANNUATION.—Mr. E. N. Sison, late medical officer of the eleventh district of the Holborn Union, has been granted a superannuation allowance of £70 a year.

THE *Cronica Medica* of Lima, Peru, states that during the month of January there were thirty-seven deaths in that city from small-pox, thirty-two of the victims being under twelve years of age.

THE festival dinner in aid of the funds of the North London or University College Hospital will be held at the Langham Hotel on the 13th inst., His Royal Highness the Prince of Wales in the chair.

PRESENTATION.—Dr. Raitt, who delivered a series of "First Aid to the Injured" lectures for ladies at Manchester, has been presented by the members of the class with a marble timepiece and an address.

THE ABERDEEN CLUB.—The next half-yearly dinner of the Aberdeen University Club, London, will be held at the Venetian Salon, Holborn Restaurant, on Saturday, May 16th, at 7.45 P.M., the Earl of Aberdeen in the chair.

ON the 2nd inst. the body of Dr. Phelps of Exeter was found wedged between two rocks at Ness, Teignmouth. It is supposed that while walking home from a picnic he was seized with heart disease and fell into the water.

THE festival dinner in connexion with the Royal Hospital for Children and Women, Waterloo-bridge-road, will be held at Willis's Rooms on the 13th inst., His Royal Highness the Duke of Cambridge, K.G., in the chair.

AT the annual meeting of the Metropolitan and National Nursing Association for providing trained nurses for the sick poor, on the 1st inst., it was stated that during the past year 527 cases had been nursed, and 17,374 visits paid.

AT the 14th anniversary of the Brighton Young Men's Christian Association, Professor Drummond from Glasgow attended, and delivered two addresses in the banqueting-room of the Royal Pavilion. A deputation of medical students and others from Edinburgh University have also been holding special services, which have proved highly successful.

MEASLES IN CHESTER.—The alarming outbreak of measles in Chester continues to spread, and two of the largest schools in the city have just been closed. The disease has broken out in Mrs. Gladstone's Home for Children at Hawarden, and at least one of the inmates has been removed to the Chester Infirmary. Sixteen deaths have already been registered since the epidemic set in.

THE GERMAN HOSPITAL.—The fortieth anniversary dinner in aid of the funds of this institution was held on the 6th inst., when it was stated that a total of 24,500 patients had been treated during the past year. Of the 1822 in-patients admitted during the year, 353 were accident cases, most of them being English. During the evening subscriptions, and donations amounting to £3473 were announced by the secretary.

THE DEVONSHIRE HOSPITAL AND BUXTON BATH CHARITY.—The annual general meeting of the supporters of this institution was held on the 2nd inst., when an exhaustive account of the great and increasing usefulness of the charity was read by Dr. Robertson. During the past year 2491 in-patients were admitted, exceeding the number received during 1883 by 261. The average number of patients daily resident in the hospital was 157·1.

ANTHROPOLOGICAL INSTITUTE.—At a meeting of this Society on the 28th ult. the following papers were read:—By Mr. A. L. Lewis, on the Past and Present Conditions of certain Rude Stone Monuments in Westmoreland; by Admiral F. S. Tremlett, on Quadilateral Constructions near Carnac, in which was described certain enclosures explored by the late Mr. James Miln; and by M. Jean L'Heureux, on the Kekip-Sesoators, or ancient sacrificial stone of the north-west tribes of Canada.

IMPORTANT CIRCULAR TO THE POLICE.—Consequent upon the numerous representations which have been made with reference to the treatment of persons arrested for alleged offences, and especially to prevent a recurrence of the mistakes which have been made when prisoners suffering from illness have been treated as drunken persons, the Secretary of State has issued a circular to the police authorities throughout the kingdom, directing that strict orders should be given to the police that when any prisoner complains of illness, shows symptoms of illness or of being in a feeble state of health, whether he make complaint or not, the police-surgeon should be summoned and the prisoner medically examined. If the prisoner is found to be suffering from serious illness, a report as to his health is to be presented to the magistrates before whom he is brought.

ON the 23rd ult. an inquest was held on the body of George Webb, M.D., who was found dead at his residence, 101, Hollydale-road, Peckham. Dr. Webb was well known in the district, and a few days before his death had himself attended as a witness at a coroner's inquest. Death was certified to be due to fatty degeneration of the heart.

SANITATION IN HOLBORN.—On the 23rd ult., an inquiry was held by Mr. Cubitt-Nicholls, from the Home Office, as to an official representation made by the Holborn District Board of Works, with a view to obtain an order directing the Metropolitan Board of Works to deal with an unhealthy area adjoining Brook's Market, as a metropolitan improvement. Evidence was given as to the shocking sanitary condition of the locality, it being stated that the population was 232, and that during two years there had been 154 cases of sickness—scrofulous cases, sore throats, or cases of consumption not being included in this number. The court rose after a sitting of seven hours.

TELEPHONE AND TELEGRAPH WIRES.—On the 27th ult. Sir Joseph Bazalgette was examined before the Select Committee of the House of Commons, who are inquiring into the law controlling the overhead and underground wires. Sir Joseph stated that the system of overhead wires was first commenced twenty years ago. At that time there were no underground wires. There were now 800 miles of overhead wires in the metropolis, and ten times that quantity of underground wires. He would give the power of making bye-laws to the Metropolitan Board of Works, the district authorities merely acting as the executive, without any appeal to a Government department. Under the Building Act, which divided London into seventy-two districts, with a surveyor to each, they had all the machinery necessary for dealing with this question.

UNIVERSITY OF LONDON.—At the meeting of the Senate of the University of London held last week the following gentlemen were elected examiners for 1885-86:—Chemistry: Professor J. Emerson Reynolds, M.D., F.R.S.; Professor T. E. Thorpe, Ph.D., F.R.S. Botany and Vegetable Physiology: Professor Bayley Balfour, M.D., D.Sc., F.R.S.; Professor F. O. Bower, B.A. Comparative Anatomy and Zoology: Professor E. Ray Lankester, M.A., F.R.S.; Professor Alex. Macalister, M.D., M.A., F.R.S. Practice of Medicine: W. H. Broadbent, M.D.; W. Miller Ord, M.D. Surgery: W. M. Baker, Esq.; Sir William Mac Cormac, M.Ch., M.A. Anatomy: Professor D. J. Cunningham, M.D., C.M., F.R.S.E.; H. Greenway Howse, M.S., M.B. Physiology: Professor Arthur Gamgee, M.D., F.R.S.; Professor Gerald F. Yeo, M.D. Obstetric Medicine: F. H. Champneys, M.A., M.B.; John Williams, M.D. Materia Medica and Pharmaceutical Chemistry: J. Mitchell Bruce, M.D., M.A.; T. Lauder Brunton, M.D., D.Sc., F.R.S. Forensic Medicine: Augustus J. Pepper, M.S., M.B.; Professor George Vivian Poore, M.D., B.S.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BAILEY, C. F., M.B.Lond., M.R.C.S., has been appointed House Physician to the West London Hospital.

BARNARD, ARTHUR J., M.R.C.S., L.R.C.P.Ed., Junior House-Surgeon to the Darlington Infirmary, has been appointed Junior House-Surgeon to the Royal Albert Edward Infirmary, Wigan, Lancashire, vice John Buchanan, M.B. and C.M.

BENHAM, HENRY JAMES, M.D.Lond., M.R.C.S., has been appointed Physician to the East Suffolk and Ipswich Hospital.

BUCHANAN, JOHN, M.B. and C.M.Glas., Junior House-Surgeon to the Royal Albert Edward Infirmary, Wigan, Lancashire, has been appointed Senior House-Surgeon at the same, vice John Henry Jackson, M.B. and C.M.Ed., resigned.

FLINN, JOHN JAMES, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Everton No. 1 District of the West Derby Union, vice Worrall, resigned.

GODFREY, FRANK, L.R.C.P., L.R.C.S.Ed., has been appointed Honorary Consulting Surgeon to the Islington Dispensary.

HARBER, ALEXANDER, M.B.Dur., M.R.C.S., has been appointed House-Surgeon to the West London Hospital, vice Maitland Thompson, LR.C.P.Ed., L.M., M.R.C.S., resigned.

HOLLE, ELPHINSTONE, M.D., C.M.Ed., has been appointed Physician to the East Suffolk and Ipswich Hospital.

MARSHALL, WILLIAM, M.R.C.S., L.S.A.Lond., has been appointed Junior House-Surgeon to the Huddersfield Infirmary.

POPE, PERCY, M.R.C.S.Eng., L.R.C.P.Ed., has been appointed Poor Law Medical Officer, Public Vaccinator, &c., for the Hayling (North and South) District of the Havant Union.

SHAW, WILLIAM, M.R.C.S., has been appointed Medical Officer of Health for the Shire of Barrabool, Australia.

SHILLITOE, RICHARD, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the First District of the Hitchin Union, vice R. R. Shillitoe.

SIMMONS, HAROLD, L.R.C.S., L.S.A.Lond., has been appointed Physician Assistant to the Middlesex Hospital.

VERRALL, THOS. JENNER, L.R.C.P.L., M.R.C.S., has been appointed Assistant-Surgeon to the Sussex County Hospital.

WARNER, FREDERICK A., M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon to the West London Hospital, vice James Herbert Menzies, M.R.C.S., L.S.A.Lond., resigned.

WATSON, ARCHIBALD, M.D.Paris, M.R.C.S., L.S.A.Lond., has been appointed Professor of Anatomy at the New School of Medicine, Adelaide University.

WOOD, PERCY MOORE, L.R.C.P.Lond., M.R.C.S.E., J.P.S.A., has been appointed Government Medical Officer and Protector of Aborigines for the Port Darwin Northern Territory, South Australia.

Births, Marriages, and Deaths.

BIRTHS.

BARRACLOUGH.—On the 21st ult., at Dulwich-road, Herne-hill, S.E., the wife of R. W. Sutton Barraclough, M.D., of a son.

BOTHAMLEY.—On the 26th ult., at Bromley, Kent, the wife of R. Broughton Botham ley, M.R.C.S., of a son (stillborn).

BRIDGMAN.—On the 1st inst., at Croasdale Bank, Slaidburn, Yorkshire, the wife of Mr. Herbert A. Bridgman, L.F.P.S.G. and L.M., of a daughter.

COLLIER.—On the 2nd inst., at Capstone House, Hammersmith, the wife of N. C. Collier, L.R.C.P., of a daughter.

PRINGLE.—On the 20th ult., at Angelton, Bridgend, the wife of H. T. Pringle, M.D., Medical Superintendent of the Glamorgan County Asylum, of a daughter.

TOWNSEND.—On the 27th ult., at Benares, the wife of Surgeon-Major Townsend, A.M.S., of a daughter.

MARRIAGES.

BURGESS—KEW.—On the 29th ult., at the Parish Church, Clapham, W. Milner Burgess, M.R.C.S., &c., of Harlesden, to Ellen Isabella, daughter of F. E. Kew, Esq., of Clapham.

CATON—IVORY.—On the 5th inst., at Christ Church, Edinburgh, Richard Caton, M.D., of Liverpool, to Annie, only daughter of the late William Ivory, W.S., of Edinburgh.

FARAKER—CREGEEN.—On the 28th ult., at Christ Church, Forest-hill, J. J. Faraker, M.R.C.S., L.S.A.Lond., to Ada J. Cregeen, third daughter of the late J. J. Cregeen, M.D., F.R.C.P.E., and step-daughter of W. Cregeen Faraker, M.R.C.S.E., L.S.A.Lond., Ravensdale, Forest-hill.

GARLICK—PETERKIN.—On the 30th ult., at St. Mary's Parish Church, Clitheroe, George Garlick, M.D.Lond., to Annie Gertrude, second daughter of William Peterkin, Craven Bank, Clitheroe.

STORRS—CROKER.—On the 30th ult., at St. Mary's, Penzance, Arthur Storrs, M.D., M.R.C.P.E., of Mexborough, Yorkshire, to Eliza Walters, youngest daughter of the late John Gifford Croker, M.D., F.G.S., of Bovey Tracey, Devon.

UNDERHILL—MURIEL.—On the 29th ult., at St. Giles's Church, Norwich, by the Rev. W. C. Muriel, Rector of Debden, Essex, assisted by the Rev. H. J. Underhill and the Rev. W. N. Ripley, Vicar of the Parish, Frederick Theodore Underhill, of Tipton, Staffordshire, son of W. Lees Underhill, Esq., J.P., of Tipton, to Beatrice Alice, second daughter of Charles Evans Muriel, Esq., of Norwich.

DEATHS.

BARBER.—Lost at sea, in February, in the Royal Mail steamer *Humber*, Alfred Barber, M.R.C.S., youngest son of Alfred Barber, of Eastrop House, Basingstoke, aged 26.

BUCHANAN.—On the 2nd inst., William Buchanan, M.D., of Church Gate, Cheshunt, Past Master of the Society of Apothecaries, in his 95th year.

CHAPMAN.—On the 3rd inst., at The Laurels, Chiswick, John Strange Chapman, M.D., Deputy Inspector-General of Army Hospitals, in his 86th year.

DITCHETT.—On the 30th ult., at Louth, Lincolnshire, William Edwin Ditchett, M.R.C.S., aged 40.

HIGGINS.—On the 6th ult., at Heathfield, Peel, Isle of Man, Henry Higgins, M.R.C.S., L.R.C.P., &c., aged 57.

HOWARD.—On the 30th ult., at Sandgate, Kent, John William Howard, M.R.C.S., L.A.C., L.M., in his 59th year.

HOYLAND.—On the 1st inst., at his residence, York-road, Hove, Brighton, Edward Hoyland, M.R.C.S., &c., formerly of Sheffield, aged 74.

MACLEAN.—On the 28th ult., at Portman-street, Portman-square, John Maclean, M.D., aged 68.

PHELPS.—On the 1st inst., at Teignmouth, suddenly, by an accident, F. P. Phelps, surgeon, of Victoria-terrace, Exeter, aged 52.

WHITE.—At Broad-street, Pendleton, J. Atkin White, M.R.C.S., L.S.A.Lond., aged 42.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, May 7th, 1885.

Date.		Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
May	1	29·73	S.W.	51	46	93	57	44	...	Bright
,,	2	29·65	S.W.	52	47	110	60	45	·02	Cloudy
,,	3	29·64	S.W.	52	48	97	63	44	·05	Hazy
,,	4	29·53	N.E.	50	47	95	59	46	...	Cloudy
,,	5	29·55	N.E.	45	44	...	50	44	·12	Raining
,,	6	29·35	S.W.	49	45	88	56	44	·12	Cloudy
,,	7	29·65	N.	45	41	85	54	41	·26	Cloudy

Medical Diary for the ensuing Week.

Monday, May 11.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

Tuesday, May 12.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

ROYAL INSTITUTION.—3 P.M. Prof. Gamgee: Digestion and Nutrition.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. The Right Hon. the Earl of Northesk: Exhibition of a Collection of Worked Jade from New Zealand.—Mr. J. H. Kerry-Nicholls: The Origin and Characteristics of the Maoris in the King Country, New Zealand.

Wednesday, May 13.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department: 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.

ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Mr. E. Wethered: Structure and Formation of Coal.—Mr. A. W. Waters: Use of the Avicularian Appendage in the Classification of the Bryozoa.

BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens as usual. Dr. Benington: Tetanus in the Puerperium.—Mr. Lawson Tait: Double Uterus, &c.—Dr. Biglow: Gynæcological Surgery.

Thursday, May 14.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Tyndall: Natural Forces and Energies.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8 P.M. Living Specimens. 8.30 P.M. Mr. W. A. Brailey: On the Condition of the Ciliary Nerves in certain Diseases of the Eye.—Mr. E. Nettleship: Note on the Spontaneous Disappearance of Diabetic Cataract.—Mr. J. B. Lawford: Case of Nævus of Choroid (with Microscopic Specimens).—Mr. Jonathan Hutchinson: On Reflex Ophthalmitis.—Mr. W. Spencer Watson: Intra-ocular Gumma in a Child the subject of Inherited Syphilis.—Mr. Simeon Snell: Case of Periodic Paralysis of Third Nerve.—Mr. W. H. Jessop: (1) Choroiditis Disseminata; (2) Rupture of Eyeball (living specimens).

Friday, May 15.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—7.30 P.M. Dr. W. N. Thursfield: On the Etiology of Goitre.—Mr. F. E. Atkinson: On an Outbreak of Diarrhœa traced to Polluted Water.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Dr. A. Hughes Bennett and Mr. R. J. Godlee: Case of Cerebral Tumour.

ROYAL INSTITUTION.—9 P.M. Prof. Burdon Sanderson: Cholera.

Saturday, May 16.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Odling: Organic Septics and Antiseptics.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

"TOLERANCE AND ADVANTAGE OF LARGE DOSES OF POTASSIUM IODIDE."

To the Editor of THE LANCET.

SIR,—In THE LANCET of April 18th, under the above heading, you quote from the *New York Medical Record* a case in which the dose of iodide was increased from eight to thirty grains three times a day. I think every one who has had much to do with syphilis must have met with cases in which larger doses were not only tolerated, but were necessary in order to obtain the desired effect. My own rule, when iodide is indicated and well borne, has long been to increase the dose more or less rapidly according to circumstances, until some effect is produced, quite irrespective of quantity. The largest daily dose I remember to have prescribed was 540 grains (iodide of ammonium); but I have no doubt more has been, or might be, required. He who holds his hand under the impression that he has given the iodides a full and sufficient trial because a certain number of grains or drachms has been reached, will fail to obtain some of the most important results which it is in the power of iodine to produce.—I am, Sir, yours faithfully,

Stafford-street, W., May 2nd, 1885. ARTHUR COOPER.

To the Editor of THE LANCET.

SIR,—In your issue of April 18th a case of tolerance of large doses of potassium iodide is recorded. In 1873 I had to treat a case of chronic ulcerated throat, supposed to be of syphilitic origin. The patient had been under treatment for some time without benefit from ten-grain doses of potassium iodide, when I increased the doses to twenty grains, and ultimately to forty grains, three times a day, with marked improvement. He took two-drachm doses for several weeks, until the throat had healed. On account of a slight relapse, he had to resume his old doses for a short time, afterwards reducing the amount to thirty grains twice a day. The patient took the latter quantity for several months. I prescribed it with aromatic spirit of ammonia, and he took each dose with half a pint of milk. What may be thought the most remarkable feature of the case is that he gained more than a stone in weight during the exhibition of the remedy—and the milk.

In contrast with the above, I have prescribed two-grain doses of potassium iodide for a stout, free-living patient on several occasions; but he always detects it, no matter what pains I take to disguise the fact of its administration. In this case it causes a nasty metallic taste.

I am, Sir, yours obediently,

Somerby, Oakham, April 27th, 1885. J. JACKSON.

Late Assistant.—We think decidedly that there is a moral obstacle to practising. Our correspondent undertook to sign a bond not to do so. That he was not asked to sign does not lessen the obligation not to practise.

Lex.—Authorities differ. There is no proof of it.

Surgeon-Major Sargent's paper will be inserted in an early number.

"IMPRISONING AN UNDOUBTED LUNATIC."

To the Editor of THE LANCET.

SIR,—I was pleased to see that you drew attention, in your issue of April 25th, to the case of poor Freund being imprisoned for bawling in St. Paul's Churchyard. It is quite true he is a lunatic. I have known him for some ten or fifteen years. Whilst at his studies at St. Thomas's Hospital no student was more persevering or had greater prospects; but, I believe, family misfortune deprived him of the means of following the profession. For a time he went as an assistant to medical men, but was so strange and irregular in his habits that he was advised to give it up. Since then his life has been more or less a blank, and it would be a real charity to assist him into the home of some medical man who would look after him; or he should go to Bethlem or some place where he will have proper treatment. I should be willing in any way to assist in his support. I am, Sir, your obedient servant,

Sackville-street, W., May 1st, 1885. JAMES STARTIN.

M.R.C.S. OR M.R.C.V.S.?

MEDICAL titles are always rather puzzling to the public. It is, however amusing to see in a provincial paper a letter from a local resident denying a report that his child had been suffering from small-pox, and adding a "doctor's certificate" to that effect, the doctor's signature giving as his qualification "M.R.C V.S." On looking at the Medical Register, we find he is "M.R.C.S." Did the patient's father insert the *V* to improve appearances?

Insurance.—Mr. Cook's essay and the supplement relating to industrial insurance are published by the author, Arthur I. Cook, at Finsbury-square-buildings, London, E.C.

Dr. H. S.—We regret that we cannot assist our correspondent in the matter.

"RINGWORM."

To the Editor of THE LANCET.

SIR,—Will you allow me to make a few remarks on Dr. Murphy's letter under the above heading in your last issue.

1. There is but little doubt that, as a rule, ringworm of the body will not recur (provided there is no disease of the scalp and no reinfection) if some treatment be continued until the skin is all but normal again at the circumference of the patch, and the margin is quite free from all papules and desquamation, and the place is not raised above the level of the surrounding skin.

2. I think Dr. Murphy is right when he remarks, "The germ that revived probably found a safe hiding-place in some of the hair-follicles." The only way to be certain that every trace of the disease has been eradicated where downy hairs exist is to carefully scrutinise the place with a lens, and to see that there are no minute hairs affected. I have often noticed a few of the small hairs broken off and diseased on a patch of body ringworm which might otherwise have been considered cured.

3. In examining epidermic scales for the fungus in ringworm of the body, it is far better to look for the mycelium threads than the conidia. The mycelium is to be seen as long, slender, pale-greyish, sharply contoured threads like ribands, jointed at irregular intervals, and forming a network between the epidermic scales. To obtain these scales for examination, the inner part of the outer ring, just where it is beginning to desquamate, should be scraped.

4. Of course, I may be mistaken, yet I think it is very possible if the patch seen by Dr. Murphy on March 12th, when it appeared to be well, had been closely looked at with a lens, that one or two broken-off downy hairs would have been detected. If a child be sent back to school at the end of a fortnight, it is always advisable to examine the place from time to time in case of any recurrence.

I am, Sir, yours faithfully,

Christ's Hospital, May 4th, 1885. ALDER SMITH.

J. F. W.—There is no district in England which is specially beneficial in this affection. Sea-air is usually to be avoided, as it acts as a local irritant; but the whole question of climate is one to be determined by a full consideration of all the elements of the particular case.

DRINKING PARAFFIN OIL.

To the Editor of THE LANCET.

SIR,—As drinking paraffin oil by accident or design is not uncommon, the following case may be of interest.

M. B——, aged eighteen, primipara, went through a normal labour on the 5th inst., in which she was attended by an externe from Guy's Hospital. On the twelfth day she showed symptoms of puerperal mania; but no medical assistance was applied for. On the fourteenth day, whilst left alone, she attempted suicide. I found the patient in an excited condition, with an incised wound two inches in length on the left side of the neck. Whilst suturing this wound, I detected the odour of paraffin oil, and she did not deny that she had swallowed some. I also found the mark of a ligature round her neck, consisting of a wheal with reddened edges for the greater part of its circumference, and an abrasion for the remainder. The pupils were moderately dilated, pulse 90, full. The patient was given warm milk-and-water, followed by twenty grains of copper sulphate in warm water. In about fifteen minutes she vomited freely, and not less than fifteen ounces of oil floated on the top of the vomit. This was proved to be paraffin, and corresponded with the amount missing from a bottle which had been left on the table. It must have remained in the stomach for at least forty-five minutes. She experienced no further inconvenience as the result of the triple attempt, but her mental condition being dangerous, she was removed to an asylum on the sixteenth day. I am, Sir, yours truly,

Great Charlotte-street, April 22nd. HENRY WILLSON.

Doubtful.—1. Yes.—2. The infection precedes the disease by a few days, and lasts till the disease is at an end.

Dr. Hudson (Leeds).—The paper is marked for early insertion.

INSTRUMENT FOR IRRIGATING THE UTERUS.

To the Editor of THE LANCET.

SIR,—In your report of the meeting of the Midland Medical Society in your last issue you state: "Dr. Neale showed an instrument for irrigating the uterus," &c. "The makers are Messrs. Woodall, York." This should be "Messrs. Wood and Co., York."

I am, Sir, yours obediently,

York, May 4th, 1885. THOS. J. RUSSELL.

CHOLERA AND ITS PREVENTION.

To the Editor of THE LANCET.

SIR,—I did myself the honour to send you, on Oct. 18th, 1884, a pamphlet which I published in 1871, called "Hindu View of Cholera: a Lecture."

I venture to draw your attention to the late reports from Valencia, in Spain. They are there adopting the method which my lecture suggests. At page 1 I say: "The philosophy, or 'form,' of the great discovery of Jenner, and of the practice of inoculation, has never yet been grasped or sufficiently studied. Had it been, it is probable that now we might have known a potential preventive against cholera." At page 9: "In Europe you now happily seek more a prophylaxis than a cure; but your efforts are cramped and misdirected by the poison and germ theories. The 'pregnant' instances of vaccination, inoculation, quinine, iodine, mineral waters, changed climate, &c., as prophylactics have not yet had a shadow of their just weight on your method." Of course, the instances here cited are in some cases used by way of analogy, to illustrate my method. Again, at page 11: "The splendid light which the instances of vaccination, quinine, &c., give, not having their just effect on your method, it thus happens that whilst cholera appears in the race of man you are content to practise a pernicious treatment of symptoms, and to put trust in disinfectants, directed against totally inefficient causes." At page 13: "When we remember the great power of quinine and arsenic in a series of fevers; when we know that a series of fevers of ten to twenty years' duration can be speedily removed by small amounts of these substances; when we remember the instances of prophylaxis which nature herself presents, such as change of climate, passions for food, and certain elements, &c.—we cannot but be full of confidence for future discovery. We must grasp what Bacon has taught us on the 'pre-eminency of instances.'" "Many directions are open to the student for discovery which may lead to results as great as that of Jenner." At page 16: "On the other hand, I daily expect to hear the announcement that some student has, by following the analogies and alliances of nature (and which are open to, and part of, all of us), been led to perceive the 'form' of cholera, and to perceive the direction or element of supply, which, given to the system, would render the first change or paralysis, whose residual necessities are the symptoms we call cholera, impossible." "..... and that every disease *must* have its prophylaxis."

My lecture is an argument from the *a priori* Hindu philosophy, which philosophy has been re-drawn in Europe by Descartes, Kant, &c., but which has yet too little penetrated your Western method. I argued in my lecture that cholera is not "specific"; that it is an allied "gradation"; that it had long culminating pre-cholera stages in molecular changes in the system, and that our hope of dealing with it was by co-ordinating the system prior to the appearance of that stage which is commonly known as cholera. But I must not take up your space—except on the ground that my quotations of 1871 may be suggestive for further prophylactic trials. My own trials, were I again in charge of cholera districts, would be to give quinine, acids, and some of the aromatic class as prophylactics.—I am, Sir, yours truly,

London, April 29th, 1885. GOLAUB SING, M.D.

A. B.—The answer will entirely depend upon the terms of the appointment. The locality in which a medical officer of health resides is a point which is considered when his appointment receives the sanction of the Local Government Board; but they do not of necessity require residence within the district. Indeed, in some instances access to the various portions of a district is facilitated by residence at a railway centre outside the district. Hence there is no rule on the subject.

A Patient is thanked for his communication; but we do not think his suggestions would enlighten the profession.

"AUTUMNAL STONE."

To the Editor of THE LANCET.

SIR,—With reference to Mr. Robert Jones' inquiry about these Chinese preparations, I may refer him to page 224 of my "Chinese Materia Medica" (Trübner). The "Ts'inshih" is the product formed by the evaporation of the urine of young children, mixed with common salt or sulphate of lime to hasten the crystallisation. It consists mainly of urea mixed with lithates, phosphates, &c. It is met with in small cakes, crystalline, deliquescent, and evidently moulded in little cups. It is salt to the taste, and is used as a diuretic in renal disease. It is often kept in Chinese kitchens to soften fresh meat required for immediate use. "Wu-hu No" means "sal ammoniac from Wu-hu hien in Nganhwin province," where these "autumnal stones" are made. Made from ammoniacal urine, the Chinese confound these "stones" with sal ammoniac (*nau-sha*), a drug in great repute as a solvent for opacities of the cornea. Chinese oculists are remarkably successful in removing nebula and albugo of the cornea by applications of this "autumnal stone," mixed with sulphate of soda.—I am, Sir, yours faithfully,

FREDK. PORTER SMITH,
Member of the Asiatic Society of Paris.

Shepton Mallet, May 2nd, 1885.

Sartorius.—Our correspondent is really the best judge in the question he puts to us. The case was a very important one, and his charges should be at once dignified and reasonable. We would make only one suggestion—viz., to let the charges have reference to visits, time, and distance, and not to medicines.

An Outsider.—There seems to be no great harm in the announcement.

INSANITY IN BENGAL.

IN 1883 the number of admissions into the lunatic asylums in Bengal, which had fallen in 1882 to 165, the lowest number on record, rose to 209. The increase was the most marked in the case of males, of whom 184 were admitted, against 144 in the previous year; while the number of females admitted was 25, against 21 in 1882. The number of readmissions was 23, and consisted of males only. The daily average population of the asylums was 878·67, against 867·12 in the previous year. Out of the 232 cases admitted and readmitted during the year, causes were assigned in 134 instances—20 being moral causes, and 108 physical causes. Of these latter 76 were ascribed to Indian hemp, and of this number only 34 recovered. These figures, however, give no idea of the total number of lunatics in Bengal, and asylum statistics do not afford a true indication of the prevalence of insanity, since only the most dangerous cases are admitted into asylums in India.

Mr. F. C. Batchelor.—We do not see our way to assist our correspondent in the matter.

"CASCARA SAGRADA."

To the Editor of THE LANCET.

SIR,—In reply to Mr. T. L. K. Davies's question in your last issue, I beg to say that cascara sagrada possesses both hepatic and intestinal principles; and at present there is no definite therapeutical study of the action of either principle in an uncombined form. The chemical composition of the drug consists of three resins, about 10 per cent. of the weight of the bark, tannin, oxalic, malic, fat oil, wax, starch in abundant quantity, and a small percentage of a volatile oil bearing the characteristic odour of the bark. Its most reliable preparation is the fluid extract. It acts upon the hepatic secretions and circulations, the whole gastro-intestinal canal, stimulating its morbid condition, and the neighbouring glands to healthy action. As a cholagogue it is invaluable. In chronic constipation its action is good, producing full, easy, pleasant stools, without any tormina, tenesmus, or nausea. The liquid extract, combined with the tincture of iodine painted on the hypogastric region, daily, until the bowels are moved easily, has given the same result after repeated trials on patients suffering from habitual constipation. As a remedy for dyspepsia it is superior to many others of its class, being pleasant to take, and producing no nausea.

I am, Sir, yours obediently,

Geneva, May 4th, 1885. H. C. GLANVILLE.

Mr. David J. Allen.—No comment on the case is to be found in either of the numbers mentioned.

"DISINFECTING CHAMBERS."

To the Editor of THE LANCET.

SIR,—I see, in looking over some back numbers of THE LANCET, that in the issue for April 18th "Medical Officer of Health" inquires as to the best disinfecting chamber. I would strongly advise your correspondent to employ Lyon's Steam Disinfector, which by super-heated steam quickly produces a heat of 240° F. It has been used in these camps for the last year, giving complete satisfaction, and working for close on 8000 patients. The agent, Mr. John W. Lyon, 1, Cowper's-court, Cornhill, will doubtless give all information.

I am, Sir, yours faithfully,

C. W. WAYLEN,
Medical Superintendent, Darenth Camps for
May 5th, 1885. Convalescing Small-pox Patients.

*** We have received other letters bearing testimony to the value of Lyon's Disinfector.—ED. L.

"THE TITLE OF 'DOCTOR.'"

To the Editor of THE LANCET.

SIR,—I have often been tempted to reply in your notes anent the above title, but until I saw the letter signed "M.D." in your issue of the 25th ult. I refrained.

"M.D." says he thinks that if the Colleges of Physicians and Surgeons allow their Licentiates to take the title of "Doctor" they should repay him for the time and money—and, I may add, the 2000 or 3000 hours of extra study (often after bedtime)—spent. "M.D." adds that if they do not do so, he must consider that he has been mercilessly robbed. Who can say he is not in the right? I think your correspondent's letter more to the point than most letters upon this vexed subject.

I am, Sir, yours obediently,

Stranraer, April 27th, 1885. J. CARRICK MURRAY.

S.—We should be unable to find room for the replies which would probably be called forth by the insertion of our correspondent's note.

"CONTAGIOUS DISEASE CARDS."

To the Editor of THE LANCET.

SIR,—What Dr. Kenyon says in his letter published in your columns last week is correct, and your observations thereon are but natural. The figures, as stated, are those already published by Mr. Francis Vacher, to whom I am deeply indebted for the kind permission given to me for employing them in the cards in question. Henceforth means shall be taken to make his claim to their authorship known.

I am, Sir, your obedient servant,

Maidstone, May 2nd, 1885. MATTHEW A. ADAMS.

Unqualified.—The only thing that can be done is to ascertain the exact facts. If they *prove* that a qualified medical man has abetted the practice of the lady in question or other unqualified persons, they should be laid before the Medical Council; but evidence short of proof is of no use.

M.B.Edin.—Our correspondent should mention the facts to his friend. The case seems a special one, and our correspondent seems to us entitled to the fees. But between right-minded friends there should be no difficulty.

RE NON-COMBATANTS.

To the Editor of THE LANCET.

SIR,—I am now attending an officer who, with his regiment, was present when, on March 22nd, the Arab forces of Osman Digna rushed on the zereba held by the 1st Battalion of the Berkshire Regiment and penetrated one corner, as the local newspapers put it. This officer tells me—"The first wounded I saw were two men of the Army Hospital Corps, who are sent into battle unarmed, for a good walking-stick would be better than their side-arms, and who were completely at the mercy of the enemy with their long spears and shields." This is carrying the doctrine of non-combatant to a length which borders on the dangerous, and suggests the question as to how far the authorities are liable for sending men into battle unprotected because they choose to call them non-combatants. I am, Sir, yours obediently,

May 6th, 1885. PAX.

Mr. C. C. Burman (Belford, Northumberland).—The joint should first be smeared with oil; then a mould taken with a paste of plaster-of-Paris, from which it is easy to get a cast with a second fluid of the paste.

A CORRECTION.

To the Editor of THE LANCET.

SIR,—In THE LANCET of Nov. 1st, 1884, appears the following notice of an appointment—viz., that of "Hozier, C. H. Smith, to the Gundagai Hospital." As I am, and have been, the only qualified medical officer attached to the above institution for the past fifteen months, you will greatly oblige by giving the above the most unqualified contradiction. I am, Sir, yours obediently,

Gundagai, New South Wales, March 9th, 1885. J. J. O'DWYER.

*** The announcement was extracted from an Australian medical journal.—ED. L.

Mr. James H. Reilly.—No.

Enquirer is referred to our advertising columns.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Ebenezer Watson, Glasgow; Mr. J. Bryant, London; Mr. Rodger, Aberdeen; Mr. Gandar, London; Mr. C. E. Paget, London; Mr. C. W. Waylen, Darenth; Mr. James, London; Mr. Read; Mr. Putney; Mr. Steele, London; Mr. F. C. Wright, Manchester; Dr. J. Ince; Mr. Arthur Cooper, London; Dr. G. P. Bate; Mr. Berkeley Hill, London; Mr. Cross, Bristol; Dr. G. Oliver, Harrogate; Mr. Appleyard, Bradford; Mr. Love, Mitcham; Mr. Startin, London; Mr. Somers Vine, London; Mr. C. Atkin, Sheffield; Mr. Parry, Bangor; Dr. Fenwick, London; Dr. McMunn; Dr. Welch; Mr. Hodges, Ryde; Dr. Scott, Berwick-on-Tweed; Prof. Humphry, Cambridge; Mr. Williams, Talgarth; Mr. Anderson, Kirkwall; Mr. Bully, London; Mr. Bainbridge, Middlesbro'; Mrs. Palmer, Erdesley; Mr. Bailey; Mr. Banning, Bushey; Mr. Livingstone; Mr. Ranson, Stafford; Mr. Jeffrey, Eastbourne; Mr. Fuge, Taunton; Mr. Abbot, Sheffield; Mr. Bullock, Folkestone; Mr. Pollett; Mr. Gill, Tavistock; Dr. Adams, Martock; Mr. Hunt, Alexandria; Mr. Hope, Erdington; Mr. Parnell, Forest-hill; Mr. D'Orsey; Dr. Lewers, London; Messrs. Oppenheimer and Co., London; Mr. F. Cox, London; Dr. Syof; Mr. Beardsley, Grange-over-Sands; Mr. Simmons, Droitwich; Mr. Walker, Middlesbro'; Dr. Urquhart, Perth; Mr. Ullrich, Pullna; Messrs. Wilcox and Co., London; Mr. Wiffen, Brighton; Mr. McMunn, Seafield; Dr. Thomas, Glasgow; Dr. C. Nedwill, Christchurch; Mr. F. P. Smith, Shepton Mallet; Dr. Heywood Smith, London; Mr. W. Alexander, Liverpool; Mr. Hilton, Bury; Dr. Bristowe, London; Mr. H. Denham, London; Mr. Kestin, London; Mr. Heaton, Birmingham; Mr. F. C. Batchelor, Brockley; Mr. Alder Smith, London; Mr. Montague, London; Mr. Marshall, Huddersfield; Messrs. Kegan Paul and Co., London; Mr. Saunders, London; Mr. Upton, London; Mr. Marsh, Fulham; Mr. Pike; Mr. Saville; Mr. Ruspini, Knutsford; Dr. Male; Mr. Palmer, Chelford; Mr. Lacy, London; Dr. Ernest Sansom, London; Dr. Thomas Savill, Paris; Dr. Colman, Yeovil; Mr. Whiteford, London; Mr. Spurway, Rome; Mr. Frampton, Weston-super-Mare; Dr. Gledhill, Broughton; Dr. Montero; Mr. J. Taylor, London; Mr. Cartland, Windsor; An Outsider; Lex; M.R.C.S., Highbury; M. N.; S.; Doubtful; A. B., Stroud; H. B.; A. B., Pau.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Eberle; Messrs. Wyleys and Co., Coventry; Mr. Higgins; Mr. Owen, Huddersfield; Mr. Morgan, Edinburgh; Mr. Ward, London; Mr. Morgan, Edinburgh; Mr. McDonald, Manchester; Dr. Muscroft, Pontypridd; Messrs. White and Co., Havant; Messrs. Bell and Bradfute, Edinburgh; Mr. Grant, Birmingham; Messrs. Macmillan and Co., Cambridge; Dr. Napier, Agremont; Dr. Morton, Kilburn; Mr. Parry, Brandon; Dr. Fox, R.N., Bristol; Mr. O'Kelly, Stafford; Mr. Dunn, Cleody Mortimer; Messrs. Powneeby and Co., London; Mr. Fairman, Auchtermuchty; Miss Roberton, Leicester; Dr. Meynell, Erith; Messrs. Woolley and Sons, Manchester; Messrs. Burroughs, Wellcome, and Co., London; Mr. J. M. Lloyd, London; Dr. Dalworth, London; Messrs. Lenfund and Co., London; Mr. Calter, Liverpool; Messrs. Trubshaw and Co., Mold; Mr. Beaman, Newton-le-Willows; Mr. Wolff, London; Mr. Thompson, Wolston; Mr. Hargreaves, Leeds; Mrs. Griffiths, London; Mr. White, Kingsland; Mr. Long, Sherborne; Mr. Coltmann, Ben Rhydding; Mr. Osborne, Manchester; Messrs. Mackay, Edinburgh; Miss Carson, Burton-on-Trent; Mr. Lockwood, Sheffield; Mr. Heap, Swanage; Mr. Wells, Bury; Mr. Gutteridge; Mr. Williams, Weir; Mrs. Strong, Southport; Dr. Parry, Bridgend; Mr. Treves, London; Dr. Howis, Bromley; Dr. Bridgman; Mr. Julien, Newark; Messrs. Higgins and Son, Reading; Mr. Tupholme, Louth; Mr. Holloway, Kidderminster; Mr. Edwards, Chester; Messrs. Ford and Co., London; Mr. Cresswell, Gainsboro'; Mr. Johnson, Gloucester; Mr. Webb, Bury; Mr. Sim, Macclesfield; Mr. Watters, New Tounants; Mr. Earp; Miss Spencer Meigle; Dr. Stainthorp; Mr. Field, Bradford; Mr. Hope, Birmingham; Mr. Taylor, Airdrie; G. C. P., Forest-hill; M.D., London; M.D., St. Ives; Secretary, Manchester Royal Infirmary; A. B., Liverpool; B. P. X.; Alpha, London; The Secretary, Hertford Infirmary; X., Rawcliffe; M.R.C.S., Crewkerne; M.D., Tunbridge Wells; M.D., Lincoln; Medicus, Manchester; A., Liverpool; T. T., Liverpool; M.D., Crockherbtown; Medicus, Carrington; Cumberland; E. W., Hartlepool; A. R. P.; Medicus, Ashford; C. J. D., London; F.S.A., Wye; Cantab.; Medicus, Eastbourne; J. B. S., Eastbourne; Medicus, Scarborough; F. M., Guildford; A. H., London; Locum Tenens, Southampton; H. G.; Medicus, Sheffield; Secretary, Liverpool Hospital for Women.

Guernsey Mail and Telegraph, Guernsey Star, Newberry Weekly News, Isle of Wight News, Southport Visitor, Church of England Temperance Chronicle, Southport Guardian, Liverpool Courier, Jarrow Guardian, Manchester Courier, Manchester Evening Mail, Dundee Courier, Dewsbury Reporter, Stockton Times, York Herald, Glasgow News, Stockport Advertiser, Cheshire County News, Staffordshire Sentinel, Engineering, have been received.

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Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

Clinical Lecture

ON A CASE OF

DISSEMINATED CEREBRO-SPINAL SCLEROSIS IN AN EARLY STAGE, AFFECTING EXCLUSIVELY THE RIGHT EXTREMITIES.

BY DYCE DUCKWORTH, M.D., F.R.C.P.,

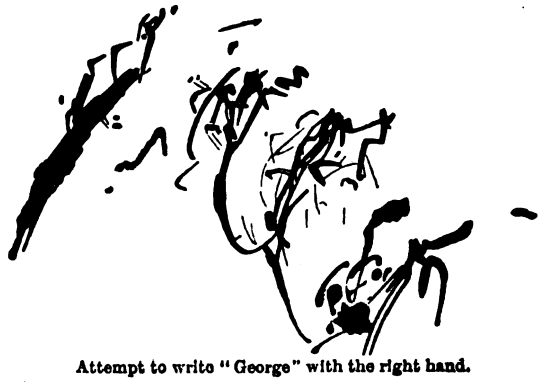
PHYSICIAN TO, AND LECTURER ON CLINICAL MEDICINE AT, ST. BARTHOLOMEW'S HOSPITAL.

GENTLEMEN,—I bring before you to-day a patient lately admitted to Bed 1 in John ward, whose case furnishes me with some points of great interest, to which I shall ask your attention. It is one of a class well fitted for a clinical lecture, which, as you know, is nothing if not demonstrative, and little more than a systematic or didactic one if the patient is not brought before you. Clinical medicine has all to do with individual cases, and that teaching of it is most proper which best illustrates the points to be noted to each of you in as direct and living a manner as possible.

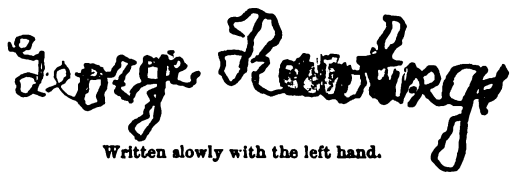
I will presently tell this man to walk across the theatre, and ask you to notice his gait. If you look at him first as he stands at rest, you will not observe anything remarkable about him. You see a young man in seeming good health, well nourished, and with complete control over his equilibrium. I now ask him to close his eyes. He stands erect, and without any tremor or instability. And now, as he walks, you notice a peculiarity in the action of his right leg. This limb moves stiffly, and there is over-action of it. It is lifted higher off the ground than the other, and is clumsy in movement. We say there is some spastic action in it. I now give him this glass of water to take in his right hand. At once, you see, a violent spasmodic action occurs, vigorous tremulation, so great that he nearly empties all the water before he has well seized the glass. If he next attempts to raise the vessel to his lips the movements become more and more exaggerated, so that all the water is spilt and the empty glass rattles against his teeth. I remove the vessel from his hand, and all the spasm ceases forthwith. As he stands quietly once more, you notice that the right arm remains tranquil and free from tremor. I try his power of grasp in each hand, and find a marked weakness in the right one, although he is a right-handed man. I now lay bare his forearms and compare the condition of his muscles. You observe no signs of wasting; the muscles are well developed and of good and equal tone on both sides. On examining his face, you see that his muscles of expression are stable and free from tremor, his lips firm, and his eyeballs quite steady. His pupils are unequal, certainly, but that is due to the action of atropine in one of them, used to allow examination of the retina of the right eye. No squint; no facial palsy. Testing his sensory functions, we find no abnormal state; all is as it should be. On inquiry as to any subjective sensorial sensations, he assures us all is natural in each of the four extremities. To curtail our further examination, I may add that there is nothing more to be detected by any physical methods we can employ, save that the knee-reflexes are exaggerated, markedly on the right side, while no ankle-clonus can be elicited. We have, then, a seemingly healthy and vigorous young man, whose only troubles are a clumsy limping gait, due to disorderly action of his right leg, and inability to employ his right hand and arm because of powerful tremulation and disorderly spasm, which come on the instant he directs his will into this extremity; and this is all. Before he leaves the theatre I ask him to repeat a sentence after me. You notice that he speaks clearly and fluently—with a good Wiltshire accent to be sure, but without any hesitation or difficulty; and yet, again, on protruding his tongue, you find no noteworthy tremor or peculiarity in it. Let us now take up the history of this case; it is very brief.

G. R——, aged twenty-one, a groom, was sent up to us by a former pupil of the hospital, and admitted on Feb. 14th. He states that nine months ago trembling movements began in his right arm, which prevented him from following his occupation. Later on the right leg became affected, so that he could not walk far on account of the weakness in it. Inquiry into his past history revealed no important illness. He had never had rheumatism, and there was no known history of this or of gout in his family. He had never had chorea, although his present ailment was at first believed to be of this nature. There was no neurotic history in his family, no indication of any previous paralytic attack or hemiplegia, no injury of any kind, and no history of fits. His duties entailed exposure to all kinds of weather, but to no extraordinary exposure. Previous to admission, he had been treated, we learned, with arsenic, belladonna, mineral water bathing at Bath, &c., all without avail.

You have already noted that the patient appears a healthy and well-nourished man, and that so long as he makes no voluntary efforts with the limbs of the right side of his body there is no indication of disease about him. I show you a specimen of his attempt to write his name. (See woodcut.) After violent efforts to control the right hand he made this unintelligible series of scrawls. With the left hand he has learned to write fairly legibly, but slowly and with difficulty, still without any spasm or tremor. He is awkward in setting his right forefinger on any point; thus he makes bad shots at his nose when he tries to touch the end of it, and hardly succeeds in getting near it. Dr. Steavenson has given us a report on the electrical reactions of the muscles of the affected limbs, and he states that they all react normally to both continuous and interrupted currents, and that there is no loss of electro-sensibility. We have seen the exaggerated



Attempt to write "George" with the right hand.



Written slowly with the left hand.

reflexes at the knees, especially on the affected side; and you may note an increase in the supinator-reflex of the right arm. No fibrillary muscular contractions. On examining the thorax, nothing abnormal is found. The heart-sounds are healthy and sufficiently loud. The urine is natural and the sphincters act perfectly. Special senses not perverted. No vertigo. Knows where his feet and hands are. Retinæ perfectly healthy, and optic discs well-defined. No nystagmus; pupils react naturally; no strabismus. No history of syphilis, and no signs of either inherited or acquired disease of this character. No tenderness on percussing the cranium at any point. In trying to follow with his right toes a circle drawn on the floor is very clumsy and erratic. He can jump, though with exertion of more force than is necessary for the distance traversed. The difficulty with the right leg is best seen when he tries to run.

We find, on the whole, more negative than positive signs in this man, and yet we have very definite symptoms before us. What is the lesion here, and where is it? What is the diagnosis and what the prognosis, and the best treatment of it? I mentioned that chorea had been at first suspected in the case. Chorea is sometimes one-sided, and often so, for a time in many instances. You would not or you should not long be mistaken as to this. You know that choreic movements are incessant except during sleep, and not only elicited by effort, although they are aggravated by voluntary efforts. And you would not expect to meet with a case of one-sided chorea lasting continuously for nine months. We

may, therefore, put that aside. You think, perhaps, of another nervous disorder characterised by tremors and paralysis agitans; the shaking palsy (Parkinson's disease) suggests itself to you. Is this the malady before us? Here is Parkinson's own definition, written in 1817; observe if it tallies with our case: "Involuntary tremulous motion with lessened muscular power in parts not in action, and even when supported; with a propensity to bend the trunk forwards and to pass from a walking to a running pace, the senses and intellect being uninjured." This definition will not apply here. The rule is for the tremor to be persistent and constant in shaking palsy, and rather to cease or moderate when action is induced. The contrary is the case here. Action at once induces tremor. The age of this patient is against his being the subject of shaking palsy, this disorder being very rare before forty years of age are reached. Have we here to deal with a case of so-called post-hemiplegic chorea? I think not, because we have no history and no signs of a past attack of hemiplegia, and the characters of this man's tremors are not those of the disorder I have alluded to. To mention mercurial tremors is sufficient. These are symmetrical, and affect the head, and the signs of mercurialism are always obvious. We can also exclude hysterical tremors and malingering.

We are brought, at last, to consider this case, then, as one of a class known as insular or disseminated cerebro-spinal sclerosis, or Charcot's disease, as it has been called. It is a remarkable example, certainly, because the disorder is, at present,—note, I say, *at present,—hemiplegic in character, and also manifestly in an early stage.* We do not often see such cases. This is our diagnosis: sclerotic patches situated in the left half of the brain, possibly in corpus striatum or crus, and possibly in some portion of the medulla spinalis. I should not like to pronounce with greater certainty anything more than this at present, though I might exclude the inferior frontal convolution and parts around the fissure of Sylvius, with some other regions. We may exclude scrofulous and syphilitic disease in the case, and we are in face of the characteristic lesions which are usually found in these cases, and for which I refer you to your studies in morbid histology. The age of our patient is just that at which this malady declares itself. It is equally common in each sex, and very rare after forty. Exposure to cold has been a commonly assigned cause. In this disease no muscular *wasting* occurs, although loss of muscular *power* is found, and no electrical changes arise. Paresis precedes the tremors, and the reverse is the case in shaking palsy. The reflexes are exaggerated. I should not omit to point out to you that many symptoms are wanting in this patient to complete the picture of a typical case. Such a one we had fifteen months ago in John ward. For example, one looks for nystagmus, and for certain symptoms referable to disorder in the medulla oblongata in most of these cases. I never met before with the exact conditions you see in this man; but, still, I have hardly any hesitation in making my diagnosis.

As to prognosis. This is certainly grave. I surmise that we have so far only early symptoms before us, and that the disease will make sad progress in time. We may fear the onset of paresis and tremors in the sound limbs, and the implication of speech with what are termed bulbar symptoms. The sclerotic process may spread and new patches of it occur in other portions of the cerebro-spinal system, thus setting up new symptoms. The course of the malady is slow, and may occupy from five to ten years. Deceptive periods of improvement may occur from time to time. Too often the disease goes on from bad to worse till the patient is rendered helpless and bedridden, the limbs becoming rigid and paralytic dementia supervening. Can we do nothing to arrest this terrible process? Must it go on to the bitter end? Alas! the resources of our art are, we must honestly avow, powerless as yet to avert the progress of this terrible malady. Physicians have been very assiduous in elaborating the differential diagnosis of nervous diseases of late years, but in respect to therapeutics we have as yet scored few triumphs. The outlook is bad, and we might almost despair of rendering help. We shall never do this, I hope, but rather strive the harder to find means of arresting this untoward process. No one drug is pre-eminently indicated. I am giving this man mercury, and mean to bring him fully under its influence. He takes three grains of blue pill each night. Not that I am trying to eradicate any syphilitic taint, for, in truth, we know of none in the case. But we know that mercury is a powerful drug and able to modify nutritional force very materially. We shall do our patient no harm with it. It may be that some of these obscure perversions of growth are evolutional forms of syphilis transmitted from infected ancestry, and so mercury, fully tried, may chance to be of special use. We know, at any rate, that in the peculiar form of systematic sclerosis of the posterior spinal columns known as tabes dorsalis—locomotor ataxia—syphilis plays a very prominent part, to the extent, indeed, of 80 per cent., or more, of all cases. Not that the lesion is itself directly syphilitic or gummatous, but that syphilis, as syphilis, seems to predispose to the particular form of sclerotic change in the cord which sets up the disease we know as tabes dorsalis. We are also maintaining the nutrition of this man's nervous system by cod-liver oil and a good diet. Nitrate of silver has been found of use in early stages of this disease. But for some time to come I should prefer to use mercury and iodide of potassium and carefully watch their effects, and I shall bring the results and the further history of this remarkable case before you on a subsequent occasion.

ON THE

SIGNIFICANCE OF A PECULIAR MURMUR IN RELATION TO THE DIAGNOSIS OF INTRA-THORACIC DISEASES.

BY J. S. BRISTOWE, M.D. LOND.

(*Continued from p. 837.*)

CASE 2. *Aneurysm of aortic arch; compression of both innominate veins, and communication between aneurysm and left innominate; great œdema and congestion of head and neck, and upper part of trunk; death; autopsy.*—Susannah F——, a married woman aged forty-six, was admitted under my care on May 27th, 1884. She has had moderately good health on the whole; has had one child, no miscarriages; has never had syphilis. Nine years ago she had typhoid fever, with two relapses, and was in hospital for nine months. Last winter she complained a good deal of rheumatism. About that time she first suffered from shortness of breath and palpitation. Five or six weeks ago the patient first observed swelling of the neck and about the eyes, and a little later she noticed some difficulty of swallowing, and first complained of aching pain between the shoulders. She has had some cough all along. The above symptoms have increased upon her up to the present time.

The face and neck of the patient are much swollen and œdematous, and the lips, cheeks, eyelids, and ears much congested; the swelling involves also the upper part of the chest and the shoulders and upper arms. The veins in the neck are greatly distended, and form large spongy masses just above the clavicles; the veins also in the upper part of the thorax, in front and behind, and about the shoulders, are much enlarged. There is no ascites, and no œdema whatever below the nipples. The lower extremities, indeed, are emaciated. She complains of dyspnœa, cough, and severe pain in the chest, more especially between the shoulders. Chest generally resonant, and breath-sounds normal, except at the base, where there is some crepitation. Cardiac dulness not increased in area; apex beats in sixth interspace, directly below the nipple; all over the cardiac area, and along the arch of the aorta, may be heard a loud systolic murmur, and also what by some is regarded as a diastolic murmur. The fact, however, seems to be that a peculiar prolonged murmur, commencing with the systole and continued through the greater part of the diastole, is audible over the aortic area and upwards to the right clavicle, diminishing in intensity as one passes from this region. The systolic portion of the murmur is loud, somewhat musical, and of uniform character during the whole of the cardiac systole; but the murmur is continued through and after the second sound as a kind of musical hum, which gradually dies away. The murmur is audible in the back, along the course of the aorta. There is no definite dulness or pulsation to be detected beneath the clavicles or in the course of the aortic arch. Pulse 88, equal in the two wrists, not jerky; respiration 24, but laboured; and when she

coughs there is manifest stridor. Phonation natural; no sign to the laryngoscope of affection of the larynx. The liver extends an inch or two below the ribs, and is tender on pressure. The urine contains a trace of albumen. Nothing is noticeable with respect to the digestive functions. There does not seem to be any actual difficulty in the act of swallowing; no enlarged glands or tumours to be felt anywhere.

There is very little to be added to the above account, excepting that repeated examinations fully confirmed the observations above detailed. With occasional imperfect remissions she gradually got worse up to the time of her death. The dilatation of the veins in the neck, upper part of the thorax, and shoulders varied somewhat, but on the whole increased. The œdema also varied to some extent, but also on the whole increased; and latterly, partly in consequence of this, partly in consequence of the concurrent lividity of the surface, her aspect was most distressing—indeed hideous. Her face, neck, shoulders, and bosom became enormously swollen, her eyelids congested and closed, her nose buried in her cheeks, her lips thick and the lower one pendulous, with a huge double chin prolonged laterally to the lobes of her ears. Latterly, too, the œdema extended down the arms, and still later involved also the abdominal walls and vulva, and even the lower extremities; moreover, petechial extravasations appeared beneath the integuments of the face and neck and upper part of the back. The dyspnœa became aggravated, and she had for the most part to be propped up in bed, and slept in this posture with her head lolling forwards over her chest. Her cough was troublesome and paroxysmal, and was attended with more or less muco-purulent expectoration, and on two or three occasions with hæmoptysis. Deep breathing was always attended with stridor, but there was never any impairment of phonation or involvement of the vocal cords. The condition of the thoracic viscera, so far as we could ascertain, remained unaltered. There were never any clear local signs of aneurysm or other tumour; never any distinct proof of consolidation of lungs or effusion into the pleuræ; and the murmur at the base of the heart retained its characteristic features from first to last. It must be added, however, that the great œdema of the thoracic walls, and more especially the enormous bulk of the mammæ interfered more and more with physical examination of the chest. The pulses at the wrists remained equal; but it was noted once or twice that the left pupil was somewhat smaller than the right. No enlarged glands ever appeared in the neck or elsewhere, and no tumours of any kind in the abdomen. She complained usually of more or less pain in the upper part of the chest and between the shoulders, sometimes a sense of pricking, sometimes aching or cutting; and occasionally the pain extended down the right arm; less frequently down both arms. This pain was often severe enough to keep her awake. The breasts also became very painful. She never had any actual difficulty in swallowing, and for the most part took food fairly well. But she gradually got weaker; and during the last three or four weeks became very drowsy, at times being difficult to arouse, and when awake inclined to ramble. Her temperature throughout her illness was generally subnormal. She died on August 1st, on which day it rose to 100·4°.

Necropsy.—There was much anasarca and lividity, especially in the head and neck and upper part of the trunk. There were some hæmorrhages in the substance of the left pectoralis major. Chest: both pleuræ adherent, the adhesions being œdematous. Lungs dark-red and firm but crepitant everywhere, excepting the left lower lobe, which was quite collapsed. The bronchial tubes contained frothy mucus. The pericardium presented a small quantity of serum, and towards the base of the heart appeared thickened. The right side of the heart was somewhat enlarged, but on the whole the organ was little, if at all, above the normal bulk. The valves were all healthy. The coronary arteries presented patches of atheroma. An aneurysm about two inches in diameter sprang from the transverse arch of the aorta about three inches above the valves, and bulged towards the right. There was a little old laminated clot adherent to its walls, and the cavity contained also a little pale and coloured recent clot. The aneurysm pressed upon the innominate veins, without obliterating them, and communicated in front by two small round openings with the left innominate vein. The larger of these was about a line in diameter. The aortic arch was very atheromatous. The abdominal cavity did not contain any fluid. The liver was congested, and evidently in the early "nutmeg" condition. The spleen was large and firm. The kidneys were rather small, and somewhat granular on the surface. There were two small fibrous tumours connected with the outer surface of the uterus, which was retroverted. There were no urates in the right great toe-joint.

I need scarcely say, perhaps, that the case which I have just detailed, and of which whatever was mysterious during life is fully explained by the post-mortem revelations, was not only interesting to those who watched it, but presented difficulties to those who tried to interpret it. I must confess that my own diagnosis was erroneous. It was of course quite obvious that the patient was suffering from an intra-thoracic tumour, which, amongst other things, obstructed either the vena cava descendens or both innominate veins. It was quite obvious, too, that there was a loud murmur commencing with the cardiac systole, most intense at the base of the heart and over the manubrium, but audible even to the apex. As has already been pointed out, there were some differences of opinion as to the character of the murmur or murmurs. Some of my younger colleagues, men of ability and experience, held that there was a double aortic murmur, and consequently constriction and regurgitation at the aortic orifice. I always maintained that the murmur was single and such as it has been described above, and that, therefore, it could not possibly indicate simple disease at the aortic orifice; and my view was so far confirmed at the post-mortem that the aortic valve was found absolutely healthy. But dominated by the memory of my first case, I leant to the belief that the patient was suffering from a highly vascular malignant growth. I think now that what turned out to be the real condition of things ought to have presented itself to my mind; but it did not. I went down late to the post-mortem examination; indeed, it was supposed to be completed; and I learnt that the case was one of simple aortic aneurysm, associated with healthy cardiac valves. I at once pointed out that nothing had been discovered to explain the murmur which had misled me during the patient's lifetime, and turning to a very able clerk of mine, a high wrangler, I said, "Mackenzie, you are our greatest authority on acoustics and hydrostatics, and must help us to solve the riddle." He at once said, "Perhaps there is a communication between the aneurysm and a vein." I acquiesced, and straightway a careful examination was made among the scattered fragments, which resulted in the discovery that such a communication existed. Had I not fortunately been present at the autopsy an important fact in the case would have been wholly overlooked, and a clinical phenomenon of interest would have remained without satisfactory explanation.

(To be concluded).

CASES

ILLUSTRATIVE OF CEREBRAL SURGERY.

By WILLIAM MACEWEN, M.D.,
SURGEON TO THE ROYAL INFIRMARY, GLASGOW.

CASE OF LOCALISED ENCEPHALITIS AND LEPTOMENINGITIS.

Summary.—Patient admitted with impairment of power in left arm, accompanied by muscular twitchings and pricking sensations in some parts; lesion diagnosed to be in upper half of ascending frontal convolutions; trephining; membrane-like patch over surface of brain involving arachnoid and pia mater along with external surface of grey matter; blood infiltrated into substance of brain in ascending frontal convolution; removal; reimplantation of bone; complete recovery.

F. N——, aged thirty-six years, a miner, was admitted into Ward 21, Glasgow Royal Infirmary, on November 27th, 1883, complaining of weakness, inability to work, and certain symptoms which were referable to the motor centres.

History.—He had been in good health until August, 1883, when by falling downstairs he was rendered unconscious, in which state he continued for about twelve hours. There had been a little blood about one of his ears, but whether this came from a superficial abrasion or was indicative of a more serious condition could not be ascertained. When he regained consciousness he found himself to be quite well, with the exception of experiencing a giddy sensation when he attempted to walk. He could move his arms and legs

freely, he had full possession of sight, hearing, taste, and smell, and he believed himself to have quite recovered from his fall. Soon afterwards he attempted to work, but found that he was too weak to do so, and as time passed, instead of getting stronger he became weaker, and he therefore sought medical aid. He ultimately came to Glasgow, and was admitted into the medical wards of the Glasgow Royal Infirmary on September 18th, 1883, eighteen days after the accident. From the resident assistant the following was learned concerning his state at that time. He had partial right-sided facial paralysis. It was not clear whether this paralysis was due to a cerebral or a peripheral cause—some interference with the facial in its course through the temporal bone. Though the patient complained of weakness, no impairment in sensation or motion was detected over the trunk or limbs. He was treated by a series of blisters over the temporal region and rest. When he left the medical wards there was an improvement in the state of his face, though he remained otherwise in much the same condition. After getting home he repeatedly attempted to work, but found that he was quite unable to do so—first, from a feeling of general weakness; second, from a feebleness in the left arm; third, from a vertigo which came over him when he assumed the upright position, after stooping, or when he made any sudden movement; and fourth, from a general sensation of oppression, which he referred to his head. He also found that he was falling off in flesh. Some time afterwards he sought admission, on the advice of his physician, to the surgical wards of the Royal Infirmary. He was admitted to Ward 21 on Nov. 27th, 1883, twelve weeks and four days after the accident, his condition then being as follows:—He was a tall strongly-built man, having a shrunken and careworn aspect, his features being rather pinched. There was a trace of right-sided facial paralysis evinced by a slight passivity of expression, which was confirmed when he attempted to elevate his eyebrows. Occasionally the muscles on the right side of his face twitched. The pupil of his right eye was sluggish, responding feebly to light, so that when exposed to the full light of the window, it only contracted to about half the extent of its fellow. There was no external mark of injury on his head, though he complained of a feeling of weight and oppression in it, which, however, was diffuse. The muscles of his arms were well developed, though soft, and those of his left arm seemed slightly wasted. The power of grasp of his left hand was very feeble. The muscles of his left arm were frequently spasmodically jerked, and he experienced pricking sensations from the shoulder down to the fingers. He preferred not to hold anything breakable in his hand, because he said that "he could not trust it," as he was liable to drop anything which he might have in it. Though he had this want of confidence in his hand, he did not let anything fall while under examination. The condition of the arm as to want of power and the twitchings in the muscles were becoming steadily worse. When he stooped and rose quickly and then tried to walk he staggered, and he said that he felt giddy for some time afterwards. His temperature was occasionally slightly above normal. His lungs, kidneys, and other organs were sound. The head was shaven and another examination was made, but no sign of injury or abnormal irregularity could be detected.

From the history, as well as from his condition at the time of the examination, it was obvious that there was a lesion of the motor cortex in the upper half of the right ascending frontal convolution. As to the pathology, it was probable that irritation had been set up round an extravasation of blood which had taken place into the brain cortex at the above point as the result of a cerebral contusion. From the time that had elapsed since the injury, the extravasated blood would have undergone secondary changes, and it was probable from the increase and progress of the symptoms described as affecting the left arm that the irritation was of an inflammatory nature, although there was no pus production—a localised encephalitis, and probably a leptomeningitis. The former facial paralysis was probably due to an injury of the nerve, and not to a central cause. As counter-irritation had been employed for a considerable period without effect, it was not deemed expedient again to have recourse to it, more especially as it could not influence the blood effused. Dr. Robertson was asked to see this patient, and quite concurred in the diagnosis, and in the necessity for operative treatment. The patient was very desirous that something should be done to alleviate his condition, as he found himself totally unfitted for work, and felt that he was daily becoming worse. When it became known to him that his brain might be operated on for the relief of his symptoms, he eagerly begged that it should be done.

Operation, December 8th, 1883: The patient was placed under chloroform and a portion of the right parietal bone was removed, about one inch behind the auriculo-bregmatic line, and one inch above a line drawn from the external angular process of the frontal to the upper angle of the lambdoidal suture. A circular portion of skull was elevated one inch in diameter, exposing the middle of the ascending frontal and parietal convolutions. The disc of skull elevated was somewhat thinner than usual, and its internal table was slightly eroded. The dura mater, instead of presenting its usual smooth glistening appearance, had an irregular roughened surface, and was of a yellowish-grey colour, with here and there a dark patch indicating blood-clots in the subdural space. It was closely adherent to the skull round the margins of the trephine aperture. A crucial incision was made into the dura mater, when a considerable quantity of clear fluid along with some clots of blood about the size of a large bean escaped. Other clots had to be removed, as they were adhering to the structure underneath. After taking away these clots there were no brain pulsations visible, and the surface which then presented itself was of a somewhat yellowish colour, having an opaque dense aspect, and being adherent to the tissues underneath. This membrane-like patch lay chiefly over the ascending frontal convolution, dipping down into the fissure of Rolando. An incision was made through this layer, when it was seen to be about an eighth of an inch in thickness, and to be probably composed of the arachnoid, pia mater, and the superficial portion of the cortex, all of them fused together by plastic exudation, so as to resemble a single dense membrane, the various layers of which could not be differentiated. The underlying brain tissue in the upper part of the ascending frontal convolution was infiltrated with minute blood-clots, some of them about the size of a pea, others that of a barley grain. Till this incision was made through this membrane-like patch into the brain substance there were no pulsations visible; but when this was done the pulsations became distinct, and at the same moment many of the little clots, along with a quantity of serum, became extruded from the brain tissue, many of them coming from some depth, apparently helped to the surface by the cerebral pulsations. These clots were of a yellowish-brown colour externally, and when broken their interior was still black. A short time was given to permit the brain impulses to complete this extrusion, after which, as a few clots could still be discerned in the interior of the brain, they were gently loosened, when they were quickly extruded by the same movement. After all the clots were removed, a minute vessel on the brain surface continuing to bleed, pressure was exerted for a minute, which completely occluded it. The brain substance at this part seemed softer than normal, and was of a yellowish-brown colour. The dura mater was replaced, and the disc of bone which had been removed, and which had its periosteum entirely stripped off, was divided into several portions, and reimplanted in the aperture in the skull, a small opening being left at the side for drainage. The scalp was brought together with chromic gut, a decalcified chicken-bone tube being placed between the scalp and the skull for drainage. The entire operation was done under the carbolised spray, and eucalyptus dressings were applied. Forty-eight hours afterwards the wound was redressed, when a slight blood-stain was found on the dressing. Three weeks afterwards the wound was examined for the second time, and found healed. The patient's highest rectal temperature was 100·4° F. He never had a bad symptom, felt perfectly easy, and the only difficulty experienced was in persuading him to remain in bed, and in preventing him from indulging in other than low diet. The skull was firm over the trephine opening, into which the bones had been reimplanted. At the end of forty-eight hours there was almost a paralytic state of the left arm; he could not move the fingers. At the expiration of a week, when the arm was permitted to be examined for the second time, this had quite gone. His fingers were moved freely, and he could raise his arm and flex all the joints freely. From the third day after the operation there were no jerkings in the muscles of the arm. At the end of six weeks he had improved greatly in strength generally, and he declared that his left arm was as strong as ever; certainly it had gained greatly in strength. He was now eager and anxious to be

permitted to get out to work. He was dismissed at the end of two months. Eight months afterwards he reported himself as regularly at work and in excellent health, the power of his left arm having been quite restored.

(To be concluded.)

A CONTRIBUTION TO THE

CLINICAL STUDY OF THE LIVER VIEWED THROUGH THE URINE.

BY GEORGE OLIVER, M.D. LOND.

(Continued from page 840.)

No. II.—THE PHYSIOLOGICAL AND CLINICAL ASPECTS OF THE BILE SALTS IN THE URINE.

I. *The bile salts are increased.*—My clinical experience has demonstrated an excess of biliary salts in the urine in the following morbid conditions:—

1. *Jaundice.*—Authorities are divided on the question of bile salts in the urine of jaundice, some (such as Frerichs, Städler, Murchison) holding that they are invariably absent, believing that they are decomposed by the blood; others (Kühne) always detecting them, whatever the form and the duration of the jaundice, and others (George Harley) asserting the presence of them in all cases of obstructive jaundice, while, in fact, bile is being secreted by the liver and absorbed into the blood, but failing to discover them when the liver, from disorganisation, ceases to secrete bile. All this diversity of opinion must, I think, be referred either to the defectiveness of the processes hitherto employed for the separation of the bile acids from the urine, or to the want of a clinical test of sufficient accuracy and delicacy. So far my experience agrees with that of Kühne; for I have invariably found an increase, and generally a very decided increase, of the bile salts in all forms and stages of jaundice; this even in cases of from one to four years' duration. According to my experience of jaundice, the bile salts are not only apt to appear in the urine in increased quantity before the appearance of bile pigment, but to persist for some weeks after the urine has become quite free from it. In several cases I have found the peptone test of considerable practical value in affording an early intimation of the presence of conditions favouring jaundice, which was apparently averted by prompt treatment. Only lately I came across such a case, when I expressed a fear that jaundice would follow; I was then told that the patient was jaundiced under like circumstances six years ago. A full dose of calomel and colocynth followed by sulphate of magnesia, however, brought away a large quantity of what had all the appearance of pent-up biliary matter, and the patient gradually convalesced without the supervention of jaundice, the urine the while presenting a diminishing charge of bile salts, until at last it became quite normal, and the fæces assumed a healthy apperance. The test has also proved useful in my hands in indicating when a case of jaundice, after the ordinary bile flow into the bowels has taken place, may be considered fairly out of the wood, and when the liability to relapse may be regarded as unlikely. This pale urine was passed by a patient six weeks after the bile appeared freely in the evacuations. Yet it contains, as you observe, over 100 per cent. increase of the biliary salts. The patient is now, however, quite well.[1]

2. *Functional disorders of the liver; biliousness.*—The bilious may be broadly divided into two classes—namely, those in whom the liver is loaded with biliary products, either from habitual per-secretion, or from an accumulation of them, which is less or more constant, or is only occasional; and those in whom the secretion of bile is always below the average—sub-secretion.

Acute biliousness.—Those who always "make" bile, as well as those who suffer from biliary engorgement due to defective excretion, &c., are prone to "hepatic storms" or periodical overflows of bile either into the bowels or the blood, or into both; as when there occurs a sudden alteration of arterial tension,[2] as a rise from excitement, or a fall from chilling or other meteorological influence, or when a dietetic error is committed. Then, when the bile derivatives are absorbed too freely into the blood, as they generally are, the symptoms resemble those of acute poisoning by small doses of the bile salts in animals—namely, feeble pulse, pallor, coldness of the extremities, and a feeling of chilliness throughout, from imperfect filling of the arterioles; slow, sometimes gasping breathing; nausea and vomiting, and occasionally diarrhœa. In migraine these symptoms, which characterise the ordinary forms of acute poisoning by the bile salts, are overshadowed by the painful disturbances of the fifth and of the optic nerves; neurotic effects which *may* spring from the same central cause; but in these cases the attack is probably preceded or accompanied by an arrest or a diminution of the renal elimination of the biliary salts, followed by an augmented discharge which affords immediate relief.[3] In an ordinary attack of acute biliousness the bile salts flush the blood and are eliminated in increased quantity, and more particularly so towards the close of the disturbance. Acute bile-acid poisoning may, however, go beyond the stage implied by the ordinary bilious attack; it may even become so intense as to induce convulsions—which, however, as a rule, subside as the suddenly induced excess of the colourless bile product in the blood is cleared away, either by the kidneys, or by the bowels or by the skin; such a severe disturbance is apt to follow an excessive indulgence in alcohol, or the taking of some indigestible article of diet, or of too large a meal.

Chronic biliousness is also a cause of an increased systemic diffusion of bile salts, and the excessive renal elimination of them. Then the disorder is, as a rule, not purely functional, but depends on hepatic congestion induced by alcohol:[4] the initial stage of cirrhosis, by too good living, or by some obstruction to the portal circulation, as in heart disease, or by the congestive effects of malaria on the liver and spleen. Cases of chronic biliousness are, however, now and then met with which, though providing an excess of bile salts in the urine, do not exhibit the ordinary signs of hepatic congestion, and are not referable to the causes just indicated. But chronic biliousness perhaps, in the majority of cases, arises either from subsecretion of bile or the retention of biliary elements in the blood. When constipation is a prominent feature in a case of biliousness, as it frequently is, the bile salts will be detected in greater excess than when the bowels are regular or free; and this is not surprising, for constipation means retention of bile about the portal system, favouring as it does a retarded flow in the bile-ducts and absorption of cholate of sodium contained in the contents of the small intestines and in the fæces.[5] In any case of hepatic disturbance whenever the edge of the liver is to be felt below the margin of the thorax, and is sensitive to the touch, or when, without obvious enlargement of the liver, the fingers pressed well under the lower right ribs elicit tenderness, bile salts in excess will in all probability be discovered in the urine. But, on the other hand, these constituents are frequently found in excess without there being any tenderness of the liver. In chronic biliary derangement I have frequently found the bile salts in greater excess in the urine voided during the period of digestion than in that discharged before meals—e.g., two hours after breakfast than on rising. The urine of hepatic embarrassment, producing acute and chronic biliousness, is

[1] According to my observations, jaundiced urine is but a portion of the large group of urines containing biliary matter in pathological proportions. Hence I venture to use the term "choluria," in order to tersely indicate the presence of the colourless bile elements in abnormal quantity in the urine.

[2] Variations of arterial and venous tension disturbing the biliary secretion is a matter of interest in practical medicine. The physiologist knows that the secretion of bile is increased by injecting blood into the veins, and diminished by bleeding or by compression of the aorta, and by obstructing the portal vein. All this has an important bearing on the pathological phenomena of the liver and the treatment of them. How often does a judicious attempt to raise the arterial tension in sub-cholia do more good than the whole battery of cholagogues, the poor anæmic liver rising to a higher standard of work in proportion as its blood-supply is improved?

[3] During the course of an attack of migraine I am inclined to think, from what I have observed, that there is in the typically neurotic forms of this ailment a check to elimination; then there occurs a flush by some channel—such as that of the kidneys, the skin, or the bowels—which brings heavenly freedom from the grip of the enemy. Sleep in many cases, and remedies addressed to the neurotic state in others, favour the freedom. This is a large subject, and can only be lightly touched in passing.

[4] I have found the peptone test very useful in detecting the abuse of alcohol. It would seem as if the urinary bile salts rise in quantity in the early stages of hepatic congestion from alcohol—in fact, before any enlargement can be made out or any tenderness can be detected.

[5] I have, however, every now and then discovered a decided excess of bile salts in the urine in cases of biliousness with free alvine evacuations, these being quite loose and bright-yellow, as if the biliary elements overflowed into the blood as well as into the bowels.

that of subjaundice—a minimal form of jaundice, which, like the major form, is characterised by a surcharge of bile derivatives in the blood and the elimination of them by the kidneys, but differs from ordinary jaundice in furnishing urine which not only contains a smaller proportion of bile elements, but always presents an excess of the biliary salts, while it is only occasionally pigmentous.

3. *Diseases of the liver apart from jaundice.*—I have found an excess of bile salts in the urine of carcinoma, amyloid disease, enlargement of the liver generally, cirrhosis, and in that of tumours probably hepatic. In passing diseases of the liver, such as hepatitis, I am disposed to think the peptone test will prove of some clinical value in showing when the liver has become completely restored.[6]

4. *Diseases of the spleen.*—In several cases of choluria the liver was enlarged as well as the spleen, but in two the enlargement was confined entirely, or almost entirely, to the spleen;[7] but notwithstanding the absence of definite hepatic disease, the bile salts appeared in the urine of these cases in large excess, associated with a little albumen, and they were not accompanied by bile pigment. Here is a good specimen voided by a patient under treatment; it is not pigmented, and it contains 300 per cent. increase of bile salts; the patient has a large spleen from ague, but he has no hepatic enlargement; in fact his liver appears to be below the normal size. This clinical fact appears to me noteworthy in connexion with some experimental data bearing on the relative amount of bile salts present in the splenic pulp and in the parenchyma of the liver, which will appear in the addendum to this paper.[8]

5. *Fever.* A rise of temperature from whatever cause always induces a systemic excess of bile salts. With a temperature of 104°, and without any suspicion of liver affection, I have known the renal elimination to exceed 400 per cent. increase over the normal standard. Even a slight rise, such as that of 1° or 2°, increases the renal discharge of these elements. I need scarcely mention the intimate pathological connexion that subsists between the turgescence and consequent activity of the spleen and fever. This fact, viewed by the side of the urinary excess of bile salts in fever as well as in splenic disease apart from fever, is interesting when we attempt to take into consideration the probable causes of the prominent symptoms of the febrile movement, especially the prodromal ones. Some, such as chilliness and even rigors, nausea, vomiting, diarrhœa, epistaxis, convulsions, and the miniature clonic contractions of subsultus tendinum, I am disposed to refer to an excessive charge of bile salts in the blood. But how are the rheumatic symptoms—aching of the back and limbs, severe muscular and even articular pains—to be accounted for? The spleen also suggests an explanation, for according to physiological observation it would seem as if the splenic pulp were the birthplace of uric and other organic acids—such as lactic, acetic, butyric, formic, and succinic. In connexion with this point perhaps I should state that on using a sensitive litmus paper I have always found the splenic pulp of the freshly killed animal distinctly acid: and the same observation applies to the human spleens, which I have examined twenty-four hours after death, and to the recent decoctions of spleens and livers of man and animals.

6. *Hæmolytic diseases.* — Dissolution of the blood—and especially of red discs—obstruction of the capillaries, and hæmorrhages are prominent facts in the poisoning of animals by injecting bile salts into their veins. On turning to clinical experience we find the counterpart of these experimental data.

(*a*) *Anæmia.*—In anæmia the balance, which in health is maintained between the generation and the destruction of the blood-corpuscles, is disturbed. There would seem to be either a failure in the hæmogenesis, or an increase in the hæmolytic process; determining, as the case may be, a hæmogenic or a hæmolytic form of the ailment. Probably the defect is generally on the side of construction; but I have met with several instructive examples of the hæmolytic type, in which there was a considerable excess, pretty regularly and persistently maintained, of bile salts in the urine; then it was that some attention to the portal organs was indicated, and was of greater service than the ferruginous treatment of the blood state, the pernicious work of the liver apparently causing the failure. I suspect that arsenic is a valuable remedy in some of these cases of hæmolytic anæmia; purgative doses of the sulphates are certainly useful. The following figures indicate the range of increase of the urinary bile salts which I have recorded in this form of anæmia: 400, 300, 60, 100, 300, 60, 60, 400.

As yet I have not had opportunities of studying, in connexion with the bile salts, *pernicious anæmia* and *progressive anæmia*, which has a *primâ-facie* resemblance to the pernicious form.

In *splenic leucocythæmia* there is a large excess of the biliary salts in the urine. Here is a sample of the urine of a case in the London Hospital; it has a specific gravity of 1009, and contains a little albumen, and you observe that it is quite pale, free from biliary pigment, and that it is charged with as much as 750 per cent. increase of the bile salts, for eight minims of it produce the same degree of opacity with sixty minims of the peptone solution as do sixty minims of healthy urine.

In *malarial anæmia* (in cases even that did not present recognisable enlargement of the liver or spleen, or other organic changes) I have found a marked increase. This is the urine of a case of malarial anæmia in the Charing-cross Hospital; it contains, as you observe, over 300 per cent. increase of the biliary salts.

(To be continued.)

[6] In the discussion which followed the reading of this paper, Dr. Clifford Allbutt related the case of a convalescent from hepatitis sent to him for his opinion as to the recovery of the liver, and the advisability or otherwise of the patient's return to his employment. "On using the peptone test," said Dr. Allbutt, "a large precipitate appeared, and I felt justified by the information thus provided in reporting against the complete restoration of the liver, and in advising a further reprieve from work."

[7] Of course splenic enlargement does not necessarily imply increased activity of splenic function. As this paper is passing through the press I come across a good example in a patient of Dr. Ward's, of Harrogate. There was no choluria, though the spleen was found post mortem considerably enlarged; the portal and splenic veins were embedded in a mass of matted-up and thickened glandular tissue, and were clearly obstructed, for no blood issued from the portal vein on section; the liver was highly anæmic and fatty, the bile-ducts were entirely bileless, and a decoction of the parenchyma of the liver afforded a mere trace of bile salts. This case was, as it were, a beautiful and neat experiment planned by the hand of nature to shut off the products of spleen work from the liver and the systemic blood.

[8] Inasmuch as in experimentation with bile salts injected into the veins of animals the serum becomes loaded with fatty molecules, it is interesting to note some observations on this point in various cholæmic diseases, made by competent observers long before the cause of the fatty serum was apparent. Trail, over forty years ago, remarked on the creamy or milky serum of hepatitis, and on several occasions showed that the turbidity was due to a large quantity of fat. In inflammation of the spleen (lienitis) the serum was observed by Cullen, Testa, and Heusinger to be turbid from fatty matter. Simon, in his "Animal Chemistry," gives many interesting analyses of the blood of fevers, inflammations, jaundice, &c.—all these being cholæmic diseases—showing an excess of fat. Then, again, in leucocythæmia (another cholæmic disease) the blood is distinctly increased (Robertson and Isambert).

CASES OF LITHOTOMY IN THE ADULT,

WITH REMARKS.

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CASE 1. *Four large calculi and one small one removed by the median operation.*—Stephen H——, thirty, a well-made man, was admitted into the London Hospital on Dec. 19th, 1871, in a very critical condition. At first he affirmed that his illness only dated back for four or five weeks, but subsequently, on cross-examination, it was ascertained that suspicious symptoms had existed for some years. Occasionally, after exertion, blood was found in the urine, and at varying intervals he was obliged to lie up for a few days; a bottle of medicine, however, soon set him right. For some time he had experienced an itching sensation at the end of the penis. When he ran about or jumped he felt "something move in his inside," and such exercise was followed by the appearance of blood in his urine. His urine never stopped suddenly while micturating, but he had often felt pain after the act was completed. The pain would extend round his loins, and his testicles would be drawn up. Five weeks before admission he caught cold. He then noticed a discharge from his urethra, and, finally, he suffered from retention, for which he was attended by his club doctor. He had retention four times before admission, and on each occasion a catheter was passed. His urine was exceedingly thick, so that, according to his own account, "you could stand a stick up in it." On one occasion blood came away when the catheter was introduced.

Ten days before he came to the hospital he had a rigor, which lasted half an hour.

On admission he was found to be the subject of phimosis. The end of the penis was acutely inflamed, very œdematous, and displayed one or two blackish sloughy points. A muco-purulent discharge issued from the urethra. His urine was passed very frequently in gushes and had a highly ammoniacal odour. It was tinged with blood, had an alkaline reaction, and a specific gravity of 1012, and contained a trace of albumen, epithelium, blood, lithates, phosphates, and pus. He had little, if any, suspicion that he was the subject of a serious affection of his urinary organs. His belief was that he would be well in a day or two, but his aspect belied it. His countenance wore a very anxious expression; his lips were covered with herpetic spots; his tongue was dry, brown, and coated. He was thirsty and feverish. Pulse 120. Temperature 101·6°. A No. 6 silver catheter passed by the house-surgeon, Mr. Beech, into the bladder was so firmly gripped that it could not be rotated. On its withdrawal a clot of blood issued from the urethra, followed by a mass of yellow gelatinous matter. He was ordered a warm bath, and he said it "did him a deal of good," as it brought away a quantity of urine and muco-purulent discharge. On further examination I found that the catheter grated over something rough in the urethra beyond the triangular ligament, and with the forefinger in the rectum I detected a hard body just in front of the prostate, not appreciably movable. This was diagnosed as a stone which had escaped from the bladder and become impacted below the urethral canal.

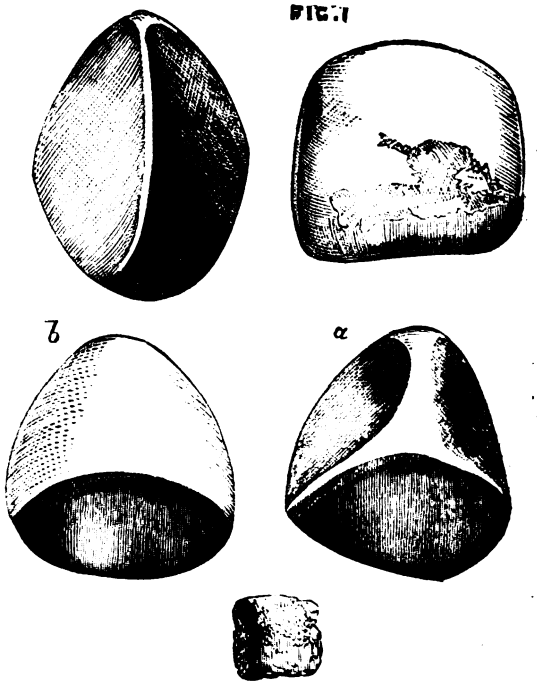
On December 20th Mr. Hutchinson saw the patient with me, and it was deemed advisable to undertake an immediate operation as affording him the best chance of recovery. Accordingly the patient was taken to the operating theatre and placed under the influence of chloroform. The staff was taken by Mr. Hutchinson. I opened the urethra by a median incision, introduced a pair of urethral forceps, and readily extracted a small stone. My fingers passed forwards into the prostate gland, hollowed out by the destruction of its tissue, and, reaching the neck of the bladder, came into contact with some larger stones. Mr. Hutchinson, who also examined the parts with his fingers, remarked that there was "a quarry." The presence of other stones had been indicated by smooth facets on the small stone first extracted; a pair of forceps was introduced, but as the stones were large, it was found necessary to enlarge the wound in the urethra. Then I extracted the stones in quick succession, washed out the bladder, and introduced a sponge-tube. The mucous membrane of the bladder appeared to be much thickened. There was very little hæmorrhage during the operation—none afterwards.

On the following day (Dec. 21st) the patient appeared to be much better, and expressed himself as comfortable and free from pain. He had had a good night, and was sanguine of a speedy recovery. The tongue was still dry and brown; the pulse about 130; temperature 100·5°. Some urine passed by the natural route.—22nd: Much better, and thought he could eat some chicken and oranges, which were ordered accordingly. Had slept well during the night. Bowels opened freely. The tenderness over the hypogastric region which had existed before the operation had disappeared. Urine passed through the penis. Pulse 130; temperature 100·5°.—23rd: Had passed a good night; said he could eat more. Urine still thick, some coming through penis and some through tube. Pulse very quick and weak; temperature 100° to 102°.—24th: Tube removed. Not so well. Had passed a good night, but perspired a good deal, and a profuse purulent discharge issued from the urethra; mouth very dry and parched; countenance anxious; pulse could scarcely be counted; temperature 102° throughout the day. In the afternoon he rallied, took his food again, and had a long sleep.—25th: Not nearly so well; had a disturbed night; breathing quicker and shorter; pulse still very small and rapid: countenance anxious with rather a vacant stare. In spite of the urgency of his condition he ate a hearty dinner at one o'clock. During the afternoon he became worse, and died at 11.55 P.M.

He had no rigors after the operation. He was sick once soon after it was over, possibly from the chloroform, and once the next morning. The other symptoms were fully explained by the condition of the urinary organs found after death.

Necropsy.—On opening the abdomen Dr. Sutton said that the peritoneum had a greasy appearance, and pointed out a red congested line on the edge of the intestinal coils, especially apparent in the upper part of the abdomen. These he regarded as indications of impending peritonitis. There was not, however, any trace of effusion into the peritoneal cavity, and the peritoneum covering the back of the bladder and the front of the rectum retained its natural lustre. The bladder was contracted. Its mucous membrane was much thickened, highly pigmented, and of a bluish-black colour with here and there whitish patches as if due to the deposit of phosphates from the urine which had been loaded with them during life. The muscular tunic was thickened. The prostate was hollowed out into a ragged cavity containing purulent matter, the floor of the urethra and the veru montanum being destroyed. Some pus was found in the fascia bounding it on the left. The left ureter was very much dilated, about three-quarters of an inch in diameter, and opened into the bladder by a wide orifice in the centre of a large papillary eminence which projected into the bladder, and apparently resulted from chronic thickening of the mucous membrane and the muscular fibres connected with the duct. The mucous membrane lining the ureter and pelvis of the left kidney was thickened and the seat of pigmentary deposit. The pelvis of the left kidney was much dilated, and the infundibula and calyces could be traced outwards, forming a number of culs-de-sac encroaching on the cones. These pouches and the

FIG. 1



pelvis itself were full of thick gelatinous, muco-purulent matter. The cortex was in a state of atrophy. The right kidney presented in a minor degree appearances similar to those in the left. The cortex was contracted, two of the cones obliterated and muco-pus was found in the pelvis and calyces. The right ureter was only slightly larger than the left. The lungs were much congested and emphysematous. The pericardium was healthy. The left ventricle was firmly contracted. The brain was healthy. The annexed wood-cut (Fig. 1) will show the size of the calculi. Their united weight on removal was two ounces and three-quarters. In each of the large calculi there is a nucleus of urate of ammonia mixed with a large proportion of oxalate and urate of lime. Upon this is deposited phosphate of magnesia and ammonia containing a small quantity of phosphate of lime. The outer layers consist chiefly of phosphate of lime alternating with thin layers of urate of ammonia. The central portion of the large calculi resembled in appearance, structure, and size the small calculus. The exact similarity of structure shown by the calculi may possibly indicate that all the four larger ones were formed simultaneously. The calculi are in the museum of the Royal College of Surgeons of England.

Remarks.—A noteworthy feature in the foregoing case is the slight amount of constitutional disturbance and local

pain or discomfort occasioned by the calculi. They must have been in the bladder for some years; and it was not till the smallest one descended, entered the urethra, caused destruction of the prostate and ulceration of the urethra, that sufficient inconvenience was occasioned to necessitate admission into the hospital. There was no evidence of the patient ever having been sounded, or the existence of calculi suspected by his previous medical attendants; and he was admitted in a most precarious, and, as the issue proved, a hopeless condition. The kidneys had already been greatly damaged and the secreting structure spoiled by backward pressure and chronic inflammation, and an abscess had formed in the pelvic fascia outside the disorganised prostate gland. Had the calculi been found a few months earlier, in all probability a fatal result might have been averted. As the case stands, the death cannot in anywise be attributed to the operation, which was in every way beneficial. It placed the patient in a condition of comfort and ease, although unavoidably it came too late to be of permanent advantage.

(To be concluded.)

CASE (UTERINE) ILLUSTRATING THE ACTION OF DIGITALIS AS A DEPRESSO-MOTOR.[1]

BY J. GORDON BLACK, M.D. LOND.

WE are all no doubt agreed as to the great value of digitalis as a cardiac stimulant and contractor of the arterioles, and in materially increasing the blood-pressure in all parts of the circulation. Probably no day passes without our feeling thankful for the aid which this useful drug affords when various little peculiarities of its action are thoroughly understood. As a depresso-motor, however, having a special power over the inhibitory reflex ganglia of the spinal cord, I fancy digitalis is not so generally employed. About twenty years ago, I remember seeing cases of delirium tremens treated with large, or what one may call depresso-motor, doses of digitalis. For example, half an ounce of the tincture would be given several times during the day or night, and had an excellent calming effect upon over-excited nerves and exhausted reflex centres. No doubt this method of administration is familiar to all; but judging from my own experience such a use of the drug is more occasional than common. Perhaps there is a latent dread of untoward effects, and thus one prefers to use the more familiar bromide of potassium or hydrate of chloral to control the disordered reflex manifestations. The following case seems happily to illustrate the power of digitalis, even in comparatively moderate doses, to stimulate exhausted inhibitory centres.

About two years ago I was sent for, late one night, to see a young married lady, staying in lodgings with her husband. Before reaching the house I heard shouts and screams, which I was told emanated from the patient. I found her in bed, throwing her arms and limbs about in a state of the wildest maniacal excitement. At the top of an unusually loud voice she was ordering her husband, or the maid, to get her beer, brandy, or morphia by turns. Had it not been for one symptom which arrested my attention in the act of walking across the room to the bedside on my entrance, I should certainly have felt inclined to ascribe the appearances before me to alcoholic excess. The emphatic signal which, however, at once awakened all my medical sympathies was that of well-marked risus sardonicus—the ghastly grin of the baboon, with the angles of the mouth drawn downwards and outwards, as if by tightened cords. Here was, therefore, no ordinary case of drunkenness or alcoholic mania, but one in which the fountains of the nervous system were seriously implicated. But for this invaluable hint the diagnosis, amid the incongruous surroundings of the sufferer, would have been a labour indeed like unravelling the Gordian knot. Hysteria there was of the most pronounced character. The patient had been addicted for upwards of two years to the hypodermic use of morphia. It had been originally ordered by a medical man for the relief of severe hypogastric and inguinal pain. There was now hardly half an inch of space down the outer side of one lower limb, from the hip to the ankle, where the morphia needle had not penetrated. She even boasted of her skill in operating without leaving a mark on the skin.

Such was my introduction to a very uninviting and apparently hopeless case. The utter degradation and loss of moral restraint in a woman, whom I afterwards found to be a lady of delicate sensibilities and proper conduct, could only be appreciated by actually looking "on this picture and on that." The patient was about twenty-nine years of age, and had been married ten years. She had been twice pregnant within the first two years of married life, but miscarried on each occasion at about the eighth month. The menses had always been regular up to four months ago, since which time they had not appeared. To make a long story short, I discovered that the whole train of symptoms in this case depended upon complete retroversion and flexion of the uterus, which organ was literally upside down, with an acute flexion about the site of the inner os. During the first twelve months of my acquaintance with this confirmed invalid the following forms of hysteria presented themselves at various times to my notice: double wrist-drop, so that splints down the arms were necessary to support the useless hands; loss of power to flex the body upon the lower extremities (she was thus unable to raise herself in bed from the lying into the sitting posture, and although she could sit when placed in a chair, by no effort could she stand up); intense salivation, with swollen gums and tongue, accompanied by horribly fetid breath; absolute aphonia for many days, followed by very considerable paralysis of the muscles of inspiration, the latter at one time being so serious that quantities of mucus collected in the bronchial tubes and trachea, causing the patient much anxiety from fear of impending suffocation; finally, the occurrence of an attack of catarrhal croup of unmistakable character.

Now, in this case, the only drug which seemed to possess power enough to control the disturbed action of the nerves and the maniacal symptoms was morphia. Under its soothing influence she was indeed happy and reasonable. So soon, however, as its effect had passed off she became a raving lunatic, disturbing night and day the neighbourhood where she lived, and for whom the appliances of a madhouse were devoutly desired by her medical attendant. Other medicines, such as the bromides, hydrate of chloral, chloroform, belladonna, quinine, tincture of iron, &c., were next to useless. I never knew bromide of potassium, even given in large doses, prove so utterly powerless. The patient was by no means a dipsomaniac; but, at times of excitement, alcohol was too freely taken in order to drown the sensations of nervine horror which enthralled her. To this end, however, it was only very partially successful; perhaps a little more so than the medicines just enumerated. Immediately on rectifying the malposition of the uterus, complete relief to the most distressing symptoms was attained. Whenever the womb was straightened and duly erected into a normal attitude, by means of a Graily Hewitt's stem pessary, the patient became a reasonable, controllable being, however outrageous her previous conduct might have been. This sequence, as cause and effect, was abundantly verified during the early treatment; for of course at first it was no easy matter to adjust an instrument capable of maintaining itself against the tension of ligaments and tissues contracted by long-standing error. Accidents would occasionally happen, and several times I found that the uterus had actually carried the pessary with it into an inverted position, the point of the stem being vertically downwards, whilst the base of the instrument was wrong side upwards. Under such adverse circumstances, the patient was evidently conscious of something having gone wrong, and very soon afterwards the characteristic risus sardonicus and the dreaded maniacal outbursts supervened, with a horror and thraldom upon her nervous system such as the sight of a spectral appearance might have caused. Under the mechanical uterine treatment mentioned this patient became practically well in the course of six or eight months. She was enabled to throw off the invalidism of several years' standing, and to walk abroad once more.

Thus far I have been obliged to describe this case in order that what follows as to the action of digitalis may be fully understood. About five months ago—that is, a year and a half after my first introduction to the patient, I was sent for

[1] A paper read before the first meeting of the Harrogate Medical Society, Nov. 27th, 1884.

one afternoon, in a hurry, to see her. On arrival, I saw again, to my intense chagrin, the spectral ghastly grin, maniacal rolling eye, and the furtive glance so well remembered; and though, as yet, the shouting demeanour was absent, there was the whispered entreaty for morphia, which she had not used for more than eighteen months. As if this were not discouragement enough, I discovered, upon vaginal examination, that the stem pessary which she continued to wear was not this time out of order. It was in perfect apposition, and erect in attitude. Independent of the treatment by pessary, nothing but morphia had been found able to moderate the violence of these outbreaks; and the employment of morphia I had rigidly forbidden on account of its pernicious effects on her constitution, moral and physical. The day was far advanced and night coming on, with the prospect of the household being turned into a veritable pandemonium. On casting about for some cause for this unpleasant return of her tormentor, I learned that the menses had been rather suddenly stopped by a chill. The left inguinal region was tender to the touch, whilst the left ovary, per vaginam, was felt to be swollen, and the slightest pressure over it was acutely painful to the sufferer. Here, therefore, appeared to me sufficient cause for the nervine disturbance. At least, careful inquiry could suggest no other. Whilst standing by the bedside, watching the vagaries of the patient, in a thoroughly crestfallen mood, the idea of digitalis suddenly struck me. How it was known to stimulate Setschenow's inhibitory ganglia at the upper part of the spinal cord, and, further, its sometimes happy effect when boldly administered in delirium tremens, recurred to my mind. The patient's pulse, too, was at all times high and feeble; but during hysterical paroxysms was even alarmingly so. Digitalis, therefore, being a powerful cardiac and vascular stimulant, seemed very appropriate. The result is soon told. I prescribed half an ounce of the tincture in a four-ounce bottle, with water; two tablespoonfuls (one-drachm dose of the tincture of digitalis) to be taken every hour. This was at five o'clock, and I did not see her again till between nine and ten o'clock. She was then quite calm and reasonable; a perfect contrast to her previous state. The four doses had all been taken. Previously the pulse had ranged from 120 to 130, and was very feeble in character, even at times difficult to detect. Now, on the other hand, it was steady and full, beating rather over 90 to the minute. On other occasions morphia alone had been able to break through the persistent sleep vigil; on this, however, the patient declared she felt drowsy and thought she could go to sleep. This result was happily realised, and an excellent night passed. Next morning she awoke refreshed, got up, and said she was quite well. Better still, she has remained so to the present date.

I would remark, in conclusion, that this case seems to teach a useful lesson regarding the value of digitalis employed as an alternative to agents such as hydrate of chloral, bromide of potassium, nitrite of amyl, Calabar bean, and others so generally used as controllers of disturbed reflexes. These otherwise useful agents tend unfortunately to weaken the heart's action and lower the circulation generally. In poisonous doses they arrest the heart in diastole, whereas digitalis, similarly administered, stops the heart in systole. Digitalis also slows the cardiac beat, whilst it increases the force and efficiency of the contractions. In suitable cases, then, we would do well to remember that these most useful therapeutic powers of digitalis are united to others equally potent and valuable, which give control over reflex nervine disturbances. The result of careful experiments appears to establish that this influence over the reflex centres, as well as over the spinal cord generally, is really independent of the characteristic effects upon the heart and the blood-vessels. The latter potentiality, however, may not improbably assist the former; consequently, where long courses of the bromides and other depresso-motors are found necessary, a combination with digitalis is suggested, to avoid any weakening of the circulation liable to be produced by the former agents. In this direction the character of the pulse will be found a proper guide, for, when full and strong, digitalis will not be needed; but, when feeble and frequent, such assistance would be evidently indicated. There are, on the other hand, occasional instances where medicines commonly relied on and found most useful as sedatives to spinal irritation, have failed; and in such, as in the case I have related, digitalis may happily prove invaluable as the last arrow in the quiver of the long-suffering medical attendant.

A NOTE AND A QUESTION ON SO-CALLED SURGICAL SCARLET FEVER.

BY HERBERT W. PAGE, M.A. CANTAB., F.R.C.S.,
SURGEON TO ST. MARY'S HOSPITAL.

"OUGHT an operation to be performed on a patient whom we know to have been recently exposed to the contagium of scarlet fever?" is a question which cannot very often have presented itself to a surgeon; but it occurred to myself not long ago in the following circumstances.

On Dec. 13th, 1884, I admitted into St. Mary's Hospital a patient with suppurating glands and old sinuses in the right groin, the result of over-exertion, and perhaps general ill-health. On Dec. 13th the sinuses were freely laid open under an anæsthetic, the operation being a somewhat severe one of its kind. On the 18th the temperature rose, and a red rash appeared on the chest and abdomen. This was followed by sore-throat and general extension of the redness, and no doubt was entertained that the patient had scarlet fever. He passed through a mild course of this disease and desquamated over the whole body; but there was little or no arrest in the healing of his wound, and he was discharged from the hospital in eight weeks. He was an intelligent well-educated man, aged twenty-eight, formerly an officer in the Navy, and had been taken into the hospital for special reasons. He was quite unaware of having been exposed to recent contagion, but was sure that he had had scarlet fever twice before, the last time seven years ago.

There attended on this patient a night-nurse and a day-nurse, both lady probationers in the hospital. On Dec. 27th the night-nurse, aged thirty-five, began with scarlet fever, and passed through a typical yet very mild attack. On Jan. 7th the day-nurse, E. P. G——, aged forty-seven, called attention to the fact that her left breast had been for some time very painful and was growing rapidly in size. I was asked to see her, and learned that for the last fifteen years she had had a small painless lump in the breast, that it had begun to increase in size nine months ago, and that for the last two months its growth had been much more rapid, with a considerable amount of pain. The breast was found enormously enlarged, and to be the seat of a tumour which, both from the history and the feel, was obviously a cystic adeno-sarcoma. I advised removal as soon as possible—that, at any rate, it should not be delayed beyond a week or ten days. On the following day her friends took her to see Sir James Paget, who further advised that she should leave the hospital for a few days before operation, so as to lessen the risks of her contracting scarlet fever, to infection from which she had been continuously exposed for the last three weeks. She had never had scarlet fever before. Accordingly, she left the hospital at once, and returned on the morning of Jan. 14th, on which day I had the advantage of talking over the case with Sir James Paget, who agreed in thinking that it was right, in the circumstances of the breast disease, to operate, although the chances of the patient developing scarlet fever were very considerable. On the afternoon of Jan. 14th I removed the breast under full antiseptic precautions, Listerian carbolic spray and gauze. The wound healed by first intention; and from that moment to her discharge from the hospital, on Feb. 9th, her temperature never rose above the normal. She did not contract scarlet fever.

Such is the bare statement of the facts, and it will be acknowledged, I think, that a question of unusual difficulty was submitted to the surgeon before operation. The fortunate issue of the case gives at any rate one answer to the question, that an operation may be performed with safety on a patient who has been recently exposed to the contagium of scarlet fever. Operations have doubtless been frequently performed without ill results on persons who have been so subjected to infection, although that fact was unknown both to themselves and the operators. I question, however, if an operation other than one of real urgency ought to be undertaken knowingly in like circumstances, and I must own that for some days after the operation on E. P. G—— my anxiety was not small that she would show evidences of the fever. The necessity and urgency of the operation had to be weighed against the risks of developing scarlet fever, and had any facts been at hand to tell that the patient would certainly show symptoms of this fever after operation, that there was, in fact, no possible escape for her from such a

consequence, then perhaps it would have been right to postpone the operation longer, urgent though it was. But who could say for how long? There were no such facts to guide me, and I thought it justifiable to take the chance and do the operation.

The history of these three patients clearly shows how different is the susceptibility of different individuals to the poison of scarlet fever. The man who had had scarlet fever twice before gets a third attack within four days of an operation; from him one nurse soon catches the disease, and the other nurse, who was subjected to no less risks of infection and who had not had scarlet fever before, not only does not acquire it, but even undergoes a serious operation within a week of the time when she had been nursing him. It appears, therefore, that an operation, or the state of depression induced thereby, has not that power which has been attributed to it of permitting the development of scarlet fever in a patient who has been exposed to it, unless the patient has also a certain measure of susceptibility to the disease. Nor do I know how this is to be gauged, unless it be from the age of the patient and the absence of any previous history of scarlet fever. It is improbable that anyone can have reached middle life without having been at some time exposed to the risks of infection, and in the system of every individual there must be something to determine whether poison or system shall prevail, whether the poison which has entered in shall run its course, or be deprived of its potency and cause no symptoms. That different persons and different families show all degrees of susceptibility is of course well known, and the history of these three cases seems to point to individual susceptibility as having an all-important share in allowing the development of scarlet fever after operation. How widely different, for example, must have been the susceptibility in the man and in his nurse. This conclusion seems, however, to teach that an operation ought not to be undertaken in such circumstances as have been recorded unless there be some good reason for believing that the patient's susceptibility is only small. The question which begins this paper can, as has been said, very rarely present itself to a surgeon, and I can only suggest that when it occurs very careful inquiry should be made into the history of the patient and his family, that his age be noted, and the probabilities of his exposure to contagion, and his escape from its dangers during his previous life, be fully considered. And yet his previous escape may render him more liable to an attack now, and an operation may be the one thing needful to make him fall a victim to the fever. Not necessarily so, as the case in this paper shows; but there must be a risk, and it should be fairly put before the patient and his friends. Risk unavoidable; attack by no means inevitable; hope of escape well-grounded or the reverse, according to the age and previous history. These are the considerations which must be put before them, and which must be balanced against the measure of the urgency for the operation. How difficult it may be to arrive at a right conclusion is self-evident.

In a letter to me on the issue of this case Sir James Paget writes: "I wish we could have more of these negative facts; we have nothing to weigh against the positive evidences of the bringing out of previous infection." It is with the object of recording a negative fact of much interest and importance that I venture to publish this note.

NOTES ON

A CASE OF ABDOMINAL SECTION.

By C. A. BRODRIBB, M.R.C.S.

MRS. F——, aged forty-one, a widow with six children, was about her household work, in her usual health, on May 24th, 1884. The next day she was seized with severe pain in the abdomen, with constant vomiting. The pain seemed most severe in the right lumbar region, over the ascending colon. She said she felt that "something had given way in her inside." I was sent for in the evening of the next day (the 26th). I found her in great pain, frequently retching; pulse 108, weak; skin moist and cool. I ordered her to take fifteen minims of tincture of opium in an ounce of chloroform water every four hours, to suck ice, and to apply warm flannels over the abdomen. The next day (27th) she was much the same, but an indistinctly defined swelling over the ascending colon had appeared, extremely tender to the touch. On the 28th I asked Dr. Bagshawe to see her with me. The swelling was more defined, pain intense, but very little vomiting. Pulse 108; temperature 99·5°. No motion and no flatus had passed since the illness began. Ordered half a pint of warm oil with a quart of warm water, as an enema; twenty minims of tincture of belladonna every four hours; extract of belladonna to be applied over the tender swelling, which now had a sharply defined edge below, ending upwards indistinctly. The enema washed out a little fæces and flatus. Dr. Bagshawe thought that the ascending colon had become strangulated by adhesive bands of lymph. So matters continued for the next two days; no motion or flatus passed, and the swelling became more distinct and more tender. On May 31st the case was obviously almost hopeless if left to itself, and it was plainly unwise to wait until the patient became feverish or collapsed. Mr. Travers also kindly saw the case on the 31st with Dr. Bagshawe and myself, and we all agreed that the only chance lay in abdominal section, with a view to release the strangulated bowel. Accordingly, that afternoon, Mr. Travers chloroformed the patient, and having rinsed my hands and the sponges in a little carbolic acid and water, I made an incision in the median line, about five inches long, from just below the umbilicus downwards. I carefully stopped all the little bleeding vessels by torsion before I opened the peritoneum, which I did, of course, upon a director. I then introduced my hand, and passing it on to the ascending colon, I found it surrounded by adhesions of recent lymph, which I easily broke down with my forefinger. I also found a distinct band of lymph transversely across the bowel, and I managed to get my finger under it and broke it. I then drew the bowel sufficiently towards the incision to be able to get a glimpse of it. It was deeply congested, but sound. I afterwards squeezed onwards the contents of the swollen gut, especially one or two hard scybala, and left it soft and gurgling. I found some little difficulty in preventing the bowels from protruding *en masse* through the incision, but with a little more care I was able to close it securely with two deep silver-wire sutures through the peritoneum and four superficial sutures of silk. I dressed the wound with a little piece of lint soaked in carbolised oil, and then put over it a good-sized pad of wadding, with strapping, and six yards of wide calico bandage. I then gave half a grain of morphia under the skin, and ordered nothing but ice by the mouth. The same night the patient passed flatus per anum, but towards morning she had frequent and copious stercoraceous vomiting; temperature 97°; pulse weak. I gave drachm doses of brandy every two hours, and she rallied, and took a little of Brand's essence of beef. For the next two days she continued to improve, and passed flatus freely; lost all pain and swelling in abdomen. On June 3rd she had a large enema, which gave copious relief; wound healthy and healing well. On the 4th she had a relapse, with pain in the epigastrium and temperature 102°, which I attributed to a small slice of roll injudiciously given by a visitor. However, this attack subsided, and on the 5th (six days after the operation) the bowels acted freely of their own accord, the temperature fell to normal, and the pulse improved. On the 6th I removed the sutures, as they caused a "pricking" pain, and I found the wound all healed by first intention. I continued of course to support it with strapping and bandage. I gradually improved the diet, and on the 7th the patient sat up. She is now (seventeen days after the operation) weak, but able to go downstairs, and is practically quite well.

The points of interest to be noted in this case are: first, the rarity of the operation itself in private practice, as it is generally only resorted to as a forlorn hope; secondly, the favourable result, without any special advantages, such as hospital treatment and nursing and antiseptic precautions. The cottage in which the patient lives is one of a row of little houses in a crowded part of the town not particularly clean, airy, or well drained. The operation itself presents no particular difficulty, and requires no great skill in the operator; and this case seems to show that the dangers of abdominal section have hitherto been somewhat over-estimated; and that elaborate antiseptic treatment (which cannot well be obtained at the homes of the poor) is not necessary. Cases of intestinal obstruction are sadly common in the practice of all medical men, and are almost always fatal. I venture to hope that my professional brethren may be encouraged by this case to endeavour to save life in such cases by operation when other means seem likely to prove of no avail.

I must not omit to add that my best thanks are due to Dr. Bagshawe and to Mr. Travers for their kind advice and assistance, and also to the good ladies connected with a church in the neighbourhood who so tenderly and skilfully nursed the poor patient day and night until she was well out of danger.

Hastings.

CASE OF MYXŒDEMA IN A WOMAN AGED SEVENTY-SIX.

BY C. W. SUCKLING, M.D. LOND., M.R.C.P.,
PHYSICIAN TO THE QUEEN'S HOSPITAL, BIRMINGHAM.

L. L——, a woman aged seventy-six, was admitted into the workhouse infirmary on November 12th, 1884. Before I saw her the nurse of the ward told me that another case of myxœdema had been admitted, she having had one, which proved fatal, for twelve months under her charge. On hearing the patient speak I at once recognised the similarity of her mode of utterance and tone of voice to those of the other patient above mentioned, and it was in this way that the nurse detected the disease. No family history of importance could be elicited, and no history of trouble, want, or excess in any way could be obtained. She had been employed for years as a washerwoman, but lately had been too feeble to work. She complained only of coldness of the feet and weakness of the legs. She had had eight children, no miscarriages. She is a big, stout woman, with a heavy fatuous expression, the complexion is sallow with a circumscribed flush on each cheek. There is puffiness above and below each eyelid which does not pit on pressure. The nose is large and broad, and the alæ nasi thick. The lower lip is thick and protruded and somewhat cyanosed. There is hair on her upper lip and chin. The teeth are nearly all gone, the tongue and uvula large. The appetite bad. The skin is harsh, thick, dry, translucent, scaly, and wrinkled. She never perspires. Her limbs are large and there is a general œdema which does not pit on pressure, except in the legs and feet, where it does so slightly. There are thick swellings resembling fat above each clavicle. The hair is very scanty. The thyroid body cannot be felt although the rings of the trachea can be distinguished down to the sternum. The heart sounds are feeble, the pulse regular, small, feeble, and infrequent, 48 per minute, and there is certainly cardiac debility. The respiration is slow (13 per minute). She complains of a sensation of coldness in her feet, also of tingling, numbness, and formication in the hands and feet. Perceptions of pain and touch are retarded; localisation perfect. The pupils are unequal; they respond to light and accommodation. The hearing is very defective. Taste and smell normal. The reflexes are normal. She is slow in her movements, and fumbles in dressing herself; her gait is slow, with short steps. There is no agoraphobia or pain in the head. The speech is slow and drawling, and exactly resembles that of the other cases I have seen. Her intelligence appears fairly good; the memory is defective. She is slow of perception, and takes a considerable time to appreciate and answer a question. The temperature is below normal, ranging from 95° to 97° F. The urine averages forty ounces daily, contains no albumen, and its specific gravity is 1010. The percentage of urea estimated by Squibb's process is 1·15 per cent. For the last few days she has suffered from diarrhœa. She is very quiet and placid, and has had no fits or attacks of excitement.

This case is the third one of myxœdema that I have had under my care. All three have been women—two of them about the climacteric period of life. Two have proved fatal after being under observation for several months. In both of these fatal cases there were convulsions, shortly preceding death, which was by coma. In one of them delusions and attacks of temporary excitement occurred. In all the temperature was low, the urea diminished, and the heart feeble and slowly beating. In one of the fatal cases a gradual slowing of the pulse began two or three days before death, a few hours before death being 20 per minute, the patient at the time being comatose. No albumen could be detected in the urine examined shortly before death. Two of the patients were sisters. One of the patients fractured her patella; this was probably accounted for by the toneless condition of the extensor muscles of the knee, allowing the knee to give way suddenly, and the effort to recover herself fracturing the bone. I have tried jaborandi, nitro-glycerine, iron, arsenic, and baths in these cases without any appreciable benefit to the patient. The prognosis, in my experience, is of course very grave, the patient at any time being liable to a fatal coma. Dr. Oliver, in a clinical lecture on Myxœdema, called attention to a pause between inspiration and expiration as long as the sound of inspiration itself. This has not been present in the cases I have seen. West, however,[1] describes alterations in the respiratory murmurs, and says that Cheyne-Stokes' breathing has been observed in this disease. Many case of myxœdema have now been published, but I cannot find any case approaching in age this one.

Birmingham.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. GEORGE'S HOSPITAL.

A CASE OF FACIAL CARBUNCLE; DEATH; NECROPSY.

(Under the care of Mr. HOLMES.)

THE following case is a good example of the more severe variety of the disease known as facial carbuncle, death occurring as in the majority of these cases, which are happily uncommon, from pyæmia. No decisive opinion has been arrived at by the profession as to the exact relationship between this disease and true carbuncle, some considering it as the same, modified by position, others considering it to be allied to phlegmonous erysipelas. It will be observed that, in the case recorded phlebitis of the facial and other veins was noticed, preceding the more marked symptoms of pyæmia. In the diagnosis of this disease it is important to remember its resemblance in some respects to malignant pustule.

For the following notes we are indebted to Mr. H. W. Allingham, late house-surgeon:—

Bessie J——, aged twenty, single. Family history: Father died of bronchitis at a good age; other members of the family are alive and healthy. She had always had bad health, being very anæmic, and suffering from amenorrhœa. For this she had been to Eastbourne, and had only returned about a week previous to her admittance into hospital. On Dec. 23rd she complained of some pain in the left side of her upper lip, and noticed it to be very red on its inner aspect. Hot fomentations were used, but the swelling increasing a doctor was consulted, who ordered a poultice to be applied. Deriving no benefit from this treatment she was brought to the hospital.

Dec. 27th.—On admission she appeared very anæmic, the temperature being 105°; pulse 140. On the left side of her face, at the angle of the mouth, involving more of the upper than the lower lip, was a large reddish-blue indurated mass, about two inches in circumference; on this were six yellow points, from which pus could be squeezed. The rest of the side of the face was swollen, being hard and brawny, with neither sense of fluctuation nor œdema; upon this were two or three small boils scattered about. This swelling extended from the eyelids, which were thickened and closed, down to the angle of the jaw, and spreading slightly down the neck. Stimulants were given and five grains of sulphate of quinine every four hours.

28th. The lip was still of a darkish hue, and more yellow points had made their appearance, those dotted about the cheek being very pronounced. Streaks were apparent, following the course of the facial vein and its branches, which felt like cords, being evidently due to phlebitis. The eyelids were more swollen; sordes on the teeth; tongue moist, but very dirty; skin dry. The patient was slightly delirious at night and complained of intense headache. Mr. Holmes made an incision about an inch in depth along the lip at the junction of the mucous membrane and skin, but only a little venous blood (no pus) came from the wound.

[1] Boston Medical and Surgical Journal, vol. ii., page 50.

Temperature, morning, 104°; evening, 102°. Pulse in the morning, 140; evening, 136. Six ounces of port wine and five ounces of brandy were taken during the day, and an injection of a third of a grain of morphia was given at night.

29th.—The patient seemed much worse; the lip was bluish-black and in a sloughing condition; inflammation of the facial vein was still more marked; the eye was prominent and immovable, with a slight hæmorrhage under the conjunctiva on the outer side. The boil-like prominences about the cheek presented black sloughs on the surface. Tongue dry. Temperature, morning, 103°; night, 104°; pulse, morning, 156; evening, 140; respiration, morning, 52; evening 60. Some signs of pneumonia appeared in the left axillary line. About 6 P.M. she was delirious, having slight tremors of the right arm and leg, which continued up till 11 o'clock, when she died.

Autopsy.—The brain was soft and congested; the superior longitudinal, lateral, and cavernous sinuses, and left ophthalmic veins contained a dark, soft clot, friable, and in some places yellow and semi-purulent. A purulent disintegrated clot filled the entire length of the external and internal jugular veins. The pleuræ contained some fluid, and both visceral and parietal layers were covered with soft recent greenish lymph. The cut surfaces of the lungs were deeply congested; in the centre of the left were numerous scattered foci of suppuration, from the size of a sago-grain to a pea. The bronchi were congested and filled with frothy fluid. The liver, spleen, and kidneys were congested. There were no internal hæmorrhages or peritonitis.

RADCLIFFE INFIRMARY, OXFORD.

A CASE OF ATAXIC ARTHROPATHY: REMARKS.

(Under the care of Dr. BROOKS.)

W. C——, aged forty years, who works on a steam threshing machine, was admitted into the Radcliffe Infirmary on February 25th, 1885, with symptoms of œdema of the left leg, together with considerable effusion into the left knee-joint. He is an intelligent man and gives a clear concise account of his illness up to the present date. Two months ago he first noticed a swelling of the left knee, which gradually became larger and larger until it attained the present size. The swelling of the knee had been preceded by pains in both lower legs, which were of a gnawing character. These pains had been present at intervals for between two and three years. During the time the knee was swelling he did not suffer any pain in the joint, nor was it at all red or tender. When he bent his knee in walking he observed that there was a crackling sound produced in the joint. He noticed that his legs as he lay in bed would give occasional spasmodic jerks. Shortly after the knee began to swell he found that he could not walk steadily in the dark, but he considered that this was due to the condition of his knee-joint, which had made his leg somewhat weak. He, however, had not any difficulty in getting about during the day with the help of a stick. He had not felt any abnormal sensations in his feet, and could distinguish by means of his feet the character of the ground on which he walked. For six years he had been in the army, during which time he had not had occasion to go into hospital, although he had served three years and a half in Jamaica. He had not been subject to gastric crises. No history of syphilis could be elicited. From the nature of his work he is much exposed to the weather.

On admission the left knee and the upper two-thirds of the lower leg appeared considerably larger than the corresponding parts on the right side, the measurement over the left knee-joint exceeding that over the right knee-joint by two inches. The swelling at the joint consisted of a large quantity of fluid in the synovial membrane; the lower end of the femur and the upper end of the tibia were slightly and uniformly enlarged. The joint did not present any abnormal redness, and its temperature was the same as that of its fellow of the opposite side. The joint was quite smooth, and there were not any irregular nodules of adventitious bone. There was partial luxation of the joint inwards and backwards. There was considerable semi-solid œdema of the left leg below the knee-joint. On moving the joint loud crackling was heard, which was in fact perfectly audible to people two or three feet from the patient. The movement of the joint caused no pain whatever, even when the ends of the bones were forcibly approximated. The posterior surface of the patella when rubbed against the anterior surface of the femur felt rough. The ligaments of the joint, especially the capsular ligament, were very lax, and allowed the finger to be thrust into the joint between the ends of the bones. Lateral movement would be produced when the leg was extended. The patient could stand perfectly steady, with his feet together, and without any support, as long as his eyes were open. He walked with a firm step when allowed to spread his feet well apart from one another, so as to form a broad base for his body, and did not exhibit any incoördination that could not be accounted for by the state of the knee-joint. When he turned, he required some space to get round in, and was slow and awkward in executing the movement. When standing with his feet together and his eyes closed, coördination was distinctly less than normal, and he swayed considerably. On trying to walk along a line on the floor, his movements became markedly incoördinate. It was found that coördination was less interfered with when his boots were on than when his feet were bare. Patellar reflex was absent on both sides. Muscular power was unimpaired, and tactile sensation normal. The pupils were unequal, and did not respond to light. Accommodation could be readily performed, and was accompanied by contraction of both pupils. Sight was good both for colours and for type. By the ophthalmoscope it was seen that the discs were pale, but no distinct optic nerve atrophy was present. The control over the bladder and rectum was perfect. Since admission the œdema of the leg has become less marked, and there is slightly less synovial fluid in the joint. The crackling heard on moving the joint has gradually disappeared. The ligaments of the joint are very lax, and allow more movement than on admission. The incoördination, on standing with the eyes shut, remains as it was on admission.

Remarks by Dr. BROOKS.—The case is a good instance of ataxic arthropathy as described by Charcot.[1] The joint attacked is the one most commonly diseased in locomotor ataxia. The tumefaction of the joint first attracted the patient's attention and caused him to seek advice, but it is not possible to say how long the patellar reflexes had been absent before this. There was not any traumatic or other cause for the disorganisation of the joint. The arthropathy has occurred, as is commonly the case, between the prodromic and incoördinate periods of the disease. The presence of the Argyll-Robertson phenomenon at this stage of locomotor ataxia is in accordance with the statistics given by Gowers in his paper before the Ophthalmological Society.[2] One curious point I am at a loss to account for is the fact that coördination is more perfect when the patient has his boots on than when his feet are bare. The tumefaction of the joint, according to the patient's account, was much more slowly developed than in many of Charcot's cases.

CHILDREN'S HOSPITAL, NOTTINGHAM.

A CASE OF MENINGOCELE; OPERATION; DEATH; NECROPSY; REMARKS.

(Under the care of Dr. LEWIS W. MARSHALL.)

C. B——, six weeks old, was admitted on January 30th, 1884, with a large tumour on the back of the neck, said to have existed at the time of birth, but on admission very much increased in size. The description given by the mother was as follows: It was about the size of an egg at birth, and hung to the scalp at the back of the head; white in colour, turning to a bluish tint. At the end of a week it was larger and red in colour. Some fluid escaped at a fortnight old. The tumour, as seen by Dr. Marshall, was as large as an orange, spherical in shape, attached by a short thick pedicle an inch long to the scalp at a point corresponding to the occipital protuberance, and hanging backwards on to the shoulders. The swelling could be lifted away from the skull, and no reduction in size was effected by pressure. It was soft, fluctuating, translucent, and resembled in appearance a spina bifida. A white broad line ran across the tumour from before backwards. There appeared to be no connexion between the posterior fontanelle (which was open) and the swelling. Pressure produced no ill effects upon the child. Its general health was good; there was no history of "fits" or squinting. The child was fed by the mother's milk, which was taken well.

Jan. 31st. — The tumour was tapped under chloroform.

[1] Diseases of the Nervous System, 2nd series, New Sydenham Society.
[2] THE LANCET, June 16th, 1883.

after securing the pedicle by an old pile clamp, with screws at either end. When the cyst was emptied of its contents (clear limpid serum) the growth was removed by the knife. The edges gaped too much for a continuous suture to be used, and three harelip pins with twisted sutures were passed through, with the double object of approximating the edges and preventing the clamp slipping off. In the centre of the cut surface a small channel was found, which admitted the end of a fine probe down to the point of compression by the clamp. The middle harelip pin was made to transfix the walls of this channel before passing out again on to the skin surface. The total quantity of fluid withdrawn was six ounces. On examination the tumour was found to be a meningocele, the membranes being collected into a rope-like body at the pedicle, with the small channel above referred to in the middle. There was no oozing of fluid or bleeding after the operation. The stump was washed over with boroglyceride.

Feb. 1st.—Clamp removed twenty-two hours and a half after operation.

3rd.—Two lateral pins removed, but the central one left in. The child was sleeping well and taking the breast. In the afternoon the anterior fontanelle was noticed to be raised, and the child was more restless. Some puffiness, too, was observed at the back of the neck.

4th.—Child more lively. Swelling in neck less, and fontanelle less tense. Ordered bromide and iodide of potassium, one grain of the former to an eighth of the latter, three times daily. 9 P.M.: Eyes staring; vacant expression.

5th.—Some cerebro-spinal fluid oozed away. The orifice of the channel was painted over with collodion. The wound surface, which was grey and sloughing, was dressed with oil of turpentine (1 in 6).

6th.—Slight oozing of fluid.

7th.—Last pin cut out.

8th.—Medicine omitted; child brighter and better in every way; anterior fontanelle flat.

14th.—Left the hospital. The mother lived in the country, and unfortunately missed her omnibus, and the child was therefore exposed much longer than was necessary on a cold day.

18th.—The child was brought into hospital, the mother having noticed twitchings of the face and limbs the night before, and the breast was refused. 5 P.M.: Had a convulsion; medicine returned to, every three hours. The child was placed in a dark room and fed with mother's milk by a spoon.

19th.—Occasional twitchings of the face and limbs, and the head drawn backwards; bowels relieved by enema.

20th.—Mother's milk disappeared; cow's milk and water used as food. Child much better; slept well all night; medicine given less often.

21st.—Jerking of trunk backwards; eyes open. 3 P.M.: Vomited milk in curds.

24th.—Vomiting ceased. 6 P.M.: Shrill scream; return of twitchings; swallowed with difficulty; face and neck flushed; eyes fixed; anterior fontanelle very tense; head noticed to be larger. Medicine as before.

27th.—Died to-day, having slowly and steadily become worse.

Necropsy.—The wound nearly healed. On removing the scalp an opening, half an inch in length by a quarter of an inch at its broadest point, was found three-quarters of an inch behind the posterior fontanelle, communicating with the interior of the skull, but closed by membranes which were welded together into a rope and attached to the cerebellum, a portion of which was torn away on removal of the brain. On cutting through the parietal bones the left lateral ventricle of the brain was opened, and a large quantity of fluid escaped. The surface of the brain was coated with lymph, and showed everywhere evidences of recent inflammation. Both lateral ventricles were very much distended, the left markedly so. The fluid in the left ventricle was clear, that on the right side was opaque and milky. The third and fourth ventricles were distended with fluid, and their boundaries softened and disorganised.

Remarks.—In this case there appeared to be legitimate grounds for adopting, with a fair prospect of success, the measures suggested by Mr. Holmes in his Surgical Diseases of Children, although these means had not, at the time his work was written, been put to the test by him. From the symptoms there was no evidence of existing internal hydrocephalus; but this condition is stated to be usually present to a greater or less degree in all cases. There was clear evidence of the absence of brain matter, and that the channel of communication with the inside of the skull, if one existed, was small. The child's general health was also exceptionally good. A tubercular history was made out on the father's side, yet not pronounced. In any future case with the same favourable prospect, the operation as done here might again be attempted with a different result.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Excision of Cerebral Tumour.

AN ordinary meeting of this Society was held on Tuesday last, Dr. George Johnson, F.R.S., President in the chair. Great interest was manifested in the proceedings, though there were but few who joined in the discussion.

Dr. HUGHES BENNETT read a paper on a case of Cerebral Tumour, the surgical treatment of which was managed by Mr. Rickman J. Godlee. The chief features of interest in this case were, that during life the existence of a tumour in the brain was diagnosed, its situation localised, and its size and shape approximated entirely by the signs and symptoms exhibited, without any manifestations of the growth on the external surface. This growth was removed by a surgical operation without any immediate injurious results on the intelligence or general condition of the patient, who lived relieved of his former symptoms for four weeks, and who at the expiration of that time died, not from any special failure of the nervous centres, but from the effects of a secondary surgical complication. The case, however, taught important physiological and clinical lessons, and suggested practical reflections which might prove useful to future medicine and surgery. In the communication the history and condition of the patient on examination were detailed. The diagnosis arrived at was stated with the reasons for the same. The surgical operation and subsequent treatment were described with comments thereon. The progress of the case, its termination, and the post-mortem reports were recorded. Finally a commentary was added in which all the important clinical, physiological, and pathological points of interest were discussed. (For further particulars of this case, *vide* THE LANCET, 1884, vol. ii., p. 1090, and p. 23 of the current volume.

Dr. HUGHLINGS JACKSON congratulated Dr. Hughes Bennett on the accuracy of his diagnosis. The operation Mr. Godlee performed showed that Dr. Bennett was right in saying that a cerebral tumour might, so far as the operation itself goes, be safely removed. The patient, most unfortunately, died, but he died of a secondary surgical complication. Dr. Hughlings Jackson also warmly congratulated Dr. Ferrier from whose valuable researches the tumour was localised. Speaking more generally of localisation of cerebral tumours with regard to trephining, Dr. Hughlings Jackson said that there was a kind of monoplegia, often passing into hemiplegia, which was almost certain evidence of cerebral tumour; a paralysis beginning very locally, for example, in the thumb and finger and spreading very slowly week by week. In such a case he should not advise trephining, since there would be great probability of a large tumour in the centrum ovale, not certainly, for he had seen such hemiplegia in a case of tumour of the dura mater pressing down on the cortex. The convulsive seizures of localising value were not cases of epilepsy proper, but epileptiform seizures, convulsions beginning one-sidedly and only locally in the hand, cheek, or foot. Whilst these seizures pointed with certainty to disease of the opposite cerebral hemisphere, they did not always occur from such gross disease as tumour. In some there was local softening. When, however, there was also double optic neuritis, such gross disease as tumour might be confidently predicted. Even yet there is not evidence of exact position. Dr. Hughlings Jackson had not yet seen a case of epileptiform seizure caused by disease outside Ferrier's motor region. But such cases were recorded by great authorities, so that, repeating in effect what Charcot and Pitres had urged, we required also some local persisting paralysis of the part convulsed—persisting, since temporary paralysis after a seizure was no further help towards localisation. So far, then, three things were required: local persisting paralysis, epileptiform convulsion, and double optic neuritis.

Dr. Hughlings Jackson mentioned the case of a man who had had convulsion and paralysis of one arm; a tumour, a cubic inch in bulk, was found involving the hindermost part of the uppermost frontal convolution. This was before Hitzig and Ferrier's researches; the exact position was not diagnosed. That tumour might probably have been got out with safety, yet there was considerable softening; moreover, there was a tumour in each lateral lobe of the cerebellum, although there had been no cerebellar symptoms. Another case in which a woman had very many convulsive attacks of one arm (later wider seizure was mentioned). In this case Dr. Hughlings Jackson correctly predicted tumour of the hindermost part of the uppermost frontal convolution and adjacent ascending frontal convolutions, but not with the confidence he should have done had Ferrier's researches then been made. The tumour was about an inch in diameter, and, had it been removed, very likely the woman's life would have been saved. She had not double optic neuritis, but, making an exception to a former statement, were he to observe a case of repeated convulsions nearly always limited to one arm, exactly alike at each recurrence, he should, even without double optic neuritis, consider them to be due in all probability to a tumour in the region mentioned. In another case he had diagnosed correctly tumour of the same region, but there were also other tumours in that half of the brain. Admitting difficulties—that the tumour might be very large; that there might be softening about it; that, besides the tumour localised, there might be others,—yet in a case where the tumour was evidently going to kill the patient, when there was intense pain, and when, as sometimes happened, the patient had twenty or thirty fits daily, the patient would consent to risk something, and a surgeon might justifiably operate. Dr. Hughlings Jackson remarked that, after operation in such cases as he had mentioned, there would, he thought, be the serious drawback of some permanent paralysis; but this was little in comparison with the misery of pain, torment, repeated fits, and great danger of death. In conclusion, he said that in a case of convulsion limited to one arm, or beginning in one leg, with some persisting local paralysis and double optic neuritis, he should diagnose tumour or other such gross disease of the upper part of the Rolandic region, and should seek surgical advice as to the propriety of trephining, not forgetting to state prominently the three difficulties mentioned.

Dr. FERRIER congratulated the authors on their success, which was gratifying both to Dr. H. Jackson and to himself. He had watched the case with the greatest interest, and was present at the operation, which was entirely successful; although the patient had been under the influence of the anæsthetic for two hours, yet at the end of that time he became conscious and was able to answer by gesture simple questions put to him by Dr. Ferrier. So that the patient bore the operation without any great shock to the nervous system, and he might say without danger to life, for there could be no doubt that death was due to an inflammatory complication, such as could only come under the chapter of accidents. The operation, if performed strictly antiseptically, need not be attended with any risk of encephalitis. Some authors had said that operations on the brain of monkeys were free from risk of encephalitis, but this was not the case. Monkeys were quite as difficult of surgical management as human beings. If antiseptics be employed inflammation need not result. In his earlier series of experiments on monkeys antiseptics had not been used, and then every animal suffered from encephalitis. During the experiments made with Professor Gerald Yeo, in which both frontal lobes or both occipital lobes, or other parts of the brain, were removed, this was done without any inflammation resulting because antiseptics were employed. He made reference to a case which had been under his care at King's College Hospital, because it illustrated important principles. The patient was a man who for two years had suffered from cerebral symptoms. He was admitted with coma and left-sided paralysis, and suffered from pain in the right frontal region when the coma lessened, as it did at times. The right eyeball was feebler than the left, and he had all the symptoms of cerebral tumour. At his instigation an exploratory operation was carried out by Sir Joseph Lister. The skull was trephined at the right frontal eminence. The frontal lobe of the brain was found to be distended by what at first was thought to be a cyst, but turned out to be the distended lateral ventricle. The knife, passed downwards, led to the escape of a gush of fluid; nothing further was done. The paralysis was relieved and the coma diminished by this procedure, but the patient died eight days later. At the autopsy a new growth was found to spring from the sphenoidal fissure, and had pressed upon the corpus striatum, and so caused the paralysis; the bulging of the eyeball was due to this new growth. This tumour would have been doubtfully removable, even supposing that it had been detected by the exploratory operation; but in order to verify a diagnosis exploratory measures should be adopted, for the disease if left alone would prove fatal. He felt confident that the future would yield more favourable results.

Dr. MACEWEN contributed an account of some cases which had been under his care, and which are being published separately in our columns.

Dr. H. BENNETT referred to the important cases of Dr. Macewen, which had been attended with such brilliant success; yet he considered that his cases were scarcely analogous with the one brought forward; for a limited lesion of the brain had been diagnosed entirely by symptoms, whereas in Dr. Macewen's first case there were other indications to guide the surgeon. Then there was paralysis of a more extensive character than obtained in his (Dr. Bennett's) case. He then exhibited to the Society a brain taken from a patient who had been under the care of Mr. Davy. This patient had been trephined, and from the substance of the cortex as many as eight pieces of bone were removed; the bone had been forced there by an accident. The operation left behind it a large hole in the brain, which would take a pigeon's egg. There were no antiseptics used in this case, and yet the boy made an uninterrupted recovery. Death ensued some time later from acute double pleuro-pneumonia. The autopsy showed no trace of injury to the brain, except a hard dense cicatrix, the site of the former operation.

Mr. V. HORSLEY said that in this last case, which had been done without antiseptics, the conditions were hardly parallel with those which obtained in cases in which the brain had sustained no previous injury. In this case of depressed fracture, no doubt adhesions would be produced all round the injury, and effectually shut off the wound from the rest of the cavity of the arachnoid. Some practical surgical points in experiments and operations on the brain were alluded to. There was no doubt that morphia diminished the tendency to hæmorrhage, and the vigorous welling up of blood from numerous arterioles was seen to a less extent in his and Schäfer's experiments. The morphia was hypodermically injected, about two-thirds of a grain being the dose employed. As to the kind of dressing, he preferred the dry permanent dressing, for he had been astonished to see how rapidly the effused serum was absorbed. In only five out of forty experiments had he aspirated with a view to diminish the tension of the effused serum.

Mr. GODLEE congratulated Dr. Macewen on his successful and brilliant results. He ventured to think that there was not so much hæmorrhage in opening into an abscess cavity as in cutting the unaltered brain. Moreover, he had employed the actual cautery partly no doubt to arrest hæmorrhage, but also with a view of destroying the deeper parts of the tumour, the boundaries of which were indefinite in the downward direction. In his opinion the inflammatory action was the cause of the hernia cerebri; inflammation would probably not occur without some putrefaction having been set up. In removing the deep part of the growth, which appeared to extend downwards in a conical fashion, he had used a Volkmann's sharp spoon, but some instrument rather larger and blunter like a salt spoon would probably have answered the purpose better. Large wounds in man had not in his experience been well treated when the wound was completely closed, and he considered that wounds in lower animals were not perfectly analogous to wounds in man. So that he agreed with Dr. Macewen that a drainage-tube should be used; otherwise there would be no opportunity for an extensive effusion of serum and blood to make its way out. As to the cause of the disaster in his case, he had no doubt that it was due to putrefaction, which was probably the result of imperfect purification of the scalp. He remembered that blisters had been employed in the occipital region, and had not healed; the serum from these sores might have contaminated the wound. At another time he should have the head shaved all over and thoroughly washed first with soap, and then with corrosive sublimate, and finally soaked in a strong solution of carbolic acid.

CLINICAL SOCIETY OF LONDON.

Obstruction of Arteries and Veins extending over many years.—Osteitis Deformans.—Hæmoptysis treated by Artificial Pneumothorax.—Removal of Calculus from Vermiform Appendix.

AN ordinary meeting of this Society was held on May 8th, Mr. Arthur E. Durham, F.R.C.S., Vice President, in the chair.

Dr. B. HADDEN read notes of a case of Obstruction of Arteries and Veins extending over many years. The patient was a healthy-looking man, aged fifty-one. His paternal grandparents had gout. The patient denied syphilis, but there were strong grounds for suspecting past infection. His present disease began suddenly in 1868, when he was seized with a sharp pain in the left foot, said to be gout. Phlebitis of the same leg, with swelling and tenderness of the limb, followed, the attacks lasting five months. In 1880 he came under the care of Dr. Mitchell Bruce for sudden obstruction of the right brachial artery. The radial artery was small, and the heart was irregular. Very soon the radial and ulnar veins became painful and thrombosed. In 1881 he had sudden loss of power in the left arm, but not in the leg. The face was thought to be drawn. There was some mental confusion, but no actual loss of consciousness at the time of the attack. Between 1881 and 1884 he is said to have had several attacks of arteritis and phlebitis. He was admitted into St. Thomas's Hospital under the care of Dr. Stone on Feb. 2nd, 1885. He had pain and tenderness in the right groin, with feeble pulsation of the femoral artery. No beat could be felt in the posterior tibial, but the dorsalis pedis was pulsating strongly. The right internal saphena vein was thickened and thrombosed. There was slight œdema of the foot, and some enlargement of the superficial veins. Pulsation was absent in the right brachial and feeble in the radial. There was a large collateral branch strongly pulsating just above and behind the external condyle of the humerus. There was no enlargement of the superficial veins. There was slight varicosity of the veins of the left leg, but otherwise the vessels were unaffected, as were also those of the left upper limb. On the front of both legs there were pigmented scars, very suggestive of syphilitic disease. The heart was irregular, but there was no bruit and no hypertrophy. The urine was free from albumen. The pain in the right groin persisted for six weeks, without any fresh obstruction occurring. He had two attacks of severe headache localised in the right frontal and parietal regions, but they both passed off without further mischief. The treatment consisted of mercury and iodide of potassium, with hot soda baths and complete rest. He is now free from pain, and is better than he has been for two years. In discussing the case, the author believed there was no evidence that the affection was gout. Possibly it was syphilitic. Two explanations may be offered with regard to the pathological nature of the disease. First, there may be embolism affecting the arteries, and phlebitis; secondly, there may be an inflammatory condition affecting the coats of both arteries and veins. The latter hypothesis seems the most probable, and it is supported by the fact that, although there was great tenderness in the right femoral vessels for six weeks, no fresh obstruction occurred.—Mr. A. P. GOULD referred to the cases (which Dr. Hadden and he had shown during the last session) of obliterative arteritis from which the present case differed very materially, for there was no evidence of affection of the veins. A case which occurred in Billroth's practice had been reported by Dr. von Winiwarter, who had written by far the best account of the disease. In Billroth's case the plantar and digital vessels were first affected, the posterior tibial being involved later, and its companion veins were affected. In the wide extent of the vessels affected, Dr. Hadden's case was peculiar; the disease was limited to one upper extremity in the cases shown last session. As a rule, the progress of the affection was steady and chronic, and attended with pain and some gangrene; the final result was generally a shrunken and colder limb. In Billroth's case the disease lasted a few years, and, although it was not very extensive, it recurred in the foot. In Dr. Hadden's case the obstruction appeared to be more sudden and acute than in the majority of cases of obliterative arteritis. He asked whether the pain was very severe; if it were limited to the vessels or spread over the whole limb; whether the obstruction spread from the smaller arteries up to the larger or in the opposite direction; also, whether the vessels were first felt to be harder and firmer than normal with lessened pulsation and only later on became completely pulseless; with regard to temperature, also, was it raised? as happened in his case; was there much swelling? there was very little of the hand and forearm in his case. Did the patient suffer very much from coldness?—Dr. ANGEL MONEY considered that the interesting case was worthy of inquiry from a neurological point of view. Lewaschew had experimentally shown that chronic irritation of nerves led to inflammatory changes in the walls of arteries. With this view in mind he asked whether there were any symptoms pointing to disease of the nerves.—Dr. HADDEN said that the pain was very severe but limited to the vessels; the disease spread from the large to the small vessels; the temperature was usually normal, but rose somewhat when the localised headaches appeared. There was no marked swelling of the limbs, but a great deal of coldness was complained of by the patient. The man was highly emotional, but he had not suspected a nervous causation for the disease.

Mr. J. R. LUNN read notes of a case of Osteitis Deformans. In St. Thomas's Hospital Reports for 1883, vol. xiii., he had given a full account of a case of osteitis deformans. Since 1876, when Sir James Paget drew attention to the disease, numerous other cases have been recorded. The chief symptoms noticed by the patient are pains of a rheumatic character in the affected limb, loss of height, and in male patients increased size of the head, rendering their hats too small. In a fatal case the morbid process was nearly universal, but the chief stress seems to have fallen upon the bones about the main axis of the body. The absorption and disappearance of the original bone seems to have been the primary event in the course of the disease, and must have taken place, not by a coarse process, but by a very delicate interstitial change. As to the nature of the morbid process which produced the anatomical alteration, the view advanced by Sir James Paget that it is a kind of chronic ostitis has been generally accepted. But, while fully admitting that chronic inflammation may have some share in the process, he did not think that it altogether accounts for the changes found. The conclusion he had come to is that osteitis deformans consists of: 1. A constitutional disease producing atrophy and absorption of a large part of the osseous system. 2. Consequent weakening of the bones, so that they yield when exposed to strain. 3. Compensatory strengthening of the growth of what may be looked upon as a variety of callus. 4. The occasional formation of definite tumours. 5. Fatal cachexia.—Mr. MACNAMARA said that in these cases there were pains of a rheumatic character. He had recently made some observations on the insertion of tendons into bone, and he had found that the tendons were prolonged into the bones; possibly the perforating fibres of Sharpey were such prolongations. The tendons were really portions of bone on this view, and he surmised that the disease might have commenced in the tendons and spread into the substance of the bone.—Dr. F. L. BENHAM spoke of the helplessness of the patients and of their weakness, which might be accounted for by the atrophy of the bones; for the new bone thrown out was obviously a secondary change. He thought there was merely a difference of degree between this disease and osteomalacia.—Dr. THOROWGOOD remarked on the failure of anti-rheumatic remedies to relieve the symptoms of this disease. The administration of small doses of Fowler's solution was followed by marked improvement in his hands. It would be interesting to know the very earliest symptoms of the disease. He had seen cases in which pain in the joint with crackling sensation in passive movement were the main features. Did these cases go on to osteitis deformans?—Mr. WARRINGTON HAWARD referred to the possible occurrence of the disease without any rheumatic pains. In cases that he had seen pain was not a marked symptom; not unfrequently the urine was alkaline and there were no other signs of rheumatism.—Mr. STEPHEN PAGET could not concur in the remarks of Mr. Macnamara, for the chief deformity of the bones occurred in parts away from the insertion of tendons, the skull was enormously thickened in the region of the eminences, and there was bowing and thickening of the anterior surface of the tibia in cases which he had seen. The curves of the arms, clavicles, and spine were influenced by the posture which the patient assumed. Much difficulty of respiration was brought about by ankylosis of the ribs.

Patients die partly from cardiac weakness and partly from the difficulty of breathing. Full mental activity seemed to be retained, and there was no more loss of flesh or vigour than was natural to people of their age.—Mr. J. R. LUNN, in reply, said all his cases had had rheumatic pains. He had submitted the occipital bone and the tumour of the iliac bone to Dr. Sharkey, for histological examination. There was much irregularity in the anatominal structure of the bone; absorption or rarefying osteitis appeared to be the dominant process; the bone corpuscles were not arranged in parallel lines; there was also clear evidence of a formative osteitis. The tumour was cartilaginous throughout, and not sarcomatous. No definite history of the early symptoms of the disease was to be ascertained in the majority of cases. He believed that there was no specific cachexia in the affection.

Dr. CAYLEY read notes of a case of Hæmoptysis treated by the Induction of Pneumothorax so as to Collapse the Lung. The patient, aged twenty-one, a porter, was admitted into the Middlesex Hospital on Feb. 9th. For some time past he had suffered from a slight cough, but otherwise his health was very good. On Feb. 7th he was at work as usual. In the evening he had a sudden attack of hæmoptysis, which recurred the next morning, and again the following night; and immediately after his admission he brought up 4 oz. of florid blood. He considered that he had in all brought up about a pint. Patient was rather pale, but well nourished and of good muscular development. The left side of the chest was flattened in front, and the expansion was much diminished. There was dulness on percussion over the scapular region, and here there was feeble bronchial breathing. The breath sounds all over this lung were very faint, and accompanied by moist râles. These signs were attributed to the lung being clogged with blood. On the right side the physical signs were normal. He was quite free from any feelings of malaise, and his appetite and digestion were good. He had in all brought up upwards of a gallon of florid liquid blood, besides a large quantity of blood-stained sputum. The physical signs over the left front were much as on admission. On the right side rather fine moist râles were now audible in front and in the axillary region. The temperature was usually normal or subnormal in the morning, and varied from 101° to 101·8° at night. The breathing was but little accelerated and tranquil. As it was now evident that much repetition of the hæmorrhage, in all probability due to a pulmonary aneurysm or to the ulceration of a large vessel, must prove fatal, it was determined to induce pneumothorax, with the expectation that the great diminution of the circulation through the collapsed lung, together with the pressure exercised by the air, would arrest the hæmorrhage; and supposing there was active development of tubercle in progress in the lung, this would probably for a time be checked. It was considered that the extreme anæmia of the patient would diminish the embarrassment to the breathing likely to be caused by collapsing one lung. Accordingly, at 6 P.M. on March 10th, Mr. Hulke made an incision in the sixth intercostal space, an inch behind the anterior fold of the axilla, and intoduced into the pleural cavity a double tube, made by uniting together by a shield two pieces of elastic catheter about three inches long. The opening was protected by a small cage, lined with carbolic gauze, and the whole covered by a carbolised gauze bandage. The air passed freely in and out at the time of the operation, and the apex of the heart moved to the mid-sternal region; the respiration became much accelerated. On March 12th it was observed that the breath sounds over the left front had become more audible, and the percussion resonance less tympanitic than after the operation, and the tube was found to be completely blocked; it was accordingly removed, and a silver tube resembling a flattened tracheotomy tube was introduced in its place. The air now passed in and out freely, the resonance became tympanitic, and the "bell sound" could be elicited. The apex of the heart could be felt beyond the right border of the sternum. He afterwards complained of severe pain in the side. The temperature rose to 104·6°, and much serous fluid began to flow through the tube. The following day the tube was removed. On March 14th, though extremely prostrate, he felt better. He continued to spit frothy glairy mucus with pellets of altered blood, but there was no return of the hæmorrhage. On March 15th he was in much the same state. At 2 P.M. he died quite suddenly, apparently from syncope. After death both lungs were found studded with recent grey miliary granules. The right lung was free from any old tubercular disease. In the apex of the lung was a very small old vomica with smooth walls, and some puckering round it. The lower lobe and the lower part of the upper lobe were collapsed, and the pleural surfaces smeared with recent lymph. The pleural sac contained about two drachms of non-purulent fluid. In the lower part of the upper lobe close to the interlobular septum, which was bulged downwards by it, was a cavity the size of a walnut, filled, except at its centre, by a light-coloured laminated clot, so as to closely resemble an aneurysm. In the centre of this clot was a small round cavity containing a little loose black coagulum, and this cavity communicated with a considerable branch of the pulmonary artery. A large bronchial tube opened into the periphery of the pulmonary cavity, but was shut off by the laminated clot from the central space. At the upper part this clot was softer and more recent than elsewhere, and had no doubt recently allowed a communication to take place. The cavity in the lung containing the clot was smooth-walled, but showed no signs of any aneurysmal sac. There was no old tubercular disease around it. As the case turned out to be one of acute miliary tuberculosis, it is evident that no treatment could have availed to prevent a fatal termination. The patient did not live long enough to warrant positive conclusions as to the effect of the operation in arresting the hæmorrhage. He had two slight attacks in the following night, but there was no subsequent recurrence. The necropsy showed that the communication between the false aneurysm and the bronchus was closed, and possibly if the patient had lived complete solidification of the aneurysm would have been effected. Considering how largely the pulmonary circulation is influenced by the respiratory process, and the small amount of blood which flows through a collapsed lung, such a mode of procedure affords a means of arresting an otherwise uncontrollable pulmonary hæmorrhage. Any extensive consolidation of the lung would no doubt, by preventing collapse, be a contra-indication, and would thus restrict the applicability of the operation to a few cases. The probability of exciting pleurisy was, of course, another objection. In this case, notwithstanding careful antiseptic precautions, pleurisy was set up, but it was of a simple non-suppurative form, and but for the tuberculosis would not have added much to the patient's danger.—Dr. THEODORE WILLIAMS thought the case was one of great interest, and he congratulated Dr. Cayley on his courage. Then, as to the utility of the mode of treatment, he considered there were grounds for discussion. In many cases the patients were reduced to the last extremity by hæmoptysis, and yet finally recovered. Derivative treatment was sometimes beneficial. In a case which he had under his care where the hæmoptysis probably proceeded from a vomica, into this vomica he had injected a solution of tannic acid, with the result that the hæmoptysis almost immediately ceased. The sputa later on gave the reactions of tannic acid. What were the advantages to be gained by inducing a pneumothorax which the patient would necessarily carry with him ever afterwards?—Dr. DUFFIN said that the question to be decided was whether the immediate effect was beneficial; the lung was practically reduced to a fœtal condition through which but little blood flowed. He did not think that we need be afraid of the admission of air into the pleura. Physiologically we should expect valuable results to follow the operation. The difficulty was to know when we should be justified in resorting to this heroic remedy.—Mr. R. W. PARKER thought the treatment was rational, but there were ways of causing pneumothorax without running risk from septic agencies. He recommended the injection of filtered and carbolised air into the pleura such as he had advised in the treatment of certain kinds of empyema. A hypodermic syringe with an elastic ball and some carbolised cotton-wool were the only articles required for the operation.—Dr. S. COUPLAND did not suppose that Dr. Cayley would have performed the operation if he had known the precise pathological condition which existed in this case, which was of a remarkably singular character, for there were very few physical signs of pulmonary tuberculosis. The case proved that a large amount of disease of the vessels could occur without any physical signs of disease.—Dr. CHAPMAN thought the case would have been still more interesting if the details of treatment were given. Was the side of the chest compressed and strapped by plaster?—Mr. CHARTERS SYMONDS spoke of the induction of artificial pneumothorax as having been sug-

gested by Dr. Mahomed in a case on which they had held a consultation. The aim of the operation was to be the arrest of phthisis.—Dr. EWART considered that an important departure in the treatment of pulmonary cavities might date from Dr. Cayley's recommendation. The arrest of the circulation in the lung might throw the other lung into such a condition as to lead to hæmoptysis from it. He remembered that some time ago Dr. Douglas Powell had induced artificial pneumothorax for the treatment of a large cavity. The upper lobe of the lung had been almost entirely destroyed, and the cavity in it had been practically obliterated, as the autopsy showed. The lower lobe of the lung was practically carnified; there was an empyema, and aseptic air was introduced as a means of treating the empyema, and at the same time with a view of causing collapse of the pulmonary cavity.—Dr. HADDEN said that the pleura might have been universally adherent, and artificial pneumothorax would be useless if the aneurysm were at the apex of the lung, as this portion would not collapse.—Dr. CAYLEY, in reply, said that every means for arresting the hæmorrhage were tried. There were no physical signs of old pulmonary disease. He thought that the pressure of air and stoppage of the circulation would have an influence on an aneurysm, even though this was in the apex of the lung. The condition of pneumothorax was not necessarily a serious matter. A patient, the subject of a wasting disease, required less area for breathing purposes than a man in sound health.

Mr. CHARTERS SYMONDS read a paper on a case in which, at the suggestion of the late Dr. Mahomed, he had removed a Calculus from the Vermiform Appendix for the relief of Recurrent Typhlitis. The following are the chief particulars of the case:—Charles S——, aged twenty-three, a basket maker, was admitted into Philip ward, Guy's Hospital, under the care of Dr. Mahomed, July 16th, 1883. The patient had typhoid fever a year ago. The report of Mr. Vernon, the clinical clerk, says that "six months ago (January, 1883) he was seized during the night with pain in the right iliac region; this increased in severity and he became ill generally, and at the end of a week was unconscious, remaining in this state four days. The illness lasted seven weeks. During the first week he vomited everything, and his bowels were not opened for ten days. During the whole time there was great tenderness in the right iliac fossa. On getting about, he noticed a hard lump in the right groin about the size of a walnut; sometimes this swelling was painless, at other times it was very tender. Since this illness he has had repeated attacks of pain in the right iliac fossa, which come on suddenly and last one or two days. The pain is relieved by poultices. At first these attacks recurred about once a month, but during the last five weeks he has had six attacks, and they have been increasing in severity." On admission there was to be felt in the right groin on deep palpation a small hard lump about three-quarters of an inch by two inches running parallel with Poupart's ligament. There was slight tenderness on pressure. The man was placed on a fluid diet, and was soon relieved of all his pain. Dr. Mahomed considered fully the question of operation, and proposed that the cæcal region should be approached by an incision in the right iliac region, as he was strongly of opinion that there existed an abscess cavity containing probably a calculus or concretion, and that the periodical occlusion of a communication with the cæcum determined the recurrence of pain. One of the attacks had been observed in the hospital, and was accompanied by an increase of the swelling, which also remained dull on percussion. Mr. Symonds thought a peritoneal adhesion constricting the last portion of the ileum might explain the periodic attacks, as he had seen a somewhat similar condition before. As the complaint continually recurred, it was decided to explore the right iliac fossa. Dr. Mahomed planned the operation, and it was on his recommendation that the incision adopted was selected. The lump was oval in shape, could be distinctly felt, but could not be taken hold of. It was well defined and only slightly tender. The most probable explanation seemed that this lump was a concretion; but whether inside the appendix, or resting in a cavity bounded by peritoneal adhesions and bowel, was doubtful. It was therefore decided to cut down upon the lump to remove a calculus present or drain a cavity should pus be found. Chloroform was administered, and under the carbolic spray an incision was made commencing two inches above and one inch internal to the anterior superior iliac spine, and curving downwards and forwards for about four inches, being much the same as that used in ligature of the external iliac, and so arranged that its centre corresponded with the position of the lump. The various structures were divided, but the transverse fascia was not distinctly recognised, owing possibly to the incision being rather near the iliac spine. The structures in front were now raised out of the iliac fossa, when the swelling could be plainly felt from behind, and as yet the peritoneal cavity had not been opened. A hand pressed duly from the front steadied the swelling, and brought it more into the wound. A vertical incision was now made over the hard lump, and a small calculus exposed. Before removing it a fine silk suture was passed through the tissues just above, so that the orifice might not be lost. The opening was then enlarged, and the calculus exhibited removed. The soft and purple mucous membrane of the appendix was seen, and its tortuous course from the aperture could be traced upwards towards the cæcum, so that there seemed no doubt of the canal having been opened. Exploration of the cavity with a probe failed to detect a channel leading towards the cæcum. No pus or other fluid was found round the calculus, nor was there any fæcal or unpleasant odour. The opening into the appendix was closed by Lembert's method, and the wound by deep silk sutures. The peritoneum was not opened so far as could be determined, and this was attributed to the adhesions that had probably taken place at the time of the first attack, and to the method adopted in reaching the appendix. The usual gauze dressings were used. The calculus was oval in shape, smooth on the surface, and measured three-quarters of an inch long, and rather more than half an inch wide. On section it showed a laminated calcareous capsule enclosing hardened fæcal matter.—With the exception of some local disturbance about the wound the patient did well, and was discharged at his own request six weeks after the operation. There remained some induration to be felt on deep pressure, but the wound had apparently healed. During the whole of his stay the temperature never rose above 99·4°. Fearing some further trouble might arise while any lump remained in the iliac fossa, he was directed to return at the first sign of a recurrence of his former symptoms. The man resumed work in a fortnight, and suffered no inconvenience till a month later, when he felt pain in the right iliac fossa, which gradually spread over his abdomen, and became so acute that he was obliged to take to his bed. Two days afterwards he observed a yellowish fluid escaping from the wound. He was readmitted two days later. There was a sinus three inches long discharging a thin yellowish fluid, and the hard swelling noticed when he was discharged. He had improved, and there was to be noted induration beneath the scar, and from here the appendix could be traced upwards. The rounded swelling that had been observed, and which varied in size, had now entirely disappeared. Three weeks after admission he was discharged, the sinus having closed, and the man being in good health. When last heard of (April, 1885), though an inmate in the Barming Heath Lunatic Asylum, he was free from his old disease, and had never had any trouble since Nov. 1883. Mr. Symonds remarked that this is the first case in which a concretion or calculus has been removed from the appendix vermiformis without at the same time the opening of an abscess, and the credit of whatever value rests in the procedure must be given to his lamented colleague, Dr. Mahomed, at whose suggestion the operation was undertaken, and who further advised the inguinal incision in opposition to that in the linea semilunaris proposed by himself. That the operation in this case was justified few will deny when it is remembered how frequently a concretion is found to be the cause of fatal typhlitis. This fæcal concretion was present in eleven out of seventeen fatal cases, in all of which the disease originated in the appendix, either as a sloughing ulcer with a concretion or a sloughing ulcer without a concretion. He mentioned this to exclude tubercular ulcers. This case was so isolated that it was not expedient to attempt to formulate conditions under which we should undertake similar operations. In none of the eleven cases mentioned above was the concretion calcareous. He directed the dissection to the posterior surface of the cæcum and appendix, not because he imagined that under normal circumstances he might avoid the peritoneum, but because here, if anywhere, he would probably meet with adhesions, and so possibly enter a case containing the appendix and concretion shut off from the general peritoneal cavity. After the study of twenty-three fatal cases, and with a knowledge of how

frequently large iliac swellings due to typhlitis disappear, he suggested that some cases at least might be saved by early incision. Such cases are recorded, and success has followed the treatment.

The following living specimens were shown:—Mr. John Hopkins: Two cases of Myxœdema. Mr. Willett: A case of Congenital Enchondromata.

LEEDS AND WEST-RIDING MEDICO-CHIRURGICAL SOCIETY.

AT the ordinary meeting held on April 10th, Dr. S. C. Smith, Vice-president, in the chair,

Dr. JACOB showed Microscopical and other Preparations from the Intestine and Liver of a case of Tuberculosis occurring in a child aged two years, which had caused death with symptoms of acute intestinal obstruction. The glands were enlarged into great masses completely surrounding and obstructing both the cæcum and one part of the ileum for about two inches. The liver showed microscopically great fatty infiltration and increase of connective tissue. The viscera from this case, freshly removed, were shown to the Society by Mr. Hartley at a previous meeting.

Dr. JACOB also read a paper on "Second Attacks of Scarlet Fever."

Mr. J. J. PICKLES related the case of one mother in three successive pregnancies giving birth to children the subject of Harelip, there being no hereditary tendency or other apparent cause of the deformity.

Professor JESSOP showed a young man with perfect movement of the elbow, on whom he had operated for Ununited Fracture of the Olecranon, by wiring together the fragments. The operation had been done some months previously, up to which time the patient had a useless and weak limb.

Professor JESSOP also showed a man on whom he had operated for Fæcal Fistula, the opening being high up in the jejunum, as shown by the motions being liquid and full of bile. The patient had been stabbed in the abdomen several years before, and had ever since had the fistula, for which he had been several times unsuccessfully operated on. The operation consisted in opening the abdomen, detaching the bowel from the abdominal wall, refreshing the edges of the opening in the gut, which was the size of a shilling and opposite the mesenteric attachment; carefully suturing the edges of the intestine by eleven carbolised silk sutures passed from within and one from without, through all the coats of the bowel; returning the closed viscus and stitching up the abdominal opening as in ovariotomy. Flatus passed after a few hours, and after the second day the temperature continued normal, the man recovering without a bad symptom. —Mr. WHEELHOUSE said that he looked on the case with great satisfaction, since on this very man he had several years ago done every operation he could think of without any benefit. He had not, however, seen the case until some time after the accident, when the fistula was fully established.

Dr. OLIVER read a paper, with demonstrations, entitled "A Contribution to the Clinical Study of the Liver, viewed through the Urine," which, together with a second paper read on May 1st, is in course of publication in our columns.

At the ordinary meeting held on May 1st, Dr. Bell, President, in the chair,

Mr. E. ATKINSON showed a patient, aged twenty-one, who had suffered Compound Dislocation of the Astragalus forwards and outwards in November, 1884. As there was a wound of four inches, the diagnosis was easily made and the astragalus was felt to be firmly fixed to the os calcis. Reduction was effected under ether without division of the tendo Achillis. When the patient was shown to the Society the ankle was somewhat swollen and stiff, but the wound was healed and the man could walk with only a slight limp.

Mr. NEVITT read a paper on Coca and its Alkaloid. After giving an account of the botanical relations of the plant and its use by the native Indians as a stimulant and narcotic, he referred to its use as a local anæsthetic and gave a list of the surgical operations in which it had been used, including cases of hæmorrhoids, fistula, opening mammary abscess, applying arsenical paste to epithelioma, circumcision, irritable conditions of the bladder, lithotrity, vaginismus, toothache, pruritus ani, lichen, eczema, and in numerous operations on the throat and nose. He had used it himself in four cases. 1. The removal of a vascular growth from the female urethra; a 20 per cent. solution being applied on cotton-wool. 2. A case of vaginismus in a newly married woman; the same solution was applied on a pledget of wool, and in five minutes the patient could bear the introduction of a Ferguson's speculum and the application of carbolic acid to two fissures. A vaginal dilator was used frequently, and the patient was enabled in a very short time to return to her husband. 3. He had used it in applying carbolic acid to a fissure of the rectum. 4. In applying nitric acid to a chancroid sore.

Reviews and Notices of Books.

Lectures on Diseases of the Nervous System. By WEIR MITCHELL, M.D. Second Edition. Philadelphia: Lea Brothers and Co. 1885.—We reviewed these Lectures on Diseases of the Nervous System when they first appeared, about four years ago. The second edition has been somewhat enlarged and revised. The difficulties of diagnosis in hysterical disease of joints receive special consideration in the new edition. The chapter on this affection opens with a description of a typical case of hysterical disease of the knee-joint, in which there could be no difficulty in assigning the true origin of the complaint, for the present and past associations of the affection were only too manifest. Difficulty in diagnosis arises, as Dr. Weir Mitchell truly states, when there has been a real injury or true joint disease, and with it hysteria, or this later condition primarily, and inflammatory joint lesions supervening. Then problems of "exasperating perplexity" beset the physician. A case is narrated in which the affected knee was the seat of notable alterations of temperature, as ascertained by a surface thermometer. The sound knee was also investigated, and showed no abnormality. The temperature of the affected joint began to rise about 9 P.M., and was attended with redness, swelling, and tension. The same set of symptoms could be brought about at any time by handling the knee. Ultimately, under the advice of Professor Billroth, the joint was laid open and explored, with a view to obtain ankylosis. But inflammatory exudation in the connective tissues was not discovered, and the ends of the bones and cartilage were found to be normal. "For those who believe that hysteria never gives rise to organic change, this case will certainly be full of instruction." This lecture is by no means an exhaustive one; but, like most of the lectures, the interest lies in the keen insight into the nature of the subject and in the suggestiveness which the author manages to throw into his somewhat sketchy accounts. Other new chapters have been introduced on the relations of hysteria to organic disease of the spine and on the hysterical disorders of the rectum. The lectures must command the thoughtful attention and careful study of all who desire to read what is best in medical science.

The Microtomist's Vade Mecum. By ARTHUR BOLLES LEE. London: J. and A. Churchill. 1885.—This work, as the preface states, is to put into the hands of the instructed anatomist a concise but complete account of all the methods of preparation that have been recommended as useful for the purposes of microscopic anatomy, and so to furnish him with a ready source of information on points of detail as to which his memory or his knowledge may be at fault. It is a work that has been much needed. George E. Davis's treatise on Practical Microscopy, one of the latest books on this subject, deals chiefly with the instrumental part of microscopical work, and, though otherwise good, is deficient in that which relates to hardening and staining tissues for section. Moreover, within the last few years an extraordinary number and variety of processes have been published, some of which are available for almost any tissue, while others are adapted for special organs and

objects. The work before us is divided into 660 sections, and almost every section is devoted to a description of some staining agent or process, some material for injection, or some mode of mounting. It is in fact a complete repertory of modern methods. It is well remarked by the author that, notwithstanding the great variety of processes recommended, which are, indeed, almost as numerous as the tissues to be examined, a certain system underlies that variety; the system consisting in the first place of fixing the structures to be examined, then staining them with a nuclear stain, dehydrating with alcohol, and, mounting series of the sections in balsam. In accordance with this principle, the majority of preparations are made by fixing, either with sublimate or a picric acid combination, washing out with alcohol, staining with alcoholic borax-carmine, embedding in chloroform-paraffin, cutting with a sliding microtome, and mounting the sections in series in Canada balsam. No microscopist should be without this handbook of the methods of microscopic anatomy, which will supply him with useful information on every subject he may require to know when at his table, and will give him suggestions that he may readily turn to account.

Manual of the Antiseptic Treatment of Wounds, for Students and Practitioners. By W. WATSON CHEYNE, M.B., F.R.C.S., Assistant-Surgeon to King's College Hospital, &c. With Illustrations. London: Smith, Elder, and Co. 1885.—This book supplies a known want. It is notorious that many who speak and write of the antiseptic treatment of wounds are but imperfectly acquainted with the scientific basis upon which it rests, or the many details in its management upon which its full success depends. Mr. Watson Cheyne's larger work is too bulky for the majority of readers and practitioners. He has done well, therefore, to place the essential considerations and facts within the compass of 150 octavo pages. Having gone carefully through the book, we can confidently recommend it to all who seek to become acquainted with Sir Joseph Lister's method.

Die Methoden der Bakterien-Forschung. Von Dr. FERDINAND HUEPPE. Wiesbaden: C. W. Kreidel. 1885.—Modern pathological research has opened up an entirely new field of study, for to be an all-round pathologist nowadays one must be a mycologist also. It is, then, highly necessary that some guidance should be given to those who desire to pursue a study that requires minute observation and most careful manipulation. For this purpose Dr. Hueppe has written a book which covers the whole ground. It is a laboratory handbook, and deals in the first place with the microscopical detection of forms of bacteria with and without the aid of special staining reagents, within diseased tissues and isolated from them. Thence he passes to the next step in all such research—viz., the separation of the bacteria and their cultivation in various media, so important for the detection of specific differences. Then come the inoculation test and its various methods of application. After sections devoted to such subjects as the action of temperature and disinfectants, and the investigation of soil, water, and air, Dr. Hueppe concludes by advocating the formation of bacteriological laboratories in connexion with hygienic institutions. The author has every right to be heard on the subject, and we may be sure that what he says is founded on an extended personal experience.

Darkness and Dawn: the Peaceful Birth of a New Age. London: Kegan Paul, Trench, and Co. 1884.—This is a smartly written little book, containing some fine irony, and wholesome, though sad and sober, truth, dressed in a somewhat Ruskinian garb. Worshippers of the great god Commerce will wince if they read it, and the glorifiers of Trade, as the prime civiliser of the world, will not relish the remorseless fashion in which their idol is demolished. But a revolution, bloodless yet complete, is represented as changing all this. The transformation is inaugurated by a self-denying nobleman, who relinquishes, for the benefit of the State, his possessions, and, his example becoming contagious, the nation of shopkeepers is gradually converted into a real Christian commonwealth, each for all and all for each. Zymotic diseases die out, relentless competition having ceased, the motive for food adulteration no longer exists, whilst all that is noblest and best in human character has full sway. So ends the tale. Gloom, lurid and intense at the beginning, merges into the brightness of a golden age. "So mote it be!"

THE GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

TUESDAY, MAY 12TH.

SIR H. ACLAND, President, in the Chair.

THE PRESIDENT, in opening the proceedings of the Council, said:—The session brings the Council together once more with the same constitution and the same functions to discharge that were assigned to it by Parliament in 1858. It has often been remarked, that so long as this is the case we cannot intend nor even wish to abandon the post of duty so assigned and undertaken. On this head, therefore, no more now need be said. At a later period I shall have to make a single observation on an important question arising from the situation in which we are placed. It was lately my happiness to see the Marquis of Ripon, since he returned from his distinguished administration in India. I reminded his lordship that in the fifteen years that had elapsed since he had endeavoured in vain to consolidate the medical examination arrangements of this country, no action taken in that direction by Parliament had been successful, notwithstanding the sincere labours of successive Governments—labours appreciated and often acknowledged by you. But I was able to add with satisfaction that, nevertheless, education had continuously advanced; that many anomalies had comparatively ceased; and that I sincerely believed that there was, upon the whole, an honest rivalry among teachers and between institutions to carry out, by voluntary exertion, the principles by which he had sought to secure the public good. It had been my wish this year to have taken a brief survey of the education and examination changes which, as I understand them, have taken place in these last fifteen years. But since they are still in transition, I shall confine myself to-day to a short account of the present position of the Council's work, reserving a more complete statement for another occasion. My reasons for adopting this course are these. At the last meeting of the Council instructions were given in three directions, each of which had separately much significance, and are, when taken together, calculated to produce a great effect on the course of medical education. The three were: 1. The revision by the Branch Councils of England, Scotland, and Ireland, severally and separately, of the recommendations hitherto issued by the General Council. 2. No person should be granted a degree, diploma, or licence to practise, registrable under the Medical Act, unless he has proved his competency in medicine, surgery, and midwifery, by passing examinations in those subjects at one or more of the licensing bodies. 3. The inspection of the final medical examinations in all the universities of the United Kingdom. Before we proceed to-day to consider in detail the result of the Council's instructions, it may be well generally to note the effect of these instructions taken collectively and in their complementary relation to a Report which as yet has hardly been fully considered—viz., that on the examinations by the corporations in England, Scotland, and Ireland, by Mr. Teale, Professor Gairdner, and Mr. Stokes. The reports on the recommendations having been circulated among the members of the Council, they will have already observed that the several suggestions of each Branch Council have been printed in parallel columns along with the original recommendations of the Council. The General Council can now compare at a glance these Branch Council suggestions with those of the

General Council, and can readily draw in each case their conclusions. The General Council requested each Branch Council to confer as far as it might deem desirable with the several licensing bodies of its division. They all did so, and the several replies of these authorities are appended to each Branch Report. The English Branch decided that it was desirable to give to some of the teachers in the English schools an opportunity of recording their opinions on the several points raised in the recommendations. There are no fewer than twelve separate medical schools in London only, with about 350 accredited teachers; and in the provinces there are as many as nine schools, with about 250 teachers. The English Branch Council decided not to address officially each school as a whole, but only to write to a few individual teachers. Accordingly a small selection was made, comprising representatives of every subject taught, whether in the larger or in the smaller schools. Seeing the great change that has taken place in the last twenty-five years, not only in the ideas but in the apparatus of teaching, some of the younger as well as the older teachers were applied to. It is not without interest to compare some of these replies with those received by the Committee on Professional Education presided over by Mr. Syme in 1869, together with the Report of the London Teachers' Association, presented by their chairman, Mr. John Simon. In the last twenty years, opinions concerning the administration and teaching in the London and provincial schools have greatly changed. The Council, in thus revising and reissuing its recommendations, has, for two reasons, a delicate task to perform. The Council's recommendations have often been assailed from two opposite quarters. First, by those who believe that great institutions—such, for instance, as the Universities of London, Edinburgh, and Dublin—that have worked honourably, and faithfully, and independently in the past, and have with justice acquired a great name, should be seldom interfered with by this Council, and then only in cases of importance, and not in matters of detail. It has often been said, and with truth, that these recommendations are sometimes framed by narrow majorities, and that they touch on points which had better be left to the experience, the progressive experience, of individual institutions. It is therefore alleged that the recommendations should properly be considered as suggestions, and not as orders; that they should, in fact, be regarded in the light of "moral suasion," as it was called by Mr. Syme, with just a touch of the "moral influence," as it is described, of an ironclad in a neutral harbour. But on the other hand, it is said that the recommendations have no value because they cannot be enforced,—and that for this reason the Council is in a false, and it is even said in a humiliating, position. I venture to make a brief reply to both these criticisms—a reply based on observation, and as simple as it is true. The Legislature did not intend this Council to be mandatory in its action. It did intend the Council to be consultatory and hortatory. It was constituted of persons who were entitled to be consulted and capable of advising. It did not intend to relieve the great institutions for the higher education from the responsibility of their trust, or deprive them of freedom to advance on their own lines. It did direct the Council to ascertain whether these did so act, and to report them if they did not. It did call on the representatives of all these institutions to combine in this Council for national consultative and directing purposes, laying aside here, for the common end, their local aims and prejudices, if they had any, which were out of harmony with the general interest. It is easy enough to ascertain whether, and how far, these several intentions have been fulfilled. At no time in history has it been more difficult to fix a standard of education, general, scientific, or practical. Since the Council has existed, the extent of biological knowledge has increased in an unprecedented way; the foundations of therapeutics, the very conceptions concerning prevention of disease, have been enlarged by observation and experiment, and the course of study and examination has been necessarily widened and become more complicated. It became therefore judicious, if not necessary, to seek separately the matured opinions of the independent authorities in England, Scotland, and Ireland, for the purpose of learning their most recent educational views. It has often been stated that there are real differences in the three divisions of the kingdom, which should be taken into account in framing a general scheme. If so, we might hope thus to learn their nature, and how to allow for them, and we may expect now more completely to harmonise the matter as well as the manner of study and examination. That these observations are not connected with an imaginary difficulty, and that it is dangerous for the Council to issue recommendations which cannot be made orders, will appear when letters from the Universities of Oxford, Cambridge, and Dublin are laid before you and discussed. The next instruction of the Council to which attention may be drawn is "That, in the opinion of this Council, no person should be granted a degree, diploma, or licence to practise, registrable under the Medical Act, unless he has proved his competency in medicine, surgery, and midwifery, by passing examinations in those subjects at one or more of the licensing bodies." An observation was lately made on an official occasion to the effect that the issuing of this recommendation showed the need for the reconstruction of the Medical Council, because the Council could not enforce it. The premises and the conclusion both appear to me equally at fault. It is not certain that practically the Council cannot enforce the recommendations; but if a legal authority desire to do its assigned legal duty, and if it is not enabled by the law to do it, then the law should give the powers requisite for carrying out its intentions. In this case a clause of a few lines would give it. But the Council, if it think fit, is able to represent to the Privy Council that having long since agreed with each Government that has affirmed the principle of its recommendation, and having waited for many years for accomplished legislation on this and on other points, it has advised the licensing bodies to carry out the principle of all the amending Bills in this direction. By combination they assuredly can do so. Indeed, to a partial extent, this has been done by the corporations of Scotland and of England, and there is hope that it will be done also in Ireland. In order to ascertain what is the actual condition at present in regard to the registration of single qualifications, the entries made in the Register for a period of six months have been examined by the registrar. Between the 1st of October, 1884, and the 1st of April, 1885, there were registered 175 persons with a single qualification, and of these 175 only 11 have subsequently registered a second. This constitutes about $\frac{57}{1000}$ of the whole number of registrations, $\frac{50}{1000}$ of those in England, $\frac{1}{10}$ of those in Scotland, $\frac{32}{1000}$ of those in Ireland. Of those in England, 62 had a surgical qualification only, and 113 only a medical one. Some of the statistics concerning students also are noteworthy. One of the most remarkable is recorded in a table by Mr. Miller in the Student's Register of last year—viz., that the number has increased between 1870 and 1884 from 1160 to 1957. The subject of the statistics of the profession will be brought before you by Mr. Marshall. The inspectors whom you directed to be appointed to visit the final examinations of the universities have begun their labours. A calendar has been prepared of all the examinations to be held during the present year, and whatever further information or assistance the visitors may require in each branch of the kingdom will be from time to time furnished from your office. Each division of the kingdom is to be visited by visitors from the other two divisions. The Council is already indebted to the able persons who have undertaken this task, it must be said, wholly or mainly on public grounds. It would not become me to anticipate the result of their inspections. Yet, it should be now borne in mind that when these reports are examined in conjunction with the report of 1881-2 on the corporations, and when both are compared with your conclusions which will appear in your revised recommendations, and with your resolutions as to excluding single qualifications from the Register, there will be a complete body of statement as to the present condition of the pass examinations, their efficiency, or their shortcomings. At least two important questions will remain—the first, how far the Council can or should inquire, not necessarily for criticism, but for information and suggestion, into the means and appliances for education in the several schools, a question so keenly discussed of late in relation to the teaching in this metropolis and the universities; the second, what shall be the relation of the pass examinations and the registration titles, to the higher examination, and the so-called higher titles. It is an open secret that these higher titles differ greatly in their actual value, and that some are of no value at all. Yet they are eagerly sought after. It will be generally admitted that the aspiration of students after a title supposed to be of higher social worth to some extent affects the educational arrangements of this country. It is possible that a committee might elicit information which

would show this kind of disturbance to be an evil either more or less than is supposed. But the agitation to obtain the title of doctor by new channels, or on easier terms by old ones, shows that the students have sometimes a motive other than that of obtaining more knowledge or proving the possession of higher acquirements. I cannot wholly pass by without notice a Bill, introduced into Parliament by Dr. Lyons, Mr. Gibson, and Mr. Plunkett, to enable the College of Physicians of Ireland to register a title not included in Schedule A of the Medical Act, 1858, and to enable universities to register the title of master in midwifery, and master of obstetrics, or master in obstetric science. Nor can I omit to notice the action taken lately by the University of Oxford in the way of utilising the diplomas of surgery of the Royal College of Surgeons rather than institute at present a new surgical title in England. Both actions are useful as calling attention to the vexed question of the real or imaginary evil of numerous qualifications—an evil which would be almost imaginary, supposing that all education and all examinations could be exactly equal. I pass to another topic—that, namely, of the questions which arise under the penal clauses of the Act. Sooner or later these clauses will demand revision. The Council in its early days declared that it had not the duty of a prosecuting body; and on May 24th, 1877, it came to the conclusion that after mature deliberation it saw no cause for the determination then arrived at. Its legal functions in regard to prosecutions are administrative and judicial. Inasmuch as illustrations of this fact will appear during this session, the subject need not here be considered in detail. It is now sufficient to note that there is a tendency to exercise pressure on the Council to undertake criminal inquiries. There is, perhaps, no great willingness on the part of the Public Prosecutor in England to take this work off our hands. On this matter the Council's solicitor has full information at your disposal. Thirteen cases of alleged misconduct by registered practitioners have been referred in the past year to the solicitor. Almost all these cases have been complaints against men professing to be qualified who are not qualified, or men who are qualified but act with unqualified persons either as partners or as assistants. They are usually cases which would, *primâ facie*, justify investigation. The complainants generally desire the Council to take up the inquiry, or to pay their solicitor to do so. Their view is that it is the duty of the Council to undertake prosecutions, even against persons who are not on the Register, as well as to punish proved offenders who are on it. Mr. Farrer has observed to me that though there may be cases in which the Council might properly undertake prosecution, it should not be the rule upon every charge brought before it. The Council are judges with a formidable power of severe punishment without appeal, but they cannot compel sworn testimony; the machinery for hearing cases and sifting evidence is cumbrous, expensive, and involves serious loss of time; and their only sentence, removal from the Register—for they cannot suspend—may be much the same as ruin. It is Mr. Farrer's opinion that offenders should be summoned, when the cases against registered practitioners are so far complete as to be without doubt in the absence of satisfactory explanation. Some of the cases are certainly such as should be brought before the ordinary tribunals. It is much simpler to judge of the professional misconduct in a case that has been tried for some offence according to law, and legally convicted. Several years ago the President of the Board of Trade brought two cases of drunkenness before the Council, and the Council declined to interfere. The Council then thought that it could not undertake to investigate charges of drunkenness. Yet such charges might involve cases of the gravest dereliction of duty—and they, in this instance, did so. But the Council then thought it was a case with which the Government should deal. Perhaps, too, it felt that, grave as the offence of drunkenness is, the only punishment the Council can inflict—viz., removal from the Register, and, in that way, the loss of the civil rights of a profession—is an excessive punishment. I must not pursue the question whether the several corporations have to exercise the same caution, or are under a greater obligation to strike the names of the persons so offending from off the roll of their members. This subject will appear again in the case of a Scottish practitioner, charged at the last meeting with issuing certain newspaper advertisements. Further correspondence on this matter will be laid before you. I have to congratulate you on the approaching completion of the new edition of the British Pharmacopœia, to which Dr. Quain has given so much zealous attention. It would not become me to attempt to describe the value of this work, and the might of Dr. Quain's labour upon it. In conclusion, I wish to express my conviction that the zeal and energy of the rising generation of teachers in our medical institutions are grappling with the advancing mass of biological knowledge in a manner which, if ever equalled, has never been surpassed; and that the chief fear for the ordinary medical student of the end of this nineteenth century is that he will be oppressed by details in many departments of science, which, though important to the expert, the specialist, and the discoverer, and attainable by exceptional men, are an actual source of distraction to the ordinary clinical student in the precious and too brief years of his student life. Whether Parliament will alter the constitution of the Council, whether it will extend its powers, or whether it will leave it still, with enlarged experience and single intention but without more power to do its work, are questions which I leave to others to discuss. In both political parties of the State there are men of energy too great, perseverance too steady, and public spirit too strong, to be daunted by past difficulties, or to be wanting in the will to give us whatever is needed as soon as our institutions have agreed among themselves to work unitedly with the same zeal that they have ever shown for their individual progress and development; for no political party is able to destroy the independence of institutions while they fulfil their function according to the true idea of a State. But if they do not, or if they are victims of internal dissension, neither party will refrain from seeking to substitute for their old independence the growing force of rigid State control.

Mr. MARSHALL, in moving that the address be entered on the minutes, said he had never heard an address from the chair which contained more important and weighty matter.

Dr. HUMPHRY seconded the motion, which was agreed to.

The Finance Committee having been appointed, the following members of the Council were elected by ballot on the Executive Committee:—Sir H. Pitman, Mr. Simon, Dr. Haldane, Dr. Humphry, Dr. Quain, and Dr. Aquilla Smith.

A table was received showing the results of professional examinations held in 1884 for qualifications granted under the Medical Act by the bodies named in Schedule A.

A table was received showing the number of exceptional cases that occurred during the year 1884 under Clause 20 of the Council's Recommendations on Education and Examination, together with a statement of the action taken thereon by the several licensing bodies.

A table was also presented showing the results of preliminary examinations in 1884, compiled by the registrar from such returns as had been supplied by the examining bodies.

Dr. HAUGHTON moved that the table be referred to a committee. He called attention to the fact that several bodies had sent no information to the Council on the subject, and said he thought that the returns should be sifted in committee before being considered by the Council.

The motion was seconded and agreed to.

The usual returns from the Army and Navy Medical Departments were received and ordered to be entered on the minutes.

A table was received showing the results of professional examinations in 1884 for qualifications granted under the Dentists Act; also a communication from the College of Preceptors showing the results of the preliminary examinations of the College in March last.

Dr. PITMAN called attention to the circumstance that the returns from the College of Preceptors showed that there was almost every year a larger percentage of rejections.

Dr. HAUGHTON said it appeared from the returns that out of 317 students only twelve had passed in mechanics, a circumstance that seemed, he thought, to indicate that there was something in the case of mechanics which the regulations of the Council had failed to reach.

A communication was received in regard to the case of a registered practitioner against whom a complaint had been forwarded to the General Registrar by the Branch Council for Scotland. The Branch Council urged the importance of having the case ready to be dealt with at the present meeting of the Council. The Council deliberated on the subject in private, and were so engaged during the remainder of the sitting. It subsequently transpired that the Council resolved, while sitting in private, that Daniel Sutherland be

summoned to appear before the Council on Tuesday next, and also that the name of George Washington Evans be removed from the Medical Register. ——.

WEDNESDAY, MAY 13TH.

Sir HENRY ACLAND, President, in the Chair.

A communication was read from the secretary of the Royal College of Surgeons of England, stating that the diploma of member of the College issued to Mr. Ebenezer Bryceson on April 26th, 1884, had been declared to be void, and that he had ceased to be a member of the College in consequence of it having been proved that before his admission to the final examination he produced forged certificates of professional study.

On the motion of Mr. MARSHALL, seconded by Mr. SIMON, the qualification of Mr. Bryceson as member of the Royal College of Surgeons of England was ordered to be erased from the Register.

Dr. HUMPHRY stated that Mr. Bryceson appeared on the Register as a M.B. of Cambridge University, but as far as he (Dr. Humphry) knew, he had never taken that degree.

The REGISTRAR said that when Mr. Bryceson came to the office he produced what purported to be a document evidencing his qualification, and he filled up the usual form with his name and address as a M.B. of the University of Cambridge.

Dr. HUMPHRY said he would bring this matter before the Council to-morrow.

A letter was read from Dr. J. Wyllie, secretary to the Royal College of Physicians, Edinburgh, stating that at the quarterly meeting of that College, on Nov. 4th last, Bentham Paynter Morison, licentiate of the College, had been deprived of all his rights and privileges as a licentiate, he having been convicted in the Supreme Court of Adelaide, South Australia, of conspiring to cheat and defraud the Australian Alliance Insurance Company, and sentenced to one year's imprisonment with hard labour. At the same meeting of the College similar action was taken with regard to Thomas Robert Horton, who had been convicted in Adelaide of conspiring to cheat and defraud the Australian Mutual Provident Society, and sentenced to two years' imprisonment with hard labour.

On the motion of Dr. HALDANE, seconded by Dr. HERON WATSON, the qualifications of Mr. Morison and Mr. Horton as licentiates of the College of Physicians, Edinburgh, were ordered to be erased from the Register.

Dr. HERON WATSON drew attention to the fact that in October last it was decided that Mr. Horton's qualification as licentiate of the Royal College of Surgeons, Edinburgh, should be removed from the Register, but it still appeared.

The REGISTRAR said that it had been erased from the manuscript register kept in the office, and it was simply a printer's error that it still appeared in the printed book.

On the motion of Dr. HERON WATSON, seconded by Dr. HALDANE, Mr. Horton's name was ordered to be erased from the Register.

Communications were read from the Registrar-General of Wellington, New Zealand, stating that Francis Goold, registered as member of the Royal College of Surgeons, England, 1853, had been erased from the New Zealand Medical Register in consequence of his having been convicted of felony at Auckland on Dec. 2nd, 1876; and that the name of Lloyd Davenport Parry, registered as licentiate of the Royal College of Surgeons, Edinburgh, 1871, had also been erased from the New Zealand Medical Register, in consequence of his having been convicted of manslaughter, and sentenced to four months' imprisonment in the public gaol at Dunedin. It was decided to refer these cases to the Royal Colleges of Surgeons of England and Edinburgh respectively.

A letter was read from Mr. Farrer (solicitor to the Council), stating that Daniel O'Hara, alias Owen Patrick O'Hare, had been condemned to ten years' penal servitude for levying black mail.

The REGISTRAR stated that he had received an extract from the *Liverpool Mercury* of May 9th, from which it appeared that Mr. O'Hara had committed suicide in Walton Gaol, by hanging himself with a towel.

The Council resolved to await further communication from their solicitor before coming to any decison on this question.

Some correspondence was read between the Executive Committee and the Irish Branch Council. A resolution was adopted by the Executive Committee on Jan. 23rd, 1885: "That in the opinion of the Executive Committee it is desirable that the several Branch Councils should contribute the funds required for carrying on the business of the General Council at such times as they may be required to do so by resolution of the Executive Committee." In answer to a communication to that effect, the registrar of the Irish Branch Council had written, stating that at a meeting of that branch on March 24th it was resolved: "That this Branch Council are not prepared to forward the funds at such times as they may be required to do so by resolution of the Executive Committee."

Sir HENRY PITMAN said that it was quite time that some better arrangement should be made with regard to the funds which were provided for the payments of the expenses of the Council. When he was appointed one of the treasurers he found that there was no money whatever to deal with. No account stood in the bank in their names, and very little money was received during the year on behalf of the Council. It was therefore rather an anomaly to have two treasurers. In the returns presented to the Houses of Parliament for the year ending Jan. 1st, 1884, the contributions by the English Branch Council to the General Medical Council appeared as £1682, by the Scotch Branch Council £636, and by the Irish Branch Council £473, but those contributions were never furnished. Every year they were returned as facts, but they were not so; it was evidently an irregularity. It was really a debt due, and he had no doubt that the Irish and Scotch Branch Councils might be trusted to pay the amounts at their convenience, but they did not do so during the year. On the other side of the account, the cash balance in the bank in favour of the Scotch Branch Council was £900, less due to the English Branch Council £636, which was credited as having been paid during the year before. The expenditure of the General Medical Council amounted to £3014 5*s.* 7*d.*, and the receipts out of which the treasurers had to pay that amount were £221 14*s.* 8*d.* Even that £220 was not in the treasurers' hands in the beginning of the year. It was derived from the sale of Registers and Pharmacopœias, &c., so that the treasurers started with the liability of the rent and expenses of the office. Some of the members of the Council would recollect that there had been occasions when there had been no money to pay their fees at the conclusion of a session, the Branch Council not having sufficient funds in hand, and the members had to wait for their cheques. The English Branch Council were not bound to advance £3000 a year for the General Council's expenditure. This, however, was too delicate a matter to be dealt with in the Council, and he therefore proposed: "That the communications with the Irish Branch Council be referred to the Finance Committee, and that the Finance Committee be requested to submit to the General Medical Council a scheme which will render it unnecessary in future that the Branch Council for England should advance the money required to meet the current expenses of the General Medical Council." In dealing with the national funds, the Chancellor of the Exchequer at the beginning of a year provided for payment of all his accounts, and he did not see why the Council could not do something of the same kind. Why could not the Finance Committee make a forecast, and say, "During the year we shall want so much." Each Branch Council would then pay its proportion, and the General Council might open an account at the Bank of England, from which it could draw its money to pay expenses.

Dr. HAUGHTON seconded the motion. He considered that the present relations with the Branch Councils were most unsatisfactory. The only fault he found with the Executive Committee was that they had not enough knowledge of the English language to use the right verb. If they had "requested" instead of "required," the difficulty might have been settled at once; but he allowed no man to "require" him to do anything. It was, however, quite reasonable and proper that the Irish Branch Council should advance the money, and they were quite willing to do so.

Mr. MACNAMARA reminded the Council that some years ago a committee, of which he was chairman, strongly recommended that all the money of all the Branch Councils should be given to the General Medical Council. The English Branch Council objected to that, because at that time they had a large sum of money; but one-half of it lawfully belonged to the Irish and Scotch Branch Councils, because it was derived from registering in London degrees conferred in Ireland and Scotland. Many years ago the grievance was ventilated, and in some cases the English Branch Council

was called upon to refund the money to the other Branch Councils.

The resolution was agreed to.

A letter was read from the Secretary of State, requesting information as to "upon what conditions foreign doctors are allowed to practise in England." The information was required by the Danish Minister.

The Registrar was directed to forward to the Secretary of State the clauses of the Medical Act bearing upon the subject.

Communications were laid before the Council from the India Office, the Army Medical Department, and the Navy Medical Department, relating to returns which the Council had asked for.

On the motion of Dr. STRUTHERS, seconded by Dr. HAUGHTON, the Registrar was directed to thank the Secretary of State for India for his communications, and to state that a return applying to the examinations for the Indian Medical Service held in London, similar to that furnished to the Council by the Army Medical Department, would be satisfactory to the Council.

Mr. MARSHALL moved: "That a committee be appointed to superintend the preparation of statistical returns relating to the medical profession of the United Kingdom; that the committee be empowered to expend on these investigations such sums as may be sanctioned by the President and Treasurer." There were, he said, several subjects which might be usefully considered by the proposed committee, as to which the Council had full information in its possession; and nothing would render the proceedings of the Council more valuable than complete statistical returns with reference to those subjects. One of them was the question of waste and supply in the profession, with regard to which opposite opinions had been expressed. Another related to the career of medical students; and a statistical return on the subject, like that made by Sir James Paget with reference to the career of a thousand students at St. Bartholomew's Hospital, would be both interesting and useful. The duration of study was also a matter of interest, as to which statistical returns could be made by the Council; and the results might show whether fresh legislation was necessary. Another matter for inquiry was the question of single qualifications, and the number of persons taking additional qualifications. So far as the present partial statistics went, it appeared that there had been a gradual reduction of single qualifications from 26 per cent. to about 14 per cent., but more complete information on the subject was required. Other questions would also suggest themselves to the committee as fit subjects for statistical returns, and he thought that a good deal of useful information would result from their labours. The expense of the inquiry would be slight, and the Registrar would be able to render valuable assistance in its prosecution.

Mr. SIMON seconded the motion, which, he said, had his cordial support and sympathy.

Dr. STRUTHERS asked if Mr. Marshall had any controversial object in view in his proposal, and suggested that the subject should be postponed until a more definite statement was made of the nature of the statistics proposed to be obtained. He also thought that the committee, if appointed, should be a larger one than had been suggested. A committee of three would be too small.

Dr. HAUGHTON supported the motion, and said he thought that the proposed statistics would prove very interesting to the profession and the public. The discretion of the committee might be trusted as to the particular subjects of inquiry.

Dr. DUNCAN also supported the motion, but wished to have the opinion of the treasurers as to whether the expenditure involved would be a legitimate one.

Sir H. PITMAN said, if it could be shown that the inquiry was for the purpose of the execution of the Medical Act, the expense would be perfectly legitimate.

Mr. MACNAMARA supported the motion, and suggested as a subject of inquiry the question where students have been educated with reference to where they have been registered. The result, he thought, would be surprising, and would show how it was that the English Branch Council was so rich, and that the Irish and Scotch Branches were so poor.

The PRESIDENT pointed out that the work of statistical returns had been well begun by the Registrar, and would no doubt be usefully extended by the proposed committee.

The motion was agreed to.

On the proposal of the names of the committee—Mr. Marshall, Dr. Haldane, and Dr. A. Smith,—

Dr. STRUTHERS again urged that the committee should be larger; but, after a short discussion, withdrew the suggestion, and the committee was appointed.

Communications were read in regard to the General Medical Council's amended regulations for the preliminary examinations of medical students from the University of Dublin, the University of Oxford, the University of Cambridge, and Queen's College, Cork.

Dr. HAUGHTON said that the letter from the Dublin University had been carefully considered, having been drawn up by himself and amended by the provost of Trinity College. It would be seen that the University peremptorily rejected the mode of teaching and examining in mechanics proposed by the Council, and said that they were not prepared to alter their method, which they regarded as superior to the one which the Council had recognised. None of the bodies had given a more hearty support to the Council than the University of Dublin when it saw that the proposals of the Council were an improvement on existing methods, and it was still willing to recognise the paramount authority of the Council on subjects relating to the final examination. But in regard to subjects of the preliminary examination, mechanics, physics, &c., the Council ought not to expect the University to abandon its well-considered plan of teaching. On all matters connected with the professional curriculum it was ready to yield, but not in regard to subjects of general education. If the resolution passed by the Council at its last session were continued, the students would cease to appear on the Students' Register. That would not be desirable, because the students would be able to say that they had ceased to appear there because they aimed at a higher education, and it would lead to the supposition that the Register only contained the names of minimum educated students. Under the circumstances he did not propose to vote for the motion about to be brought forward by Dr. Humphry.

Dr. HUMPHRY proposed: "That the examinations in education conducted by the universities be accepted as heretofore, but that if in any of these examinations the subjects of elementary mechanics of solids and fluids are not included, a knowledge of these subjects should be required at a subsequent examination." The President, he said, had in his opening remarks stated that the Legislature had intended the Council not to be mandatory but hortatory, and if that applied to medical studies *a fortiori* it applied to general studies. It could never have been the intention of the Legislature that the Council should be mandatory on the university in reference to general studies, and still less to the particular mode in which an examination in English should be conducted. The great work of the universities was connected with the general education of the students, and the examinations were conducted in what was considered the best manner by men who had given their lives to the consideration of the subject. The Council had almost always taken that view; it had been anxious that the general education of students should fall into the hands of the universities, and had passed several resolutions to that effect. The examinations conducted by the universities were of a high order, the requisites for admission to the Students' Register being considerably beyond the requirements of the Medical Council, and that the Council should refuse to sanction the examinations because they were not in accordance with its own inferior plans seemed scarcely credible. Every student was examined in Greek as well as Latin, and his knowledge of English was shown by the manner in which he wrote it, which was perhaps the best possible test. He had formerly proposed a similar resolution to that which he now brought forward; but it was suggested that the universities should be requested to give the Council their opinions on the subject. They had done so, and they had given the only answer which could be expected from them.

Dr. CHAMBERS, in supporting the motion, said that the Oxford University had always held that grammar (with logic) was an essential part of education, and that it was best taught by the Latin grammar. It was not likely that the University would change its method at the request of the Council.

Mr. SIMON said it was very disappointing that, after giving up a large portion of the last session to the consideration of the subject, they should now be returning to it. It would be impossible to do justice to Dr. Humphry's motion until after the proposed discussion on professional education. He strongly sympathised with the view taken by the University of Oxford as to the undesirability of instituting a special

examination in English, which, indeed, he regarded as a delusion. The University stated: "We do not think that the literary character of medical students will be lowered by your not insisting on a special English examination in the case of Oxford students." The question of physics had been before the Council on several occasions, and the view that it had taken was that elementary mechanics should be a part of the earlier education of students, and be passed before registration; but to press such a regulation in the case of the universities, where the subject was taught *in extenso*, was futile and ridiculous. The point on which the Council had continually insisted was that the purely medical curriculum, treated as a minimum, should be relieved from the subject of physics. If five or six years were given to medical education, time could no doubt be spared for a full course of physics, but that was not the case when the medical course only extended over forty-five months.

Sir H. PITMAN said he could not help feeling great surprise that the subject should be discussed in the Council in the year 1885, seeing that as early as 1859 it had resolved "that examination on general education should be eventually left entirely to the examining boards of the national educational bodies recognised by the General Medical Council;" and similar resolutions had been passed at subsequent periods. If the Council was of opinion that the examinations in general education should be left to the universities, why should it now be discussing the question whether the examinations of the universities should be recognised by the Council? It could hardly have been the intention of the Council to lay down the precise subjects of examination in general education at the universities; and if it had done so, he doubted whether the universities would accept any such arrangement. The Council had been all along urging the universities to conduct the examinations, and now that they were doing it exception was taken to the mode in which they were proceeding, and it was proposed to refuse recognition on the ground that the examinations did not include mechanics.

Mr. TEALE thought that the Council would be placed in an absurd position if it declared that the university examinations were not sufficient for its purpose.

Dr. WATSON said the subject had been thoroughly threshed out on previous occasions. They had again and again expressed their confidence in the action of the universities and their competency to conduct examinations for preliminary education, and it was hard that those bodies would not do what the Council required, but would insist on doing something that the Council did not want. There was no reason why a student who had passed a higher examination should not have a separate examination for mechanics, in order that all medical students, wherever taught, might be placed on the same footing. To have a student coming up without having passed the examination in elementary mechanics created extreme confusion in regard to all licensing bodies, and there was an uncertainty as to whether the student still required to be subjected to such an examination before he was permitted to go in for a professional examination. Again and again men had come up for the professional examination, and after they had passed it had been discovered that they had not passed the examination in elementary mechanics. There ought to be one rule for all students, whether coming from the universities or elsewhere; and if the universities would not conduct the required examinations, there were other bodies that would. If the universities carried out their threat, and allowed their students to go on without registration, all he could say was that those students might undoubtedly obtain university degrees, but they would not be able to obtain licences to practise from the corporate bodies. If the Council had, after repeated consideration, come to a definite conclusion on the subject, it ought to adhere to it until it had a better reason for reversing it than that the universities declined to accept it.

Dr. STRUTHERS said that the Council had already by a large majority passed a resolution as to English, and it was absurd to ask it six months afterwards to reverse its decision. The Council had also decided that elementary mechanics should be passed before registration, and it would be a complete waste of time to reopen the question. The only reason for reconsideration was the opinion expressed by the universities. What would be said if one of the Scotch universities had tried to defy the Council in the same way? Surely, the universities could easily institute examinations in the required subjects; and if they would not, there was the College of Preceptors, whose examinations met all the requirements. He moved as an amendment: "That in reference to the letters now received from the University of Dublin, the University of Oxford, the University of Cambridge, and from Queen's College, Cork, the Council sees no reason to depart from the resolutions adopted at the last meeting in regard to preliminary examination for the registration of medical students."

Dr. WATSON seconded the amendment.

Dr. PETTIGREW supported the amendment, and expressed a hope that Dr. Humphry would withdraw his motion.

Dr. BANKS supported the motion. The Oxford examination in English was perfectly adequate; and as to Dublin University, it could not be expected to alter its regulations at the bidding of the Council.

Dr. DUNCAN, in supporting the motion, said it would be preposterous for the Council to say that they would not be satisfied in regard to English with what satisfied the University of Oxford. The difficulty as to elementary mechanics, which was not included in the preliminary examination at the University of Dublin, would be easily overcome by Dr. Humphry's proposal that the subject might be taken in a subsequent or separate examination.

Dr. HAUGHTON said there was no desire on the part of the universities to act offensively towards the Council. As to the subject of elementary mechanics, it ought to be taught in the same way to all students, whether medical or otherwise; and at present it was certainly not taught efficiently in the schools.

The debate was then adjourned.

THURSDAY, MAY 14TH.

At the meeting of the Council to-day, the debate on Dr. Humphry's motion was resumed, and after some further discussion the motion was agreed to in the following modified form:—"That the examinations in general education conducted by the universities be accepted as heretofore; but that if in any of these examinations the subject of elementary mechanics is not included, a knowledge of that subject be required at a separate preliminary examination." The amendment of Dr. Struthers was withdrawn. A report was received from the Pharmacopœia Committee with a revised copy of the new Pharmacopœia. A cordial vote of thanks was given to Dr. Quain for his valuable labours in connexion with the work. A report was presented from the Committee appointed to make inquiries as to possible sites available for the purposes of new offices for the Council. The Committee reported in favour of a site on the Savoy estate of the Duchy of Lancaster. The general feeling of the Council was adverse to the suggested change; and after discussion it was resolved to refer the report to the Executive Committee, with power to take steps to improve the ventilation of the hall in which the Council meets; or, if necessary, to report on the improvement of the building at the next meeting.

Dr. PITMAN then moved: "That a committee be appointed to consider and report in what way, if any, the accumulated funds of the General Medical Council can be applied in promoting scientific research for the public good."

The debate on the motion was adjourned, when the Council rose.

STRANGULATED OMENTAL HERNIA.

To the Editor of THE LANCET.

SIR,—I regret to have overlooked until to-day Mr. Treves' letter in your impression of April 25th. But I do not propose, at present at all events, to repeat, extend, or multiply the arguments I can muster, having already been favoured, on May 17th, 1884, and April 25th last, with space ample for the purpose. In the communication of a year ago Mr. Treves will find, I think, the answer to his objections. But even should he not be convinced on reading it again, I would prefer to wait till, as he well puts it, my "arguments have been supported or opposed by more extended clinical data, and when they have met fully the test of the post-mortem room." I am glad that he has taken up the subject, for the more it is noticed the better its chances of thorough ventilation, not so much on paper as in the thought and practice of surgeons, in the presence of illustrative cases. I am, Sir, yours truly,

Liverpool, May 10th, 1885. RUSHTON PARKER.

THE LANCET.

LONDON: SATURDAY, MAY 16, 1885.

THE most interesting event which has transpired up to the present time at the meeting of the Medical Council is the Address of the President, Sir HENRY ACLAND. The number of the subjects lightly touched upon give interest to the speech. The President's gentleness of touch is his great quality. One occasionally comes to a point at which strength and determination of language would be a relief. Failures, delays, and disappointments, that move less serene men than Sir HENRY, only bring out his imperturbable suavity; and the most imperfect settlement of public questions, over which the profession grieves, he views with an equanimity such as DARWIN might display over the slow processes of Evolution. In the early part of his address he recalls the happiness with which he had met the Marquis of RIPON, and had reminded his lordship of his efforts fifteen years since in favour of medical legislation. It is all just where it was where the Marquis left it. Nineteen corporations are all fighting for their own hand, and the weak hand of Parliament has been shown to be powerless in the matter. But to Sir HENRY ACLAND's happy mind there is no disappointment in all this. He told the Marquis that he sincerely believed that though he had failed, thanks to the honest rivalry among teachers and between institutions, "the principles" were being carried out, and the public good secured. We can only look on at a distance and admire this power of seeing unmixed good in the failure of all Governments to accomplish what the Government and the profession thought necessary for the public good, and what a Royal Commission recommended. The report of the interesting incident of a conversation between the Marquis and the President would have been a little more interesting if Sir HENRY had told us the Marquis's views of the situation and of the obstinate resistance of the medical authorities to changes for the public good.

The first day of the Council's meeting was occupied very largely with the discussion of a case of alleged misconduct. It is very painful to find from the President's address that no less than thirteen cases of alleged misconduct by registered practitioners have been referred in the past year to the solicitor. These largely have reference to unqualified practice—registered medical men acting with unqualified persons as partners or assistants. We have often cautioned medical men against conduct of this kind, which brings the profession into discredit and its members often into positions of much embarrassment. The Council will have the full approval of medical men generally in exercising its judicial powers against members of the profession who act unworthily. It is unsatisfactory to notice from the President's address that there is still much uncertainty and difference of opinion as to where the duty and power of prosecuting offenders should lie. The Corporations seem very reluctant to vindicate the honour of the profession, though always ready to tell Parliament that their moral influence alone preserves the high standard of professional opinion and conduct. The Public Prosecutor shows great unwillingness to do work for which, one would suppose, he was brought into existence. And the Medical Council, from its earliest days, has discouraged the idea that it had any prosecuting function. In regard to this duty of prosecuting for breaches of the Medical Act, all the parties that should have acted have made excuse, and too often the work has had to be done by private medical men or medical associations organised for the purpose. Since the Home Secretary, in his plain way, expressed his opinion that the Medical Council has duties of judgment in regard to such cases, the judicial functions of the Council have come into more frequent action, and a great part of the present programme is filled with motions having reference to cases of alleged misconduct. In one such case, as will be seen by our reports, the Medical Council has erased from the Register the name and qualification of GEORGE WASHINGTON EVANS, who was no less than a Fellow of the Faculty of Physicians and Surgeons of Glasgow. His publications and advertisements on the subjects of diseases of women and debilities of the generative organs constituted, in the opinion of the Faculty, "infamous conduct in a professional respect," and led to the erasure of his name from the Register of Fellows on December last. The Medical Council has endorsed the action of the Faculty.

The inevitable discussion on Preliminary Education has begun; but it really seems as if the Council was going to be deprived of the pleasure of its full development on this occasion. Some of the members begin to see that there is something bordering on the jocose in its treatment of this subject. Not only does it turn up annually, but, as Sir HENRY PITMAN showed on Wednesday, the continuous idea of the Council from its first meeting in 1859 has been to rid itself of all responsibility in regard to preliminary examinations, having voted repeatedly in favour of leaving them entirely to the Universities and other national educational bodies. But having almost effected this result, they keep on worrying these bodies, and dictating to them how to do the work. The consequence is not only that the Council wastes time which it might well devote to improving strictly medical education, but it receives protests from the Universities which, though couched in polite language, are not destitute of pungency.

THE *American Journal of the Medical Sciences* for April contains a careful and useful paper, by Dr. WINSLOW of Baltimore, on the Operative Treatment of Pyloric Stenosis. In the forefront he places pylorectomy, and gives a table of sixty-one cases of this operation. From it we learn that there have been sixteen recoveries and forty-four deaths, while in one case the result is not given. BILLROTH has operated eleven times, with success in six cases, and his results are the best that have been yet attained by any surgeon. The mortality in cases of cancerous stricture of the pylorus has been 76 per cent. The factors which seem of chief importance in determining the result of the operation are the age and general condition of the patient, the existence of extensive adhesions between the pylorus and the neighbouring organs, particularly the pancreas, and the length of time occupied in the operation. The younger the patient the greater the power of resisting collapse. The presence of adhesions not only greatly adds to the difficulty of the

operation, and therefore to the time required in its performance, but it renders the danger of hæmorrhage and of subsequent peritonitis greater; while in some cases gangrene of the transverse colon has occurred owing to removal of the omentum and transverse mesocolon. Nearly 50 per cent. of the patients operated upon have died of shock within twenty-six hours, and of the cases which have recovered not one has lived for three years without recurrence of the disease when the operation has been done for cancer. Gastro-enterostomy, by which the stomach is made continuous with the small intestine beyond the pylorus, has been performed thirteen times during the last four years. Of these nine have died within a month of the operation, and four, or just over 30 per cent., have recovered. This is a better result than was obtained in the early cases of pylorectomy; and when it is borne in mind that the operation has been done in cases of cancerous and other strictures of the pylorus, in which the adhesions have been so extensive as to render impossible or nearly impracticable the operation of pylorectomy, it is evident that the balance in favour of gastro-enterostomy is greater than the mere figures show. The operation consists in raising a loop of small intestine and, after making an incision into its free border and into the stomach, uniting them by sutures. It is thus a shorter and simpler operation than pylorectomy, and does not expose the patient to the same risks from shock or hæmorrhage. It has been urged against it that it is in no way radical, that it only palliates the disease, and allows the new growth to extend and exert its deadly influence upon the system. This is no doubt true. But, on the other hand, it is to be remembered that the success in the radical cure of cancer in the situations most favourable for it has not been such as to render it probable that surgery will ever be able to cope effectually with this disease when it attacks the stomach, and the results of pylorectomy thus far point in the same direction. Gastrotomy, gastrostomy, and duodenostomy have all been performed for cancer of the pylorus, but, for various reasons, are sure not to be widely practised or even repeated again. Digital divulsion of the pylorus, or LORETA'S operation, has been practised with great success for cicatricial stricture of the pylorus. Of five completed cases three recovered, and a sixth case was doing well three days after the operation. It is, of course, quite unsuited for cancer of the pylorus, but in cicatricial stricture of that orifice it gives speedy and complete relief, and the procedure appears to be free from much of the danger attending the graver operations we have been referring to. Among Dr. WINSLOW'S conclusions, which, we believe, are thoroughly supported by the evidence at hand, are these: that pylorectomy for carcinoma should only be performed in the limited number of cases where, with marked stenosis, the pylorus is not adherent to the neighbouring structures and the patient is young and fairly strong. In other cases of cancerous stenosis gastro-enterostomy should be performed. In cicatricial stenosis digital divulsion of the pylorus should be performed when the symptoms are sufficiently severe to demand operative interference.

DISCREDIT was for a long time cast on the attempts to explain the prevalence of certain epidemic diseases by referring them to meteorological conditions, and this was to a great extent deserved, because those who at that time interested themselves in this subject were content to assert that this or that epidemic owed its prevalence to what they were pleased to term "climatic" or "telluric" influences without any apparent effort to ascertain or explain what were the precise conditions which had been operative, and which were disguised under such general terms as we have referred to. During later years, however, the attempts to ascertain how far meteorological conditions influence the prevalence of disease have been on a much more scientific scale, and medical officers of health are, in their annual reports, now in the habit of making records bearing upon this influence, which cannot fail in the long run to be of material value. Mr. C.E. PAGET, medical officer of health for the Westmoreland Combined Sanitary District, makes a contribution to this subject in connexion with a detailed review of the prevalence of "fever" in the borough of Kendal since the passing of the Registration Act. During the early portion of the period referred to, "typhus" was the prevailing fever, but it gradually changed its name as years went on, until it became evident that, although typhus might not have been altogether absent at certain periods, it was really enteric fever that Kendal has had to deal with. During the decade 1842-51 the mean annual "fever" mortality per 1000 of the population was 1·58; in the decade 1852-61 it was 0·70; in the decade 1862-71 it was 0·41; and during that ending 1881 it had further fallen to 0·26. The steady decline in the mortality is attributed in the main to the progressive sanitary improvements which have taken place, but when the separate prevalences which examination of the death-rates exhibit are studied it would appear that other influences have been at work; and Mr. PAGET has made every endeavour to ascertain how far these influences may have had to do with prevailing meteorological conditions. The value of the earlier records available were found to be much affected by the circumstance that only the mean annual variations could be learned, and so it comes to pass that as regards rainfall, for instance, whilst it is almost undeniable that in Kendal there have been occasions when an excessive fall of rain has been associated with a rise in the prevalence of enteric fever, yet mean annual records alone do not help much in deciding the question. Such mean records as to the state of the barometer are still less helpful, and hence, although Mr. PAGET is convinced that sudden depressions in the mercury, especially when associated with excessive rainfall, have favoured special prevalences of this fever, yet he is obliged to base his opinion rather on certain recent occurrences than on any observations extending over a series of years. The temperature records, though also limited to annual means only, were found to be a little more helpful, the rise and fall in the total mortality from continued fever corresponding in a more or less degree with a rise and fall of the mean annual temperature in twenty-nine of the years between 1838 and 1881; variations to the contrary only being indicated in four of the remaining seventeen years. In view of the imperfect means at his disposal, Mr PAGET does not attempt to lay down any general conclusions, and it is evident from his report that he would be the first to admit that when meteorological conditions influence the rise and fall of the mortality from any special disease, this influence may be largely, if not in the main, brought about

by the operation of these conditions on purely local states, which, being absent elsewhere, might prevent any similar conclusions being arrived at in other places. Thus, in one special outbreak of enteric fever which is several times adverted to, it seems all but certain that the conditions of sewerage which existed at that time in Kendal constituted a local state on which meteorological changes could operate with special force. The incidence of the disease fell chiefly on a portion of the town having deficient sewer ventilation, and it is precisely under such circumstances that heavy rainfall, which would force foul air out of the sewers at every available weak point in the system, together with a diminution of barometrical pressure which would aid in the expulsion from the soil into the atmosphere above of any accumulation of foul air from sewers or elsewhere, would tend to bring about one of the very conditions so well known to be associated with prevalences of enteric fever. We by no means wish to suggest a limit to the operation of meteorological conditions by explaining away any direct influence they may have upon disease; but merely to indicate that, with the very imperfect knowledge we at present possess on the subject, the study should be approached with all scientific caution. Many of the observations which can be made by officers of health must almost necessarily be limited to comparatively small areas, but when put together they will aid in the solution of a very difficult but most interesting subject. Hitherto not many medical investigators have been attracted to its elucidation, but such reports as the one we are now discussing, and the carefully prepared papers which are from time to time communicated to the Epidemiological Society by Dr. G. B. LONGSTAFF, all tend in the direction indicated.

MRS. GRANT DUFF, the wife of his Excellency the Governor of Madras, has recently presided over a meeting, at Madras, for discussing the establishment of a hospital there for the Hindu and Mahummedan women whose religious feelings and social duties preclude them from seeking the aid of medical men. The speech delivered by Mrs. DUFF at this interesting meeting, which seems to have been attended by all the notabilities of the Presidency, native as well as British, abounds in good sense, refined feeling, and the truest appreciation of those silent but potent influences which are most likely to assimilate our great Indian Empire into our own national family. In addition to this matter of good sentiment, in the speech there is much light cast upon the present state of medicine in India. There is, we are told, no institution in Madras to which Gosha women can go without violating their religious feelings. The caste wards of the General and Lying-in Hospitals are under the superintendence of men, and into them a Gosha woman will rarely enter, except as a last resource, and when human aid is no longer of any avail. We are also informed that the greatest suffering, ending sometimes in death, is caused by unskilled and unqualified female practitioners throughout India.

To meet these two difficulties the new institution is started. The original conception of it is due to Surgeon-General CORNISH, who, with his usual happy facility for foreseeing great results from unpretending projects, when they are set in the mind of the world in the right way, called the attention of the Government to the subject last year, and led the Government to determine that, so soon as the natives expressed a strong desire to have the suggestion carried into practice, it would give its support. That expression, led off by a native gentleman, Mr. RAMASAWENEY, having come "in a very liberal form," the initiatory stages of the project may be considered as over, and the prospect of the existence of a great and useful institution is fairly in view. The work intended to be carried out at the hospital will be the teaching of the practice of medicine by the European methods, with all the resources of modern science; the selection as teachers and practitioners of none but those whose status is of competent worth; the performance of important surgical operations which cannot at present be done from the want of a suitably fitted up hospital; and the introduction of the necessary requirements for a school where diseases of the eye, and other diseases requiring particular and advanced skill for their successful treatment, can be combated. The hospital—as Mr. AIGER, one of the prominent supporters of the movement, explained—will be under the superintendence of a lady, who will induce lady patients to visit it; "and thus, while the scientific system of dealing with disease will be adopted, the ignorant practitioners will be gradually cleared away." It is intended for the present to have from twenty to twenty-five beds for in-patients, to increase the number as the demand for accommodation extends, and to have consulting-rooms for caste and Gosha women. The QUEEN-EMPRESS is to be asked to be patroness; her Excellency, Mrs. GRANT DUFF, vice-patroness; and native ladies throughout the Presidency are to be solicited to give their countenance and support, and a considerable amount of money has already been subscribed. In the new design the scope for the kind of labour very suitable for women is of the widest; and if something like it were instituted in all our dependencies, where native habits have to be conciliated, so much the sounder would be the union between the centre of power and the radius of it.

Annotations.

"Ne quid nimis."

THE ARMY MEDICAL SERVICE IN THE SOUDAN.

IN the discussion last week on the vote in the Army Estimates for medical establishments, the question of the relation of the National Aid Society to the Army Medical Department was brought under notice by Dr. Farquharson. The statements which have from time to time been made as to the benefits conferred upon the army by the Society and the inferences which have been drawn as to the inefficiency of the Medical Service, if it required, in the interests of the soldier, to be supplemented by this voluntary and irresponsible aid, certainly seemed to call for some explanation. Dr. Farquharson, therefore, without wishing to undervalue any service the Society might have had it in its power to perform, asked who was responsible for the care of the sick and wounded, and whether there was any deficiency in the supplies of necessaries and even of superfluities furnished by the Army Medical Department. The financial Under-Secretary for War, while claiming for the National Aid Society that it was doing good work in Egypt, distinctly laid down

the principle that the Army Medical Department was "not only primarily but entirely responsible for the care of the sick and wounded, but this responsibility did not impair the recognition of the generous and charitable aid rendered by the Society." We still hold strongly to the opinion that as the Government is bound to provide all that may be requisite for the sick and wounded soldier, and has in the present campaign made abundant and liberal provision for all their wants, the operations of the National Aid Society would have been much more deserving of praise had they been directed in favour of the wives and children and of the widows and orphans of the soldiers, for whom no adequate provision is made by the Government. We have considerable doubts as to the benefits conferred by the present working of the Society; we have none as to the claims of the widows and orphans upon the kindness and benevolence of those who have it in their power to aid them. It is very satisfactory to find that there has not been the slightest complaint of any shortcoming on the part of the medical staff, either as regards personal service or the requisite supplies, and in the absence of such default it is difficult to understand how the expenditure incurred in supplementing that which is already sufficient can be justified.

THE NEW BRITISH PHARMACOPŒIA.

ON Thursday afternoon the Pharmacopœia Committee, through its chairman, Dr. Quain, were able to report the virtual completion of the new Pharmacopœia and to place a copy on the table. Much satisfaction was expressed with the work, and high praise accorded to Dr. Quain and to the editors of the work, Professors Redwood, Bentley, and Attfield, for the way in which they have performed their respective duties. The revised Pharmacopœia contains over 100 pages of new matter and over 100 new articles, including coca, jaborandi, apomorphine, boric acid, thymol, menthol, iodoform, &c. The volume will be sent to the members of the Council for their suggestions. After these have been discussed and disposed of by the Pharmacopœia Committee, this committee will forward the work to the Executive Committee for publication.

THE ARMY IN THE SOUDAN.

THE public have at length received from the Ministry an indication of the course which they mean to take with reference to the troops now serving in the Soudan. Three courses appeared to be available as regards the army in the interior; to maintain their present position, or to concentrate at Dongola and places below Dongola, or to revert to the line of Wady Halfa or Assouan as the effective frontier of Egypt and withdraw the troops as soon as possible from the advanced positions now occupied. The Government has decided to adopt the third course as soon as the rise of the Nile, which is expected to begin in about three weeks, shall enable the movement of the troops and stores to be effected. Lord Hartington stated that the troops at present are fairly protected by huts or other temporary cover, and that although the heat is very great, and the inconvenience and suffering they have to undergo are very considerable, their health has not materially suffered. This change, when effected, will enable the authorities to withdraw a considerable portion of the 9000 men now occupying the posts in the interior. With regard to the force at Sawakin, the Ministers do not seem yet to have been able to make up their minds as to what they mean to do. They have given up the idea of carrying on to Berber the railway recently begun, but to what extent they will remove the troops, or what provision they will make for their maintenance at Sawakin appears to be still among the problems which our rulers find themselves unable to solve. The fears which we have expressed as regards the health of the troops at Sawakin seem to be entertained also by Lord Wolseley, for Lord Hartington stated that "he anticipated that if that force is retained there for a considerable time during the hot weather, it may materially suffer in health." But Ministers desire to suspend their judgment as to the course they ought to pursue until they receive further information. The indecision and delay which have characterised the whole of the proceedings with regard to the Soudan appear still to mark the policy of the Government. It is impossible to read Lord Hartington's speech without asking for what purpose has all this expenditure of life and money been made? The thousands of lives which have been sacrificed, the millions of money which have been thrown into the Nile, or wasted in the desert, have produced nothing but sorrow and shame. The events of the last twelve months in the Soudan must ever form a subject of bitter regret and lamentation to every right-thinking Englishman.

EXCISION OF CEREBRAL TUMOURS.

THE unusual interest which characterised the proceedings of the Royal Medical and Chirurgical Society on Tuesday last was due to the reading of a paper on the now famous case which has already occupied attention both in the profession and outside it. We have called the case a famous one, because we are of opinion that it will prove to be the first of a long line of more complete successes. That this opinion is not one of exaggerated hope will be admitted by those who are most competent to judge as well as by those whose reason is not clouded by prejudice. It is singularly unfortunate that one of those accidents which not unfrequently mar the most brilliant surgical successes should have arisen in the case in question. That the patient owed his death to an avoidable accident will be readily conceded if it be remembered that there are now on record —and Dr. Macewen added others at the discussion— cases of surgical interference with the brain far more extensive than the operation performed by Mr. Godlee; so that the special merit of the case recorded by Dr. Hughes Bennett merely lies in this. It was a triumph of medical diagnosis; the symptoms alone revealed the growth, which, unless removed, would have proved fatal. There was nothing very remarkable in the surgery of the case, and nothing special about the nature of the tumour. The chief interest was a medical one; and in this connexion we draw attention to the valuable clinical observations of Dr. Hughlings Jackson, which may be read in our report of the proceedings. As was to be expected, the discussion took a surgical aspect, and there is no question that, as Dr. Ferrier remarked, cerebral surgery is still in its infancy. One of the points which future experience must decide is as to the relative value of closing the wound permanently or treating it by free drainage. Experiments on animals and operations on man show that a large effusion of serum is the necessary accompaniment of operations on the brain. Dr. Ferrier and Mr. Horsley, from their experience with monkeys, believe that a permanent closure of the wound at the end of the operation is the right course to adopt. Mr. Godlee, Dr. Macewen, and Mr. Davy appear to hold the opposite view. For them this large effusion of serum and blood constitutes a source of danger chiefly from the tension which it sets up, and which may lead to opening up of the wound, or to worse effects on the brain. Mr. Godlee and Dr. Macewen used the drainage-tube, and Mr. Davy his open-air method of treatment. Another practical surgical point is the mode of dealing with the parenchymatous bleeding from the wounded brain; all authorities recognise the "welling up" of blood in a wound made in the healthy brain. Gliomata are frequently of a very vascular nature, and the occurrence

of spontaneous hæmorrhage into their substance is a frequent accident. The hæmorrhage during Mr. Godlee's operation was evidently very great, and it is possible that the nature of the tumour may partly account for this. However this may be, it is obvious that one of the surgeon's difficulties is the treatment of the hæmorrhage, and the treatment which Mr. Horsley has successfully employed in monkeys—the hypodermic injection of morphia—is worthy of trial in man. Dr. Macewen took exception to the use of the galvano-cautery as a hæmostatic, on the ground that by causing much irritation it favoured the production of hernia cerebri. This must, we think, be a moot point. There are other surgical points—such as the question of the reimplantation of the trephined bone, the best kind of antiseptic dressings, the mode of dealing with diffuse growths, and the like—which we cannot enter upon now, and which must remain more or less open questions.

THE UNIVERSITY OF LONDON.

THE annual general meeting of Convocation of the University of London was held on the 12th inst. The first business was the election of Chairman of Convocation in the room of Dr. Storrar, who retires. The only candidate for the appointment was Mr. Frederic John Wood, LL.D., who was accordingly elected. In support of a vote of thanks to Dr. Storrar for his services during the past twenty-one years, Mr. Wood reviewed the history of the University since 1848, and the part taken by Dr. Storrar in the contest with the medical authorities at a time when the degrees conferred by the University were not recognised. Dr. Storrar, he concluded, had been the true, noble, and self-devoting friend of the University. The resolution was unanimously adopted. The question of the matriculation examination, and a resolution affirming that the principle of allowing candidates who have failed only in one subject to come up for examination again in that subject is worthy of acceptance by Convocation and the Senate, were referred to the Annual Committee, and the House was shortly afterwards counted out. The ceremony of the presentation of diplomas, exhibitions, scholarships, medals, and prizes to undergraduates and graduates of the University took place on the 13th inst., in the presence of a large assembly.

"WHY NOT EAT INSECTS?"

A GREAT divine has told us that the maxim of creation is "Let us prey." We are not, however, prepared to carry this principle so far into practice as to rob the poor birds of their food. Beyond question insects were made for birds to eat; or, to put the fact in another form, birds were intended to eat insects. Man may eat birds, but not birds' food. Mr. Vincent Holt—who for some mysterious reason has set himself to convince mankind that, as we are hereafter to be preyed upon by the worms, we ought to "take it out" of the worms while we can—argues colloquially thus: "Them insects eats up every blessed green thing that do grow and us farmers starves. Well, eat *them*, and grow fat.". We prefer a more logical and comprehensive policy, and as the insects eat the green things, and the birds eat the insects, we will eat the birds. It would not simply be cruel to the birds, but flying in the face of nature, to interpose between them and their food; more particularly as by passing through their bodies and becoming birds' flesh insects are brought nearer to our own standard of tissue. If Mr. Holt will only sit down for five minutes and think the question out in its economic as well as its dietetic bearings, he will agree with us that the course of conduct he prescribes would be as irrational as taking to eating grass ourselves instead of feeding on that delicacy by proxy, and afterwards eating our agents in the shape of mutton and beef. If the principle on which Mr. Holt reasons were carried out to the bitter end, there would be an end of intermediates altogether, and we should take to living on carbon, oxygen, hydrogen, and nitrogen, with a little sulphur, instead of boiled eggs, for breakfast, which, to say the least, would be both disagreeable and inconvenient. If anything could possibly induce us to eat insects, it would be Mr. Holt's elegant *brochure*, got up with persuasive taste by Messrs. Field and Tuer; but we decline. "Why not eat insects?" Because the idea of devouring slugs, spiders, and centipedes, not to mention other more horrorful monstrosities of the edible insect class, is revolting. Life would not be worth living at the price. In dire straits of famine men and women may bring themselves to devour rats and mice and slugs and caterpillars; nay, in such a state of matters, these creatures might come to be considered delicacies. But there is not the least reason why we should, in pure wilfulness, take to filth as food while clean things that do not creep are to be obtained. Therefore we say if "these insects eats up every blessed green thing that do grow and us farmers starves," let "us farmers" be a little less hard on the birds, and then, instead of being compelled to eat the insects, the birds will do that for them, and they can eat the birds.

PNEUMOTHORAX FOR HÆMOPTYSIS.

AT the last meeting of the Clinical Society Dr. Cayley read a paper on a case of profuse hæmoptysis in which he had artificially induced pneumothorax with the express purpose of arresting the hæmorrhage. We refer our readers to our report for the particulars of the case. The question which we have to discuss here is as to the wisdom and propriety of the procedure which Dr. Cayley so boldly adopted. It is well known that hæmoptysis is not seldom fatal in and of itself; it is also familiar to clinical physicians that hæmoptysis which threatens to prove fatal does not unfrequently become arrested by natural processes. Clinical knowledge can at present carry us no further. That the induction of pneumothorax should be a powerful remedy for checking hæmoptysis rests upon sound physiological data. By inducing pneumothorax the lung is placed *hors de combat*, its circulation is reduced to a minimum, its aspirating power on its contents is done away with, and the lung is reduced to the state of atelectasis of a fœtal lung. So that there is abundant physiological justification for Dr. Cayley's procedure. The presence of air in the pleural cavity cannot be regarded as a very dangerous condition, especially if the air be filtered so as to deprive it of its suspended organic particles, and in this connexion the suggestion made by Mr. R. W. Parker in the discussion which followed Dr. Cayley's paper is worthy of special attention. But, again, the sudden induction of pneumothorax may in virtue of its suddenness be attended with such a physiological displacement or disarrangement of natural processes as to place the patient's life in jeopardy. Another consideration which must play a part in coming to a decision as to whether pneumothorax should be brought about or not is the question of the state of the lung, and this is a very wide subject. If the lung be the seat of extensive adhesions or of extensive consolidation of no matter what kind, it is obvious that pneumothorax could not be induced, or induced so partially that the necessary arrest of the circulation through the lung would be impossible. Indeed, on reflection, it will be perceived that the class of cases in which the treatment is likely to prove efficient is a limited one. It is probable that in cases of chronic phthisis limited to the apex of the lung, where the profuse hæmoptysis is the result of rupture of an aneurysm, the induction of pneumothorax would cause the circulation to be reduced to such a low ebb that the hæmorrhage would be arrested. However, it is almost futile, in the absence of data, to pursue the subject.

further. The operative treatment followed out by Dr. Cayley will probably not frequently come under consideration; but it must be acknowledged that until we know something more of its practical application the question of its judiciousness must remain in abeyance.

SUCCESSFUL ŒSOPHAGOTOMY FOR REMOVAL OF A HALFPENNY SWALLOWED THREE YEARS PREVIOUSLY.

A BOY seven years of age, now in the Queen's Hospital, Birmingham, has a history rarely paralleled in the annals of operative measures for the removal of foreign bodies. The patient was admitted under the care of Dr. Suckling for asthma, for which he had been unavailingly treated. The history was elicited that a halfpenny had been swallowed three years previously, and that dysphagia and dyspnœa followed immediately afterwards. No attempt at extraction was made, and the incident appears to have been forgotten. On admission the child presented all the appearances of chronic starvation, and only the smallest quantity of liquid could be swallowed, the greater portion of which regurgitated. To solids of any kind the passage was impermeable. Dyspnœa was constant, with paroxysmal cough, copious expectoration, and deficient respiration on the right side. The case having been transferred to Mr. Bennett May, that gentleman found the œsophagus impermeable to anything but the smallest bougies at a point beyond the top of the sternum, but all attempts at detection or removal of the cause were fruitless. On the 25th ult. Mr. May opened the œsophagus low in the neck, and, having passed the finger down it, was able to feel a metallic edge through the wall of the tube. The coin lay in front of the œsophagus, apparently between it and the trachea or the right bronchus. As no point of communication could be discovered, a second incision was made in the œsophagus, and through it the halfpenny was with some difficulty withdrawn. A free escape of air from the wound indicated the existence of a communication between the tubes. The subsequent nutrition of the child has presented considerable difficulty, the fluids swallowed regurgitating through the wound. The patient is now fed three times daily by injecting into the stomach through an elastic catheter half an ounce of brandy and an egg beaten up in half a pint of new milk. On the sixteenth day after the operation the child was sitting up in bed, talking cheerfully. He sleeps well, the bowels act twice daily, and the steady improvement in health augurs complete recovery.

"NO DOCTORS AMONG THE PEERS."

WHO was the witty Premier who declined to make an eminent physician a peer because he would not have as an equal in rank any man upon whom he could call for what he was pleased to represent as menial services? The commotion was great in the House of Lords a few afternoons ago when a noble member fell down in a quite ordinary "fit," and when the *reductio ad absurdum* of etiquette was reached, the House being hastily adjourned to admit of the entrance of a couple of commoners to minister to the needs of the sick peer, and when the members of that august assembly were so generally scared that only one peer, the Earl Spencer, had the presence of mind to hurry to the Commons for medical assistance. We do not, of course, intend to imply that members of the medical profession ought to be introduced into that assembly for the sake of having a doctor in attendance; but it is amusing to note how dire is the panic when human nature comes to face, or to be seen facing, death without medical assistance. We are not of those who think the medical profession stands in urgent need of such Royal countenance as would be involved in bedecking one of its members with a coronet. If Art is the better for being patronised, Science can stand alone, and will not languish for the smile fashion withholds from its professors. All the same, the custom so long honoured by a laborious breach of good manners is very crabbed and wondrously weak.

DEATH FROM HYDROPHOBIA.

LAST week Dr. Diplock, coroner for West Middlesex, held an inquest on the body of a journeyman blacksmith, aged twenty-three, who died, according to Dr. Ferris of Uxbridge, with all the symptoms of hydrophobia. The history showed that there was a possible bite from a dog two years previously, but there seems to be some doubt on this point. If the case were one of rabies, the period of incubation was even for rabies, rather long. Seeing that the case is not perfectly clear, it is allowable to speculate on its nature. Now, Dr. Broadbent and others have placed on record cases which have been characterised by all the symptoms of hydrophobia, which were certainly not due to the usual cause of hydrophobia—i.e., the bite of a rabid animal. In the cases in question there would seem to have been a decided history of terror, almost amounting to mania. This terror, or extreme fright, may have been an efficient cause in bringing about those nervous symptoms which are the chief features of rabies, or the terror may have been one of the symptoms of the nervous disease, however originated. The chief symptoms of rabies may be explained on the view of an extremely irritable state of the grey matter of the spinal cord, medulla oblongata, and adjacent parts. This irritable state of an important part of the cerebral nervous system need not always be due to the action of the virus of rabies. Other conditions may bring it about, and some authorities have asserted that acute poisoning by alcohol, and perhaps other substances, may give rise to the same condition. It is possible that the case on which the inquest was recently held was one of this abnormal class.

DEFECTIVE SUPERVISION IN SCHOOLS.

ANOTHER very painful case of death in a schoolboy is reported from Darlington. The very temperate statement of the father of the little boy is given as follows by the *Leeds Mercury*:—

"Mr. David Davison, of Lieben Lodge, Darlington, father of the deceased, was examined, and stated that his son was a healthy boy, and had never been seriously ill previously in his life. On the 23rd ult. deceased came home and said he had been ill-treated by the boys of the fifth and sixth forms, who were from fifteen to seventeen years of age, while his boy was ten years of age. He could not sleep, and complained of his knee being lame and being unable to kneel. He went to school, however, on the 24th, and returned at noon in an exhausted state, complaining of pain in his right leg. He called in Dr. M'Carthy and Dr. Gibb, of Newcastle, but the boy lingered, and died on May 7th. He said that the boys had pulled him down and dragged him about. He said they had done so every day, inside and outside school, wherever they had a chance."

Dr. M'Carthy testified to the existence of inflammation in the knee, and of inflammatory fever. He considered them due to such injuries as the boy described to him and Dr. Gibb as having been suffered. The medical witness was interrupted in giving evidence as to the boy's account of what happened. And the coroner seems to have supported the objection made by a solicitor representing one of the boys of the school. The verdict of the jury was as follows: "They were unanimously of opinion that death was caused by accident, but there was not sufficient evidence to show how." They added that they thought a little more guardian-

ship might be exercised over the boys out of school, though they did not by this convey an imputation against any person. We shall be deeply disappointed if this inadequate verdict is to end the inquiry into this case.

THE INFLUENCE OF SEA-VOYAGING UPON THE GENITO-UTERINE FUNCTIONS.

DR. IRWIN of New York, who has had much experience as a ship-surgeon, finds from observations on 451 women that sea-voyages have very marked influences on the uterine functions, producing emmenagogue and rarely the contrary effects; but amenorrhœa often follows landing after a voyage. Habitual discomforts in menstruation are aggravated, and dysmenorrhœa is the commonest complaint, next to sea-sickness, for which the ship-surgeon is consulted. A sea-voyage is also said to produce aphrodisiac effects on both sexes, but the author thinks that high living, idleness, and the close association of the sexes should be discounted in weighing this effect. Abortion and premature labour, when they occur, are probably due to sea-sickness. Besides acting as an emmenagogue, sea-voyages produce tonic, alterative, and sedative results, and are useful in chlorosis, retarded sexual maturity, uterine debility, sterility, and threatened phthisis.

A RUSSIAN MANUAL OF LARYNGOLOGY.

DR. W. N. NIKITIN has recently published a "Handbook of Laryngoscopy and Diseases of the Larynx" in Russian, the first book on the subject that has appeared in that language. He employs sponges for making applications to the larynx, though he adds that dossils of cotton-wool are more convenient, but, apparently, is prevented from using them by his fear of their becoming detached and falling into the trachea. He uses the term "croup" in an anatomical sense, and speaks of croup of the pharynx, and, according to the *St. Petersburg. Med. Woch.*, a confusion of terms is thus produced which is to be regretted. The same paper thinks that the author would have done more service for Russian medicine if he had translated one of the numerous valuable manuals which already exist in other languages than by his own original work.

A MEDICAL MAN CENSURED.

AT an inquest recently held at the Royal South Hants Infirmary, Southampton, touching the death of a boy named John Arnold, aged thirteen, a very important question arose as to the duties of a charity medical officer. It appears that the deceased injured his finger in a chaffcutter on Thursday, April 2nd, and that on the same day he was seen by Mr. Hutchinson, who advised as to the treatment and ordered the patient to come to him again on the following Saturday. By that time the wound was found to have taken on unhealthy action, which in the course of two days developed into gangrene of the little finger, calling for amputation. Mr. Hutchinson very wisely declined to administer an anæsthetic and perform the operation himself; and, as his partner was ill, he determined to send the case to the infirmary. After the removal of the finger matters went on satisfactorily for a week, but at the end of that time tetanus supervened, and from this complication death ensued six days later. Mr. Matthey, assistant-surgeon to the infirmary, deposed that "if the finger had been amputated earlier a source of irritation would have been removed, and the lad would have had a better chance." This may or may not have been the event, but Mr. Matthey's opinion seems to have been based on the assumption that tetanus is due to irritation of the nerves in a wound, whereas the balance of evidence strongly supports the rival theory of blood infection. No doubt when gangrene has developed and its probable extent is indicated, the sooner the necrosed part is removed the better. At the same time it must be admitted out of simple justice to Mr. Hutchinson that he acted with reasonable discretion in waiting as he did before condemning the injured finger, considering the great vascularity of the parts and the high reparative power of the tissues in youth. It is very easy to find fault with a line of treatment that has failed, and to censure a medical man who has had the misfortune to lose his patient. In Mr. Hutchinson's case, however, we see neither carelessness nor wilful neglect of duty. A slight error of judgment there may have been; but surely this scarcely warranted the rider to the verdict of the jury that "Mr. Hutchinson was censurable in sending the case to the infirmary before first trying to obtain some local medical man to assist him in the operation which required to be performed." Had the patient died whilst under that gentleman's care, it is just possible that blame might have been imputed to the doctor for not availing himself of the resources which a hospital affords. The case is an interesting one, and, we doubt not, will be instructive to medical men holding union appointments.

SURGERY AND ROSE-COLOURED URINARY PIGMENTS.

THE urine of patients who have sustained injuries, or who have been submitted to surgical operations, sometimes exhibits a rose-coloured deposit which adheres to the glass vase, can be easily recognised with the naked eye, and is composed of a peculiar material. M. Verneuil is the author of the above statement (*La France Médicale* of May 2nd). This phenomenon accompanies the concentrated urine which follows injuries. It shows itself soon after the accident, is transient, and lasts from one to three days. It is related in some way to disease of the liver, and is especially liable to appear in the urine of alcoholic subjects. The subjects of this rose-coloured deposit are prone to secondary hæmorrhage and gangrene after traumatism. The strain in which M. Verneuil writes is one of novelty. We cannot believe that the "acid rosacique" to which he draws attention is an altogether unfamiliar object. Unless we are greatly in error, there should be nothing novel in the appearance of rose-coloured deposits in the urine of patients the subjects of hepatic disease, even in the absence of injury. Of the nature of the pigment we have yet to learn a great deal. The fact that hepatic disease is a serious complication of wounds has long been recognised. That rose-coloured urinary deposits specially indicate a tendency to secondary hæmorrhage and gangrene of wounds is a proposition which has probably not been hitherto distinctly formulated. We do not altogether fall in with the interpretation of the doctrines that M. Verneuil has brought forward, but we are convinced that the subject is one which will repay renewed attention.

NOT COCAINE.

COCAINE, the wonderful medicament which anæsthetises mucous membranes, and has simplified many minor operations on the eye, is very costly. Hence we must not be surprised to hear that, in Paris at all events, the manufacturers endeavour to obtain as much of the alkaloid as possible by submitting the coca leaves to a second process of exhaustion. The result is very similar to that which follows attempts to make a second infusion out of already exhausted tea leaves. Certain substances are extracted which are not cocaine, but have nevertheless a remarkable effect on the pupil, causing it to dilate in a marked manner. These substances are derivatives of hygrine, most of which are mydriatics. Eserine is not an efficient

antagonist to atropine, but it is to these derivatives of hygrine. Our readers may have observed that different observers have made different statements with regard to the action of cocaine on the pupil. Some have asserted that cocaine has a powerful mydriatic effect, which others have not noticed. The explanation appears to be rendered patent by the above-mentioned facts.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

THE quarterly meeting of the Medico-Psychological Association was held on May 8th, at Bethlem Hospital, Dr. Rayner, President, in the chair. There was a very numerous attendance of members, and the provisions of the new Lunacy Bill were discussed at some length, a very strong expression of opinion being elicited that the intervention of the magisterial authority (as provided in Clause 2) prior to the granting of an order for the treatment of a person of unsound mind, was undesirable, and would lead, if adopted, to delay in treatment, to attempts at evasion of the law, and other untoward results. It was, however, considered difficult to suggest any officials for carrying out the proposed provision other than those indicated in the Bill, but it was urged that the power of those authorities should be purely "ministerial," and that when any doubt arose on medical questions they should only have power to direct a further medical examination. It was reported that these and other points, including the desirability of protection to medical persons signing certificates of insanity, and more extensive provision for secrecy in examination, had been already brought under the notice of the Lord Chancellor by a deputation to his office. A committee was appointed to draw up a suitable resolution to be presented to the annual meeting, in the event of Lord Shaftesbury's resignation of the chairmanship of the Lunacy Commission being confirmed.

HOSPITAL SATURDAY IN BIRMINGHAM.

THE amount contributed to this fund up to the time of going to press was £5860 8*s.* 0*d.*, as against the total of £5410 5*s.* 7*d.* last year. It is expected that when the lists are complete, over £6000 will be realised, the largest amount since the institution of the movement, over thirteen years ago. No less than £489 2*s.* 2*d.* has been contributed by the operatives in three firms, whose names deserve special mention:—Kynoch's, £245 5*s.* 6*d.*; Nettlefold's, £139 2*s.* 8*d.*; Tangye's, £104 14*s.* The employées in the first (cartridge works) are chiefly females, while the third amount only partially represents what Tangye's engineering works have done for their local charities. They have additionally expended £124 16*s.* in the purchase of hospital tickets.

SYPHILIS IN RUSSIA.

HERZENSTEIN has brought out the first part of his work on Medical Geography and Statistics in Russia. This deals with Syphilis. He complains that many of the official statistical records are evidently of little value for scientific purposes; for example, the cases of syphilis in the Wilna government in 1877 were returned as 211 in hospital and 29 in private practice. In 1878 not a single syphilitic recruit was found in Livonia; and in the two years 1879 and 1880, of sixty-three recruits, only one was reported as syphilitic. In 1871, 275,761 working men were examined, and only 194 were found affected—numbers which are all of them obviously too low. He has made use of the best sources of information open to him, and has come to the conclusion that 2,000,000, or 2 per cent., of the inhabitants of Russia are syphilitic, and that of the 13,000,000 families it contains some 700,000 are tainted. The way in which the disease is spread is by peasants, who, leaving the country for the large towns in order either to work in factories or for military service, contract the disease, carrying it back to their villages when they return—whole families thus becoming affected.

NEGLECTED NUISANCES AND TYPHOID.

IF any point in the history of typhoid fever may be held to be established, it is the constant and essential relation which exists between that disease and the presence of sewage impurities. We cannot therefore but strongly condemn the blind neglect of cleanliness in a case which affords us the latest recorded illustration of this truth. The circumstances were the following: An inspector of nuisances at Darlaston was required by the Local Board of Health, at the instance of the medical officer of the Board, to clear away an accumulation of sewage matter at the back of a house in which there were four cases of typhoid fever. The medical officer and the Board in so doing were of course only taking the first essential step in the treatment of disease, the removal of its cause. The inspector, however, had other views. He saw no need for interference, and left matters as they were. Under such conditions no remedies could be expected to effect their purpose, and we are not surprised to learn that out of four persons attacked by the disease three died, an unusually high mortality for enteric fever. It must be evident to all that the censure which this official justly incurred at the hands of his employers is but a light one, unless it implies an assurance that like offences will be prevented in the future.

THE EDINBURGH GRADUATES' CLUB.

THE members of this Club assembled in great force on Wednesday evening at the Holborn Restaurant, under the genial presidency of the distinguished Rector, Sir Stafford Northcote. There were nearly one hundred members present. The Rector was supported on the right by Field Marshall Lord Strathnairn, and on the left by the new Principal of the University, Sir William Muir. There were also present the Lord Provost of Edinburgh, Sir Charles Nicholson, Professor Geikie, Professor Mackie, Dr. Haldane, and Professor Flower.

THE PNEUMONIA COCCUS.

L. BRIEGER has examined the coccus described by Friedländer as the excitant of the croupous form of pneumonia. It was cultivated with success in solutions of grape and cane sugar neutralised with lime, and containing fibrin and nutrient salts. The cultures, even after two months, when injected into the breasts of mice and guinea-pigs produced distinct pleuritic symptoms. The guinea-pigs resisted the effects strongly, few of them dying; their exudations contained cocci and minute rods in their characteristic capsules. There is nothing in the chemical constitution of the cocci to account for their virulent character. The author tried to produce ptomaines from pure cultures, but without success.

SOAP IN BLOOD.

F. HOPPE-SEYLER, in the *Zeit. Physiol. Chem.*, states that a soda soap exists in the serum of blood and of chyle, and that it may be obtained by precipitation with alcohol and subsequent evaporation at a low temperature. Blood serum of the ox, horse, and dog contains 0·05 to 0·12 per cent. of the fatty acids of soap; human chyle 0·23 per cent. of soap and 0·723 of fat. Blood serum in a case of pneumonia contained 0·662 fatty acids of soap. The origin of soap in these fluids has not as yet been accounted for.

NITRITE OF AMYL IN SOUTH-AMERICAN INTERMITTENT FEVERS.

IN a paper on nitrite of amyl in *El Ensayo Médico* of Caracas, Don José Gomez Rosende says that in intermittent fevers, if administered in the first stage, it certainly stops the cold stage, and that when the hot stage comes on, followed by sweating, it brings the pyrexia to an end. It is, however, by no means to be looked upon as a specific or as a substitute for quinine, though it has the power of controlling the most distressing symptoms of these fevers.

THE TEETH IN MORPHIOMANIA.

As the result of a careful investigation, M. Combes has arrived at the conclusion that the chronic ingestion of morphia leads to rapid decay of the teeth. The disease appears first in the enamel of the teeth, and the large molars are the first to be affected; the small molars are next diseased; then the incisors suffer, and last of all the canines. As the enamel is insensitive, and as there is no periostitis, the disease makes rapid progress without causing much pain. The effect of morphia on the sensory nerves should also be borne in mind. The hair falls off at the same time that the teeth decay in morphiomaniacs.

THE SANITARY CONFERENCE.

FRANCE will be represented at the International Sanitary Conference at Rome by Drs. Brouardel, Proust, and Rochard; and Abbate Pasha, an Italian physician on the Khedive's staff, has been selected to represent the Egyptian Government.

SIR WILLIAM JENNER.

WE are happy to announce that Sir William Jenner has quite recovered from his attack, and has gone to the seaside for a fortnight.

DESPATCHES from Sawakin announce that at the H Redoubt there are now in hospital 169 non-commissioned officers and men. The total number of deaths have been 13. Up to the 6th inst. there had been 83 cases of dysentery and 27 of enteric fever admitted. At the auxiliary hospital on Quarantine Island Surgeon Major Corry had on the 6th inst. 97 non-commissioned officers and men, 18 of whom were suffering from dysentery and diarrhœa and 12 from fevers. The hospital consists of four well-ventilated wooden huts with a capacity for 100 beds.

DR. G. H. R. DABBS, medical officer of health for Shanklin, Isle of Wight, has, in his report for 1884, expressed his willingness to advise, unofficially, local builders on any points connected with sanitary arrangements of new houses or the alterations of existing systems. Dr. Dabbs' example in this respect might, we think, be usefully followed in other districts.

THE Royal Academy of Medicine of Rome has addressed a letter of thanks to Prince Alexander Torlonia for his munificent present to the city of a surgical amphitheatre and thirty beds, completely equipped. Professor Mazzoni, lately deceased, was the Prince's adviser in the erection of the institution, which is specially devoted to major surgery.

THE International Board of Health in Constantinople has, with a view to obviate the dangers of infectious disease in case of the outbreak of war, telegraphed to Dr. Jablonowski, who has been commissioned to study the plague on the Persian frontier, to remain there, and if necessary to take the requisite sanitary measures.

SKATOLECARBOXYLIC ACID is said by E. Salkowski, in the *Zeit. Physiol. Chem.*, to form a regular constituent of urine in cases of peritonitis and inflammation of the ileum, and that when present it can be detected with great ease.

THE congress of the French Association for the Advancement of Science will this year be held at Grenoble, the opening of which will take place on the 13th of August next, under the presidency of Professor Verneuil.

DR. SACHARJIN, Professor in the Therapeutical Clinic at Moscow, has given 1200 roubles out of the yearly proceeds of his post to the administrative authority of the university, to be applied to the assistance of poor students.

DR. LEGOUEST, Inspector-General of Military Hospitals, has been placed on the retired list, and is succeeded by Dr. Didiot, Inspector-General attached to the Medical Department of the offices of the Minister of War.

PROFESSOR HYRTL, who from 1847 to 1874 occupied the chair of Anatomy at the University of Vienna, celebrated on March 24th the fiftieth anniversary of his graduation as Doctor of Medicine.

THE Rajah of Sarawak has appointed C. G. R. Storie, M.B., C.M., to be Principal Medical Officer to the Sarawak Government, in place of Dr. E. P. Houghton, retired.

THE Prince of Wales has been pleased to appoint John Lowe, M.D., late of King's Lynn, to be an Honorary Physician to His Royal Highness.

DR. MÜNCH, Professor of Pathological Anatomy in Kieff, has gone to Tashkent, Khiva, and Kokhand for the purpose of studying leprosy.

CHOLERA is stated to have broken out in Rangoon, and the daily return shows an increasing number of deaths.

DR. BURNEY YEO has been appointed Professor of Clinical Therapeutics in King's College, London.

THE eleventh congress of the Italian Medical Association is to be held in Perugia next November.

CHOLERA CONFERENCE AT BERLIN.

IT will be remembered that in July last a conference on cholera was held at Berlin, under the presidency of Professor Virchow, which was opened by an address by Dr. Koch upon his researches in India and Egypt, and was occupied with the discussion of most of the important questions concerning the origin and dissemination of the disease. At the close of the session it was resolved to assemble again in the present year, and last week the meetings were held.[1] In addition to those who took part in the previous conference there were present Herr Kochler, the Director of the Imperial Board of Health, Dr. v. Pettenkofer of Munich, and Dr. Günther of Dresden. The proceedings opened on the 4th inst., the first point for discussion being the experience obtained since the last session upon the cholera bacteria, with especial reference to their durability.

Professor KOCH, who opened the discussion, referred at

[1] See Deutsche Med. Wochenschrift, May 7th, 1885, and Berliner Klinische Wochenschrift, May 11th, 1885.

first to the accounts published since the last conference. He criticised the statements of Finkler and Prior, Klein and Emmerich, and reaffirmed the fact that the comma bacillus was peculiar to cholera, and was never absent from it. As confirmatory of this, he described the results of his examinations of cover-glass preparations of choleraic intestinal contents sent to him from Calcutta, and showed that the cultures of the comma bacillus obtained from France, Italy, and Germany were absolutely identical. He considered it proved that the comma bacillus occurs exclusively in cholera, that it is readily distinguished from other bacteria, and therefore of diagnostic value. He has performed a large number of experiments upon guinea-pigs, which were given five cubic centimetres of a 5 per cent. soda solution, followed in twenty minutes by an injection into the stomach of ten cubic centimetres of broth containing comma bacilli; laudanum was injected into the abdominal cavity immediately afterwards; the animals remained narcotised for about an hour, and then completely recovered. On the following day they appeared ill, their coats became rough, they became very feeble, and died in from one to three days. The small intestine was found to be swollen, and, together with the stomach and cæcum, was filled with an alkaline, colourless, flaky fluid, which contained a pure culture of comma bacilli. The use of the soda solution and opium had been found to render the animals more susceptible to the pathogenic action of bacteria generally; and the same experiments, although in smaller degrees, succeeded with Finkler's and Denecke's bacillus. But in these latter experiments other phenomena were present—e.g., the Finkler bacillus caused putrefaction, as the odour of the intestinal contents proved. It was found that the administration of large doses of calomel or the use of naphthaline prolonged the life of the inoculated animal for about a day. The comma bacillus is readily destroyed by drying, and by certain disinfectant agents—e.g., carbolic acid in a half per cent. solution. That the human being could be infected was proved by one of the 150 medical men who attended the course at the Hygienic Institute becoming attacked with cholerine. Comma bacilli were found in the dejecta from this case, and pure cultivations were made. Experiments were also made to determine the durability of the comma bacillus in various media; this was found to be thirty days in spring water, seven days in drain water, twenty-four hours in sewer contents, three to four days on damp linen, eighty-one days in the harbour water of Marseilles (Nicati and Rietsch), and 144 days on agar-agar. A permanent form resembling the spores of other bacteria could not be ascertained.

Professor von PETTENKOFER said that he was not convinced; the experiments on animals were very insufficient, and better results had been obtained by Emmerich, who had brought cultures of bacilli to Munich from Naples. The mode of inoculation upon guinea-pigs practised by Koch did not explain how human beings were infected by cholera. He was unable to regard the comma bacillus as the causal agent of cholera, but considered it far more probable that certain conditions were induced by cholera favourable to the development of the comma bacillus. It was a straining of epidemiological experience to regard the comma bacillus as the cause of cholera; for whereas the bacillus is destroyed by dryness, the dry season in Lower Bengal favours cholera. Then the comma bacilli were present only in the intestine, and not in the organs; and it had to be supposed that they caused the production of a powerful poison in the cholera intestine, which has so little power of absorption. Such, however, could not be proved in the experiments conducted at Munich. Cholera does not seem to be a combination of infection and intoxication, but a purely infective disease. The future must decide whether Emmerich's rods are the actual excitants; they are found in organs, as cultivations proved, although not detectible in microscopical sections. Animals infected with them died with vomiting and diarrhœa, as in cholera. But whatever the verdict as to the bacilli, there must first be established a conformity with epidemiological facts. If cholera patients are not directly infected, then the cholera fungus can have no share in inducing the disease; and if cholera is dependent upon conditions of locality and season, then also a cholera fungus cannot determine it.

Dr. B. FÜNKEL mentioned that the only bacterium of the intestine which had a morphological similarity to the comma bacillus was a comma-shaped vibrio occurring in the mouth. Like many others, he had attempted to cultivate this organism, which Dr. Koch had shown at the second sitting of the previous conference, and he could positively affirm that it does not grow in gelatine media.

Professor KOCH, replying to Professor Pettenkofer's arguments, pointed out that the methods employed by Emmerich were open to objection and to error. There was no analogous instance whatever of a bacillus being secondary to a disease with which it was solely associated. The dry season in Calcutta does not make the town dry, but diminishes the rich water-supply of the place. Opposed to the failures at Munich to obtain a poison from pure cultures of the comma bacillus were experiments (not yet concluded) which he was making, giving positive results. Cholera was never, like anthrax and small-pox, disseminated by dry conditions, and experience was opposed to there being a permanent state of the bacillus.

The debate was resumed on the following day (May 5th) by Professor von PETTENKOFER, who pointed out that many facts were unexplained by the doctrine that the comma bacillus or Emmerich's bacillus was the cause of cholera—e.g., the latency of an epidemic during winter, its recurrence and its acknowledged dependence on time and place. He compared cholera to malaria, which, although communicable by inoculation, still depends upon conditions of soil. A distinction should be made between artificial and natural infection, for it cannot be thought that an epidemic occurs in the same manner as experimental infection.

Professor VIRCHOW said that experiments upon animals were not absolutely necessary. The animals infected by Emmerich's fungus showed phenomena which were readily mistaken for those of cholera, but many substances could excite similar symptoms. Thus, in 1847 he had produced choleriform symptoms and lesions in dogs by the injection of putrid material into the blood; and he was therefore led to compare cholera with putrid infection, not however considering them to be identical. In Koch's experiments the opium may have prevented diarrhœa and vomiting, and therefore the experiments were in a sense defective, and would have to be repeated. Emmerich, by cultivating his bacilli in blood from a living vein may have obtained an accidental form. The constant occurrence of Koch's bacillus in the intestine, the special seat of cholera, was in favour of his view. The gastric secretion is not invariably acid, and therefore dyspeptic conditions might render a previous preparation of the animals superfluous. In these diseases—as muscardine or the potato disease, the fungoid nature of which had long been known—it was still a question why an epidemic arises and why it disappears. In spite of the knowledge gained respecting morbific fungi, but little progress had been made in explaining the cause of epidemics. Although the comma bacillus had no permanent form, yet it had a certain duration of life, for Dr. Babes had found cultures to retain their viability at the end of six months, and had procured a specially large form of vegetation composed of broad, longitudinally striated spirilla that was very durable; it was produced by exposure to low temperatures, but could readily develop into short comma-shaped forms. But the form of the bacillus varies with varying external conditions. The vesicular forms of Ferran, described as evolved from the spirilla, are degenerate and sterile. The prolongation of epidemics from year to year is sufficiently explained by the duration of life of the bacillus; and in other directions the discovery of this organism was a positive gain to knowledge. It was not opposed to former experience, especially that derived from the meritorious labours of von Pettenkofer; but too profound a penetration into theoretical speculations must be avoided.

Professor HIRSCH remarked that epidemiological inquiry was at least of as much importance as bacteriology in reference to the course of epidemics and to prophylaxis.

Drs. KOCH, PISTOR, von PETTENKOFER, and VIRCHOW made some further observations on the point; and the Conference next discussed the question of the spread of cholera by human intercourse, pilgrimages, and by ships. This was opened by Professor Koch, who instanced the spread of cholera in India by pilgrimages, gave examples of ship epidemics of long duration, and showed how unreliable were the accounts given by sailors.

Professor von PETTENKOFER assigned little importance to pilgrimages and railway intercourse, and urged caution in accepting statements of the transmission of cholera by travellers. At this point the debate was adjourned, a demonstration being given of guinea-pigs (living and dead) infected with comma bacilli.

At the third sitting on May 6th, the debate on the second point was resumed, together with that on the third—viz., the influence of soil, air, and water.

Dr. GÜNTHER of Dresden adduced evidence from Saxony to show that human intercourse does not suffice to disseminate cholera at all times and under all circumstances, but that a seasonal and local disposition is necessary for the occurrence of an epidemic.

Professor HIRSCH remarked that human intercourse did not invariably determine the spread of cholera, but that cholera is always spread through human intercourse.

Professor KOCH, alluding to the demonstration of the previous day, said that of fourteen guinea-pigs inoculated on the 4th inst. only two had survived, and suggested that, as with other plants, the cholera fungus may find temporarily conditions favourable to its existence, afterwards perishing for lack of these conditions. He cited instances in proof of an acquired immunity against cholera, and of its spread by pilgrims, travellers, and troops. Proof of such dissemination could not be expected in all instances, but we must be content to establish it indubitably in certain cases. The fact was of the highest importance in view of the prophylactic measures to be taken by authorities. The long duration of cholera on shipboard could not be explained by regarding the soil as the sole condition of its origin, but could be accounted for on the view of transmission from man to man, for the incubation period of cholera is very short.

Dr. GÜNTHER said that the incubation period usually lasted for four days, but he knew of cases where it was from ten to seventeen days.

Dr. MEHLHAUSEN cited instances of the spread of cholera by troops, and Drs. EULENBERG and HIRSCH gave similar examples of its spread by rafts.

Professor von PETTENKOFER did not deny the fact of an acquired personal immunity after an attack, but asserted that it was the local immunity which determined the occurrence of an epidemic. The disposition of a locality for epidemics consists in part of local constant conditions, in part of local transitory (seasonal) factors. He by no means denied the influence of human intercourse in the spread of cholera; but this alone does not suffice to evoke an epidemic. Local and seasonal influences must determine this. He did not know how the infective germ gets on board ship; but the mere shipment of a patient is not sufficient to cause the disease to spread.

Professor VIRCHOW said that the supporters of the contagionist doctrine did not admit that direct transference from man to man must of necessity occur; that is proved by infection through cholera linen, still more by the pure cultures, in which the development and sustenance of cholera germs take place outside the human body. But just as certainly did these cultures show that it is not in the earth where these germs are able to thrive. Up to the present not a single case was known where the existence of cholera germs in the soil had been proved. He would not deny the possibility, but he disputed the exclusiveness of the soil theory. Experiment and observation of separate cases yield more certain conclusions than whole epidemics, which were only considered on a large scale. He had personal knowledge of the transference of cholera from man to man in 1871, and had published a conclusive observation in his collected works. In a prison, which at the time was free from cholera, three men were attacked who had charge of a case of cholera which had been admitted. Cholera was transmitted on board ship which had nothing to do with the soil—e.g., the Stetten Transatlantic steamer *Franklin*. Although no doubt can exist that the spread of cholera is not dependent on a poison or germs arising from the soil, still, what is as yet known of the history of the comma bacillus does not exclude the possibility of its developing and thriving in the soil under certain conditions. He, therefore, saw no difficulty in agreeing with Professor von Pettenkofer provided that he abandoned his exclusive standpoint.

Professor von PETTENKOFER said that originally he accepted contagion as the chief factor, but observation of the varying behaviour of cholera, according to locality and period, obliged him to lay especial stress on the chronological and local factors.

Dr. MEHLHAUSEN related an undoubted instance of communicability of cholera from person to person observed in Thorn in 1873.

(To be continued.)

THE ANCIENT AND MODERN METHODS OF TREATING EPIDEMICS OF SMALL-POX IN INDIA.

SURGEON-MAJOR ROBERT PRINGLE, M.D., read a paper on the above subject at the rooms of the Society of Arts on May 8th. He drew attention to the ancient method of treating epidemics of small-pox in India, which was that of inoculation, while the modern, as was to be expected, was Jenner's great discovery of vaccination. The details given by Dr. Pringle of the practice of inoculation in India were the result of continuous personal observation during the past twenty years, in the independent native State of Tirri Ghurwâl, in the Himalayas. Here it would appear that inoculation had been practised from, what might be termed, time immemorial. After giving the details of the operation, Dr. Pringle entered into full particulars of the benefits of this practice. These he described as visible benefits, and compared them with the effects of spontaneous small-pox in the plains at the foot of the Himalayas, where no inoculation was practised, and before vaccination could have made any impression on the adult population. In accounting for the remarkable difference between the visible effects of spontaneous small-pox, as met with in the plains of Hindoostan, and those seen in the cases of inoculated small-pox in the Himalayas, Dr. Pringle remarked that, in his opinion, it would seem to be due, on the part of the inoculators, to what he termed accidental cultivation of the product of the spontaneous small-pox eruption, to a considerable extent on the lines of M. Pasteur's recent discoveries. The process of this accidental small-pox cultivation consisted in the lymph being carried on through many transmissions till the cultivated product resembled in its action cow-pox lymph, and only produced local symptoms at the point of insertion, or else, so rarely a small-pox eruption, as to make its appearance quite exceptional—thus corresponding in a remarkable manner with the common and destructive outbreaks of sheep-pox and the rare and mild cases of cow-pox. In 1864 Dr. Pringle inaugurated the present system of voluntary vaccination in the Mesopotamia of the Ganges and Jumna, from fifty miles above their junction at Allahabad to their sources in the Himalayas. In alluding to this modern prophylactic for small-pox, he confined his remarks to the points in which the practice of vaccination differs in India from that carried on in this country. These he summed up under the head of climatic causes, which, owing to the high temperature met with in the plains of Hindoostan from April to October, limited the practice of vaccination to the cold weather months—viz., from the middle of October to the middle of March. Thus, out of the twelve months, there were only five in which vaccination could be practised; and this led him to describe the means he adopted to keep up the supply of vaccine lymph in the Himalayas, in what he termed "lymph nurseries." Latterly, by retrovaccinating—i.e., vaccinating a calf and taking the lymph from the eruption—Dr. Pringle has succeeded in making his sanitary circle, with its population of ten millions, and other circles of similar extent, independent of any supplies from the National Vaccine Establishment. In comparing the two prophylactic measures, Dr. Pringle pointed out that, while the practice of inoculation no doubt kept up the disease of small-pox, and was dependent on its presence for the virus required for the operation, yet, even imperfectly as it was carried on, it was nevertheless a very great boon to the population, as it could be practised throughout the year. In the practice of inoculation, he said, the repetition of the operation at any future period of life was never thought of, and in this, according to the generally, and indeed latest, received view of vaccination, it was, in his opinion, far superior to vaccination in countries like India. As regards revaccination, Dr. Pringle said had he considered revaccination necessary, he would never have spent twenty years of his life in a continuous effort to supplant inoculation without a repetition of the operation, with vaccination *plus* revaccination after a given number of years. In India at least, and most certainly not in his circle, with its ten millions, where, with two hundred operators working at nothing else but vaccination for five months, he could not reach half the annual birth-rate. He therefore discouraged revaccination in his circle, and made quality the basis of his work and not quantity, explaining

to his subordinates that if the former imparted the immunity claimed for it this result would quickly be followed by the latter. In concluding, Dr. Pringle illustrated the absolute necessity of carefully supervising any system of vaccination, both as regards the veracity of the returns submitted and the quality of the work, with reference to the knowledge and skill of the operators. In 1863 the vaccination in the second circle in the North-West Provinces was held up as a pattern to India, and yet within twenty years this system in the circle is stigmatised in a public document as a "wholesale fabrication of returns," while that in the first circle in the same report was stated to be such that the magistrate of a large district placed the following on record:—"I regret to record my conviction that these numbers are a wholesale imposition." Yet in twenty years Dr. Pringle's vaccination in this first circle, on the principle of quality, not quantity, was such that it was publicly commended by the Government in 1883, and a Mahomedan gentleman of influence, as the result of the benefits exhibited by this mode of work in his own district, with a population of over one million, brought into and carried through the Council of the Viceroy a Bill for compulsory vaccination in certain localities and under certain conditions. Dr. Pringle from the preceding aimed at showing that the cause of the failure of a system of vaccination, if carefully and fearlessly inquired into, will be found to lie, not in any imaginary deterioration in the vaccine virus, when proper care is taken, nor yet in a diminution in the protective power of really good vaccination by the lapse of years, or in the neglect of revaccination; but to what the Government of the North-West Provinces recorded in 1883, in the case of the second sanitary circle, as *the inexcusable negligence of the supervising officials*, and in many other cases no doubt to the ignorance of the operators and the employment of stored lymph (for which no one seems to be directly responsible), imparting a false protection, the result of a spurious vaccination.

THE INTERNATIONAL SANITARY CONFERENCE.

THE Roman papers announce that the Italian Government abstained from drawing up a formal programme for the Sanitary Conference which assembles in Rome to-day (15th inst.), acting on the precedent of the Constantinople Conference, which entrusted a committee selected from among its own members with the task of framing the programme of its labours. However, Signor Mancini, Minister of Foreign Affairs, in a recent circular to the Powers to be represented at the Conference, formulated a summary of the intentions of the Italian Government as to the Conference in question. According to this circular, the Conference is designed to have a twofold purpose—the one technico-scientific, the other diplomatico-administrative. The Roman Conference would be able to examine the findings of the preceding sanitary conferences, notably that of Vienna, in order to see what conclusions are worth maintaining, what are to be modified, what to be suppressed. As for the diplomatico-administrative part, the Conference, examining the question of the preventive measures which may be adopted with due regard to the interests of commerce, and to the freedom of inter-communication, would have to fix the basis of an international accord, which should be acceptable to all the Governments, for extinguishing contagious diseases, while laying down rules, based on uniform principles, as well for quarantine as for any other system of protection. It is understood, however, that the treatment of the negotiations already in progress as to the composition and attributes of the Sanitary Council in Egypt must be reserved and kept separate, the Conference having it in its power to avail itself at an opportune time of the conclusions of that particular transaction. Finally, the Conference might be able to define practical rules for the immediate application of the international system of sanitary directions counselled by the Washington Conference, as well as the mode of establishing in convenient localities an official agency for arriving at accurate sanitary information, and transmitting the same to the Governments forming part of an International Sanitary Union to be constituted according to the attributes and criteria which the Conference should determine. This, however, would have absolute freedom of initiation and of deliberation—in other words, complete liberty of action.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Leicester (Urban).—Dr. Johnson's report upon the health of this borough during 1884 is largely devoted to the consideration of the waste of infant life, which has so long been the prevailing feature of the vital statistics of this town, and which showed an exceptional excess last year. With regard to the present population of the borough, the medical officer is of opinion that the Registrar-General's estimate, based upon the hypothesis that the rate of increase since 1881 has been the same as that which prevailed during the last intercensal period, 1871-81, considerably exceeds the true number. It is pointed out, in support of this opinion, that the births recorded in recent years have shown no increase; indeed, the number in 1884 was somewhat below that in 1880. Dr. Ogle, of the Registrar-General's office, also showed, in a letter which Dr. Johnson prints in his report, that if the rate of increase of population in Leicester since 1881 has been the same as that of inhabited houses on the rate-book, the population in the middle of 1884 was 127,929, and nearly 5000 less than the estimate by the Registrar-General's usual method. Dr. Johnson, in his report, has adopted this lower estimate, which makes the death-rate in the borough last year 22·9, instead of 22·1 as reported by the Registrar-General. This rate shows an increase of 3·7 upon the low rate in 1883, but was slightly below the mean rate in the eight years 1875-82. It may be noted, however, that, while adopting a revised population for 1884, Dr. Johnson has not corrected his rates for recent years, and that the rates given for the five years 1875-79 in Tables I. and IV. differ widely. The death-rate in Leicester last year from the principal zymotic diseases was, according to the Registrar-General, 4·03 per 1000; but it is worthy of note that the mortality from each of these diseases was below the average rate in the twenty-eight towns, except that from diarrhœa, which was more than double the average rate. Dr. Johnson attributes the startling mortality from summer diarrhœa in Leicester to "introduction into the system, by means of air or in food, of living organic ferments derived from the putrefactive decomposition of animal refuse matter retained in many of the town sewers, and present also through soakage in the adjacent subsoil." Infant mortality in Leicester last year, measured by the number of deaths under one year to births registered, was equal to 233 per 1000, against a mean of 168 in the twenty-eight towns. This excess was only in part explained by the marked diarrhœa mortality, as the deaths referred to atrophy, debility, premature birth, and convulsions also showed a marked excess. No health report of a large town or community is complete which does not show the death-rates of males and females at five or more groups of ages, calculated upon the numbers living at the same ages. This information is especially necessary in the case of Leicester, and would help to throw light upon the causes of the high rate of infant mortality from which the town has suffered for so many years. No such information is, however, given in the report before us. Scarlet fever has been more or less fatally prevalent in Leicester during the last five years, and 63 deaths resulted from this cause last year, of which 16 occurred in the Fever Hospital. Dr. Johnson points out that without more general and ready use of the fever hospital accommodation provided by the sanitary authority, success in "clearing the town from this lingering pestilence" is unattainable. Bearing in mind the unsatisfactory condition of the subsoil, and the suggested connexion between this defect and the excessive mortality from diarrhœa, the fact that upwards of 1200 houses in the town still derive their water-supply from surface wells suggests a source of grave danger to the health of the town.

Lincoln Urban District.—A somewhat exhaustive report has been submitted to the Corporation by Dr. C. Harrison, medical officer of health and public analyst, respecting the water-supply of the city. The report sums up in a very clear manner the considerations which should influence a body having charge of the public health, and who supply to the population a water-supply derived from such a source as the river Witham. Dr. Harrison explains that the water after filtration as now supplied contains an excess of

organic matter, making it only a second-class water. The sources of the water are polluted by drainage from land highly cultivated and occasionally manured by nightsoil, and he asserts that water from such a source must be dangerous. There are filter beds capable of filtering more than a million gallons daily, but the conclusions arrived at are that the quantity available is not sufficient for the wants of the city, and that it is not advisable that the supply should be taken from the river. Putting aside the unfavourable chemical condition of the water, we certainly concur in Dr. Harrison's opinion that a river receiving drainage and effluent from a large town could not with any degree of safety be used for domestic purposes. Indeed, as he asserts, it is unwise and dangerous to take water from a source known to be polluted or liable to pollution, and then to trust to the purifying effects of filtration to render it safe for consumption.

Wolverhampton Urban District.—During 1884 small-pox became very prevalent in Wolverhampton, and it was found necessary to fit up a house known as Holly Hall as a temporary infectious hospital. Of a total of 37 vaccinated patients, 1 case terminated fatally; whereas of 6 unvaccinated, 4 died. Not a case was known to have occurred in any revaccinated person. The town also suffered severely from measles. So, also, 212 cases of scarlet fever were heard of, and Dr. Malet explains that the efforts to check the spread of this disease were most disheartening. It is a question, however, how far this may have been due to the circumstance that no proper means of isolation are provided for the borough, the sanitary authority still relying on the isolation wards of the General Infirmary for this purpose. Such an arrangement as this has nowhere been found to serve the purposes of a properly organised hospital with its accessories, established and maintained by the sanitary authority. Open middens and cesspits of the worst type still prevail in the borough; underground soft-water tanks, discharging their overflow without disconnexion into the drains, are almost universally resorted to; and in some parts the condition of houses, closets, and courts is such as to merit the term "beastly" in point of filth. A first step towards a remedy has, however, been taken in the investigation and exposure of this state of affairs, and it may be hoped that decided action will soon follow. The deaths included 5 from small-pox, 98 from measles, 37 from scarlet fever, 6 from diphtheria, 21 from non-spasmodic "croup," 12 from continued fever, and 140 from diarrhœa. The general death-rate was 22·2 per 1000.

Isle of Wight Rural District.—In submitting his first annual report on this district, Dr. Groves deals at some length in a description, topographical and geological, of the localities comprised within its area, and he then considers the character of the different water-supplies, especially from the geological point of view. Detailed observations of rainfall and temperature, together with an account of the climate of the island and of the features by which it is influenced, and other matters of extreme interest follow, before the usual sanitary report is commenced. The birth- and death-rates for 1884 were 27·5 and 13·6 per 1000 respectively, and the rate from the principal zymotic diseases was 1·2. Some voluntary notification of infectious diseases is made, and this has sufficed to show the great need of an isolation hospital for sanitary purposes. A cottage is suggested as sufficient to form a nucleus, but probably one of the special pavilions recently designed by the Local Government Board for small localities would better answer the purpose. Plans of these were recently submitted to the Epidemiological Society. The general sanitary circumstances of the rural district, as to water, closets, sewers, drains, piggeries, &c., are next entered into at some length, and it is evident that the island is by no means so free from real danger to health as its many visitors imagine. Rarely, we are told, are the most elementary precautions taken to protect the shallow wells; it is simply a matter of haphazard whether they become polluted or not. Polluted streams and brooks are also resorted to as water-supplies. When Dr. Ballard reported to the Local Government Board some years ago on the state of the island many grave sanitary defects were exposed, but we had hoped that they had before this been remedied. At that time the sanitary organisation was very defective, but it is now evident that, so far as the rural portion of the island is concerned, the authority does not lack a skilled and competent adviser, and we trust that his future reports will show that the sanitary defects he points out will have been removed.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5558 births and 3440 deaths were registered during the week ending the 9th inst. The annual death-rate in these towns, which had been equal to 23·4 and 21·1 per 1000 in the preceding two weeks, further declined last week to 20·2, and was lower than in any previous week of this year. During the first five weeks of the current quarter the death-rate in these towns averaged 22·6 per 1000, against 23·5, the mean rate in the corresponding periods of the nine years 1876-84. The lowest rates in these towns last week were 13·0 in Plymouth, 14·1 in Brighton, 15·2 in Bolton, and 15·3 in Hull. The rates in the other towns ranged upwards to 26·4 in Oldham, 26·4 in Blackburn, 28·6 in Preston, and 36·8 in Newcastle-upon-Tyne. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 529 and 449 in the preceding two weeks, were 481 last week; they included 181 from measles, 116 from whooping-cough, 36 from scarlet fever, 37 from "fever," (principally enteric), 33 from diphtheria, 30 from diarrhœa, and 48 from small-pox. No death from any of these principal zymotic diseases was returned last week in Brighton, whereas they caused the highest death-rates in Sunderland, Blackburn, and Newcastle-upon-Tyne. The greatest mortality from measles was recorded in Sunderland, Cardiff, and Newcastle-upon-Tyne; whooping-cough in Preston, Plymouth, and Blackburn; scarlet fever in Sunderland and Salford; and "fever" in Norwich. The 33 deaths from diphtheria in the twenty-eight towns included 24 in London, 3 in Liverpool, and 2 in Oldham. Small-pox caused 71 deaths in London and in its outer ring of suburban districts, 2 in Manchester, 1 in Liverpool, and 1 in Sunderland. The number of small-pox patients in the metropolitan asylum hospitals situated on and around London, which had been 1034 and 1282 on the preceding two Saturdays, further rose to 1361 at the end of last week; the admissions, which had been 246 and 354 in the previous two weeks, were 315 last week. The Highgate Small-pox Hospital contained 81 patients on Saturday last, 14 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had declined in the preceding four weeks from 512 to 337, further fell last week to 287, and were 75 below the corrected weekly average. The causes of 73, or 2·1 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Leicester, Newcastle-upon-Tyne, and in eleven other smaller towns. The largest proportions of uncertified deaths occurred in Liverpool, Salford, Oldham, and Bristol.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had steadily declined in the preceding five weeks from 25·0 to 22·4 per 1000, further fell to 20·6 in the week ending May 9th, and was but 0·4 above the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 12·9 and 15·7 in Leith and Dundee, to 23·7 in Paisley and 24·3 in Glasgow. The 504 deaths in the eight towns included 25 which were referred to whooping-cough, 13 to measles, 6 to diarrhœa, 5 to diphtheria, 3 to scarlet fever, 3 to "fever" (typhus, enteric, or simple), and not one to small-pox; in all, 55 deaths resulted from these principal zymotic diseases, against 81 and 64 in the preceding two weeks. These 55 deaths were equal to an annual rate of 2·3 per 1000, which was 0·5 below the mean rate from the same diseases in the twenty-eight English towns. The deaths from whooping-cough, which had been 30 and 27 in the previous two weeks, further declined to 25 last week, and included 12 in Glasgow and 6 in Edinburgh. The 13 fatal cases of measles also showed a further decline from recent weekly numbers; 11 occurred in Glasgow and 2 in Greenock. Five of the 6 deaths from diarrhœa, 3 of the 5 from diphtheria, and 2 of the 3 from scarlet fever were returned in Glasgow. The 3 deaths referred to "fever" were fewer than in any recent week; 2 occurred in Paisley and 1 in Dundee. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 131, 118, and 124 in the preceding three weeks,

declined to 117 last week, and were 5 below the number returned in the corresponding week of last year. The causes of 79, or 15 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 34·0 and 33·5 per 1000 in the preceding two weeks, further declined to 28·5 in the week ending the 9th inst. During the first five weeks of the current quarter the death-rate in the city averaged 32·4 per 1000, the mean rate during the same period not exceeding 21·3 in London and 18·7 in Edinburgh. The 193 deaths in Dublin last week showed a further decline of 34 from the high numbers in the previous two weeks; they included 12 which were referred to measles, 4 to whooping-cough, 2 to "fever" (typhus, enteric, or simple), 2 to diarrhœa, 1 to scarlet fever, 1 to "fever," and not one to small-pox. These 22 deaths from the principal zymotic diseases showed a decline of 18 from the number in the previous week, and were equal to an annual rate of 3·3 per 1000, the rate from the same diseases last week being 3·1 in London and 1·5 in Edinburgh. The fatal cases of scarlet fever in Dublin, which had been 15 and 17 in the previous two weeks, declined to 12 last week The deaths from scarlet fever, "fever," and diarrhœa also showed a considerable decline. Five inquest cases and 5 deaths from violence were registered last week, and 63, or nearly a third of the deaths, were recorded in public institutions. The deaths of infants showed a marked decline. The causes of 43, or more than 22 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

Deputy Surgeon-General George Stewart Watson Ogg, of the Madras Medical Department, principal medical officer of the Hyderabad Subsidiary Force, has been selected for the chief medical charge of the Quetta Field Force.

INDIA OFFICE.—The Queen has approved of the following promotions among the officers of the Staff Corps and Indian Military Forces made by the Government in India:—Deputy Surgeon-General Benjamin Simpson, M.D., of the Bengal Medical Establishment, Deputy Surgeon-General Michael Cudmore Furnell, M.D., of the Madras Medical Establishment, and Deputy Surgeon-General William James Moore, C.I.E., of the Bombay Medical Establishment, to be Surgeons-General. Brigade Surgeon John Brake, of the Bengal Medical Establishment, and Brigade Surgeon John McNeale Donnelly, M.D., of the Madras Medical Establishment, to be Deputy Surgeons-General. Surgeon-Major George Sackville Sutherland, M.D., and Surgeon-Major Emanuel Bonavia, M.D., of the Bengal Medical Establishment, Surgeon-Major William Frederick De Fabeck, M.D., of the Madras Medical Establishment, and Surgeon-Major Edward Harley Raynsford Langley, of the Bombay Medical Establishment, to be Brigade Surgeons.

ADMIRALTY.—The following appointments have been made:—Fleet Surgeon John Thomson Comerford, to the *President*, additional; Fleet Surgeon John S. Dobbyn, M.D., to the *Repulse;* Fleet Surgeon James W. Fisher, M.D., to the *Hercules;* Staff Surgeon Solomon Kellett, to the *Rupert:* Surgeon George W. Low, to the *Ganges;* Surgeon Thomas R. Pickthorne, to the *Excellent;* and Surgeon James C. Dow, to the *Pembroke.*

ARTILLERY VOLUNTEERS.—1st Renfrew and Dumbarton: Surgeon William Aitchison Wilson, M.D., is granted the honorary rank of Surgeon-Major; Acting Surgeon James Finlay, M.D., resigns his appointment; William Robert Sewell, Gent. M.D., to be Acting Surgeon.—1st East Riding of Yorkshire: Major William Henry Marwood resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Corps on his retirement; Thomas Tinley, Gent., to be Acting Surgeon.—1st Argyll and Bute: David Macneilage, Gent., to be Acting Surgeon.

RIFLE VOLUNTEERS.—3rd (the Buchan) Volunteer Battalion, the Gordon Highlanders: Acting Surgeon George Innes Fraser, M.D., resigns his appointment; Adam Blackhall, Gent., M.D., to be Acting Surgeon.—20th Lancashire (2nd Manchester): William Coates, Gent., to be Acting Surgeon.—1st Perthshire: William Haldane, Gent., M.D., to be Acting Surgeon.—1st Bedfordshire: Surgeon Charles Cyril Hicks, M.D., resigns his commission.—1st Cinque Ports: Honorary Assistant-Surgeon Charles Harris, M.D., resigns his commission; also is permitted to retain his rank and to continue to wear the uniform of the Corps on his retirement.—1st Elgin: George Hugh Mackay, Gent., M.B., to be Acting Surgeon.—2nd Volunteer Battalion, the Royal Welsh Fusiliers: Arthur Llewelyn Evans, Gent., to be Acting Surgeon.—2nd Volunteer Battalion, the Loyal North Lancashire Regiment: Surgeon John Grindall Brayton resigns his commission.—5th (Deeside Highland) Volunteer Battalion, the Gordon Highlanders: Acting Surgeon Hunter Urquhart Walker resigns his appointment.—7th Middlesex (London Scottish): George Ogilvie, Gent., M.B., to be Acting Surgeon.—2nd Volunteer Battalion, the East Yorkshire Regiment: Alexander Ferrier Angus Fairweather, Gent., M.A., M.D., to be Acting Surgeon.

Correspondence.

"Audi alteram partem."

THE TREATMENT OF SEPTICÆMIA BY IRON AND QUININE.

To the Editor of THE LANCET.

SIR,—In THE LANCET of Jan. 17th last there is the record of a case of septicæmia treated by ammonia and chlorate of potash. The following case I desire to place in contrast.

Mrs. H——, aged twenty-two, was confined on Oct. 15th, 1884, after a very protracted labour of two days' duration. It was her first child, and she was delivered with the forceps. All seemed to go on well until the third day, when the temperature was found to be rising. On the 19th high fever developed, and the discharges were very foul. My directions as regards thorough cleansing of the genitals and injections of Condy's fluid into the vagina (as is my practice after all cases of instrumental labour) had not been carried out. There was, it should be observed, a tear of the mucous membrane, about an inch in length, but not very deep, on the posterior wall of the vagina. The evening temperature was 104·8°. I injected Condy's fluid into the fundus, and gave a mixture of steel and quinine every two hours. On the 20th the morning temperature was 101·7°. The fluid was again injected into the fundus, and followed by the injection of carbolic oil (1 to 10). Linen cloths in small pieces, dipped into the oil, were applied to the tear in the vagina, and the external genitals washed thoroughly with carbolic soap by the nurse. I gave directions that the linen rags should be changed three times a day and that the soap should be used every eight hours. Injections were repeated in the evening. On the 21st the morning temperature was 101·9°; evening, 101·7°. The injections of Condy's fluid were continued, but the carbolic oil injection was not used any further. On the 22nd the temperature throughout the day was 100·5°; and the respiration 23. On the 23rd the temperature in the morning was 100·4° and the respiration 22. The medicine was now taken three times a day only. On the 24th the temperature had fallen to 100° in the evening, and the patient expressed a wish to get up, but was ordered to keep her bed for a day or two. On the 25th the temperature in the morning was 99·4°, and fell on the 26th to 98·4°. She was now allowed to get up and go downstairs.

In Mr. Coffin's case, although no doubt the infective material was of a much stronger nature than that developed in this, the recovery seems slow in comparison. The temperature, he states, for six days and a half was over 105°, for nine days over 103°, and for eleven days over 102°. My patient was cured in seven days, and my sole object in recording the case is to speak of my theory of the nature of such cases, and the consequent indications as regards treatment, the more especially as Mr. Coffin speaks with considerable reserve in reference to his case.

As regards local treatment, my practice is to purify with Condy's fluid the whole genital tract, and then to inject carbolic oil of the strength of 1 to 10 into the fundus, afterwards applying the same, or else vaseline and iodoform, to any tears in the mucous membrane. The oil I employ as an injection once or twice only, keeping afterwards solely to Condy's fluid in warm water twice a day until the temperature becomes normal, or nearly so. As to consti-

tutional remedies, I consider the arrest of all such septic processes in the blood to be perfectly feasible. Avoiding ammonia, which is a powerful agent for the prevention of the formation of fibrin, and is thus useful (as has been clearly proved) when given to the blood-giver in cases of transfusion, I prescribe astringents and hæmatinics, such as iron and hydrochloric acid, along with germicides, such as quinine and chlorate of potash.

I argue that in puerperal septicæmia we have a disease in which every effort of nature for the prevention of absorption of infective material should be fostered and encouraged. The clots in the maternal sinuses formed on the separation of the placenta may be regarded as the natural barrier to any external morbific influence. The preservation, therefore, of their integrity until they become organised and contracted should be of paramount importance. Hence the advisability of avoiding agents which tend to soften and disperse fibrinous deposits and formations of this nature. Should infection by septic materials have occurred, the efforts of the physician should be directed to strengthen the fortifications raised by natural means, and this can only be effected by astringent and hæmatinic remedies, such as steel and hydrochloric acid, with the assistance of quinine and chlorate of potash, for the destruction of the germs which have found entrance to the circulation by means of the lymphatics. To give "liquefacient" remedies, such as ammonia, sodic salicylate, or potassic iodide, is, I think, simply to break down the natural barrier described, and to further absorption of septic materials by a diffused and weakened circulation—weakened by reason of its deficient fibrin-forming power. Infection of the blood, indeed, is thus doubly ensured by medicinal liquefaction and septic softening of clots, for wherever there is the development of sulphuretted hydrogen by decomposition of animal matter no fibrin can exist. I prescribe five-minim doses of the perchloride of iron, one-grain or two-grain doses of quinine, and five-grain doses of chlorate of potash, with glycerine in half-drachm doses, every two hours, until there is a considerable reduction in the temperature, when I order the mixture to be taken less frequently.

Similarly, I hold that the treatment of enteric fever should be conducted upon an acid and not an alkaline method. I believe I have seen an increased blood heat induced by such a remedy, for instance, as salicylate of soda in this disease, with passive pulmonic congestion, from a condition of over-fluidity thus induced, and quickly removed by the administration of fifteen-minim doses of hydrochloric acid every two hours, and drop doses of steel.

I am, Sir, yours truly,

C. R. ILLINGWORTH, M.D. Edin.

Clayton-le-Moors, March 23rd, 1885.

"TAURO-CHOLATE OF SODA PILLS."

To the Editor of THE LANCET.

SIR,—Please let me add to my little paper which appeared in your issue of the 25th ult., that it is better to use pig's-bile than ox-bile in preparing the tauro-cholate of soda; *and that the bulk* of the glyco-cholate—which is not of any therapeutic value—should be thrown out with acetate of lead, avoiding any excess of the acetate before evaporating the tauro-cholate to the consistency for making into pills. Keratin, easily made from the residue of an ethereal digest of horn shavings by boiling in liquor potassæ, forms the best coating.

I am, Sir, yours truly,

Hanover-square, May 13th, 1885. J. MORTIMER GRANVILLE.

"THE COLLOQUIAL LINGUISTIC FACULTY."

To the Editor of THE LANCET.

SIR,—If I may judge by the considerable extract you have given from Dr. W. H. Walshe's new work, reviewed in the current number of THE LANCET, he has raised the novel and very interesting question, "When may a person properly be said to know a foreign language?" But I fear the tests Dr. Walshe has applied are much too sweeping and exclusive to be of any practical value towards its solution. For instance, a well-known linguist of my acquaintance went for a three weeks' holiday into Wales, without knowing a word of the vernacular, and with no aid towards its acquirement but a pocket dictionary. Yet, by a method of his own and by constant intercourse with the peasantry, he learned the language in the above time—i.e., he was able to converse in it, to read and write it correctly, and knew its formation and grammar. Whether he could understand a Gaiety burlesque in the Welsh tongue I had not thought of asking him.

I know I must not trespass upon your space, but I should just like to submit the following points for Dr. Walshe's consideration. What does he say to the number of our Indian officials who converse and correspond in Hindi, Persian, Pashtú, and other Eastern languages? What to the humble missionaries who translate our Scriptures into such difficult languages as Lithuanian, Finnish, Aramaic, and Coptic, to say nothing of the Kaffre click? A friend of mine, a German cavalry officer, himself a native of Westphalia, has told me he was stationed on one occasion with his regiment at Munich, and that it took him six months to become acquainted with the lingo of his Bavarian servant; yet surely the former must be said to have known German.

On the whole, it seems to me that what marks linguistic power in individuals is an initial faculty of learning language, rather than the degree of actual attainment in any particular form of speech, and the Mezzofanti type is by no means so doubtful as Dr. Walshe appears to think.

I am, Sir, yours truly,

Sussex-gardens, May 12th, 1885. T. FITZPATRICK.

SMALL-POX RISKS.

To the Editor of THE LANCET.

Sir,—I was gratified to find that you call attention to the serious risks run by the unrevaccinated in London during the present widespread epidemic of small-pox, and that you instance the well-known immunity of the servants and nurses of the Highgate Small-pox and Vaccination Hospital, and I was further gratified to find your excellent article widely quoted in the daily papers. After all, it is the general mass of the public who are likely to be led away by the specious tales and one-sided reasoning of the anti-vaccinationists, whom we want to reach. I confess that I think the extraordinary efficacy of the protection from small-pox afforded to our nurses and other employées is largely due to the fact that the lymph which the surgeon makes use of at this hospital he has himself taken from a subject he has operated upon, and of the efficacy of which he is consequently well assured; and, moreover, it is used as nearly as possible from arm to arm. I regret that at the other large institutions of the kind in the metropolis those conditions which appear to me to be essential for the absolute security of those confided to their charge are absent, and that the medical officers at such hospitals are compelled to make use of lymph of the quality of which they cannot themselves be absolutely certain. I cannot conclude also without expressing my regret that at the present day, notwithstanding the amount of evidence we have on the subject, a medical man of the standing of Surgeon-Major Pringle should, as in his recent lecture before the Society for the Encouragement of Arts, &c., publicly state his disbelief in the necessity for revaccination in adults who have been efficiently vaccinated. Such a statement is, I think, eminently calculated to encourage the present apathy of the general public as regards revaccination, and is certainly not warranted by the statistics of his professional brethren, at all events in Europe.—I remain, Sir, yours faithfully,

HERBERT GOUDE, F.R.C.S. Edin.

Small-pox and Vaccination Hospital, Highgate-hill, N., May 9th, 1885.

LIVERPOOL.

(*From our own Correspondent.*)

HOSPITAL SATURDAY IN LIVERPOOL.

SATURDAY, April 25th, was observed here as Hospital Saturday, boxes being distributed among all places where large bodies of working men are employed, and cages being attached to the street lamps at reasonable intervals. The result will be watched with keen interest this year, extraordinary pains having been taken to ensure the increased success of this mode of obtaining the working men's support to the hospitals, which are such a benefit to them. The amount collected in former years, averaging between £2000 and £2500, has been justly regarded as considerably less

than what might be expected in so large a district, containing such an enormous number of working men. Up till the 9th inst. the sum of £2357 had been received; more is expected to come in. To enhance the success of the movement this year, and to assist the general committee, a committee of working men was appointed last year, and at a meeting of the former, on the 7th inst., the following resolution was carried unanimously: "That this committee hereby offer their thanks to the working men's committee for their valuable assistance in increasing the amount of the Hospital Saturday contribution, and express the hope that their services will be continued."

THE SCHOOL OF MEDICINE.

The summer session commenced on the 4th inst. Considerable alterations have been made in the anatomical department of the building, by which further accommodation will be afforded, and an increased number of students will be enabled to dissect conveniently to themselves and to each other. On the 11th inst. there were nine subjects in the dissecting-room, on which between thirty and forty students were practising dissection. Mr. Frank T. Paul, formerly surgical tutor, now lectures on Medical Jurisprudence and Toxicology. At the recent examination ten students from this school passed in Anatomy and nine in Physiology, only one being rejected in both subjects.

THE LIVERPOOL UNIVERSITY COLLEGE.

At the last meeting of the Council of University College, a gift of £1500 was announced as having been received from Mrs. Sheridan Muspratt, widow of the late eminent Professor of Chemistry. This sum is to be applied for the endowment of a scholarship or scholarships in furtherance of the study of chemistry, and in commemoration of her late husband.

THE SPRING ASSIZES.

At the recent assizes the calendar was unusually light, there being no charge of murder and comparatively few cases of violence. What is still more remarkable, there was not a single charge of rape or criminal assault on females, although these assizes comprise the whole of South-west Lancashire with a number of small county towns, where such crimes have been lamentably frequent of late. It is therefore probable that the very severe sentences passed for those offences by Mr. Justice Day, who at the last three assizes presided in the Crown Court, have had their effect.

THE LATE MR. FREDERICK PHILIP PHELPS, SURGEON, OF EXETER.

The tidings of this gentleman's death under the melancholy circumstances noticed in last week's LANCET will be received with sincere regret by many local readers, who will remember the deceased when he was house-surgeon at the Northern Hospital more than twenty years ago. He was extremely popular with all who knew him, from his unvarying kindness to all with whom he had to deal, whether colleagues, subordinates, or patients, as well as his genial humour and constant cheerfulness.

BIRMINGHAM.

(From our own Correspondent.)

LAUDANUM IN WHOOPING-COUGH.

IT seems to be a Utopian idea that in the care for sick children among the poorer classes intelligence and prudence in the use of patent drugs will ever be the rule and not the exception. An inquest was held a few days ago on the body of a child ten and a half years old, who had suffered from whooping-cough. The mother, on the advice of a neighbour, purchased a pennyworth of laudanum, mixed it with vinegar and treacle, and gave it to the child a teaspoonful at a time. The quantities of the two latter ingredients are not mentioned, but the result showed that they could not have been large, for the child died after the second dose. The mother stated that she informed the chemist that she intended to give the compound to the child as physic, but no restrictions are placed upon the sale of powerful drugs with such an intention. The verdict of death from misadventure carries but poor comfort with it, and will probably not go far in teaching this class that the use of opium for young children, even in small quantities, is highly dangerous and improper in unskilled hands.

DAMAGES FOR THE BITE OF A DOG.

It is interesting to note a judgment given in the county court for damages in a case of this kind. The plaintiff, a working man, claimed £100, and was awarded £36, for the loss of time and injury caused to his leg. Fortunately for the patient he was able to prove that the dog was a ferocious one, and accustomed to bite mankind, and the law which allows compensation only under these circumstance enabled him to make his claim good. It is well that those who keep vicious dogs with a known propensity to bite people should be aware of the pecuniary risk attending such an indulgence.

TEMPERANCE ADVOCACY.

At a recent conversazione of the Ladies' Central Temperance Association a distinguished physician was selected to hold forth in support of the cause so strongly espoused by the Association, and to denounce the use of intoxicating beverages. To the consternation of the audience, however, though brought to curse, he remained to bless, and in forcible language he dwelt upon the intemperate temperance of some abstainers. In glowing terms he upheld the good which in occasional circumstances moderate drinking is capable of effecting, and pointed out the value of the judicious use of alcohol. His position, which he described as logically and scientifically sound, somewhat startled his audience; and if it did no more, must have aroused them to think how far they were right in not clearly ascertaining his views before they sent a deputation to ask his countenance and support at such a meeting.

Birmingham, May 13th, 1885.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

NEWCASTLE MEDICAL COLLEGE AND THE CORPORATION.

THE premises at present occupied by the College of Medicine are likely to be taken over for railway extension, and an application has been made to purchase, I understand at a cost of £10,000, an eligible site in one of our principal thoroughfares. The Corporation is the trustee of the site, and it so happens that it is part of an ancient charity left for the benefit of the poor of the city. I believe it is the contention of the medical authorities that the grant of the site would be a great benefit to medical education and an advantage to the city from the number of resident students attending, and so be an indirect advantage to the poor as in some way adding to the trade of the city and paving the way for its becoming some day the seat of the University of Newcastle. This view was advanced with great ability and eloquence by Dr. Heath, who headed a deputation from the College to the Corporation the other day. The granting of the site on the terms proposed by the College is held by some members of the Corporation at least as being beyond the powers of their trust, seeing that the College only offers £10,000 for a site worth, at least, three times as much, and that in this matter the College is to be treated as any other purchaser making an offer for the land. But on the other hand, Dr. Heath pointed out that "the proprietors of the College building could a few years ago have sold the building with profit and divided the proceeds among themselves, but that they scorned to do anything of the kind; they held it for public use and for the benefit of medical education." The question has been now well and forcibly put before the Corporation, and it is to be hoped it may be decided solely on its merits.

NEWCASTLE NATURAL HISTORY MUSEUM.

All visitors to Newcastle should visit the museum of the Natural History Society, which, it will be remembered, was opened by the Prince of Wales on his late visit to our city. The museum is now in very complete condition so far as a museum can ever be considered so, in view of the many additions a good one must from time to time receive. Only just lately Miss Mary Hancock presented the complete set of the original drawings of the British Nudibranchiate Mollusca, the work of her late brother, Mr. Albany Hancock. These drawings were made by him to illustrate a large work published by the Ray Society. By the perfectly natural and clear manner in which details are shown, this work sheds much light on a group of creatures till then comparatively unknown even to naturalists themselves. For another work,

illustrated by beautifully and delicately elaborated drawings which Mr. Albany Hancock had undertaken at the urgent request of several scientific friends in London, he received the gold medal of the Royal Society for 1858. This presentation was the first ever made to a native of Newcastle. The Bewick collection and the Hancock drawings are now on the walls of our museum, and well worthy of a visit from all interested in nature and art.

VACANT HOSPITAL APPOINTMENTS IN NEWCASTLE.

There is now an unusual number of hospital appointments vacant in Newcastle. As well as the vacancy at the Chest Hospital, mentioned last week, an honorary physician and surgeon is wanted at the Children's Hospital. Dr. J. G. Houseman and Dr. Coley are candidates for the physician's post and Dr. Aitchison and Mr. W. Glaholm Black for the surgeoncy. At the infirmary Dr. Limont is, so far as I have heard, the only candidate for the vacant physicianship. Dr. Limont has been acting as senior resident medical officer to the house for more than three years. For some time he has devoted himself specially to physician's work; and he asks the committee to release him from the post to enable him to compete for the higher appointment.

Newcastle-on-Tyne, May 11th.

EDINBURGH.

(From our own Correspondent.)

A LIME-LIGHT FOR DEMONSTRATION PURPOSES.

At the fortnightly meeting of the Edinburgh Medico-Chirurgical Society, Dr. Foulis gave a demonstration of the circulation in the web of a frog's foot and of some botanical test objects by means of the oxyhydrogen light. The light, transmitted through a powerful condenser, passed through an ordinary microscope lens, and was thrown upon a large plate of ground glass at a distance of about 25 ft. The image of the object demonstrated could be focused on this plate with great exactitude, the definition even with high powers being excellent, and the general effect strikingly satisfactory.

A RARE FORM OF ICHTHYOSIS.

Dr. Allan Jamieson exhibited a drawing from a case of ichthyosis palmaris et plantaris. The palms and soles of the patient were covered with a horny growth a quarter of an inch thick, which gave a loud resonant note when struck. All other parts of the skin were absolutely normal, and the only other morbid symptom was the very rapid growth of the nails both of the fingers and toes. In Dr. Jamieson's experience a case of ichthyosis with such exact delimitation of the areas affected was absolutely unique.

SUBPERIOSTEAL SURGERY.

Dr. C. W. MacGillivray exhibited portions of bone removed subperiosteally from the lower end of the humerus in a case of compound fracture and dislocation. The whole of the bone removed was replaced by a new formation, and the result of the operation was a movable and useful joint.

LARYNGEAL PARALYSES.

Dr. McBride read a paper on the above subject, dealing specially with bilateral paralyses, and illustrated by the records of several interesting cases. An observation of some importance was the detection of paralysis of both laterales in a case of locomotor ataxia, in which all the usual symptoms were well marked. He specially insisted on the value of laryngeal examination as an important adjunct to the diagnosis of various morbid conditions.

THE SCIENCE AND ART MUSEUM.

An extensive addition has just been commenced which will complete the Museum buildings as originally designed. For some time there has been overcrowding of specimens in several of the departments, rendering increased accommodation very desirable; and the crying need for a properly fitted library, where the public can avail themselves of the valuable collection of books possessed by the Museum, will at length be satisfied. Colonel Murdoch Smith has been appointed Director, a post left vacant by the sudden death of the late Professor Archer. Colonel Smith has a considerable reputation as an antiquarian, and has enriched both the British and South Kensington Museums by valuable collections made in the East. These public services have received their due recognition in the important post to which he has been appointed; and there is every reason to expect that he will prove no unworthy occupant of the place once filled by such men even as the genial and versatile Dr. George Wilson.

Edinburgh, May 11th.

IRELAND.

(From our own Correspondent.)

ROYAL COLLEGE OF SURGEONS.

At the last meeting of the Council, a letter was received from Mr. O'Reilly-Dease offering a portrait of Mr. Butcher, the eminent Dublin surgeon, and also proposing to build a hall for the reception of Mr. Butcher's museum, in the event of that gentleman giving it to the College. Dr. Cameron vice-president of the College, stated that he was authorised by Mr. Butcher to offer his museum, and that Mr. Wheeler, to whom Mr. Butcher had promised to bequeath it, had kindly waived his claim. On the motion of Mr. Colles, seconded by Sir George Porter, the thanks of the Council were voted to each of the gentlemen concerned. The annual election of examiners, which had been arranged to take place on the 19th inst., has, in view of the expected new charter, been postponed to the 27th. It is confidently expected that several changes will occur, and some new blood be infused into that body. Among the various candidates who will come forward will be Mr. Swanzy to examine in ophthalmic surgery, Dr. Mapother in physiology, and Dr. Robinson in anatomy.

DEATH OF MR. JOHN NEILL, RESIDENT SURGEON, STEEVENS' HOSPITAL.

It is with deep regret I record the death of this promising young surgeon, at the early age of twenty-five, from blood poisoning. He died rather suddenly, and it is a doubtful point whether the cut which he received on making a post-mortem examination and which caused the blood poisoning was complicated with scarlatina or not. Mr. Neill was a private teacher of considerable repute, and was connected with the Ledwich School of Medicine as a demonstrator of anatomy, where he was much liked and where his loss will be greatly felt. Thoroughly straightforward in all his actions, kind in disposition, and unassuming in manner, he made friends everywhere, and his sudden and untimely decease is widely regretted. Mr. Neill's funeral took place on Tuesday last and was largely attended, a notable feature being the presence of about one hundred students, who walked in procession from Steevens' Hospital to the place of interment. It is contemplated by the students to present an address of condolence to Mr. Neill's father on his sad bereavement.

Dr. H. B. Fleming has been unanimously elected medical officer to the Omagh workhouse, in the room of his father, Dr. H. Fleming, resigned.

At a meeting of the Royal Cork Yacht Club, last week, Dr. Tanner was removed from the list of members on account of his action on the occasion of the Royal visit.

Small-pox is reported to have broken out at Enniskillen.

Dublin, May 12th.

ROYAL COLLEGE OF SURGEONS.

At an ordinary meeting of the Council of the College, held on Thursday, May 14th, the usual resolutions were passed fixing the date (July 4th) for the election of members of Council, in place of Messrs. Erichsen, Holmes, and Savory, who retire. It is probable that the two former will not seek re-election.

The report of the Committee in reference to the required certificate of instruction and proficiency in the practice of vaccination was received as follows:—"The Committee recommend to the Council that the existing regulation on the subject of the recognition of certificates in vaccination should remain in force, not only on account of the obligations of the College to the Local Government Board in England and the agreement with the Royal College of Physicians under the Scheme for the Examining Board in England, but because by recognising other certificates the

value of the diploma would be depreciated to future Members of this College. The Committee have, at the same time, further to report that they have reason to believe that if a representation were made by the Council of Queen's College, Belfast, to the Irish Local Government Board suggesting that that Board should invite the English Local Government Board to confer with a view to the establishment of educating vaccination stations in Ireland, subject to terms to be agreed upon by both Boards, the difficulty under which Irish candidates for the diploma of this College now labour might be surmounted."

The following recommendations of the Committee of Management were approved:—"1. That every member of the University of Edinburgh who shall have passed such an examination or examinations at his university as shall comprise the subjects of the First and Second Examinations of the Examining Board in England, and who shall have completed not less than four years of medical study according to the regulations required by his university, be eligible for admission to the Third or Final Examination of the Board, two years after his having passed all the other required examinations; that every candidate so admitted to examination be required to pay a fee of five guineas; and that every such candidate who shall have passed such Third or Final Examination shall, on the further payment of not less than twenty-five guineas, and subject to the bye-laws of each College, be entitled to receive the licence of the Royal College of Physicians of London and the diploma of Member of the Royal College of Surgeons of England. 2. That the regulation exempting candidates, members of universities, from any part of the examinations of the Examining Board in England do continue in force so long only as the examinations of the universities shall be satisfactory to the Committee of Management. 3. That the regulation applicable to the conditions of the admission of members of the English universities to the Third or Final Examination of the Examining Board in England be extended to such of the Scotch and Irish universities as require that not less than two of the four years' curriculum of professional education shall have been spent in residence at the university."

The President and Vice-Presidents' report on Sir James Paget's resolution, that a marble bust by Mr. Brock, A.R.A., of Sir Erasmus Wilson be placed in the College, was adopted.

The following motion, of which he gave notice at the last meeting, was moved by Mr. DURHAM, seconded by Mr. SAVORY, and carried unanimously:—"That seven delegates from this College be appointed with authority to invite an equal number of delegates from the Royal College of Physicians to meet and confer upon what steps, if any, can be taken to enable the two Colleges to obtain the legal right of giving the title of 'Doctor' to persons who shall have obtained the licence of the Royal College of Physicians of London and the diploma of the Royal College of Surgeons of England."

The delegates appointed were: the President, the Vice-Presidents, Sir Joseph Lister, and Messrs. Marshall, Hulke, and Durham.

MEDICAL NOTES IN PARLIAMENT.

The Case of Mr. Hillman.

IN the House of Commons on the 7th inst., in reply to Mr. W. Corbet, who asked whether it was true that in the Court of Appeal the Lord Chief Justice of England decided in favour of Mr. Hillman, while two other judges held opposite views; and whether he would cause the law regarding the confinement of persons alleged to be insane to be so altered as to be intelligible to those who had to administer it,—Sir W. Harcourt stated that the Court of Appeal seemed to have decided that the detention of Mr. Hillman was lawful, and he could not admit that he was unlawfully placed in the asylum. He had no doubt the attention of the Lord Chancellor would be called to this matter in connexion with the Bill now under consideration.

Inoculation for Cholera.

On the 8th inst., in reply to Dr. Cameron respecting the discovery reported to have been made by Dr. Jaime Ferran of Valencia, in connexion with inoculation for cholera, Lord E. Fitzmaurice stated that Her Majesty's Minister at Madrid would be instructed to send home translations of any papers of Dr. Ferran's, and reports of the Madrid Academy of Medicine on the subject.

The Royal University (Ireland).

On the 11th inst., in reply to Mr. Kenny, Mr. Campbell-Bannerman stated that a power was granted to the Senate of the Royal University in their original charter, but lasting for three years only, with a view to facilitating the obtaining of degrees by medical men qualified before the passing of the Royal University Act. It expired in November last, and the Senate have not sought to have it renewed. There was an obvious reason for giving it in the first instance, which does not now hold good, and he was not aware of any intention to revive it.

Mortality from Small-pox.

On the 12th inst., in reply to Mr. Hopwood, Mr. G. Russell stated that two tables as to the mortality from small-pox, which were compiled respectively by Dr. Greenhow and Dr. Farr, could be found in the Appendix to the Report of the Select Committee in 1871 on the Vaccination Acts. According to these tables, the small-pox death-rate in London was 3044 per 1,000,000 in 1746-55; and 5020 per 1,000,000 in 1771-80. In 1871-80 the mortality, according to the returns of the Registrar-General, was 460 per 1,000,000.

Medical Relief and the Franchise.

On the report of the English Registration Bill, Mr. Davey moved the addition of a clause providing that the receipt of parochial medical relief should not disqualify a voter. The clause was opposed by the Attorney-General; but after some considerable discussion was carried by 87 to 50.

The Hospital on Quarantine Island.

On the 14th inst., Lord Hartington, in answer to Lord E. Cecil, who inquired whether he would ascertain if it was true that the Auxiliary Hospital on Quarantine Island, at Sawakin, stood on an old burial-ground, and that great sickness prevailed there just now in consequence of the unhealthiness of the situation, said that there was a hospital which had been selected by the authorities on the spot. When it was first suggested, he had doubts as to the salubrity of an island that had been a burial-ground. A telegram was sent to Sawakin, and in reply he was informed that the island was most healthy. For six years past scarcely a burial had taken place, and there was no reason to believe it would be unhealthy.

Vaccination.

Mr. G. Russell, replying to Mr. Hopwood, who asked whether the President of the Local Government Board was aware that by a house-to-house visitation of 15,000 houses in West Ham, instituted by Dr. Kennedy, it had been ascertained that the inhabitants are vaccinated in number up to the average of 98 per cent., said the figures in the question were inaccurate. Some complaint had been made of the system of sewers and drains in West Ham, and he had directed an inspector to make inquiries on the spot.

Overwork at School.

Mr. Mundella, in answer to General Feilden as to whether it was true that a young girl had committed suicide on account of overwork at school at Adlington, said inquiry had been made, and it was found that she was the daughter of a dairyman and worked in a cotton mill. As she was under thirteen, she attended school half-time, was in a low standard, and had no home lessons. She had a deal of farm work to do in carrying out milk. Her companions said she had complained of harsh treatment on the part of the woman who employed her at the factory, and that was the cause of her suicide. The school was well conducted, and no blame attached to the teacher in this case. Mr. Mundella added that more labour was exacted from children of tender years in England than in any other country in Europe.

The Sanitary Conference at Rome.

Lord E. Fitzmaurice, in reply to Mr. Sutherland, said Her Majesty's Government have accepted an invitation to a scientific and sanitary conference which is about to meet at Rome, and will examine the best methods of preventing the spread of cholera. Sir Guyer Hunter, who was employed in Egypt during the epidemic of 1883, and whose valuable reports have been laid before Parliament, and Dr. Thorne, the Assistant Medical Officer of the Local Government Board, will be the British delegates. The recommendations of the Conference will be in the usual course submitted to the

Governments represented, but will not have any binding force until they have been adopted by those Governments. It would be contrary to practice to make public at present the instructions given to the British delegates.

Obituary.

DR. DIOMEDE PANTALEONI.

THIS distinguished physician and patriot, whose death on the 3rd inst. we announced last week, was born seventy-seven years ago at Macerata, an ancient university town in the Marches. There he prosecuted his studies, preparatory and professional, and there he took his degree. Like many public-spirited Italians of that day, he was swept into the vortex of the revolution, and his time was pretty evenly divided between medical practice and politics. From 1848 to 1860 the States of the Church were in periodical upheaval, and shortly after the former of these dates Dr. Pantaleoni, who had settled in Rome, and had rapidly risen in public esteem as an able and accomplished physician, had from pontifical persecution to expatriate himself. This part of his career is dramatically described in his countryman Ruffini's "Doctor Antonio," of which fascinating tale he is known to be the hero. "He enjoyed," says the leading Italian journal, the *Opinione*, "the confidence of Count Cavour, and of that great minister's chief coadjutors in the work of national unity, while the historian will one day record the many onerous political missions carried out with sagacity and courage by the practitioner from the Marches—missions fraught with the best results for the complete liberation of Italy, and for her harmonious unification under the house of Savoy." In 1851 he was in London, the intimate friend of many leaders of the profession, and assisting in a silent and successful way the movement for that consummation which all true Italian patriots had at heart. Massimo D'Azeglio, the then Prime Minister of the Sardinian Government, had thus recommended him to his nephew, Emanuele D'Azeglio, the representative of King Victor Emanuel at the British Court:—"Pantaleoni is my *familiar*. He is the leading consultant physician to the foreigners in Rome; he is my right-hand man in all my chief transactions; no believer in the Republic, the promoters of which wanted to stiletto him; a Monarchist of lofty character and equal intelligence; an excellent person in all respects, and devoted to our views. Get him to speak on Italy, and you will find his talk worth volumes." Scarcely had the country organised itself constitutionally, when his native Macerata chose him as her representative in the national Parliament, and Cavour employed him in an important series of overtures to bring about, through Cardinal Santucci, a *modus vivendi* with the Papal Court. In 1873 he resigned his seat in the Chamber of Deputies, and by the royal decree of Nov. 6th of that year he was made a Senator of the Kingdom, in which capacity he did splendid service, particularly on all questions of academic education and of sanitary reform. All this time he was in extensive practice, not only among his fellow countrymen, but also among the foreign visitors who annually resort to Rome, many of whom are alive to attest his painstaking and successful treatment. To the Accademia Medica di Roma and the Royal Institution of the "Lincei" he contributed numerous important papers, the more practical of which are, we believe, about to be collected and to assume an independent and enduring form. On all questions of the climate of Rome, her water-supply, and the rules to be observed by the stranger within her gates, he was an acknowledged master; while no properly accredited professional brother, whatever his nationality, ever sought his advice in vain.

Among the works with which he employed the spare hours of his busy days and nights may be mentioned the "Storia Civile e Costituzionale di Roma dai suoi Primordi sino agli Antonini" (Civil and Constitutional History of Rome from its first beginnings to the Antonines), and "L'Ultimo Tentativo del Cavour per la Liberazione di Roma nel 1861" (The last attempt of Cavour for the Liberation of Rome in 1861). From these, especially the former, may be gathered some notion of his wide and deep knowledge and his vigorous thinking, while their style has all the characteristics of the independent investigator schooled in scientific and classical study.

His funeral, which took place on Tuesday, the 5th inst., was a public one. His native town of Macerata having signified its wish to possess his remains, these were accompanied from his house in the Via Ripetta to the railway station, the *cortège* being thus composed:—A company of the Municipal Guards, followed by a military band performing a dead march, and by a battalion of the 79th Infantry. Next came the hearse, covered with magnificent wreaths, contributed by the Town Council and by the chief learned societies; and this, again, was followed by a numerous train of senators, members of the legislative body, the leading physicians and surgeons of the city and province of Rome, representatives of all the scientific associations, and many personal friends in carriages or on foot. The cordons of the hearse, which was surrounded by the ushers of the Senate House, were held by General Durando, the President, and the Marquis Caracciolo Di Bella, the Vice-President, of the Upper Chamber; by Signor Tartufari, Councillor of the Court of Cassation and representative in Parliament of the constituency of Macerata; the Senator Count Cadorna, President of the Council of State; Dr. Bastianelli, Municipal Assessor; Professor Guido Baccelli, President of the Academy of Medicine; the distinguished Hellenist, Mariotti; and Signor Gravina, Prefect of Rome. The route along the Corso and Via Nazionale was lined by a dense and respectful crowd, and on the *cortège* reaching the station, the Commendatore Righetti, the most intimate friend of the deceased, pronounced a funeral oration of singular propriety and power. The coffin, having been consigned to the Ancona train, was received by the Municipality of Macerata, the scene of interment.

Medical News.

COLLEGE OF PHYSICIANS IN IRELAND.—At the May examinations the following obtained the licences in Medicine and Midwifery of the College:—

MEDICINE.—Elizabeth Bielby, Theodore D. Browne, Fitzwilliam Richard Augustus Evans, George Edw. Joseph Greene, Wilson Mills Nugent, Henry Stoker, M. Andrew Wade, Joseph Theophilus Weston.

MIDWIFERY.—Elizabeth Bielby, Theodore D. Browne, Thomas Joseph Dillon, Fitzwilliam Evans, George Edward Greene, Samuel Horneck, Henry Stoker, George Scott Tate, M. Andrew Wade, J. Theophilus Weston.

The undermentioned have been admitted Members:

James Ellis. | Samuel Hamilton.

UNIVERSITY OF DUBLIN.—The following degrees have been recently conferred by the Senate of this University:—

BACHELOR IN SURGERY.—Orlando Palmer Beater, Andrew Grierson Faussett.

BACHELOR IN MEDICINE.—Orlando Palmer Beater, Andrew Grierson, Faussett.

DOCTOR IN MEDICINE.—Orlando Palmer Beater.

ROYAL UNIVERSITY OF IRELAND.—The undermentioned have passed the M.B. Examination of this University:—

Samuel Alexander, John Barron, James R. Burrows, Alexander Corry, *G. B. Crawford, M. H. Curtin, T. W. Dwyer, Robert English, G. H. Foott, R. E. Foott, R. M. Griffin, M. H. Hannigan, W. R. Hawkins, Daniel Hennessy, W. J. Loughrey, J. McAleer, Michael McCarthy, W. B. McWha, G. F. Marks, John Meenan, *J. Musgrave, James J. Nagle, John J. O'Brien, J. P. O'Byrne, R. Pettierew, *E. L. Pooler, *John Ryan, J. Martin Savage, William Sexton, J. Henry Sharpe, Norman Smythe, *R. Thomson, *F. J. Tresilian, J. J. Walsh, M. J. Whitty, Samuel Wilson.

*Permitted to compete at the Honours Examination.

THE new workhouse infirmary at Croydon, erected at a great cost, is to be opened to-day (Saturday) by the Archbishop of Canterbury.

GLAMORGAN AND MONMOUTH INFIRMARY.—Miss Shand, who died recently in the Principality, has bequeathed £8000 to the trustees of the infirmary.

DANIEL MURRAY O'HARA, surgeon, sentenced to ten years' penal servitude for extortion, is reported to have strangled himself in Liverpool Gaol on the 7th inst.

AT the annual dinner of the Royal Hospital for Children and Women, which was held on the 13th inst., subscriptions amounting to more than £850 were received.

VACCINATION GRANTS.—Dr. Dugald Campbell, of Alfreton, Derbyshire (second time), Mr. Peter Swales, of Sheerness (seventh time), and Mr. T. Osborne-Walker, of Crick, Northamptonshire (second time), have received the Government grant for efficient vaccination.

PRESENTATION.—Miss Williams, who was for seven years matron at St. Mary's Hospital, has been presented by her friends at the institution with an illuminated address and a silver tea-service.

LONDON FEVER HOSPITAL.—The Lord Mayor has consented to preside at the second festival dinner in aid of the London Fever Hospital, which is to be held at Willis's Rooms on Tuesday, June 23rd.

UNIVERSITY COLLEGE, LONDON: FACULTY OF MEDICINE.—The distribution of prizes will take place on Wednesday, May 20th, at 4.30. The Right Hon. Lord Justice Fry, M.A., F.R.S., Vice-President of the College, will preside.

ANIMAL VACCINE.—It is stated that the authorities of Strasburg have published a regulation making the use of animal lymph for vaccination compulsory. Offices for its supply are to be inspected every ten days by the Government vaccinators.

THE annual general meeting of the Royal Medical Benevolent College will be held on the 21st inst., when the result of the polling for pensioners and foundation scholars will be announced. All balloting-papers are to be returned not later than the evening of the 18th inst.

AT a meeting of the Anthropological Institute on the 12th inst., the Earl of Northesk exhibited a collection of specimens of worked Jade from New Zealand. Mr. J. H. Kerry-Nicholls read a paper on the Origin, Physical Characteristics, and Manners and Customs of the Maori race.

THE MEATH HOSPITAL, DUBLIN.—The following gentlemen have been awarded prizes for the Winter Session 1884-5:—Senior Medical Prize: Henry Walter; Junior Medical Prize: John T. Russell. Senior Surgical Prize: R. D. Penefather, John T. Russell, and William J. Taylor, equal; Junior Surgical Prize: Alfred William Bewley, 1st, A. E. Mahood, 2nd.

A MEETING of graduates of the University of Aberdeen was held in Manchester on the 6th inst., for the purpose of welcoming Professor Ogston on his return from the Soudan. In his speech Dr. Ogston dwelt at some length on his Sawakin experiences, stating his high approval of the efficiency of the Army Medical Department and the care with which the wounded were treated.

THE Report of Colonel Haywood, engineer and surveyor to the Commissioners of Sewers, on the works executed by the Commission during 1884, has been issued. It states that the total length of sewers constructed during the year was 1163 feet, of which 1070 feet were upon the lines of old sewers. The Metropolitan Railway Company in connexion with their works between Cannon-street and Aldgate had to construct new sewers to the extent of about 7190 feet.

THE ZOOLOGICAL SOCIETY OF LONDON.—At the fifty-sixth anniversary meeting of this Society, which was recently held, Mr. William T. Blanford, F.R.S., Dr. A. C. L. G. Günther, F.R.S., Dr. Edward Hamilton, Mr. E. W. H. Holdsworth, and Surgeon-General L. C. Stewart were elected to the Council in place of the retiring members, and Professor W. H. Flower was re-elected president, Mr. Charles Drummond, treasurer, and Mr. Philip L. Sclater, M.A., Ph.D., F.R.S., secretary to the Society for the ensuing year.

UNIVERSITY OF CAMBRIDGE.—There will be an examination in certain branches of natural science for minor scholarships at Downing College on Tuesday, June 2nd next, and following days. Persons who have not entered at any college in the University are eligible to these scholarships, which will be of the value of from £40 to £70 per annum, and tenable until their holders are of standing to compete for a foundation scholarship. Further information will be given by Dr. Perkins or the Rev. J. C. Saunders, tutors of the College.

ROYAL NATIONAL LIFEBOAT INSTITUTION.—The Committee of this Society, which has now been established sixty-one years, in their annual report for 1884 state that during the year twenty-eight new lifeboats were despatched from the store-yard, a number greatly in excess of that sent out during any one year since 1866. The total number of boats now under the management of the committee is 284, which were instrumental in saving no fewer than 633 lives and 18 vessels between Jan. 1st and Dec. 31st, 1884. In the last sixty-one years as many as 31,355 lives have been saved through the instrumentality of the institution. Six silver medals and clasps, nine vote of thanks on vellum, and £5000 in money were granted by the committee for saving life in 1884. The total expenditure of the lifeboat service amounted to £52,724, while the receipts of the institution in subscriptions, donations, and dividends amounted to £44,810.

THE LATE PETER SQUIRE.—Friends of the late Peter Squire will be interested to know that the unveiling of a medallion portrait of him will take place at the Pharmaceutical Society's House, 17, Bloomsbury-square, on Wednesday, May 20th, at 4 P.M., by Sir Spencer Wells, Bart.

COMPULSORY NOTIFICATION AT DOVER.—A meeting, presided over by Sir Richard Dickeson, has been held at Dover, when deputations attended to represent the whole of the sanitary and Local Government Board districts in East Kent. The principal matter which occupied attention was the question of the public notification of infectious diseases. It was decided to forward a memorial to the Local Government Board, urging upon them the desirability of a legislative enactment for the compulsory notification of infectious diseases.

ROYAL HOSPITAL FOR INCURABLES.—The annual dinner in aid of the funds of this institution was held on the 7th inst., when it was stated that there are now 193 inmates and 476 out-pensioners, the qualification for admittance being not simply age or even poverty, but the pressure of incurable disease often combined with both. The expenditure amounts to over £21,000 per annum, and since 1881 it has been found necessary to sell out £15,000 of the funded stock. During the evening subscriptions and donations amounting to £4665 were announced.

UNIVERSITY COLLEGE HOSPITAL.—The festival dinner in aid of the funds of this institution was held on the 13th inst., the Prince of Wales presiding. During last year in-patients had been received to the number of 3152, as against 2849 in the previous year; while the out-patients were 33,743, as compared with 24,187 in 1883. The annual subscriptions to the hospital amount only to £2047, while the necessary annual expenditure is £19,500, and the only reliable income it receives from all sources is £6500. During the evening subscriptions amounting to over £5000 were announced by the secretary.

MIDLAND MEDICAL SOCIETY.—Mr. James Harmar, to whose long and most faithful services as honorary treasurer the success of the Midland Medical Society has been largely due, has recently resigned office. The members of the Society, under the presidency of Mr. T. H. Bartleet, have signalised their high appreciation of Mr. Harmar's services by presenting him with an illuminated address, a timepiece, and two silver candlesticks. The contributions overflowed, leaving a surplus, which, at Mr. Harmar's request, has been handed over by his successor, Mr. John Garner, as a donation to the Birmingham Benevolent Society.

GLASGOW ROYAL INFIRMARY SCHOOL OF MEDICINE. WINTER SESSION, 1884-85.—Prize and Honorary Certificate List:—Chemistry: Chemical Division—Prize, J. H. Miller. Medical Division—1st Prize, Robert C. Wakefield; 2nd Prize, W. J. France. Honorary Certificates: J. W. Lax, Thos. McCubbin, William McLeod, A. J. Harwood, J. J. Wilson, J. L. Wilson, Alex. McDonald, R. W. Roberts. Anatomy: Senior Division—Prize, Joseph Beadle. Honorary Certificates (in order of merit): J. Owen Jones, Gwllym Evans, J. R. Lloyd Jones, Frank A. Elkins, Edward Brooks. Junior Division—Prize, Robert C. Wakefield. Honorary Certificates (in order of merit): W. R. Walker, W. J. France, J. W. Lax. Practical Anatomy (in alphabetical order): Senior Division—Joseph Beadle, Edward Brooks, Gwllym Evans, Alfred J. Harwood, Hugh Owen Hughes, John Owen Jones, J. R. Lloyd Jones, Thomas C. Jones. Junior Division—W. J. France, John W. Lax, Alex. McDonald, Robert W. Roberts, Robert P. Williams. Physiology: 1st Prize, Robert C. Wakefield; 2nd Prize, John R. Lloyd Jones. Honorary Certificates: John Owen Jones, Frank A. Elkins, Randolph O. Willis. Surgery: Gold Medals, Foden Wilson, Robert H. Parry. Honorary Certificates: Fred. W. Ord, Alfred W. White, William Valentine. Medicine: Prize, Foden Wilson. Honorary Certificate, John Thomas. Materia Medica: 1st Prize, Robert H. Parry; 2nd Prize, Joseph S. Sergeant. Honorary Certificates: Thomas Jones, Edward Brooks, John Owen Jones.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BAILEY, T. RIDLEY, M.B.Ed., has been appointed Medical Officer of Health for Bilston, vice S. G. Gilbert, deceased.

BARNARD, ARTHUR TOYNSON, M.R.C.S., L.R.C.P., has been appointed Junior House-Surgeon to the Royal Albert Edward Infirmary, Wigan, Lancashire.

BARNARD, CHAS. E., M.D., has been appointed Health Officer for the Port of Hobart, Tasmania, Superintendent of Vaccinations, and Government Medical Officer, at a salary of £300 a year.

BARROW, FREDERICK, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Workhouse, Rothbury Union, vice Todd.

BRIGGS, HENRY, M.B., F.R.C.S.Eng., has been appointed Surgical Tutor at the Liverpool Royal Infirmary, vice F. T. Paul, F.R.C.S.Eng., resigned.

CAHILL, THOMAS, M.D., C.M.R.U.I., has been appointed Honorary Medical Officer to the Wellington Hospital, New Zealand.

HARRIS, DAVID, M.R.C.S., has been appointed Medical Officer for the First District of the Holborn Union.

HORAN, EDWARD, M.D., C.M.R.U.I., has been appointed Surgeon to the Charters Towers District Hospital, Queensland.

KEYWORTH, JOHN WHITE, M.D.Lond., M.R.C.S., has been appointed Surgeon Superintendent to the Napier Hospital, New Zealand.

MILLER, JOSEPH EWING, A.B., M.B., B.Ch., Trinity College, Dublin, has been appointed House-Surgeon to the Chester General Infirmary, vice Dr. A. Macpherson, resigned.

MORGAN, E. RICE, M.R.C.S., L.S.A.Lond., has been appointed Certifying Factory Surgeon for the Morriston District, vice Henry Davies, L.R.C.P.Lond., &c., deceased.

MORGAN, Mr. W., has been appointed Analyst for the Borough of Monmouth.

NASON, C. S. STEPHEN RICHARD, M.D., M.Ch.Dub., has been appointed Medical Officer for the Redmarley District of the Newent Union, vice Boughton.

RANDS, S. JOHN OUTLAN, L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer for the Bransford District of the Bosmere and Claydon Union, vice Elliston, resigned.

SALTER, FRANCIS JOSEPH, L.R.C.P., L.R.C.S.Ed., has been appointed House-Surgeon to the Devonshire Hospital, Buxton, vice A. M. Jackson, M.B., resigned.

SHEWEN, ALFRED, M.D.Lond., has been appointed Physician to the Prince Alfred Hospital, and Joint Lecturer on Clinical Medicine, at the University of Sydney.

SIMMONS, HAROLD, M.R.C.S., L.S.A.Lond., has been appointed Physician's Assistant to the Middlesex Hospital.

STKES, JOHN FRED. JOSEPH, M.B., C.M., B.Sc.Ed., has been appointed Medical Officer of Health for the Parish of St. Pancras, vice Mr. Shirley Murphy, resigned.

SYMES, WM. HENRY, M.D., C.M.Ed., has been appointed Honorary Medical Officer to the Christchurch Hospital, New Zealand.

WILLIAMS, GEORGE HERBERT, M.R.C.S., L.R.C.P.Ed., late House-Surgeon to the Royal Infirmary, Manchester, has been appointed House-Surgeon to the North Lonsdale Hospital, Barrow-in-Furness, vice J. S. Moreton, M.R.C.S., resigned.

Births, Marriages, and Deaths.

BIRTHS.

COOPER.—On the 11th inst., at 9, Henrietta-street, Cavendish-square, the Lady Agnes Cooper, of a daughter.

HARDY.—On the 12th inst., at Southville-park Villas, Dulwich, the wife of H. Nelson Hardy, F.R.C.S.Ed., of a daughter.

HARINGTON.—On the 5th inst., at Sherborne Lodge, Cheltenham, the wife of H. N. V. Harington, L.R.C.P.Ed., I.M.D., of a son.

HUMPHREYS.—On the 9th inst., at St. Leonards-on-Sea, the wife of J. H. Humphreys, M.D.Lond., prematurely, of a son (stillborn).

RAKE.—On the 11th ult., at Mucurapo, the wife of Beaven Neave Rake, M.D.Lond., Government Medical Officer, Trinidad, of a son.

MARRIAGES.

EMMETT—DELLER.—On the 5th inst., at the Parish Church, Paignton, Richard Emmett, M.R.C.S., L.R.C.P.Lond., to Georgie V. Deller, of Woodville, Paignton, South Devon.

JACKSON—PRIESTLEY.—On the 4th inst., at St. Mary Abbot's, Kensington, by the Rev. H. Webb-Peploe, M.A., Herbert Francis Vaughan Jackson, M.R.C.S., L.R.C.P.Lond., son of the late Sidney Vaughan Jackson, Esq., of Ballina, Co. Mayo, to Amy, only daughter of the late Robert Priestley, Esq.

WATSON—O'DONNELL.—On the 22nd March, at Budaon, N.W.P., India, Surgeon J. Watson, M.D., Medical Staff, Lucknow, to Florence, fourth daughter of J. W. O'Donnell, Esq., C.E.

DEATHS.

EDWARDS.—On the 11th inst., Mary Edwards, wife of Henry Edwards, Surgeon, Lichfield, only daughter of the late Godfrey Hirst, of Langdon Hall, Solihull, aged 53.

FIELD.—On the 12th inst., at 31, Lower Seymour-street, Portman-square, Honor, the infant daughter of George and Pauline Field, aged 16 months.

PANTALEONI.—On the 3rd inst., at Rome, Il Commandatore D. Pantaleoni, M.D., Senator of the Kingdom of Italy.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

BOOKS ETC. RECEIVED.

APPLETON & Co., New York.

Transactions of the New York State Medical Association for 1884. Vol. I. Edited by Austin Flint, jun., M.D. pp. 654.

BAILLIÈRE, TINDALL, & COX, London.

Manual of Chemistry. By W. Simon, Ph.D., M.D. pp. 411, with 16 Illustrations on Wood and 7 Coloured Plates.

BLAKISTON, SON, & Co., Philadelphia.

Surgical Delusions and Follies. By John B. Roberts, A.M., M.D. pp. 55.

CHURCHILL, J. & A., London.

A Treatise on Gout and Rheumatism and the Allied Affections. By Peter Hood, M.D. Third Edition, Revised and Enlarged, with a Chapter on Sleep. pp. 419.

Illustrations of Clinical Surgery. By Jonathan Hutchinson, F.R.S. Fascic. XVIII. 6s. 6d.

Clinical Lectures on Scrofulous Neck; by T. Clifford Allbutt, M.D. &c. And on the Surgery of Scrofulous Glands; by T. Pridgin Teale, M.B., F.R.C.S. pp. 32.

The Student's Guide to Medical Jurisprudence. By John Abercrombie, M.D.Cantab., M.R.C.P. pp. 387.

Lectures on Diseases and Injuries of the Ear. By W. B. Dalby, F.R.C.S., M.B.Cantab. Third Edition. pp. 260, with Illustrations.

Diagnosis and Surgical Treatment of Abdominal Tumours. By Sir Spencer Wells, Bart. pp. 216, with Illustrations.

HIGGINBOTHAM & Co., Madras.

Outlines of Medical Jurisprudence for Indian Criminal Courts. By J. D. B. Gribble, Madras Civil Service (retired). pp. 286.

HIRSCHWALD, A., Berlin.

Die Aetiologie der Chronischen Lungenschwindsucht vom Standpunkt der Klinischen Erfahrung. Von Dr. Herrmann Brehmer, sen. S. 517.

JOHNSTON, W. & A. K., Edinburgh.

Students' Atlas of Bones and Ligaments. By C. W. Cathcart, M.A., M.B., &c., and F. M. Caird, M.B., F.R.C.S.E. Thirty Plates, with descriptive Letter-press.

LEWIS, H. K., London.

On some Common Injuries to Limbs, their Treatment and After-treatment, including Bone-setting (so-called). By Edward Cotterell, M.R.C.S. &c. pp. 108, with Illustrations.

The Principles and Practice of Medicine. By Rustomjee Naserwanjee Khory, M.D. Brux. In 2 vols. Second Edition, Revised and much Enlarged. pp. 550–747.

LIPPINCOTT, Philadelphia.

Micro-Chemistry of Poisons, including their Physiological, Pathological, and Legal Relations. By T. G. Wormley, M.D., Ph.D., LL.D. Second Edition. pp. 784, with 96 Illustrations on Steel.

LONGMANS, GREEN, & Co., London.

Transactions of the Obstetrical Society of London. Vol. XXVI.

Works of Thomas Hill Green. Edited by R. L. Nettleship. Vol. I.: Philosophical Works. pp. 541.

An Introduction to Practical Organic Analysis. By G. E. R. Ellis. pp. 72.

MACMILLAN & Co., London.

A Text-book of Pharmacology, Therapeutics, and Materia Medica. By T. Lauder Brunton, M.D. &c. Adapted to the United States Pharmacopœia by F. H. Williams, M.D. Boston. pp. 1139, with Illustrations.

MACNIVEN & WALLACE, Edinburgh.

Health Lectures for the People. Fifth Series. pp. 185, Illustrated.

MORTON, J. P. & Co., Louisville, Kentucky.

Original Researches in Mineralogy and Chemistry. By J. Lawrance Smith. Edited by J. B. Marvin, B.S., M.D. Printed for Presentation only. pp. 630.

PENTLAND, YOUNG J., Edinburgh.

Text-book of General Botany. By Dr. W. J. Behrends. Translated from the Second German Edition. Revised by Patrick Geddes, F.R.S.E. pp. 374, with 408 Illustrations.

TINSLEY BROTHERS, London.

The Science of Change of Air. By D. S. Skinner, M.D. Brux. pp. 62.

The Colloquial Linguistic Faculty and its Physiological Groundwork; by W. H. Walshe, M.D. (Bale & Sons.)—Scottish Review, April.—The Osteology of Anica Calva; by R. W. Shufeldt.—British Gynæcological Journal, Part I. (Smith, Elder, & Co.)—Die Sterblichkeit der Stadt Budapest in den Jahren 1876–1881; von Josef Körösi.—The Position of the Medical Profession in regard to Certificates of Mental Unsoundness and Civil Incapacity; by T. S. Clouston, M.D.—Proposals for the Amendment of the Laws relating to Lunatics and Habitual Drunkards; by W. H. Kesteven, M.R.C.S.—Is Enteric Fever a Cattle Disease? by Jas. F. Allen, M.D. (Davis, Pietermaritzburg.)—Lunacy in many Lands: an Introduction to the Reports on the Lunatic Asylums of various Countries visited in 1882–85; by Dr. G. A. Tucker. (Presented to the Government of New South Wales.)—On Idiopathic Anæmia; by J. H. Musser, M.D., Philadelphia.—Douze Cas d'Opération de Trachéotorrhaphie; par le Dr. Villiet.—Simple Recipes for Sick-room Cookery; by Mrs. Buck, 2d.—Why not Eat Insects? by Vincent M. Holt. (Field & Tuer.)—Der Vegeterianismus; von Dr. G. Bunge.—Pneumonia in Young Children; by L. E. Holt, M.D.—Le Choléra; par le Dr. J. P. Bonnafont. (Baillière et Fils.)—The Action of Alcohol on the Human System; by H. Harper, M.D.—The Kronenquelle at Obersalsbrunn; by Dr. C. Laucher.—Village Sanitation; by H. J. Alford, M.D.

Medical Diary for the ensuing Week.

Monday, May 18.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

Tuesday, May 19.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
ROYAL INSTITUTION.—3 P.M. Prof. Gamgee: Digestion and Nutrition.
PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Payne: Varicella Gangrenosa.—Mr. Pollard: A case of Pyæmia.—Dr. Heneage Gibbes: The Tubercle Bacillus in Animals.—Dr. Saundby: Atrophy of the Adrenals.—Dr. Seymour Taylor: A case of Addison's Disease.—Dr. Hadden: Atrophy of the Adrenals with Addison's Disease.—Dr. Wickham Legg: A case of Phosphorus Poisoning.—Dr. Thin: Sequel to a case of Rodent Ulcer previously reported.—Mr. Cullingworth: Impaction of a large Calculus in each Ureter.—Dr. Burnet: Primary Melanotic Sarcoma of the Liver (card).—Dr. Goodhart: (1) A case of Phosphorus Poisoning (card); (2) Specimen of Leprosy, for Dr. Beaven Rake of Trinidad (card).—Mr. Makins: Primary Sarcoma of the Tibia (card).—Dr. Sharkey: (1) Impaction of a Corn in the Œsophagus for Twenty Months (card); (2) Aneurysm of the Heart (card); (3) Multiple Epithelial Growths in the Œsophagus (card).—Mr. Poland: Sections of Epithelial Growths in Viscera after Epithelioma of the Tongue (card).—Dr. Chaffey: (1) Multiple Sarcoma in a Child (card); (2) Lympho-sarcoma of Bladder (card).—Mr. Hutchinson, jun.: Two cases of Epithelioma of the Hand (card).—Mr. Lane: (1) Bony Process from the Humerus (card); (2) Cases of Displacement of the Foot (card); (3) Fracture of Pelvis (card).—Mr. George Lawson: Extensive Secondary Glioma after Removal of both Eyes (card).—Dr. Barling: (1) Round-celled Sarcoma of Peroneus Longus (card); (2) Alveolar Sarcoma of Triceps (card).—Dr. Hale White: (1) Perforating Tubercular Ulceration of Intestine (card); (2) Grain of Corn causing Typhlitis and Intestinal Strangulation (card).—Dr. Turner: Aneurysm of Aorta communicating with Superior Vena Cava (card).—Mr. Shattock: Hernia into the Fossa Duodeno-jejunalis in a Child (card).—Dr. Hebb: Melanotic Sarcoma (card).—Dr. Dawtrey Drewitt: Persistent Branchial Fissure in a Child (living).

Wednesday, May 20.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department: 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.

Thursday, May 21.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. C. Meymott Tidy: Poisons.
HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Mr. H. E. Juler: On the Use of the Ophthalmoscope in the Practice of Medicine.—Dr. Champneys: Some Points in the Diagnosis of Cervical Stenosis.

Friday, May 22.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
CLINICAL SOCIETY OF LONDON.—8.30 P.M. Report of the Spina Bifida Committee.—Mr. George Lawson: A case of Successful Œsophagotomy for the Removal of Plate with Artificial Teeth accidentally swallowed.—Dr. Colcott Fox: Two cases of Raynaud's Disease.—Mr. William Anderson: A case of Villous Tumour of the Bladder.—Mr. Bernard Pitts: A case of Tumour of the Bladder, removal, cure.—Mr. Jessett: A case of Plastic Operation for Epithelioma of Lower Lip (living specimen).
ROYAL INSTITUTION.—9 P.M. Mr. W. H. Pollock: Garrick.

Saturday, May 23.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
MIDDLESEX HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Odling: Organic Septics and Antiseptics.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, May 14th, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
May 8	29·95	W.	45	42	100	56	34	·12	Bright
,, 9	29·96	W.	50	45	100	59	40	·09	Bright
,, 10	29·95	W.	51	45	104	57	44	...	Cloudy
,, 11	30·11	N.	48	41	93	57	40	...	Cloudy
,, 12	30·19	N.E.	48	43	90	59	41	...	Hazy
,, 13	29·89	S.E.	50	44	94	59	40	...	Bright
,, 14	29·85	N.E.	49	44	94	55	40	...	Hazy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

THE LATE GENERAL GORDON ON MEDICAL MISSIONS.

IN the quarterly paper of the Edinburgh Medical Missionary Society, issued in May, is published a letter from the late General Gordon to the Rev. A. W. Schapira, Church Missionary Society missionary at Gaza, Palestine, in which he says that the fact of the inhabitants of cities like Gaza being fanatical is in a great measure due to their only knowing Europeans by repute, and expresses the opinion that by such establishments as hospitals a great moral effect is produced.

M.D.—We greatly prefer that clubs should pay 5s. or 6s. per member; but the sum named is not to be rejected.

CARDIAC MURMURS IN THORACIC ANEURYSMS.

To the Editor of THE LANCET.

SIR,—Will any of your readers enlighten me as to the following. A female patient was admitted into this infirmary some time ago for cardiac disease. On admission, she complained of pain over the apex of the heart, with great palpitation. On stethoscopic examination, a loud diastolic murmur was heard over the apex region (that being the point of maximum intensity), by myself and several medical men. A few days back she had severe hæmoptysis, and gradually sank. On making a post-mortem examination, the following was revealed: A true aneurysm of the commencement of the arch of the aorta; there was very slight atheroma of the internal surface of the tumour; the cardiac valves were intact, and the heart and lungs normal. Now arises the query. Why this pain, hæmoptysis, and murmur? Was it conveyed along the wall of the ventricle and so intensified at the apex? Or was it due to the patency of the semilunar valves, produced through the agency of the aneurysm? We have it from authorities on the subject that murmurs are the exception, and not the rule, in thoracic aneurysms.

Having seen an almost similar example some time ago, and failing to find any mention of such statements as the above in any books on the subject, is my excuse for occupying your space.—Yours faithfully,

City Infirmary, E., May 11th, 1885. W. GEM.

Medicus.—The question has been asked and answered more than once in our columns. (See THE LANCET, June 18th, 1883, p. 1076.)

FEES FOR LUNACY CERTIFICATES.

To the Editor of THE LANCET.

SIR,—A few months ago I was called upon to certify a lady of unsound mind whom I had attended for a mental affection some weeks before, and on sending my account for the certificate (£1 1s.) the other day was informed that on two previous occasions on which she had been certified her then medical attendants made no charge for the certificates, as they had been in previous attendance. Having never before heard such a fee disputed on this ground, I should be glad if some of your readers would kindly tell me the custom or rule in such cases.

I am, Sir, your obedient servant.

May 8th, 1885. LUX.

THE ACTION OF IRON ON THE SYSTEM.

G. BUNGE, in the *Zeit. Physiol. Chem.*, describes experiments on the form in which iron exists in egg yelk. He is led to believe that food does not contain iron in inorganic combinations, but that it only exists in complex organic compounds which have been formed by the vital processes. It is absorbed and assimilated in this form, and then converted into hæmoglobin. This is, he is aware, apparently at variance with the observations of practical physicians. The apparent contradiction may, he thinks, be explained by the hypothesis that inorganic iron salts prevent the decomposition of the organic iron compounds in the intestinal canal.

Lex.—The legitimacy might be questioned, but its possibility could not be denied.

WE are unable to find room for *Dr. Gibbons'* letter in our present number.

MEDICAL MISSIONS AS FIRST AIDS TO CHRISTIANITY AMONGST THE HEATHEN.

To the Editor of THE LANCET.

SIR,—The annotation upon "Medical Missions" in your issue of Feb. 14th last stimulates me to give you an independent account of my personal observations of this kind of work in operation amongst the heathen natives of South Africa.

So far as I have been able to discover during my travels in this part of the world, and so far as medical mission work goes, there appear to be three classes of mission stations in South Africa:—1. Those which do not dabble with medicine. 2. Those which do dabble with medicine to an amusing degree. 3. Those which either have a resident medical officer or are within reach of medical aid. The missionaries I have spoken to in charge of stations coming under Class 1 give me as their reason for not prescribing for sick natives that they know nothing about medicine or drugs beyond castor-oil or Epsom salts. Those in charge of stations coming under Class 2 have informed me that they feel perfect confidence in their ability to undertake any medical or surgical case. At these stations I have seen well-stocked surgeries and surgical instruments, from vaginal speculums to midwifery forceps and tooth instruments. Those stations to which a medical officer is attached are very few and far between—in these parts at least; I am only personally acquainted with one; but his (the doctor's) presence is not felt by the surrounding natives, his duties being limited to teaching in the Young Men's College, and in professionally attending the staff of the particular mission connected with his sect or denomination. By paying, natives and Europeans can, however, see the doctor. Not many miles from this station there is another large mission station, with a free dispensary attached; but a lady has charge of the drug department and prescribes for the sick and the lame. But in not a single instance did I meet with, or hear of, a medical mission station, working as such, in connexion with or independently of any of the numerous mission stations scattered about in the interior or lower parts of Africa. In all directions all I could hear was that there were no funds for developing "medical mission" work. For nearly four years I had medical charge of a Government (colonial) dispensary and hospital, at which more than 3500 sick were relieved annually (*vide* Blue Books, 1882-83-84). There was another medical establishment similar to the one under my own charge in the same territory; both were working an enormous amount of good, and both were closed upon the plea that there were no more funds left to carry on either the one or the other. During the existence of these dispensaries and hospitals, it was a rare thing to hear of witchcraft, "smelling-out," or other barbarous proceedings connected with disease or the sick and suffering; but, strange to state, within a few months of their being closed the native doctors could be met with everywhere, witchcraft again came into practice, and "eating-up" and "smelling-out" (practices connected with witchcraft) rapidly developed, with all their cruelties. However, the field is still open and "cut and dried" for medical mission work. This field is without an equal in South Africa; its benefits have already been tasted, and many long for its re-establishment, and it is a mighty weapon to use against heathenism in experienced hands.

The subject is far too long to discuss in your columns, and I am unable to do so at this time; but should any of your readers feel interested in medical mission work, the little personal experience I possess shall be placed at their disposal. However, I am strongly of opinion that medical mission work should be conducted independently of any ordinary mission station.—I am, Sir, yours truly,

S. CARTWRIGHT REED, M.D., J.P.

Douglas, Herbert, South Africa, March 31st, 1885.

Student.—There is much more laxity as to medical qualifications in the United States than here; but there is a marked tendency to improvement. We cannot speak definitely as to the employment of unqualified assistants.

USE OF THE TRICYCLE.

To the Editor of THE LANCET.

SIR,—May I ask through your columns whether in the experience of those members of the profession who use the tricycle a woman who is pregnant may ride that machine without any untoward results, and up to what period of pregnancy she may continue to ride with safety? The machine used is the "Quadrant," in which the power is gained by a vertical treading action, so that the employment of the abdominal muscles is reduced to a minimum.—I am, Sir, yours faithfully,

May 12th, 1885. A MEMBER OF THE CYCLISTS' TOURING CLUB.

A COLUMBIAN OPINION ON INFANTILE CONVULSIONS.

DR. EVARISTO GARCIA mentions, in the *Revista Médica* of Bogotá, the case of an infant of a few days old with severe and persistent convulsions, both tonic and clonic, which he successfully treated with very frequent small doses of bromide of potassium combined with chloral, warm aromatic baths being administered three times a day. He says bromide and chloral are important and valuable drugs in the treatment of infantile diseases, children bearing relatively larger doses of chloral than adults without vomiting or inflammation of the intestinal mucous membrane; they are, too, more susceptible to the hypnotic effects of bromide of potassium, which produces a calm sleep without convulsions or congestions, which at such an age makes opium a difficult remedy to deal with. Although the bromide produces pruritus with a roseolous rash, it causes sleep and calms the patient.

Mr. G. E. Walker.—The paper is marked for insertion. The letter is, we fear, too lengthy for publication—at least at present.

Mr. Dutch.—We are not acquainted with the rules of the Association.

PERMANGANATE OF POTASH IN FUNCTIONAL AMENORRHŒA.

To the Editor of THE LANCET.

SIR,—Having read with much interest a leading article in your journal on the use of permanganate of potash in functional amenorrhœa, and several communications from gentlemen who had tried it, I determined to give the drug a trial on the first opportunity. It was not long before I had one, and with brilliant success.

Miss E. F——, aged seventeen, had menstruated regularly for two years; but about four months ago her catamenia suddenly stopped, owing probably to a moral emotion that she had at the time. Her general health was very satisfactory, and no signs of any organic disease or chlorosis were apparent; but during the periods at which menstruation would have taken place she suffered from headache, loss of appetite, nausea, heaviness in the lower extremities, and sometimes epistaxis. I ordered one grain of permanganate of potash to be taken three times daily in a little sugared water, with the usual hygienic precautions. After being under this treatment for a few days, menstruation reappeared at the proper time without any pain or other suffering.

Believe me, Sir, yours faithfully,

Malta, May 4th, 1885. F. BORG, M.D.

W.M., M.B.—The improvement in hearing seems to have been due to climatic influences, rather than to any surgical interference. This influence appears to have been relied on by those who recommended in turn high latitudes, New Zealand, and a dry climate. In the lining membrane of the middle ear the local change which is present in good hearing on the one hand, and in imperfect hearing on the other, is of so light a character that a variation in climate is frequently sufficient to effect even sudden changes.

Mr. A. G. Lacy.—We can only refer our correspondent to our advertising columns.

TRICHLORACETIC ACID NOT A SOPORIFIC.

SOPORIFIC virtues have been ascribed to trichloracetic acid by various writers. L. Hermann shows, in Pflüger's *Archiv*, that it is destitute of any trace of this action, even when injected in large quantities. Its most characteristic action when injected in considerable quantity is the production of paralysis starting from the hinder extremities.

A Sheffield Medical Student.—We are inundated with such specimens as the one sent by our correspondent. The only remedy seems to be to make these *lâches* known to the bodies whose diplomas are held by the delinquents.

COCAINE IN HAY FEVER.

To the Editor of THE LANCET.

SIR,—May I, through your columns, ask some of those who are now familiar with the use of cocaine whether they consider it probable that the application of a weak solution to the conjunctiva and the mucous membrane of the nose would, by virtue of its remarkable anæsthetic properties, be likely to prove of benefit to sufferers from hay fever? Before many days the intolerable miseries of this complaint will be again upon us; and if there is a likelihood of this suggestion proving serviceable, it behoves us to give the drug a trial, with the hope of adding another to its numerous virtues. I have no experience in the use of this valuable aid to the oculist, &c., and therefore am unable to say what would be the porportions of a solution strong enough to be of service without causing discomfort by affecting the accommodation of the eye. I am afraid expense would be an obstacle, for, on inquiry, I find that the present price of a 4 per cent. solution of hydrochlorate of cocaine is 35*s.* an ounce. I am, Sir, yours obediently,

Long Stretton, May 13th, 1885. C. A. OWENS.

TREATMENT OF EPILEPSY BY SIMULO.

To the Editor of THE LANCET.

SIR,—Would any of your readers who have had experience of the treatment of epilepsy by simulo, a plant of the hyssop family (mentioned in THE LANCET of April 18th, page 722), kindly give me the result, as I have a case in which all the ordinary remedies have failed, and am anxious to try it. I am, Sir, yours faithfully,

May 4th 1885. M.R.C.S.ENG.

RELATIVE DIGESTIBILITY OF DIFFERENT KINDS OF FLESH.

MESSRS. R. H. CHITTENDEN and G. W. CUMMINS, in the *American Chemical Journal*, describe attempts to obtain positive results as to the relative digestibility of the more common edible species of fish, comparing it with that of various kinds of meat. Artificial gastric juice, made with pepsin and hydrochloric acid, was employed, and the following relative figures obtained:—The digestibility of beef, 100; veal, 95; mutton, 92; chicken (light meat), 87; ditto (dark meat), 84; salmon, 92; mackerel, 86; haddock, 82; trout, 78; lobster (young), 88; ditto (large female), 79; ditto (large male), 69; fresh cod, 72. Generally the white flesh is more digestible than the dark, and raw meat than cooked. In all the above experiments, however, the flesh was steam-cooked.

T. M.—Certainly the practice is a dangerous one. Why do so? It is not only good policy, but simply just, to keep close to the letter and spirit of the law. Let the relieving officer be left to perform his proper function. It is not for a medical officer to take the initiative in the matter. No certificate should be signed, except on a magistrate's order, in the class of cases referred to.

L.R.C.P., M.R.C.S., 1860, has not enclosed his card.

"MEDICAL PRACTICE IN THE UNITED STATES."

To the Editor of THE LANCET.

SIR,—In answer to the inquiry of "Medicus" in THE LANCET of April 11th, I take the liberty to say that the qualifications for practice in the United States are regulated by each State. In the Eastern, Middle, and Southern States a diploma from a legally authorised medical school is required, the same to be registered with the clerk of the court. In a few States ten years' practice previous to the passage of any special medical law qualifies. The East affords the best field for practice. Our professional men in law and medicine in search of new locations gravitate westward. In proportion to the population, they stand about one to two between the East and West.—I am, Sir, yours truly,

U. W. SNYDER, M.D.

Belmont, Pennsylvania, U.S.A., April 28th, 1885.

Sciatica.—Spencer Thomson's book, "Health Resorts of Britain," might assist our correspondent.

EXAMINATIONS IN THE VOLUNTEER SERVICE.

To the Editor of THE LANCET.

SIR,—Will some of our volunteer surgeons who have already passed their examination kindly assist me by saying which are the best books or book to read for the examination in the volunteer service?

I am, Sir, yours truly,

Hull, May 11th, 1885. A VOLUNTEER SURGEON.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Dyce Duckworth, London; Dr. Braxton Hicks, London; Mr. H. Goude, London; Mr. Rushton Parker, Birmingham; Mr. W. Rivington, London; Mr. G. Berdoe, London; Dr. Bristowe, London; Dr. Emil Emond, Mont Dore; Dr. Maglioni, Montevideo; Professor Longmore, Netley; Dr. Brailey, London; Dr. Cruise, Dublin; Mr. Wilkinson; Dr. Paul Boerner, Berlin; Dr. Ketchen, Middlesbrough; Mr. A. G. Lacy; Mr. A. J. Harvey; Dr. Aikman, Guernsey; Mr. Balmanno Squire, London; Dr. G. D. Mackintosh, Uppingham; Mr. Buckler, Biarritz; Mr. G. C. Macdonald, London; Dr. H. J. Alford; Mr. G. V. Perez, London; Mr. Carmalt Jones, London; Mr. T. C. McCulloch, Hanwell; Mr. Gem, London; Mr. C. J. Bond, Leicester; Brigade-Surgeon McCarthy, London; Dr. Borg, Malta; Dr. Snyder, Belmont, Pa.; Mr. Barwell, London; Mr. McGell; Mrs. Higginbotham, Glasgow; Dr. Beaty, Indore; Mr. Comford, Cheltenham; Dr. Jay, Leamington; Mr. Laurie; Mr. Bates, New York; Mrs. Rawlins, Westgate-on-Sea; Dr. Cunningham, Pwllheli; Messrs. Evans and Co., London; Mr. Steadman, London; Messrs. Stevenson and Co., Bournemouth; Mr. Warrington, Wellington; Messrs. Allen and Hanburys, London; Mr. Grimsley, St. Asaph; Mr. Granger, Whitby; Mr. Flint, Westgate-on-Sea; Mr. Cornman, Bath; Lieutenant-General Radcliffe, Leamington; Mr. Rankine, Sunderland; Mrs. Bayly; Mr. Cuff, Scarborough; Mr. Gravatt, London; Mr. L. Dickinson, London; Dr. Fitzpatrick, London; Mr. Meadows, Hastings; Mr. G. E. Walker, Liverpool; Mr. H. Lee, London; Dr. Suckling, Birmingham; Dr. Berry, Keighley; Dr. Gordon Black, London; Mr. W. B. Owen, London; Mr. R. Jones, Liverpool; Mr. Brodribb, Hastings; Mr. Edmunds, Chesterfield; Mr. Campbell, London; Mr. Davies; Mr. Rose, Southport; Mr. Cartland, Windsor; Mr. Armstrong, Manchester; Mr. H. Kimpton, London; Messrs. Mackay, Edinburgh; Messrs. Griffin and Co., London; Mr. Birchall, Liverpool; Mr. Holtby, York; Mr. Wood, Mortlake; Mr. R. Freeman, London; Messrs. Partridge and Cooper, London; Mr. Herbert Page, London; Mr. Bremridge, London; Mr. T. E. Davies; Mr. Stanmore Bishop, Manchester; Mr. G. P. Field, London; Mr. H. Stott, Friern Barnet; Dr. C. A. Owens, Long Stratton; Dr. Wynn Westcott; Mr. Callander, London; Mr. Lewis, Wakefield; Messrs. Beal and Son, Brighton; Messrs. Reynolds and Branson, Leeds; Mr. Gledhill, Broughton; Mr. Tunmer, Harrogate; Mr. Heap, Hanley; Mr. Beswick, Chester; Messrs. Marlove and Co., Notts; Mr. Brown, Lichfield; Mr. Tubb, Bicester; Mr. Maythorn, Biggleswade; Mr. Evans, Oswestry; Mr. Keating, Manchester; A Subscriber; Lux; M.B., M.C.; Medicus, Eastbourne; T. M.; Lex; A Member of the Royal College of Physicians; E. P., Ottawa; An Old Indian; Ajax; Student; Medicus, Answorth.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. White; Mr. Clark, Doncaster; Mr. Burgess, Manchester; Mr. Watson, Glasgow; Mr. Schluter, Hamburg; Mr. Tupholme; Mr. Macpherson, Middlesbrough; Mr. Mitchell, Holbeach; Mr. Wood, Burton-on-Trent; Mr. Kingzett, London; Dr. Colman, Yeovil; Dr. Waller, Peterboro'; Dr. Rake, Trinidad; Mr. Hodge, Ryde; Mr. Armstrong, Manchester; Mr. Morton, Horncastle; Mr. Norris, Weston-super-Mare; Dr. Hunter, Linlithgow; Messrs. Southall and Co., Birmingham; Mr. Lane, Northampton; Dr. Guisan, Cork; Miss Sullivan, Wolverhampton; Dr. Oliver, Harrogate; Mr. Curme, Childe Okeford; Messrs. Lumleys, London; Mr. Fulton, Toronto; Dr. Austin, Larne; Dr. Hunter, Notts; Mr. Perkins; Mr. O. Hanlon, Spennymoor; Mr. Pentland, Edinburgh; Mr. Draper, Huddersfield; Mr. Kirkby, Leeds; Mr. Craske, London; Mr. Richardson, Rhayader; Mr. Wetwan, Southwold; Mrs. Griffith, London; Mr. Hodgson, Peckham; Mr. Walker, Crick; Mr. Scott, Westray; Messrs. Reed and Co., Bristol; Dr. Kirk, Partick; Mr. Wells, London; Mr. Woodeson, Portsmouth; Mr. Lownds, Newcastle-on-Tyne; Mr. Marrett, Wisbeach; Lieutenant-Colonel Graham, Bristol; Mr. Pearson, Birmingham; Mr. Bryan, Little Hampton; Mr. Thomas, Poplar; Mr. Birch, Wandsworth; Mr. Rawlins, Westgate; Mr. Mitchell; Mr. Bedford, Sheffield; Mr. Waters, Bedford; Dr. Scofield, London; Mr. Price, Liverpool; Mr. Marsden, Edinburgh; Mrs. James, St. John's-wood; Mr. Crocker, Patricroft; Mr. Twyford, Hanley; Dr. Weakes, London; Dr. Eberle, Thirsk; M.D., London; Medicus, London; C. A., Brechin; Medicus, New Brompton; Matron, Liverpool; T. T., Liverpool; Medicus, Huddersfield; A., Liverpool; V. V., Camb.; F. C., Halifax; J. O. Y.; F. F., Leamington; D. S.; Y. A.; A., Newcastle-on-Tyne; M.D., Newcastle-on-Tyne; D. A. T.; Oculist; Alpha, Cronex.

Hastings and St. Leonards News, Lincoln Gazette, Lincolnshire Chronicle, Guernsey Star, Fifeshire Journal, North Western Gazette, Sussex Daily News, Liverpool Courier, Keene's Bath Journal, &c., have been received.

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Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

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Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

Clinical Lectures
ON
SCLERODERMA.

BY H. RADCLIFFE CROCKER, M.D., M.R.C.P.,
PHYSICIAN TO THE SKIN DEPARTMENT OF UNIVERSITY COLLEGE HOSPITAL, PHYSICIAN TO THE EAST LONDON HOSPITAL FOR CHILDREN.

LECTURE II.

CIRCUMSCRIBED AND MIXED SCLERODERMA.

GENTLEMEN,—We will consider to-day the remaining forms of scleroderma. One is diffuse, and is always unsymmetrical; the other is circumscribed, and, though mostly unsymmetrical, is not invariably so. We will discuss first the circumscribed scleroderma, which is more often called morphœa. As this last name is intended to indicate, it generally consists of blotches or patches, but is sometimes in bands. I will relate to you some cases, and show you others, which will illustrate most of the points that make this form so remarkable and distinctive, that it was a long time before its relationship to the other kinds of scleroderma was perceived, and it is doubted even now by some high authorities, such as Kaposi, whether we ought not to consider it a separate disease. It affects the female sex in even greater proportion than the diffuse symmetrical form, and, like it, may affect both children and elderly people; but it is most frequently seen among young and middle-aged adults. Its clinical features appear in the following cases:—

Miss K——, aged thirty, noticed in June, 1877, a white patch with a "bump" in the nape of the neck about three inches long and about an inch and a quarter in width; she does not think that the area of the patch increased up to the time that I saw her in March, 1878, but it projected more; she suffered from frequent "bilious attacks" attended with giddiness, pain, and weight in the chest, with vomiting and diarrhœa, but no headache. She knew of no cause for the lesion, and can give no account of its development. When I saw the patch it measured four inches and a half by one and five-eighths of an inch, but the upper half was much narrower than the lower; it was of a dead-white hue, with marked thickening in the centre and upper part, but at the edge the thickening was only slight, and faded off into the healthy skin, and there was no vascular zone round the patch. On the surface were shallow furrows radiating from the centre towards the circumference—in short, a puckering of the affected integument as if it had contracted; it could only be pinched up with difficulty on account of the thickening, but it was not adherent to the subjacent tissues. The skin felt hard, like rather stiff leather, between the fingers, and at the extreme edge white dots were seen surrounded by healthy skin. The patch was in the middle line, but more on the left side than the right. She was under treatment for some time, and general tonics were given internally and locally. An attempt at continuous galvanic action was made by fastening on the patch a plate of zinc and copper, with a piece of lint wet with salt solution between them. This did no good; indeed, the thickening increased somewhat, and produced more corrugation of the patch by the central contraction; and soon after I lost sight of her for a time, but three years later I saw her again, and she told me that about a year and a half after I had last seen her she had an attack of typhoid fever, and that after that the patch gradually disappeared; its going and coming appeared therefore equally mysterious, but it is not improbable that the friction of the dress at the nape was a determining cause for its position, and that the prolonged horizontal posture from the typhoid fever was the means of sending more blood to the part, and so led to recovery. The position of this patch in the middle line must be borne in mind, as it contrasts with most others which are more laterally placed, and it cannot be ascribed to a special nerve area. The thickening was greater than we usually find, but is present also in another of our cases. Finally, the complete disappearance of the disease in between two or three years after its first onset is to be remembered as probably part of the usual history of such cases if they could always be followed up. Here is another example of this disappearance whilst under observation in which the patches were multiple:—

Joyce M——, aged thirty-eight. Six months before her application to the hospital she noticed white patches appearing on the right thigh and leg without any apparent cause; the top one was and is attended with itching, but there is no symptom with the others. She knows of no cause for them; her general health is not very good; she has several patches of lupus erythematosus on her scalp and face, most of them cicatrised, the result of treatment, and there is some suspicion of marital syphilis. The morphœa patches are thus arranged: one the size of the end of the finger is situated rather to the inner side of the lower third of the thigh; another below this an inch and a half by three-quarters of an inch, with its greater diameter placed transversely; at the back of the thigh, just above the calf, is another patch an inch and a quarter by three-quarters of an inch; still lower on the inner side of the leg, over the tibia, is a slight yellowish discolouration, not clearly defined, and scarcely diagnosable except for the presence of the others; a little lower is another cicatricial-looking patch, which has still less of the typical morphœa aspect. The upper, larger patch has a slight violet zone round it composed of dilated bloodvessels; the others lack this, but the upper patches are of a yellowish-white colour, hard to the touch, but capable of being pinched up, and feeling like a piece of stiff leather. In the course of the year the patches began to disappear, the top patch and the one below the knee becoming thinner and less discoloured, and six months later the patch on the calf disappeared, but the patient ceased to attend before they were all completely gone.

In the following case the nerve distribution of the patches can be distinctly traced:—

Sarah J——, aged seventeen, attended at the East London Hospital for Women and Children on Dec. 8th, having been sent to me by my friend and colleague, Dr. Donkin. She was pale and subject to fainting, remaining insensible for an hour sometimes, and in some of these "faints" had fallen downstairs. She suffers from frequent headache and pain on the left side; has menstruated, but never regularly; never had rheumatic fever; heart normal. About four years ago she noticed some spots on the flexor surface of the left wrist; several appeared about the same time, extending about half-way up the forearm. They were not more than one-eighth of an inch in diameter, and they have gradually got larger by running one into another, and fresh places are appearing. Most of the patches are now raised above the normal skin, with a sharply defined border, but no vascularity around or in the neighbourhood, and the natural lines of the skin are unaltered. The patches can be pinched up as a whole, but not any part of them, and there is a very decided thickening; two or three are slightly pigmented of a fawn colour, but the rest are quite white. There is slightly less sensibility on the patches than round about them, and the patient thinks there is less strength in the affected arm. The patches are distributed as follows: In the right second intercostal space and towards its inner border, an inch to the right of the median line, is a patch half an inch in diameter; in the second left space on the same level, but two inches from the median line, is another; on the inner side of this in the third space is another, and in the same space are two spots three-quarters of an inch in diameter apparently commencing, the skin looking a little yellow and feeling a little thickened. In the axilla at about the second and third spaces is a group, some of which are a quarter of an inch, others are irregular and an inch and a half or more in diameter, running down rather to the back of the arm; towards the inner condyle is an almost continuous chain of patches; and in the same direction, but rather more anteriorly, is another less marked series, beginning about two inches below the inner condyle and reaching down the forearm for about two-thirds. There are a few directly posterior on the upper arm for about three inches; another series, fewer and less prominent, begins three inches below the acromial process and goes straight down to a point two inches above and to the front of the outer condyle; at this point there is a patch an inch by three-quarters of an inch, and the line is continued on to the upper two-fifths of the forearm; between the outer and inner of these two lines is a third, beginning with small ones a quarter of an inch in diameter, in the middle of the upper arm to the elbow, and from there to an inch above the hand; the lower patches are larger, irregular, and pigmented. The vaccina-

tion cicatrices are well-marked, with no morphœa in them. The extreme limits of the size of the patches is a quarter of an inch and two inches. In this case you have to observe that the patient was of a neurotic temperament, that the patches were very numerous, that the first ones came in a group and that they have very considerably increased in size from the date of their first appearance, when they were only an eighth of an inch across; then there was slight pigmentation in some of the patches, but this feature is much more developed in a case that I will relate presently. The arrangement of the patches in the intercostal spaces and in lines down the limbs affords a good illustration of nerve influence in the distribution of the disease—a condition not very uncommon as regards the fifth nerve, but less frequently seen, or less easily recognised, in other parts of the body. The marked elevation of the lesions and the absence of the usual vascular zone are also noteworthy features.

Our next case exemplifies fifth nerve distribution:—

Ellen T——, aged ten years, was sent to me by a doctor from Wirksworth. Three months previously a whitish patch appeared on the forehead just to the right of the middle line at the commencement of the hairy scalp; it is now spreading downwards on to the forehead, and measures an inch and a half by half an inch; the upper and lower parts, which are the more recent, are pearly white and thin, while the middle two-thirds are yellowish and thickened, and the skin cannot be pinched up in these parts. The skin is pink for about half an inch beyond the patch, but there is no distinct zone of vessels. On the scalp corresponding to the apex of the occipital bone, and quite in the middle line, another patch is coming an inch by half an inch, oval and slightly yellowish, but the skin is not thickened. In the centre of the cheek is an irregular patch, about an inch and a quarter by two-thirds of an inch, where the skin is very slightly paler than the surrounding parts, but there is no alteration to the touch or when pinched up. The mother says it is more conspicuous sometimes, when the rest of the cheek is red; now it is only just perceptible, and would have escaped notice if attention had not been drawn to it. With a lens the skin is seen to be slightly smoother than the healthy skin. No assignable cause for the patches is discoverable. The patient has never been strong, and there has been no definite illness except three convulsions at long intervals between the ages of three and five years; and there have been none since. She often complains of her legs aching, and easily gets out of breath, but the heart and lungs are healthy. She was only seen once. This distribution in the course of the fifth nerve is much more striking in some cases, several patches not unfrequently lying exactly along the course of distribution of its branches, the domain of the supra-orbital branch being especially frequently favoured. A patch or band will sometimes divide the forehead and anterior half of the scalp exactly in the middle line, as if by the cicatrix of a sword-cut. I will show you the portrait of such a case presently.

The next case exemplifies rapid evolution:—

William M——, aged eleven years, came to the East London Hospital for Children on June 18th, 1877. A month previously a patch the size of half a crown appeared close to the spine on the right side below the level of the angle of the scapula; a few days later a smaller one appeared in the right interscapular region; the large patch began with itching and tingling; and the week before he came to the hospital he complained of pain in it; the pain was constant but with exacerbations. The large patch is the size of the palm with ill-defined edges, so that the patch gradually merges into the surrounding skin, which is naturally dark; the patch is white and looks like a cicatrix, with brown patches the size of a florin on it; the skin over it has a leathery feel, and is thicker than the surrounding parts. In the lumbar region over the spine is a white atrophic spot the size of a pea, depressed below the other skin. There is a streaked patch on the left of the spine glistening and slightly scaly, apparently the commencement of another patch. The boy looks perfectly well and ruddy, and has had no previous illness, except measles; he only attended for a short time and could not be afterwards traced. In addition to the rapid evolution the association of a white atrophic spot with the morphœa is interesting here. This has been previously observed, and is not very surprising if my theory of the pathology of morphœa is correct.

The next case is of special interest, because its course has been watched for several years, so that the evolution of the disease could in great part be traced; and through the good nature of the patient the morbid anatomy has been made out for the first time, both in the early and later stages.

L——, aged thirty-nine, widow, first attended at the East London Hospital for Women and Children on March 16th, 1878. Eight months previously she noticed a white patch the size of a threepenny-piece just above the right clavicle. When first seen by myself it had increased to an oval patch an inch and three-quarters by three-quarters of an inch, consisting of two parts, a white slightly thickened parchment-like portion and a thinner and pinkish patchy-looking part, which surrounds three-quarters of the white part. Beyond this large patch is a white atrophic spot the size of a millet seed. On December 1st, 1877, the patch is described as about an inch to the left of the sterno-clavicular region in the same position. Further observation showed the mode of development of the left patch was as follows:—Several small pearly white and slightly depressed spots about one-sixteenth of an inch across developed in groups, the surface round being pinker than the rest of the skin; these evidently atrophic spots enlarged, and subsequently coalesced into patches of variable size. The centre of the spot is smooth, but the border is slightly puckered into radiating lines. In the neighbourhood of these spots the skin is slightly marked with vessels, but when the patch gets larger, dilatation of the vessels round the patch will probably form a pink or violet zone. The older and larger patch increased in size in a similar way, small atrophic spots first forming, enlarging, and then coalescing with the large patch. On December 31st it was noted that both patches had increased since she was last seen in the spring; the right one had grown in all directions, especially at the anterior and posterior ends, and there was one spot on the right border of the sternum. On the left side the spots had increased in size, many being a quarter of an inch or more, but there was no large patch then; all the new patches were of a much more opaque white than before, especially the posterior end of the large patch. There is a peculiar irritation present. The older and larger patch, which had a very irregular outline, measured four inches by two and a half in its greater diameter. The patient was good enough to allow me to excise a portion of the patch some time previously for microscopic examination, and when the patch was much smaller the whole of it was removed, but it recurred, and it would be impossible to say that any had been taken away from its present aspect (1881). In order to ascertain whether the sweat glands were interfered with, pilocarpine was injected under the skin and sweating was produced all round the patch profusely, and the whole of the body was slightly moist, but the patch itself remained quite dry. The patches are always hairless, and the natural wrinkles are obliterated. She is of a nervous, worrying temperament naturally, and this is aggravated by a poor digestion and family troubles, in the shape of an idiot child and the worry of a shop, of which she is proprietress, in a very poor neighbourhood.—Jan. 19th, 1885: The large patch has not increased in size since I saw her four years ago, but its texture has altered, and the upper and older three-quarters are evidently recovering to a great extent. The skin is very thin and of various shades, from bright-red to pink-red; parts of it are well-defined from the rest, and the colour is almost entirely due to dilated vessels. The lower three-quarters is still white and parchment-like, in fact, retains the morphœa aspect, but is not uniform. At the most extreme part of the posterior border is a thickened area, about half an inch square, of apparently ordinary keloid, on the site where a piece of skin was removed some years ago. Nearer the median line of the neck than the large patch is an irregular group of six morphœa spots, one-sixteenth to a quarter of an inch in diameter. On the left side the corresponding patch has never developed, as it once apparently promised to do; but there is still only an irregular group of white indurated skin patches, half by an eighth of an inch, and arranged in two parallel lines, some half dozen in all. The skin on which they are placed is still somewhat pinker than the rest, but there is no well-defined zone either here or in the larger patch now.

I have no case of my own to offer you in which the disease is in bands, but there is a very good instance of it reported in the *British Medical Journal* of June 7th, 1884, by Mr. Simpson of Lincoln, in which, as a result of, or at all events consecutive to, an injury to the knee of a girl of between two and three years, the skin over the patch became hard, and the induration spread upwards and downwards until it

formed a band along the inner and anterior aspect of the limb three inches broad at the groin, and an inch at the dorsum of the foot. The skin was pallid, glossy, and irregularly mottled, with yellowish-brown spots, the borders were irregular and of a pink hue, and the contraction of the indurated skin bent the foot up to an angle of thirty degrees with the leg. The case appeared to be getting better when last seen, about four years from the beginning of the disease.

Mr. Hutchinson's case of Louisa O——, aged five years, reported in his Lecture on this subject, is also in point. Some months after having complained that her foot hurt her, a white patch was noticed in front of the instep, and after that spread rapidly, and when seen a year later there was a "long irregular tract extending from the dorsal surface of the two inner toes along the middle of the dorsum of the foot over the front of the instep and up the front of the leg, and then, diverging to the outer side of the knee, passed up the outer side of the thigh as far as the middle."

In both these cases an injury seemed to be the exciting factor, and this is corroborated by others. Thus, in Gillette's case[1] the affection followed a blister; in a case of Dr. Hilton Fagge[2] patches were symmetrically placed in the position over which the garters were worn; and these cases support my suggestion that a patch on the neck in the first case related might be due to the friction of the dress. No doubt there must be a predisposition on the part of the patient; but this is true also for the cases with a definite nerve distribution; for though the nervous system can determine the occurrence and the position of an eruption, and perhaps its extent and severity to some degree, it depends on the individual attacked what kind of lesion will ensue.

A case of Mr. Streatfeild's bears upon this.[3] A man, aged forty-five, had morphœa confined to the area of the left fifth nerve, affecting the skin and subcutaneous structures, and in addition he had exostoses of the lower jaw and hard palate of the same side; he had also ulceration of the lower part of the cornea, but this appeared to be due to the hard edge of the sclerosed lid. Another favourite position for morphœa bands is on the breast, perhaps from the friction from the edge of the stays. And here I would observe that the patches are more superficial than the bands, and usually affect the skin alone. Do not imagine that I wish to push the theory of injury to the exclusion of nervous influence. There are so many cases where the patches are obviously in the course of nerves, that we must assume they have an important influence in this arrangement, and probably in the production of this disease. At the same time, I think that local irritation or injury is the probable exciting cause of a certain number of instances, and local causes should therefore be always sought for; while there are a large number of cases for which we can give no satisfactory explanation unless we assume that there is a local vaso-motor or trophic defect.

(*To be concluded.*)

ON THE

SIGNIFICANCE OF A PECULIAR MURMUR IN RELATION TO THE DIAGNOSIS OF INTRA-THORACIC DISEASES.

BY J. S. BRISTOWE, M.D. LOND.

(*Concluded from p. 881.*)

CASE 3. *Disease of heart and large vessels at base, with probable communication between an artery and vein.*—Daniel B——, a letter-carrier, thirty-one years of age, came under my care on Jan. 15th, 1885. His health had been good up to about five years ago; he had never had rheumatism or syphilis. About the time just stated he began to suffer from shortness of breath, and this had continued to increase, but it had not until recently prevented him from walking many miles daily in the performance of his duties in a suburban district. On Jan. 1st he complained of feeling cold and shivering, of cough, and of fluttering at the heart; his breath became shorter; and he took to his bed.

The patient is a spare, pale, but fairly healthy-looking man, complaining of pain in the cardiac region, cough, and dyspnœa. Tongue slightly coated; skin cool and moist; temperature normal. On examining the chest, the lungs, excepting for the presence of a little rhonchus, appear to be healthy. Respiration 30. The præcordial dulness is of normal area. The heart's apex beats about half an inch below the nipple and a little to its inner side, and attending each beat there is a fairly well-marked thrill; there is also slight pulsation visible at the inner extremity of the left second interspace, and here also a slight systolic thrill is perceptible. A murmur is audible over the cardiac area and the position of the large vessels; this is loudest and most distinct over the situation of the pulmonic valves and pulmonary artery—or, in other words, over the cartilage of the left third rib and corresponding portion of the second interspace. In this region one can hear the first and second sounds of the heart, the latter being somewhat scratchy in quality; but, additionally, there is a loud blowing murmur, beginning with the systolic sound, continued, without obvious change, throughout the whole of the systolic period, and with some modification of character (reminding one of a venous hum) through the second sound into the diastolic period, during which it dies away. The murmur is audible over the aortic area and at the apex; but in these situations (as, indeed over the greater part of the cardiac area) the systolic portion of the murmur is alone distinguishable. The murmur is also to be heard distinctly over the whole of the manubrium of the sternum, and behind over the apex of the left lung, and in the course of the aorta as low down as the middle of the scapula. The second sound is louder and more scratchy to the right of the sternum than to the left. It is not quite clear whether the murmur at the apex is wholly conducted from the base, or is in part a mitral systolic murmur. The action of the heart is regular but quick (110); the pulses at the wrists are equal, and, as shown by the sphygmograph, of quite normal character. There is no undue pulsation in the vessels of the neck, and no enlargement of veins about the neck or in the thoracic walls. Pupils equal; voice normal. Abdominal organs and kidneys healthy. No anasarca; no enlargement of the ends of the fingers.

The patient was kept in bed and examined carefully from time to time; further examination confirming the general correctness of the description given. But a few additional phenomena were observed. Among these, the fact that the right pupil was usually somewhat larger than the left; the fact that occasionally he presented slight puffiness of the backs of the hands, more especially of the back of the left hand (this it appeared had often been observed before admission); and the fact that he suffered at times from some aching pain in the region of the heart and left axilla. So long as the patient remained in the hospital he continued fairly comfortable and looked fairly well. But he was occasionally kept awake by the thoracic pain and cough, which, however, were never very severe, and improved. There was some difference of opinion with respect to the intra-thoracic murmur. Some of those who examined the patient held that there was a double basic murmur. For my own part, I never saw reason to modify the description of it given above, and I may add that Dr. Gee on one occasion examined the man with me and came to the same conclusion that I had done.

The patient was discharged improved in health, but unchanged as regards the physical signs of disease, on Feb. 24th, 1885.

What is the matter with the patient? My present experience would lead me to believe that he has an intra-thoracic growth of the same kind as the growths in my first case, or that he has some communication between an artery and a vein, or the equivalent of a vein, as in my second case. I do not believe that he has a tumour, for his symptoms have been coming on for years; they are very slowly progressive at the present time, and there are no enlarged glands in the neck, or tumours there or elsewhere, to confirm the diagnosis of intra-thoracic new growth. On the other hand, it does not seem very likely that any communication exists between the aorta and the vena cava or one of the innominate veins, partly because the murmur is loudest at the left second interspace, which is far removed from the normal position of either of these veins, partly because of the total absence of dilated or pulsating veins in the neck, of distended veins in the thoracic walls and arms, and of œdema and congestion of the

[1] Archives Gén. de Méd. 1854, tom. II., p. 657.
[2] Quoted by Hutchinson in Lectures on Clinical Surgery, vol. I., p. 315.
[3] THE LANCET, 1880, vol. I., p. 996.

head and neck. The absolutely healthy quality of the pulse, combined with the situation in which the murmur appears to arise, might suggest disease of the pulmonary artery, and communication between this and some neighbouring vein, such as one of the pulmonary veins. But primary disease of the trunk of the pulmonary artery is excessively rare, and communication between such a diseased artery and a vein is of too improbable occurrence to deserve serious consideration. The most likely explanation seems to be that the patient has an aneurysm of one of the sinuses of Valsalva or of the aorta in the immediate neighbourhood, and that a small communication has become established between this and either the pulmonary artery or the left auricle. The former of these two incidents is the more common and the less serious, and for these reasons the more likely. I may call your attention to a very valuable report on the subject of "Aneurysm of the Aorta opening into the Cavities of the Heart or large Vessels" published by the late Dr. Peacock in vol. xix. of the Transactions of the Pathological Society, which may be usefully studied in connexion with this paper.

I add a fourth case, not because it has any relation to the title of my paper; but because it closely resembles in almost all other points the case of Susannah F——. It presents also features of independent interest.

CASE 4. *Large aneurysm of ascending aortic arch; compression and obliteration of junction of both innominate veins with cava; great œdema of head and neck and upper part of trunk; suppuration among pectoral muscles, of middle lobe of right lung, and of tissue between œsophagus and left bronchus perforating both tubes; death; necropsy.*—Henry C——, aged forty-five, was admitted under my care on July 7th, 1857. He had had good health up to seven months previously, when he first felt a dull heavy pain in the chest; this gradually increased, and became accompanied by cough with pain in the head; then difficulty of breathing came on, with inability to lie down, especially on the back or right side. Later on he noticed swelling of the neck and upper part of the chest.

On admission he was suffering from orthopnœa, with an occasional troublesome cough, and intra-thoracic pain. His head and neck and upper extremities were much swollen and congested; and the veins in the neck, as well as those in the upper part of the walls of the chest, were distended. The lower part of the trunk and the legs were wholly free from œdema. The heart's action and sounds were healthy. There was some prominence of the upper part of the sternum and adjoining ribs; and there was an area of dulness, several inches in diameter, having the manubrium for its centre. There was no pulsation here; neither was any murmur detectable. No tumours to be felt in the neck, no inequality of the radial pulses, nor any signs of pulmonary disease.

The patient varied a little from day to day as regards his dyspnœa and pain; but in the main he gradually got worse. The congestion and œdema of his head and neck, upper part of the chest and arms, increased considerably, until his aspect was shocking to look at. And towards the close of his life the œdema descended, and involved not only the abdominal walls, but the legs. His dyspnœa was always considerable, and at times distressing. He was unable to lie down, and generally passed his days and nights sitting across a chair with his face to the back and his head resting on his arms, which were supported on the back of the chair. In this position he dozed from time to time. The pain continued more or less severe. There was nothing specially to be noticed as regards the state of his digestive organs. He took food fairly well, and his bowels were pretty regular. There was nothing abnormal in the urine. He died on July 23rd, sitting on the corner of his bed.

Necropsy.—Extreme anasarca of head and neck and front of chest, slight anasarca of feet. The connective tissue and muscles of the front of the chest were highly œdematous, and the muscles occupying the left mammary region were hardened and infiltrated with pus. The sternum was strongly adherent, especially above, to a nearly globular intra-thoracic tumour. This, which measured nearly eight inches in diameter, extended from the top of the sternum above to the cartilages of the fifth rib below, and from an inch outside the junction of the osseous ribs and cartilages on the one side to the corresponding situation on the opposite. The heart was pushed downwards and to the left, and the lungs were displaced laterally and adherent to the tumour. The pleuræ contained about a pint of serum each. A layer of recent lymph lined the anterior half of the left pleura. The lungs were small. The middle lobe of the right was infiltrated with pus, the lower lobe was collapsed. The rest of the right lung and the whole of the left were crepitant. The pericardium was universally and firmly adherent to the heart by old adhesions, which were abundant, œdematous, and consequently very thick. The heart was of ordinary size, if anything rather small, and its valves were healthy. Pharynx and œsophagus for the most part healthy. But the anterior wall of the latter presented a longitudinal slit or ulcer about an inch long, which communicated with a sloughy cavity the size of an almond between it and the left bronchus. Three or four of the cartilaginous rings of this bronchus were partially destroyed, and their denuded extremities hung into the cavity. The mucous membrane of this tube was perforated at two or three points. There was nothing to show how this small abscess cavity had arisen; but it was evidently the cause of both the œsophageal and bronchial ulceration. Larynx and trachea and (with the above exception) bronchial tubes healthy. The tumour, which extended back almost to the spine, was an aneurysm, with a thick, tough, fibroid capsule, and nearly filled with laminated coagulum. This latter measured from an inch to an inch and a half in thickness. The rest of the cavity was occupied by more recent clot. The aneurysm sprang from the front and sides of the ascending aortic arch, from just above the valves below to the origin of the innominate artery above. The upper and lower margins of the orifice of communication were thick and rounded. The lateral margins were lost in the arterial walls. No part of the aneurysm had any direct connexion with any of the suppurating regions before described. The transverse arch of the aorta was somewhat dilated; and the whole length of the vessel was studded with patches of atheroma. The right vena innominata was distended, and completely blocked up by adherent, decolourised, laminated coagulum; and coagula gradually assuming the characters of recent clot extended to a considerable distance into the veins opening into it. The same was the case with the left innominate and its branches. But this innominate was thicker walled, and the clot filling it was more adherent and denser. Both veins stood up almost perpendicularly from the aneurysm, at a considerable distance from one another, and the proximal parts of both were lost in the aneurysm, and could not be followed either upon or through its walls. The superior cava could be traced upwards from the heart for a distance of two inches, where it gradually blended with the walls of the aneurysm and was lost in them. The upper end was separated by a considerable interval from the lower end of the right innominate, and by four or five inches from the lower end of the left. The abdominal viscera were all healthy.

CASES OF LITHOTOMY IN THE ADULT,

WITH REMARKS.

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(*Concluded from page 886.*)

CASE 2. *Twenty-six small calculi removed by the lateral operation from a man sixty-four years of age; recovery.*—Henry W——, sixty-four, was admitted into the London Hospital under Dr. Langdon Down on March 14th, 1873, and remained on the medical side of the house till May 4th, when he was transferred to my care. The diagnosis card bore the record, "granular kidney, bronchitis, and cystitis." The urine had been alkaline at first, later slightly acid; sp. gr. 1025, and contained mucus and one-eighth of albumen. The patient had been troubled with a cough for many years, worse in the winter than in the summer. He had never had hæmoptysis. He said he had stricture for two or three years. Nevertheless, a full-sized catheter passed easily. He suffered from great pain in the back, preventing sleep.

On May 22nd, having found that there were calculi in the bladder, I passed a lithotrite scoop, seized a calculus, brought away a portion, and tested it. The muroxide test showed that it contained lithic acid. Although the patient

had no shivering fit afterwards or other bad symptom, he certainly did not wear the aspect of a case favourable for either lithotomy or lithotrity. He appeared to be an old broken-down man, with bronchitic and emphysematous lungs and damaged kidneys; but I thought he would have the best prospect of recovery if I removed the calculi as speedily as possible. Accordingly, on June 9th I performed the lateral operation on the principle of the median, cutting into the urethra as far as the apex of the prostate, and slightly into the gland, introducing a director, withdrawing the staff and then insinuating my finger into the bladder. I say into the bladder, but in reality I could scarcely reach further than the vesical orifice, owing to the depth of the organ and the great enlargement of the prostatic lobes. In performing the operation I used a curved catheter staff, made for me by Messrs. Krohne and Sesemann, after the model of the ordinary rectangular catheter staff. The calculi were extracted one by one, twenty-six in all. The largest were about the size of marbles, of a buff colour, and marked with facets. There was tolerably free hæmorrhage, chiefly venous, due to congestion of the parts. A tube with a sponge was introduced. A little bleeding following the operation was easily stopped by the pressure of a couple of sponges.

June 10th.—A better night than for some time; pain at meatus, which used to be severe, nearly gone; tongue coated; much flatulence; sickness; thirst. Temperature 99·8°; pulse 120; respiration 30; taken no food; all the water comes through the tube; anxious expresssion; no pain; scrotum and perineum of a blackish colour from blood extravasation.—11th: Very low; passed a very bad night; erysipelas of nose appearing; tongue coated; pulse feeble; takes no food; tube removed; an indiarubber catheter inserted quite easily. Temperature 102°.—12th: Catheter came out and could not be repassed; no vomiting; in much the same condition; takes milk; urine passes through the wound.—13th: Great pain at times; takes egg, milk, and brandy; erysipelas spreading; nose swollen. I passed a catheter into the bladder, and, having drawn off 20 oz. of very offensive purulent urine, washed out the bladder.—14th: Better; less pain; more relish for food; urine drawn off clearer; bladder washed out.—16th: Rather better; takes more nourishment; erysilepas disappearing.—17th: Better; less pain; erysipelas gone.—19th: Better; takes food fairly; half an ounce of very fetid pus drawn off with the catheter; subsequently the urine drawn was clearer.—20th: Much better; takes plenty of nourishment; two teaspoonfuls of urine passed through the urethra. From this time he was convalescent; the wound healed slowly; the bladder was regularly washed out, and at the end of some weeks he left the hospital, cured so far as the lithotomy was concerned. The calculi are in the museum of the College of Surgeons. Like the others, they were analysed by Mr. Taylor; they consist of uric acid upon a minute nucleus of oxalate of lime. The outer surface of the calculi is coated with a thin layer of urate of ammonia.

Remarks.—Lithotomy, as performed in the present case, cannot be regarded as in itself a dangerous operation. With a very limited incision of the prostate, with only slight dilatation of the gland, and without subsequent contusion in the extraction of the calculi, lithotomy is reduced nearly to a simple incision in the urethra, a procedure which can scarcely have a higher rate of mortality than the "catheter fever," which has been stated on high authority to be fatal in 4 or 5 per cent. of the cases. One of the main features of the case was the marked amendment which followed the withdrawal, on the fourth day after the operation, of a pint of purulent and offensive urine and washing out the bladder. The absence of interference with the neck of the bladder left the retentive power of the viscus unimpaired, and the urine accumulating mixed with vesical mucus and pus, and therefore readily decomposing, created irritation, and probably promoted the spread of the facial erysipelas. Three days after the irrigation of the bladder commenced the erysipelas had gone, and the patient's condition had greatly improved. The foregoing two cases are the only instances of multiple calculi in the adult for which I have performed lithotomy. About this period I attended a case of calculous affection recommended to me by my colleague Dr. Meymott Tidy. The patient was a man seventy-six years of age, who could not pass his urine on account of atony of the bladder accompanying the presence of several calculi in the organ. He was in fairly good condition and much better to all appearance than Henry W——, not being confined to bed or suffering from any serious concomitant disorder. The urine was free from albumen. I gave my opinion in favour of an operation, but very naturally before he decided the patient desired to have a consultation, and Sir William Fergusson saw him with Dr. Tidy and myself. Sir William soon satisfied himself as to the presence of multiple calculi, and after he had returned home wrote to me to the effect that he did not consider the stones as the cause of the atony of the bladder, and advised me not to press the patient to consent to an operation. In deference to Sir William's high authority this negative course was pursued. The patient lived four months longer, regaining some power over his bladder before his decease. No post-mortem was made, the patient being a Hebrew. My impression was that he would have been more comfortable and, provided that he had survived the operation (and I see no reason why he should have succumbed), have had a better prospect of prolonging his life if the calculi had been removed. But this was only an impression which I did not feel justified in acting upon in opposition to the view of a surgeon possessing so extended an experience as Sir William Fergusson. This, however, I think I may say, that if I myself at the same age were suffering constant discomfort and pain from the presence of calculi in the bladder, without very pronounced degeneration or disease of the vital organs, I should certainly have them removed either by lithotrity or lithotomy, and I know of no fairer test to apply in the recommendation of an operation of a serious nature than this—viz., "Would you have it performed upon yourself?"

CASE 3. *Calculus in the bladder of a man sixty years of age: lateral lithotomy: recovery.*—James W——, sixty, labourer, was admitted into the London Hospital on April 24th, 1878. Eight months previously he had passed two small pieces of stone about the size of a small pea and quite smooth. When he was at rest the urine remained quite clear, but it became thick after extra work, and he experienced great pain. He attended as out-patient and was sounded, but no calculus was found. On April 27th he was again sounded, and I obtained audible evidence of a calculus. On May 1st there was more pain, of a cramp-like character, accompanied by frequent micturition and sudden stoppages of the urine. For the last three days the urine was passed every twenty minutes or half an hour. At night he passed water every ten minutes. There was considerable pain during the act of micturition and there was blood in the urine. Washing out the bladder with warm water gave relief. On May 23rd I performed lateral lithotomy and removed a mulberry calculus the size of a small walnut. The oozing which occurred after the operation was arrested by subcutaneous injection of ergotine. The patient made an uninterrupted recovery and left the hospital at the end of three weeks.

Remarks.—The duration of the case was not longer than it would have been under the old system of performing lithotrity. As the patient was a healthy man, I believed that he would not run any greater risk from the cutting than the crushing operation; whilst he would be free from the pain which is often occasioned by small fragments of stone which have escaped the grasp of the lithotrite. As in the preceding case, the operation was a urethrotomy, accompanied by a very limited incision of the prostate.

CASE 4. *Calculus in the bladder of a man sixty-eight years of age: lateral lithotomy: recovery.*—James B——, sixty-eight years of age, labourer, was admitted into the London Hospital on Dec. 7th, 1880. He said that he felt quite well till four years ago, when he began to suffer severe pains in the hypogastric and perineal regions, which were of a cutting character and intermittent. Sometimes he did not feel them for several hours or days; they were always worst while he was moving about, obliging him to stop and sit down, when they would pass off. He had always lived in Norfolk (West Bilney, near Lynn) and been a very temperate man, drinking spring water which was clear and pure to the taste. In all respects, save as to the cause of his calculous complaint, he had been healthy. He had a fresh colour, and appeared to be free from organic disease. He had frequent desire to micturate, sometimes every quarter of an hour, attended with severe pain towards the end of micturition. He had not noticed the stream suddenly stop or found it easier to micturate in one position than another. He had never passed any pure blood, but after exertion the urine became very dark. As a rule the urine had been clear and never offensive. On admission it was loaded with mucus.

Immediately on the introduction of a sound into the bladder a calculus was struck lying close to the orifice.

From the prolonged impression of contact with the calculus produced when the sound was passed over its surface, I judged that it was of considerable size. A lithotrite was introduced to determine the exact size of the calculus, but it was found to be difficult to seize it, and the further prosecution of the matter was deferred until the patient could be anæsthetised. The patient's consent having been obtained to the performance either of lithotomy or lithotrity, as might be considered best, he was placed under the influence of ether on the afternoon of the 13th, and an attempt was made to inject the bladder, but the water escaped by the side of the catheter and the bladder could not be induced to retain fluid however cautiously injected. The calculus was grasped by the lithotrite and found to exceed considerably an inch in one of its diameters, and from the ringing sound elicited on percussion it was evidently dense and hard. These circumstances, combined with the irritability of the bladder, made me decide upon the performance of lateral lithotomy. A rectangular staff was introduced, and, in the absence of any of my colleagues, was held by Mr. Makeham, one of my dressers. No difficulty was experienced in reaching the bladder; but the viscus being empty, there was no gush of water to carry the calculus within the grasp of the forceps. As soon as the calculus was seized, it was found impossible, without undue force, to extract it through the limited opening made in the prostate. I therefore introduced my left index-finger and cautiously enlarged the opening by incising the prostate on the same side for a quarter of an inch with a probe-pointed knife slid along the finger. The neck of the bladder apparently remained intact. The stone then came out without effort. It was solitary. The patient was the subject of piles, brought on no doubt by the constant straining and frequency of micturition. The parts generally were vascular; and there was some smart hæmorrhage from the superficial branches of the pudic, one of which required ligature. Some oozing from the prostate was soon stopped by the introduction of ice into the wound and into the rectum. The tube was not used; in fact, I now generally dispense with it both in children and adults. The stone was chiefly composed of lithic acid. It was ovoid and flattened, and measured 2¼ in. in its longest diameter, and nearly 1 in. in thickness. It weighed 1¾ oz. Its surface was slightly nodular and without facets. A hypodermic injection of ergotine frequently used after operations to ensure contraction of small arteries was administered before the patient was sent to bed. On Dec. 14th he seemed very well; no hæmorrhage; had a good night, and took his breakfast heartily. Temperature 100·2°. — 15th: Going on well; no pain; sleeps well; appetite good. Temperature 99·2°, gradually coming down to normal. Bowels well open, and passes a little urine by the natural passage.—22nd: Has progressed without a bad symptom. Temperature normal. Most of the urine passes through the wound. The patient made a rapid and excellent recovery in every respect, and was able to leave the hospital cured in a few weeks.

Remarks.—Prior to the introduction of "litholapaxy" the foregoing case would have illustrated very well the circumstances under which lithotomy should be preferred to lithotrity. The size of the stone and the extreme irritability of the bladder, which could not be induced to retain any water, would have been the determining points in the case. At the present time it is, perhaps, scarcely possible to fix a decided limit of size at which lithotrity should end and lithotomy begin, the practice of continuous crushing and removal of fragments at one sitting having abolished one of the main objections to the application of lithotrity to large calculi. It was not so much, therefore, the size and hardness of the calculus as the resentment of the bladder which decided a resort to lithotomy as the safer operation for the patient to undergo. The temperate habits of the patient and his healthy appearance led to the belief that his kidneys were free from organic disease and that he would bear the operation well, and the belief was justified by the result. The patient when last heard of (at the beginning of 1884) was in good health.

CASE 5. *Large vesical calculus in a female; vaginal lothotomy; cure.*—Elizabeth B——, aged seventeen, collar dresser, a stout pasty-looking girl, was admitted into the London Hospital on July 3rd, 1883, from the out-patient department. She stated that nine months previously she passed blood in her urine, which dribbled away from her. The dribbling lasted two months and then passed off. About a fortnight before admission she had to pass her urine twelve or fourteen times in the twenty-four hours, sometimes only a tablespoonful at a time. Lately she had not seen blood in her urine.

On admission she complained of frequency of micturition and of pain during the act. She had to strain to pass urine. On examination with the sound a stone of large size was at once detected. The urine was found to be remarkably pale and contained urates, but no phosphates, as a deposit.

On July 25th the patient was anæsthetised and a lithotrite introduced into the bladder, when the great size of the stone became apparent. As it was not easily grasped and as the urethra was not readily dilatable, I decided on removing the stone at once through the vagina. A duck-bill speculum was introduced into the vagina and a grooved staff into the bladder, and an incision was made through the anterior vaginal wall, the wound being enlarged with a blunt-pointed bistoury both upwards and downwards. The stone was then seized with the forceps and with some difficulty extracted, care being necessary to avoid bruising the edges of the wound. After extraction the bladder was washed out and the edges of the incision brought together with five or six silk stitches, some of the stitches being made to include the mucous membrane of the bladder. An S-shaped catheter was retained in the bladder for a few days.

The patient went on very well after the operation till July 28th, when she was found to wet her bed at night. The bladder and vagina were daily washed out, and no fistula was detected by the house surgeon; but on examination on August 11th urine was seen to pass into the vagina from the bladder, and I removed one or two stitches in the middle of the wound, which had become loosened. On the 14th I removed the remainder of the stitches, and perceived that the incision had healed save in the centre, where a small fistulous opening remained. This was cauterised with the nitrate of silver stick. On the 16th it was noted that the urine came through the urethra and there was no incontinence either by day or night. The urine was normal. The patient remained in till the early part of September, gaining in weight and free from discomfort. Before leaving she was examined with the speculum, and the wound was closed in its whole extent. The stone, which was of an oval shape, weighed nearly three ounces, and measured in the long circumference six inches and in the short five inches and a quarter. It was composed externally of a thick layer of phosphates. In the interior, situated excentrically, there are some rings of lithates, alternating with phosphates, and in the centre a nucleus, consisting apparently of lithic acid. A peculiarity in the patient's dietary, which might hold a causal relation to the calculus, is mentioned in the notes. She was very partial to pickles of all kinds, and had eaten them largely and almost daily for a long time.

Remarks.—Whilst lithotrity is applicable to the majority of cases of stone in the female there are some cases which, I think, are better treated either by extraction or lithotomy. For small calculi dilatation of the urethra with the finger and extraction with forceps can be carried out without inducing incontinence. Where lithotomy is selected I should certainly give the preference to the vaginal operation, avoiding the urethra altogether. If a clean incision is made and all bruising of the edges of the wound avoided, the wound can be immediately closed after extraction, and no fistula need remain. It is generally recommended that the mucous membrane of the bladder should not be included in passing the stitches. I departed from this recommendation in the present instance without disadvantage.

Finsbury-square, E.C.

SANITARY INSTITUTE OF GREAT BRITAIN. — The exhibition of sanitary apparatus and appliances and articles of domestic use and economy, to be held at Leicester from Sept. 22nd to Oct. 10th in connexion with the eighth autumn congress of the institute, is divided into five classes. The first relates to building materials, construction, and machinery; the second to water-supply and sewerage; the third to heating, lighting, and ventilation; the fourth to personal hygiene, foods, and disinfectants; and the fifth to articles of sanitary interest not included in the above classes, such as scientific instruments, books and periodicals, models and drawings, prevention of accidents, respirators and face-guards for unhealthy occupations, fire-preventing appliances, methods for the disposal of the dead, &c.

ON THE

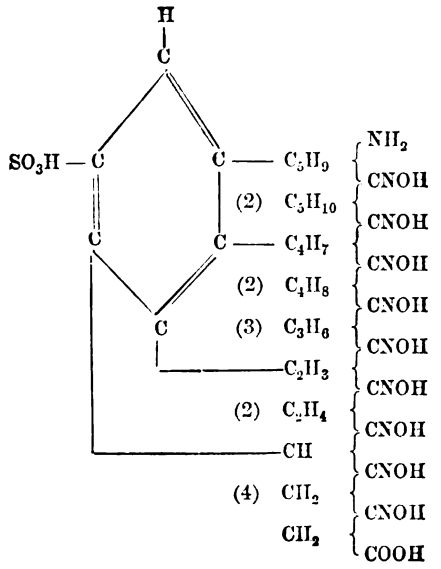
ORIGIN AND FORMATION OF LACTIC ACID, CREATINE, AND UREA IN MUSCULAR TISSUE.[1]

BY P. W. LATHAM, M.A., M.D., F.R.C.P.,
DOWNING PROFESSOR OF MEDICINE, CAMBRIDGE, AND SENIOR PHYSICIAN TO ADDENBROOKE'S HOSPITAL.

AFTER pointing out that sarco-lactic acid differed from fermentation lactic acid, and might be regarded as a mixture of ethidene and ethene lactic acids, these being obtained by converting ethylic and ethene alcohols into cyanhydrins, and then acting upon them with acids or alkalies, Dr. Latham suggested that the dehydration of the glycines or amido-acids, glycocine, leucine, &c., could give rise to these cyanhydrins—a molecular change taking place in the conversion of CO . NH, from the dead state to the living, into CN . OH—that by dehydration of the glycines generally the following change would take place:—

$$3C_nH_{2n}\begin{cases}NH_2\\COOH\end{cases} = C_nH_{2n}\begin{cases}NH_2\\CN\,.\,OH\end{cases} + C_nH_{2n}\begin{cases}CN\,.\,OH\\COOH\end{cases} + 2H_2O$$

Then by dehydrating six molecules of glycocine and three of each of the other glycines in the series up to leucine, together with a sulphur compound and attaching them to a benzene nucleus (taking the formula for tyrosine as an example), we should have a compound represented by the following formula:—



the numbers in the brackets representing the number of times that cyanhydrin is repeated in that group, and the composition of the compound would be $C_{72}H_{113}N_{18}O_{22}S$; which is almost identical with the formula given by Lieberkühn—viz., $C_{72}H_{112}N_{18}O_{22}S$.

By hydration of these cyanalcohols the corresponding acid would be formed and ammonia liberated, which, however, combining with the next molecule higher up in the chain, would form a cyanamide. In this way the molecules being detached from the benzene nucleus, we should get the following compound:—

$$C_2H_4\begin{cases}OH\\CN\,.\,OH\end{cases}\quad CH_2\begin{cases}CN\,.\,NH_2\\CN\end{cases}$$

[1] Abstract of a paper read before the Cambridge Philosophical Society, May 11th, 1885.

Three different conditions now present themselves: (1) the molecule $CH_2\begin{cases}NH_2\\CN\end{cases}$ may become detached, or (2) the molecule $CN\,.\,NH_2$ or (3) the larger molecule $CH_2\begin{cases}OH\\CN\,.\,NH_2\end{cases}CH_2\begin{cases}\\CN\end{cases}$ may be separated from the chain. In Case 1 we should have by hydration

$$C_2H_4\begin{cases}OH\\CN\,.\,OH\end{cases}CH_2\begin{cases}CN\,.\,NH_2\\CN\end{cases} + H_2O = C_2H_4\begin{cases}OH\\CN\,.\,NH_2\end{cases}CH_2\begin{cases}\\CN\end{cases} + CH_2\begin{cases}NH_2\\COOH\end{cases}$$

and so on, the remaining two molecules by hydration being converted into $CH_2\begin{cases}NH_2\\COOH\end{cases}$ glycocine, $C_2H_4\begin{cases}NH_2\\COOH\end{cases}$ alanine, and NH_3, which last passes on to form another cyanamide in the chain.

If, on the other hand, the molecule $CN\,.\,NH_2$ is detached, we have

$$C_2H_4\begin{cases}OH\\CN\,.\,OH\end{cases}CH_2\begin{cases}CN\,.\,NH_2\\CN\end{cases} = C_2H_4\begin{cases}OH\\CN\,.\,OH\end{cases}CH_2\begin{cases}\\CN\end{cases} + CN\,.\,NH_2$$

and there is formed the next cyanalcohol in the series $CH_2\,.\,CH_2\begin{cases}OH\\CN\end{cases}$ or $C_2H_4\begin{cases}OH\\CN\end{cases}$, and cyanamide; the latter with water forming urea:

$$CN\,.\,NH_2 + H_2O = \underset{\text{urea.}}{CO\begin{cases}NH_2\\NH_2\end{cases}}$$

In this way we pass from the lower cyanalcohols to the higher with the formation of urea, the two molecules of CH_2 combining to form C_2H_4. From this and from the other form of $C_2H_4\begin{cases}OH\\CN\end{cases}$ higher up in the chain, by hydration, lactic acid would be produced possessing the ordinary characters of sarco-lactic acid. In Case 3 by hydration we should have—

$$CH_2\begin{cases}OH\\CN\,.\,NH_2\\CN\end{cases}CH_2 + H_2O = CH_2\begin{cases}NH_2\\CN\,.\,NH_2\\COOH\end{cases}CH_2$$

$$= CN\,.\,NH_2 + \begin{matrix}CH_2-NH_2\\|\\CH_2-COOH\end{matrix}$$

$$= C\begin{matrix}\diagup\,HN\\\diagdown\,HN\end{matrix}\begin{matrix}CH_2-NH_2\\|\\CH_2-COOH\end{matrix}$$

$$= NH=C\begin{matrix}\diagup\,NH_2\\\diagdown\,NH\,.\,CH_2-CH_2-COOH\end{matrix}$$

$$= NH=C\begin{matrix}\diagup\,NH_2\\\diagdown\,N\,.\,CH_3-CH_2-COOH\end{matrix}$$

the ordinary formula for creatine—and according to this we ought to obtain creatine artificially from ethene alanine. The fact that the cyanalcohols might be transformed into some acid and the different cyanamides, two and three molecules of the latter easily condensing with elimination of ammonia, was referred to as offering some clue to the phenomena of rigor mortis and the coagulation of the blood.

CITY ORTHOPÆDIC HOSPITAL.—The thirty-third anniversary festival in connexion with this institution was held on the 15th inst. The charity was founded in the year 1851, to give free advice and assistance to poor persons of every nation suffering from club-foot and curvature of the spine, and contractions and distortions of the limbs. During nearly thirty-five years of its existence it has relieved 45,548 cases of deformity. The number of patients admitted to treatment during the past year was 2503.

CASES

ILLUSTRATIVE OF CEREBRAL SURGERY.

By WILLIAM MACEWEN, M.D.,
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(*Concluded from p. 883.*)

CASE OF MONOPLEGIA OF LEFT ARM AND LEG DUE TO CORTICAL LESION.

Summary.—Left-sided motor monoplegia of arm and leg, preceded by muscular twitchings and tingling sensations, without loss of sensation, due to syphilitic lesion; cortical lesion in right motor area, superior half of ascending frontal and parietal convolutions, with probable involvement of paracentral lobule; trephining; internal table of osseous disc removed, showing osteophytic deposits; dura mater thickened; plastic membrane-like effusion over anterior and posterior ascending convolutions and bridging fissure of Rolando; resistant portion of brain towards paracentral lobule; incision into brain; escape of grumous fluid with pultaceous particles; marked absence of brain pulsations prior to removal of this matter; slight return after evacuation; exploration of interior of skull; discovery of osteophytic projections on occipital bone; second trephining to remove these; reimplantation of osseous fragments; complete recovery from operation, and power of left arm and leg restored so as to enable patient to walk about and to perform household work.

CASE 2.—Mrs. McK——, aged twenty-five years, was admitted into Ward 22 of the Glasgow Royal Infirmary, suffering from left-sided hemiplegia. She had been previously under the care of two physicians, besides having been a patient in the Western and Royal Infirmaries. In the medical wards of the latter institution she had been under the care of Dr. Wood Smith, who had treated her for the hemiplegia by every medicinal means at his disposal without benefit, and who ultimately recommended her to be placed under my care, in the hope that something surgical might be done for her relief. She had a clear history of syphilis of more than four years' standing. The secondary symptoms had evidently been slight. Among other manifestations of the tertiary period was an ulcer situated over the upper part of the occipital bone, principally on the left side. There was a story of an injury over the same quarter, and the patient was inclined to attribute the ulcer to the blow rather than to the disease. For this tertiary affection she had been treated medicinally, with the result of the complete healing of the sores. Eight months after the ulcer on the head had healed, and while she felt herself otherwise in good health, she began to experience a tingling sensation in the muscles of the left arm, and subsequently in those of the left leg, which was occasionally accompanied by slight muscular twitches. These continued for about six weeks, the sensations gradually increasing until numbness supervened, spreading over the affected parts, and taking the place of the tingling sensations. Regarding the word "numbness," the patient used it, though she said that she could feel quite well in these parts, and that at no time had the sensation of touch been impaired. Towards the end of this period the left arm, which had been gradually becoming more feeble, had so far lost its power that she was unable to use it, and a "short time" afterwards she was obliged to go to bed, as she could not stand. Eight weeks from the commencement of these symptoms she had lost all power of the left arm and leg. Three months after the beginning of these symptoms she was admitted into my ward. On examination, the patient was found to have absolute motor paralysis of the arm and leg, accompanied by sufficient rigidity to indicate a slight degree of spastic condition of the muscles. The sensation over the affected limbs was unimpaired. She complained of languor and a general sense of oppression. Her intelligence was dull and her memory defective. Tapping the head gave rise to disagreeable feelings, but there was no specially localised sensations with the exception of a tenderness over the occipital region at the site of the scar left by the tertiary ulcer. It was apparent that there was a lesion or lesions in and confined to the cortical areas controlling the movements of the leg and arm. The absence of anæsthesia in the affected parts from the very beginning of the attack pointed to the lesion being cortical rather than central. According to Charcot and Pitres cortical cerebral monoplegias affecting the arm and leg coincide with lesions in the superior half of the ascending frontal and parietal convolutions. Viewing the pathological conditions which existed here and the clinical history, it was possible that two separate lesions were present acting coincidently, the one on the arm the other on the leg, a short interval of time existing between the initial manifestation of each. In that case, the lesion affecting the power of the arm would involve chiefly the middle of the ascending frontal and to a less extent the corresponding part of the ascending parietal; while the paracentral lobule would be looked to as the seat of the lesion affecting the lower limb. The history showed that the lesion at first induced cerebral irritation, though its true destructive nature was subsequently evinced, and descending degeneration of the motor tracts was imminent, if it had not already set in. The nature of the affection from a pathological standpoint was clearly syphilitic, probably in the form of a gumma.

As the treatment, especially that by counter-irritation, and the prolonged administration of anti-syphilitic remedies, had failed to effect the slightest improvement, it was deemed advisable to have recourse to operative measures. Before trephining was performed, three weeks were permitted to elapse, during which no anti-syphilitic medicines were given, partly with the view of ascertaining whether those formerly exhibited would produce any effect, and partly to avoid obscurity as to the result of the operation. By elevating a large disc of bone so as to expose the greater part of the upper portion of the ascending convolutions it was believed that the lesions affecting the arm and leg could be removed, and at the same time, if the paracentral lobule was involved, it could be reached by making a transverse incision into it through the brain tissue.

Operation, June, 1883.—The hair having been freshly shaven and the scalp thoroughly cleansed, first with soap and water, then with turpentine, and finally with an antiseptic solution, a disc of bone over an inch in diameter was elevated from the right side of the skull, its anterior border touching a point about half an inch behind the auriculo-bregmatic line, while its upper margin reached a point about an inch from the centre of the longitudinal sinus. The internal surface of this disc was rough from osteoplastic formation, some of these irregularities projecting nearly one-sixteenth of an inch beyond the level of the internal table. Round the circumference of this aperture the dura mater was normally adherent to the skull, except towards the posterior part, where it seemed slightly separated from the bone, and where the probe easily passed between the dura mater and the skull for fully two inches, at the extremity of which it met with a similar roughened portion of the internal table of the skull, at the posterior border of the parietal, near the lambdoidal suture. This corresponded internally to the right extremity of the scar left by the former ulcer of the scalp over the upper portion of the occipital region. The dura mater exposed by the elevation of the disc of bone was more opaque than usual, its external surface being somewhat roughened by numerous yellowish indentations, corresponding to the osteoplastic formations. A crucial incision was made into it, and the flaps so formed were gently retracted, when this membrane was seen to be thicker than usual. The appearance of the parts was such as to suggest the probability of the fusion of the arachnoid to the dura mater. A yellowish opaque effusion covered the surface of the brain, obscuring the outline of the convolutions and bridging the fissure of Rolando. On attempting to remove this it was found to be very friable, and it came away in minute portions, and was evidently composed of masses of leucocytes held together by fibrin. On the removal of this effusion it was seen to have covered the middle and upper portion of the ascending frontal, dipping slightly into and covering the fissure of Rolando, as well as the anterior border of the ascending parietal convolution. It was thickest over the upper portion of the ascending frontal and shaded off towards the lower end of the middle third, and while thick over the fissure of Rolando, it formed only a thin layer on the anterior border of the ascending parietal. The surface of the exposed brain was softer than normal, and there were as yet no discernible pulsations. Towards the upper third of the trephine opening a portion of the brain was felt to offer greater resistance to the finger on palpation than the surrounding parts. This sensation proceeded from the interior of the brain, in the direction of the paracentral lobule, a layer of brain tissue intervening between this more resistant structure and the

finger. The boundaries of this denser portion could not be well defined, but it was at least the size of a large filbert. An incision was made through the upper portion of the ascending frontal at its posterior margin towards this firm structure, and after cutting into it a quantity (probably about two drachms, though this was not measured) of grumous fluid mingled with minute pultaceous particles quickly escaped; after which the former resistance of the part entirely disappeared, and in its stead the brain surface seemed slightly collapsed, and the cerebral tissue felt softer than usual. The cerebral pulsations, which hitherto had been unobserved, were now barely discernible; they were not so distinct as to be recognised by many of the surgeons round the table. The objects for which the operation was undertaken having been attained, the flaps of the dura mater were replaced, and an aseptic sponge was laid over the opening in the skull. It was, however, considered advisable to elevate a small disc of bone from the posterior portion of the parietal near its junction with the occipital, at the spot where the former exploration revealed the presence of osteophytic deposits, so as to prevent the possibility of future irritation. This was done. The osteophytic irregularities were found to project, for nearly an eighth of an inch, from the normal level of the surface of the internal table. The dura mater, with the exception of slight opacity and indentations corresponding to the osseous irregularities, looked healthy; and the cerebral pulsations were distinctly evident through it. The osteoplastic formations were cut off by the chisel, along with a portion of the internal table of the skull. The remainder of the disc was then divided by the chisel; the pieces of bone were reimplanted and the scalp stitched over them, a decalcified chicken-bone drainage-tube having been placed between the scalp and the skull. The large osseous disc first removed, which since its elevation had been kept in an aseptic sponge, was now divided into small portions, care being first taken to render the internal table of the skull smooth. These portions were reimplanted, space being left between the fragments for drainage. The scalp was then accurately brought together by a few chromic stitches, a small decalcified chicken-bone drainage-tube having been introduced at the lower angle of the wound. The scalp was then dried and powdered with iodoform, except at the parts where the drainage-tubes issued, and which were covered by a small piece of moistened gauze. A eucalyptus gauze dressing was applied over all, and secured by a portion of elastic webbing.

Forty-eight hours after the operation the patient stated that she felt much relieved. The numbness in her left leg had disappeared, though it still remained to a slight extent in her left arm. Four days afterwards the numbness in her left arm had disappeared, and she could move her toes. There was no power of movement in the muscles of the arm or hand. At the end of a week she moved her toes freely and her foot partially. She had also regained the power of moving her fingers to a limited extent, and there was likewise an ability to move the whole arm, principally from the shoulder. At the end of a fortnight she could raise her whole left lower limb from the bed, flex the knee to a slight extent, and move the toes and ankle freely. She flexed and extended the fingers, opened and shut her hand, though the power of grasp was feeble. Her arm she raised to very near the level of the shoulder, though the elbow could neither be flexed nor extended. Three weeks after the operation all these movements had improved, she had greater strength of grasp, and more control over the movements of the lower limb. Her temperature had never been above normal; and there was no stain through the dressings, which had not been touched since the operation. They were, however, removed at the end of this period, and the wounds appeared quite closed. There was only a little blood-stain on the dressing. The extremities of the decalcified drainage-tubes, which had projected slightly beyond the external level of the scalp, were found detached and lying in the dressing. As a precautionary measure, a fresh antiseptic dressing was applied. During the last week the patient had expressed herself as so well that she desired to rise from bed, to which she had hitherto been closely kept and carefully watched. She was, however, advised to remain in bed for two weeks longer. Her diet, which up to this time had been solely milk, was now slightly varied, small quantities of bread and beef-tea being permitted. Six weeks after the operation the dressings were removed from the head, the wounds being found quite firm. The reimplanted bones were firmly attached to the skull. She was permitted to rise from bed, and a more liberal diet was given. Two months after the operation she could walk about unaided, but with a hemiplegic gait, a certain amount of dragging of the left leg, flexion at the knee being still very slight. She could open and shut her hand; but while she could grasp very firmly with her left hand, once she closed the hand on any object it was difficult for her to open it again, unless her attention became diverted. She improved steadily in bodily health and strength until she was able to do ordinary house work, and to walk about easily, though still with a drag of her left lower limb, and to use her left arm when alone, or when not excited, with considerable advantage.

This patient has since reported herself on many occasions at the hospital. The last time she was seen in April, 1885, one year and ten months after the operation. Notwithstanding the fact that since she was dismissed from the hospital she had lived under the most adverse circumstances, her previously affected side was still performing its function as well as formerly. She had walked a mile that day to the hospital, and intended to walk the same distance to her home. She performed her household duties by herself, and stated that she was quite able for them.

There have been seventeen cases under my care in which operations have been performed upon the skull and its contents for the relief of cerebral pressure or other brain lesion. In fourteen trephining was performed and in three elevation of the bones. Out of these seventeen cases, there were three deaths occurring in patients whose prospect of recovery was placed at a bare possibility. In these three, the operation of trephining in no way hastened death; on the contrary, there was reason to believe that it had prolonged life. In eleven of these, the bones which had been elevated were divided and reimplanted. The reimplanted bones in all but two cases succeeded perfectly, and in these two the majority of the fragments lived. In the fourteen cases which recovered there were no untoward symptoms after the operation, the temperature remaining normal throughout, and in almost all the wounds healed without pus production. Hernia cerebri has not followed as a result of any of the operations. It was formed on one occasion at the moment of opening the skull from the acute inflammation which was present in the brain prior to the opening of the skull.

In 1876 I had diagnosed an abscess in Broca's lobe (posterior part of the base of the third left frontal convolution) from the symptoms which were exhibited, and had urged the opening of the abscess, which was, however, negatived by the parents until it was too late to do anything effectively for the relief of the patient. The operation was, however, performed on the dead body, the same steps having been taken as would have been had the operation been performed on the living. The abscess in the brain was opened by the bistoury inserted through the trephine opening, thus proving conclusively the accuracy of the diagnosis, and showing that the operation proposed was the correct surgery of the case. On many subsequent occasions localising symptoms, such as those arising from lesion in the motor area, have been made use of in aiding the diagnosis, and in a number of instances such symptoms have been the only guide to the cerebral lesion. Two of these cases are here given. For the guides which we have received for the localisation of function we are indebted to many observers—Broca, Charcot, Pitres, and Hughlings Jackson on the side of patient clinical research, and Hitzig, Ferrier, and others from the purely physiological side, aided by experiments on animals. Comparatively little advantage has hitherto been taken of these observations as a guide to surgical operations. I had therefore much pleasure in describing to Professor Ferrier, when he visited my wards in Glasgow in the spring of 1884, some cases of the same nature as those here presented, and I was glad that he so soon afterwards had the opportunity of advising and assisting Dr. Hughes Bennett and Mr. Godlee in the case in which the latter removed a tumour from the brain. Mr. Godlee's case unfortunately died from hernia cerebri, and Professor Ferrer asked me some questions on the frequency of hernia cerebri after the operations which I have had. I could have answered that in no case has hernia cerebri been a result of any operation performed by me. But in one instance false hernia cerebri did form at the moment of opening the dura mater. A large mass was extruded, consisting of red blood-corpuscles, leucocytes, and a few pus-corpuscles—a mass on the eve of abscess formation. It is of course clear that since this was protruded at the moment of opening the membranes, this material must have been in existence for some time prior to the operation, and was therefore not the result

of the operation. I consider that such a case is of great importance, as showing how false hernia cerebri may form after operations on the brain. False hernia cerebri is supposed by most surgeons to form from a septic condition of the wound, and I quite agree that a septic condition is probably the most frequent cause of false hernia cerebri, but it must be recognised as only *one* of the causes of irritation which set up this condition. We have round most tumours and cerebral lesions a limited area of softening or encephalitis. If such an area exists, it requires to be considered as one of the elements likely to give rise to hernia cerebri, and therefore as one of the risks of the operation. If those observers who have done so much in the way of diagnosing cerebral affections could give precise indications which would enable us not only to say that a tumour or other lesion existed at a certain part of the brain, but also how much and to what degree the brain tissue in the vicinity of this lesion was affected by inflammation, it would enable us to prognosticate whether hernia cerebri would be likely to result from the operation, to anticipate its formation, and to prepare the way for its treatment. It is clear, then, that we have two points to consider: not only the lesion (tumour or syphilitic gumma, &c.), but also the amount of localised encephalitis existing at the time. It is further clear that we ought to try to allay this secondary irritation round the tumour or other lesions prior to performing the operation. It may, therefore, be summed up thus:—In certain cases of acute encephalitis involving the surface of the brain, where the inflammatory action is sufficiently far advanced, false hernia cerebri will form, provided an aperture be made through the skull and the membranes to permit of this extrusion. Unless the inflammatory action in the brain substance has taken place to a sufficient extent, false hernia cerebri will not form, even supposing opportunity for extrusion be afforded by an aperture in the external parts. Healthy brain tissue will not be extruded through an aperture in the skull except as the result of violence or pressure exercised from within. Operations on brain tissue, which is not in this state of acute and advanced inflammatory action with blood extravasation, will not produce hernia cerebri, provided that after the operation the brain tissue is not irritated to a sufficient extent to induce this amount of inflammatory action. The chief cause of false hernia cerebri, after intra-cranial operations, is decomposition; and this cause can be prevented by the use of antiseptics. If inflammation in the brain exists at the time of the operation, hernia cerebri may form, notwithstanding the use of antiseptics.

CASE OF FRACTURE OF LARYNX.

BY JOHN B. BERRY, M.D., C.M. EDIN.

DURING the afternoon of February 6th I was called to see G. L——, aged twenty-one. He was reclining on a sofa, looking very pale. Extending from the tip of the chin to just above the hyoid bone was a superficial wound. The voice was like that of laryngitis. The prominence of the thyroid cartilage was gone. Placing my hand over the throat and requesting the patient to swallow, I detected unmistakable crepitus of the moving larynx. A more careful examination revealed what felt like a separation of the wings of the thyroid cartilage. The history of the accident was briefly this. About twenty minutes before I saw him he was working a circular saw, and was suddenly struck in the throat with great force by a large piece of wood coming from below upwards. For a few moments he had a hard struggle for breath, but managed to keep from falling by leaning against a bench. Water was brought to him, but he declined it as he feared it would choke him. With the help of two men he walked home, a distance of about 500 yards from his work. Having applied a warm-water dressing to the throat, the patient was put to bed, his head and shoulders being raised. An hour later I saw the patient again in conjunction with Mr. Chaffers, whose help I sought when I saw the case was of such gravity. My diagnosis was confirmed, and seeing the patient was free from urgent symptoms, the breathing being quiet and full and the condition of shock gradually passing off, we considered it best to continue the warm-water dressings and forbid anything being taken by the mouth except ice, leaving word that any change in the breathing should be immediately reported to us. About 1.30 next morning I was called up, as the patient was reported to be choking. After sleeping for about an hour and a half, during which time he breathed rather noisily, he woke up somewhat suddenly and at once began to struggle for breath. When I arrived he was unconscious, the eyes were open and fixed, the pupils dilated, the face pale, and the deep spasmodic efforts to breathe were failing. Having sent for Mr. Chaffers, I at once performed laryngotomy. Still no air seemed to enter, and no mucus escaped from the tube. Having satisfied myself the tube was clear and that no blood was obstructing the air-passages near the wound, I enlarged the opening and replaced the tube, with no better result, death taking place after a few more respiratory efforts had been made. Half an hour after death Mr. Chaffers and myself examined the larynx and trachea as well as we could through the operation wound. Besides the separation of the wings of the thyroid oblique lines of fracture were made out on each side, through the wings themselves. Within easy reach of the finger, hanging down the trachea by a mere shred of fibrous tissue was a part of the left wing of the thyroid cartilage itself, the size of a finger-nail, apparently the lower front angle; this was easily removed. I regret no post-mortem was allowed, as I am still in doubt whether to attribute the asphyxia entirely to the one piece of cartilage found, which was not wedged in the trachea, but simply lying flat against the anterior surface, but it may have acted like a valve during inspiratory efforts. During life, I may add, there was no spitting of blood, and after death perfectly white frothy mucus welled up from the throat.

Keighley.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. THOMAS'S HOSPITAL.

SARCOMA OF THE KIDNEY; NEPHRECTOMY; CURE.

(Under the care of Mr. CROFT.)

THIS case is a very interesting one, few cases for removal of the kidney for sarcoma being on record. In the Transactions of the Medical and Chirurgical Society, vols. 63 and 64, a list of cases in which the operation had been performed is given by Mr. Barker. Two of these were nearly the same age as the patient who was under the care of Mr. Croft, but in one the disease had existed for two years and a half, and in the other for one year. In each the operation was successful, but in the latter recurrence had taken place in the neighbouring glands eight months after the operation. The prognosis is more favourable in the following case, where the disease had produced symptoms for seventeen days only before operation.

For the following notes we are indebted to Mr. W. J. Staddon, dresser.

T. H——, a boy aged three, was admitted under the care of Mr. Croft on Feb. 3rd, and left cured on March 17th, 1868. The family history was good. The patient had always enjoyed good health, and was apparently quite well until he was noticed to have passed blood with his urine on Jan. 21st of this year. He passed blood again on the 27th and on the 29th. On the 31st the medical attendant noticed swelling in the abdomen.

On admission, the boy was looking very healthy and well nourished. Examination of the abdomen showed a distinct projection on the right side, which on palpation was found to be due to a hard, somewhat elastic, movable tumour, not moving with respiration, which extended into the right loin, the surface of which was marked by large irregular bosses. Above, the free edge of the liver could be felt overlapping it. Dulness extended from the liver to the crest of the ilium, backwards to the spine, and forwards to the middle line, excepting in the position of the ascending colon, where there was resonance. The remainder of the abdomen

appeared healthy; there was nothing abnormal in the chest. Urine: sp. gr. 1022, clear, of a light-straw colour, acid, no albumen, no cells, no casts.

Feb. 5th.—The patient was placed under chloroform and examined by Mr. Croft. No stone was detected. There appeared to be a rounded body of small size to the inner side of the growth, possibly an enlarged gland. Urine: sp. gr. 1035; very acid; excess of urea; no sugar.

7th.—The patient having been placed under chloroform, Mr. Croft removed the right kidney. A slightly oblique incision was made between the crest of the ilium and the last rib, about four inches and a half in length, ending anteriorly in the linea semilunaris; this incision was carried down to the peritoneum, when all bleeding points were ligatured. This incision not being large enough to admit of the tumour being extracted, a vertical one was made along the linea semilunaris about four inches in length, opening the peritoneum to the extent of two inches and a half; the tumour was then brought out of the wound as far as the pedicle, which was rather short, would allow. The pedicle was then ligatured in two sections: the first ligature (of silk) included the vessels, and the second ligature (of catgut) was placed on the ureter. After removal of the tumour, the peritoneal cavity, so far as it had been exposed, was sponged out, and the edges of the peritoneum brought together with continuous catgut sutures, after which the skin flaps were brought together with silk, a drainage-tube being placed in the most dependent part. The wound was dressed with oiled-silk protective, iodoform, iodoform gauze, and salicylic wool, gauze bandages being used, and over all a flannel bandage. The carbolic spray was used from the time that the peritoneum was exposed. The patient was very sick towards the end of the operation. The parts removed formed a mass as large as an adult fist. Examination showed the greater part to have been replaced by a large sarcomatous growth, there being only normal renal structure on the circumference of the growth, above and below. The growth was soft, elastic, bulging on section, presenting in parts an almost gelatinous appearance; in others there were small hæmorrhages. The growth projected into the pelvis of the kidney to some extent at one or two points, and also into the renal vein. Later microscopical examination proved the growth of round-celled character.

9th.—Has been going on very well since the operation, having had neither pain nor sickness. Pulse 144; tongue rather dry, slightly furred. Taking milk, tea, and toast. Wound dressed yesterday and looking well.

10th.—Pulse 114; bowels acted after an enema. Wound dressed.

12th.—Pulse 116. He had retention of urine for several hours during the night, and this morning there is some epididymitis on the right side.

15th.—Wound redressed, two stitches removed and the drainage-tube shortened; very little discharge.

23rd.—Pulse 127. Fluctuation having been felt in the right side of the scrotum an incision was made, giving exit to a small quantity of laudable pus. The operation wound was dressed; the granulations were found to be on a level with the skin, excepting where the drainage-tube had been.

March 11th.—Nitrate of silver applied to granulations on the right side. Most of the wounds have healed, as also the wound in the scrotum.

14th.—Got up.

16th.—Wound in right side almost perfectly healed, there being only a few small granulations not quite skinned over; is dressed with zinc ointment. The patient left on the following day, being very lively and looking remarkably well.

The highest temperature after the operation was 102° at A.M. of the morning after the operation. For eight days there was an evening rise, varying from 99·6° to 101·4°; after that it became lower, rising, however, on more than one occasion to over 100°; this was in all probability connected with the epididymitis. The average daily quantity of urine was about 17 oz. after the operation. The patient continues in good health.

Remarks by Mr. CROFT.—The rapid recovery in this case was partly due to the fact that the operation was performed before the growth had infiltrated or attached itself to neighbouring structures. Its enucleation did not necessitate dissection or the use of any force. Authors on nephrectomy have not laid down any rule for the closing of the peritoneal wound when this membrane has been disturbed in the course of the operation. It is worthy of observation in this case that the peritoneal wound was sutured independently of the rest of the wound; thus the cavity was closed against any exudations from the section of the abdominal wall. It would have been impracticable to have treated this according to the rules laid down for closing wounds in the median line. The occurrence of epididymitis was not easy of explanation, as the structural connexion between the parts disturbed or ligatured in the loin is not direct or obvious. Retention of urine came on with the epididymitis, and had not existed before it. It would be interesting to know if other surgeons have met with this complication.

NEWCASTLE-ON-TYNE INFIRMARY.

PRIMARY SARCOMA OF THE RETRO-PERITONEAL GLANDS; DEATH; NECROPSY; REMARKS.

(Under the care of Dr. PHILIPSON.)

J. H——, aged fifty-six, an auctioneer's clerk, was admitted on Nov. 22nd, 1884, complaining of pain in the epigastric region of about six months' duration. His father and a brother died of consumption, and another brother of spinal disease. The patient has had to lift very heavy weights; he has had good food and lodging, and has been fairly temperate; has had three attacks of rheumatic fever. About six months ago he first experienced a dull uneasy sensation in his right side and passing across the lumbar portion of his back. Pain became more decided and was generally worse at night; it came on in paroxysms with intervals of several hours. Gradually the pain became worse and the intervals shorter, till now he has seldom ten minutes' freedom from it. He did his work up to the time of his admission.

When admitted the patient was found to be a man of 5 ft. 7 in. in height, and weighing 9 st. 2 lb. (he used to weigh 10 st. 7 lb.). He is slightly cachectic, and has the appearance of suffering acute pain. The tongue is foul, appetite good, but accompanied by great thirst; the pain rarely crosses the back now, but starts on the right side, crosses the abdomen at the level of the umbilicus, and ends in the left side. The pain is intensified by lying down, but is relieved by sitting up; the greatest relief, however, is got by kneeling before the fire with his elbows resting on a low chair; deep inspiration brings on or aggravates the pain. There is visible pulsation in the epigastric and upper part of the umbilical region; in the right hypochondrium and epigastrium a hard resistant body is felt, reaching in the middle line nearly to the umbilicus, and in the nipple-line about three fingers' breadth past the free edge of the ribs. This body moves with respiration. As far as can be made out, its surface is smooth and its edge regular, and it is not tender, though there is pain on deep pressure. There is no pulsation on the right side of the mass, but on the left the mass rises and falls with the aorta; there is no expansile pulsation. There is continuous dulness from the seventh rib downwards to the edge of the mass. At the apex of the left lung there are distinct signs of consolidation and softening.

December 5th:—Has lost 1 lb. since admission. The pain has become so bad as to necessitate injections of morphia. Temperature varies between 99° and 102° F.

31st.—Is still emaciating. Does not complain so much of pain, but shows decided dementia.

January 24th.—Death.

Post-mortem examination.—The liver extends downwards as felt during life. Its surface is smooth, except on the under side, where there are two nodules about the size of peas. The anterior margin is unusually thin and covers a tumour about the size of the fœtal head lying on the spine. This tumour is evidently glandular, and has the pancreas attached to its left side, in front of it the pylorus and four or five inches of the duodenum, and behind it the aorta. The outline of the tumour is fairly regular, but with globular projections at parts. On section it is pretty firm, but with soft portions here and there. On microscopic examination it proved to be a spindle-celled sarcoma. Lungs: The left apex contained some tubercular deposits and small cavities, while the right had a slight tubercular deposit. Heart: Mitral orifice narrowed and curtains thickened. Brain: Considerable amount of subarachnoid fluid. Kidneys: Normal. No other deposits besides the two on the under surface of the liver.

Remarks by Dr. PHILIPSON.—The chief interest of this case was in the differential diagnosis of a tumour situated

in front of the abdominal aorta, from aneurysm. The non-existence of aneurysm was inferred from the absence of bruit in the left vertebral groove, and its pulsation being non-expansile. The existence of cachexia was in favour of malignant disease; the age of the patient strengthened this supposition; the smoothness of the surface of the liver and its uniform edge indicated that the swelling was glandular, rather than associated with that organ. Another point of interest was the coexistence of malignant disease and tubercle, cancer and tubercle being regarded as antagonistic one to the other. The nodules on the under surface of the liver were regarded as secondary, or consequential on the glandular condition; primary cancer of the glands being rare, while secondary cancer is not uncommon.

Medical Societies.

OPHTHALMOLOGICAL SOCIETY.

Ciliary Nerves in Certain Diseases of the Eye.—Spontaneous Disappearance of Diabetic Cataract.—Nævus of Choroid.—Reflex Ophthalmitis.—Periodic Paralysis of Third Nerve.—Coloboma.—Rupture of Eyeball.

AN ordinary meeting of this Society was held on May 14th, Mr. Jonathan Hutchinson, F.R.S., President, in the chair.

The PRESIDENT intimated that the Local Government Board had consented to receive a deputation from the Ophthalmological Society on the subject of the prevention of blindness from ophthalmia neonatorum.

Dr. BRAILEY read a paper on the Condition of the Ciliary Nerves in Certain Diseases of the Eye. Examinations in ninety cases of the long ciliary nerves, usually of both the inner and outer sides, by sections taken at right angles to their course in the sclerotic, showed the following results. It must be remarked that, being cases of excision for disease, the morbid process had been in every case severe, and in most of considerable standing. In primary glaucoma (thirteen cases) the nerve might be perfectly normal, but in about 22 per cent. there were indications of neuritis, the changes being, however, usually so slight as not to be incontestable. In a larger proportion (50 per cent.) the nerves were swollen, their axis cylinders being large and indistinct, or not visible at all. It was observable also that the average size of these nerves in eyes with glaucoma, whether primary or secondary, was considerably (almost 50 per cent.) beyond that associated with normal tension. Probably this enlargement was due to swelling of the nerve fibrils, as it was found even where the microscopical structure appeared to be quite normal. It produced considerable absorption of the sclerotic through which the nerve passed, so that this condition was indicated, especially in the case of the nerve of the inner side, by a wide dark-bluish streak corresponding to the course of the nerve. In eyes exciting sympathetic disease the nerve itself was usually normal in structure, though it might show slight traces of neuritis. But inflammation round the artery and nerve, more marked round the former, was found in the majority of cases (85 per cent.). In the sympathetically affected eye it was also found, though not quite so commonly (66 per cent.). He had, however, but three cases of sympathetically produced inflammation to examine. In uveitis serosa—independent, however, of any relation to sympathetic disease—inflammation round the artery and nerve also occurred, spreading evidently from the former to the latter. In the five well-marked cases of suppurative panophthalmitis that had been examined, the condition was similar to that above remarked as found in eyes exciting sympathetic disease, except that the inflammation around the artery and nerve was well marked in every case. In other conditions, such as iritis and irido-choroiditis of various origin, the condition varied, inflammation in and around the artery and nerve being occasionally found, though far more often absent. Two cases may be particularised: one, a non-suppurative iritis occurring after an iridectomy preliminary to cataract extraction; the other, with changes like those of progressive myopia—viz., disseminated choroiditis at the posterior pole and posterior staphyloma after leucoma adhærens. In each of them there was round the artery much inflammation, which had extended into the corresponding half of the nerve. It was inferred from the above observations that inflammation of the ciliary nerves was not the means by which sympathetic disease was transmitted; also that inflammation round the nerves and their companion arteries was equally ineffective in this case, as it occurred at least as strikingly and as commonly in suppurating eyes. The corneal anæsthesia found in absolute glaucoma was explained by the degeneration of the elements of the nerve, which, together with the other changes noted in this disease, appeared to be secondary to the mechanical pressure upon them.—Mr. NETTLESHIP remarked that serous iritis was not recognised as due to sympathetic irritation. He asked what clinical evidence there was in Dr. Brailey's possession. Referring to cases of episcleritis about the front of the eye, he would like to know whether the inflammation extended along the outer surface of the sclerotic so as to involve the optic nerve and structures at the posterior part of the globe.

Mr. NETTLESHIP read a note on the Spontaneous Disappearance of Diabetic Cataract. So far as his literary researches went he had found that cases of the kind were very rare. Two cases were detailed in Dr. J. Seegen's work on Diabetes Mellitus. Seegen's first case was that of a man aged thirty-nine, who in July, 1863, about six months after the appearance of diabetes, noticed that his sight began to fail; the lenses were cataractous and hazy. Under treatment at Carlsbad the lenses cleared; the quantity of urine was reduced to one-half, but the percentage of sugar remained the same. In the spring of 1865 the lens again became opaque. The second case was that of a woman aged fifty-five, who was first seen in the autumn of 1867, soon after which the sight began to fail and became misty; she was treated for diabetes in February, 1868, and whilst under treatment the lenses became clear again. Dr. Tannahill's case was that of a coal-miner, who was seen when in prison. He had suffered from diabetes for eleventh months; both lenses were opaque throughout, the left more than the right. He was put on the ordinary diabetic diet, and had two grains of opium daily. Whilst under treatment his sight began to improve, the opaque lenses gradually cleared, and on inspection when he was discharged from prison no trace of cataract remained. No satisfactory explanation had yet been offered as the cause of diabetic cataract. The view that the lens contained sugar was a possible explanation, but the idea of a permanent degeneration was not borne out by the facts just narrated; moreover, there was a reappearance of the cataract in one case. The abstraction of water from the lens owing to an increased density of the blood or fluids surrounding the lens was a likely explanation.—Mr. HUTCHINSON said that congenital cataracts in young rabbits sometimes cleared up.

Mr. J. B. LAWFORD read notes of a case of Nævus of the Choroid. The patient was a girl aged eight, who was brought to the hospital on account of pain in the left eye following a blow. The mother did not know how long the eye had been blind. There was a capillary nævus of the left side of the face from the forehead to the chin. There were no nævi elsewhere. The left eyelids were involved, and presented a slightly puffy appearance. The right eye was normal. The conjunctiva of the left eye was normal. The lens was opaque and yellow. There was no perception of light. The tension was + 2. The left eye was excised. On examination, the choroid surrounding the optic disc, and for a distance of 5 mm. to 7 mm. from its margin, was thickened (·5 mm. to 1 mm.), and spongy in appearance. Under the microscope this area was seen to be channelled throughout with vascular spaces of varying size, whose walls were formed only by the choroidal tissue. A few dilated capillaries were also visible. Beyond the limits of the nævus the choroid was normal. There was an infundibular detachment of the retina. The lens was shrunken and its fibres much disorganised. The iris was atrophied and adherent to the cornea at the periphery.

Mr. SIMEON SNELL read the notes of a case of a Recurrent Paralysis of the Third Nerve associated with attacks of Migraine. The patient, a little girl aged eight, first came under observation in Nov. 1883. A note made then states: "There is complete ptosis on the left side, with divergence of the eye and general paralysis of the third nerve; fundus oculi normal; refraction hypermetropic, about 1·5 D." It was ascertained that she had had a failing of the left eye since cutting her "eye teeth," at eighteen months of age; since this time she has suffered from attacks of pain in the head and sickness, and at these periods the eye has closed, and after

the subsidence of head symptoms, it commenced to open, but only very gradually became widely so again. These attacks have recurred about every six months. The severe part of one of these illnesses had just passed when she was first seen. Another attack came on in July, 1884, and the affection of the eye gradually passed away, as it had done before, and the condition was just as that described below. On Jan. 20th, 1885, she appeared at the infirmary with commencing drooping of eyelid; it began the day before. Next day the condition was characteristic of migrane, pain confined chiefly to the left side and over the left eyebrow. Ptosis was complete, and palsy of the other muscles supplied by the third nerve; the pupil was a little dilated, and did not act to light or accommodation. Recovery gradually took place in the ocular symptoms. On April 30th the eye was fairly wide open, but not quite so widely as on the sound side; there was divergence, but on effort a good deal of power of convergence; and movements upwards and downwards were extremely slight. The pupil was about the same size as the right, and acted very slightly to light or accommodation. V. (corrected) = $\frac{1}{100}$, and J. 16. There is a distinct neurotic history on both parents' side.—Mr. ERNEST CLARK had seen a somewhat similar case in a girl aged twelve. The attacks were preceded by vomiting and constipation, and attended with pain over the left eyebrow. The sight of the eye was dim. The pupil was slightly dilated; there was external strabismus and slight ptosis, which lasted a few days; the dilatation of the pupil lasted longer. The attack came on every six weeks. The teeth were very bad.—Dr. ORMEROD had also seen a case of recurrent paralysis in an elderly woman; the left eye squinted outwards. Some pain was experienced along the course of the supra-orbital nerve. There was nothing to suggest megrim. These attacks were not so transitory, and lasted two or three months. The first attack was apparently caused by shock on hearing of the death of a sister, and the second by fright at seeing a boy with facial palsy. The Argyll Robertson phenomenon was present, but there was no loss of knee-jerk. He said that Thomsen of Berlin had put on record a case which followed some shock to the nervous system in an epileptic patient; the field of vision was contracted, and this was said to be proportional to the degree of paralysis of the third nerve.—Dr. BEEVOR had seen a similar instance in which exposure to cold winds were assigned as the cause.

Mr. W. H. JESSOP showed a child, aged eight, who had suffered a blow on the eyeball from a fall on a bed post, which was followed by Compound Rupture of the Eyeball in February, 1884. The chief interest of the case was the rapid and complete recovery with useful vision. The rupture in the sclerotic was three or four lines in length, but that in the conjunctiva was large and needed three sutures.

Mr. W. H. JESSOP also showed a case of Posterior Coloboma of the Choroid in both Eyes on the temporal side of the disc. The lens on both sides contained striæ.

Mr. M. MCHARDY showed a woman aged fifty-four who presented a small, globular, dark, red Tumour in the Ciliary Region in the outer segment; a larger and similar growth had been removed in July, 1884. Also a girl, aged sixteen, in whom there was a great Development of Fat in the Upper Eyelids causing much deformity. He had excised an elliptical piece of the upper lid and a large mass of adipose tissue, this afforded some relief.—The PRESIDENT asked whether the first case was regarded as one of melanosis.—Mr. NETTLESHIP inquired how deep the incision went in the removal of the portion of skin; was the layer of muscular fibres cut away? He suggested that the fat might have been of orbital origin. He had seen cases in young women and one in a boy; in one case he had removed a fold of skin twice, but no fat escaped.—Mr. MCHARDY replied that he took care in removing the skin not to cut deeply; he used a pair of "sickle" scissors and removed the skin much in the same way as would be done in the operation of removal of skin for transplantation.

Mr. JONATHAN HUTCHINSON read a paper on the Pathology of Reflex Ophthalmitis. Seven years ago, in some lectures delivered at the Royal College of Surgeons, he treated of the influence of the nervous system in the production of disease. In these lectures he maintained the view that the nerves did not initiate disease by any exercise of their functional power. He maintained that the inflammation actually spread along the nerve filaments. This notion got rid of any suggestion of trophic power in nerves. He now argued that reflex ophthalmitis had nothing to do with the nervous system, for he suspected the circulatory fluids rather than the nerves were the means by which the secondary lesions were originated. The mode of spread or the multiplication of inflammations, malignant diseases, and the like, he explained on the theory of the absorption into the circulation of certain elements derived from the original seat of disease. These elements only produced lesions in those tissues which were practically similar to the tissues in which the original lesion existed. It was another case of selective affinity. So that inflammation was set up in certain parts to the possible exclusion of other parts. In multiple periostitis, for example, the primary lesion was followed by other lesions exactly similar. The lesions never began simultaneously; there was no structural continuity between one periostitis and another, neither by the lymphatics or the nerves. He believed that certain elements were shed into the blood-current, and induced similar inflammations in similar tissues; if a long bone were first affected it was a long bone that suffered secondarily. He would apply similar reasoning to the case of the eye. The elements were first given off from the ocular inflammation and circulated in the blood, and then picked out precisely similar tissues in the other eye as the seat of their selective inflammatory action. It was an example of emigration in which the emigrant, cast off from home, settled down and colonised in parts where the conditions were similar to those which he had left. He considered that such a theory would explain the very exact symmetry of reflex ophthalmitis and other related conditions. The theory held good, not only for traumatic diseases, but for other forms of acute inflammation, such as pneumonia and the like. A view closely analogous, though not actually identical, with this had been propounded by R. Berlin in Volkmann's *Archiv.* for 1880, though Mr. Hutchinson became acquainted with Berlin's views after his own theory had been formed, and as the result of Mr. Nettleship's literary researches specially made with a view to find out whether such a view as Mr. Hutchinson's had been previously formulated. Berlin regarded the infecting elements as parasitic, but Mr. Hutchinson asserted nothing as to the nature of the infecting element. Berlin thought that the smallness of the capillaries in the eye and the influence of light were some of the similar conditions which led to the development of the secondary ophthalmitis in a given case, but Mr. Hutchinson thought that the similarity of the tissues should be regarded as the reason why the secondary inflammation should develop in the opposite eye. Dr. Fitzgerald occupied the chair during the reading of this paper, the discussion of which was adjourned to the next meeting.

OBSTETRICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Wednesday, May 6th, Dr. J. B. Potter, President, in the chair.

The following specimens were shown:—(1) Fœtus, showing numerous Deformities of the Limbs; (2) Living child, showing Absence of Lower Two-thirds of Left Forearm and Hand; (3) Two cases of Imperforate Rectum in New-born Children (Dr. Horrocks); (4) Double Pyosalpinx from a woman who died from perforation of the stomach by an ulcer—the pyosalpinx had caused no special symptoms (Mr. Malins).

Dr. MATTHEWS DUNCAN read a paper on the Ulceration of Lupus of the Female Generative Organs, including Perforations, Pits, and Excavations. Ulceration is not an essential part of lupus. Some ulcerations are to be regarded rather as excoriations than as lupus ulcers; generally ulceration is accompanied by hypertrophy. The hypertrophied parts are not specially liable to ulceration. The ulceration may affect the hip or thigh, or any part of the genital organs, external or internal, also the bladder and rectum. The ulceration is generally not sensitive. There may be one or many ulcers. Lupus minimus is characterised by small ulcerations. The skin, mucous membranes, and subcutaneous cellular tissue are the parts chiefly affected; but any structure (except bone) may be destroyed. Sometimes the skin is chiefly affected; sometimes the subcutaneous cellular tissue. The ulceration sometimes produces pit-like cavities; sometimes producing great excavations; sometimes perforating, producing fenestræ or fistulæ; the peritoneum may be perforated. The ulceration is not accompanied by sloughing. The ulcers may heal in whole or in part. Ulcers, the result of

wounds of the hypertrophied parts, heal favourably. A specimen from the London Hospital (lent by Dr. Herman) was shown of Dilated Uterine Cavity with Perforating Ulceration.—Dr. HORROCKS mentioned a case under his care in Guy's Hospital, which he had observed for nearly two years. The patient was a single woman, never pregnant. Her complaint was pain in the pudendum and scalding on micturition. Small ulcers occupied the base of the hymen and fossa navicularis. There was no enlargement of the glands, and no history of sore-throat, but, on the suspicion of syphilis, mercury was given internally, and lotio nigra applied externally. No improvement resulting, caustics of various kinds were used, but pain persisted and no improvement followed. The hymen was apparently entirely eaten away, and along the line of its attachment were small red nodules, with a few tiny ulcers. The nodules were very different from carunculæ myrtiformes; there were no lineæ gravidarum, and the cervix was nulliparous. The tubercles were then removed by scraping with a sharp curette and by cutting away with the scissors. The bleeding was so free that one or two vessels had to be tied. Dr. Horrocks asked Dr. Duncan what was his experience of scraping, and what was the best mode of treatment.—Dr. GANDY asked whether there was any fetid odour or other characteristic discharge; whether he could explain the profuse hæmorrhage with so little physical evidence of disease. He related a case in a patient aged thirty-five, in fairly good health, who was suddenly seized with very profuse bleeding which was arrested by subcutaneous ligature. No cause for the bleeding could be discovered, and it now occurred to him that the case might be one of lupus. There was always pain on coitus, but there had not, so far as he knew, been any return of the bleeding.—Dr. CHAMPNEYS asked Dr. Duncan (1) on what grounds these very different affections were included under the same name; (2) why they were called lupus when the microscopists pronounced the appearances to be unlike those of lupus; (3) what these diseases were called before they received the name of lupus.—Dr. MATTHEWS DUNCAN replied that he used the term lupus because others did so. West in his "Diseases of Women" (one of the earliest English notices) used this term. Esthiomene was an awkward word. Lupus expressed the great eroding character of the disease; it included ulcerations, inflammations, hypertrophies, variously combined, and which were not cancerous, not epitheliomatous, not syphilitic. It might turn out that several diseases were included in this comprehensive term. At present they were combined for description on account of their apparent similarity. They were far from being as uncommon as was supposed.

Mr. WILLIAM DAY (Norwich) read a case of Uterine Fibroid complicating Labour and treated by Enucleation. The tumour itself presented, and above the tumour a breech. The size of the tumour and its immobility precluded the possibility of delivery while it was *in situ*. After separating its connexions to a great extent, and thereby attaining greater mobility of the tumour, delivery was effected by the feet, the remaining attachments were severed and the tumour removed. It weighed three pounds and a quarter, was a soft fibroid, and would nearly have filled an ordinary tall hat. A successful case of enucleation of a large fibroid immediately after parturition induced Mr. Day to adopt this treatment. The patient lived for twenty-eight hours after delivery. The child still survives.—Dr. BRAXTON HICKS reminded the Society of a case which he had read before it some years ago, in which he divided the capsule by a bistoury vertically, and enucleated the tumour from its capsule with complete ease and success. This he thought best in the case of sessile or embedded fibroids. He called attention to the work of Dr. Chahbazian on the fibrous tumours of the neck of the womb in pregnancy and labour, to a paper by Dr. Mundé of New York, and to a case of Dr. Fry, in THE LANCET for 1884. He thought that, where delivery was urgent, the general opinion was in favour of enucleating the sessile forms from their capsule, which, in all the cases reported, was not a difficult operation.

BRITISH MEDICAL TEMPERANCE ASSOCIATION.—The annual meeting of the Irish Branch of this Association will be held in the Royal College of Surgeons, Dublin, on Tuesday, June 2nd. The chair will be taken at noon by the President, Deputy Surgeon-General F. L. G. Gunn. The meeting will be open to all members of the medical profession.

THE GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

THURSDAY, MAY 14TH.

SIR H. ACLAND, PRESIDENT, IN THE CHAIR.

THE adjourned debate on Dr. Humphry's motion was resumed.

Dr. HUMPHRY asked permission to substitute for his motion the following: "That the examinations in general education conducted by universities be accepted as heretofore, but that if in any of these examinations the subject of elementary mechanics is not included, a knowledge of that subject should be required at a separate preliminary examination."

Dr. STRUTHERS said if the motion were so altered, he should be willing, if permitted, to withdraw his amendment.

The permission of the Council for the proposed substitution and withdrawal having been given,

Mr. MACNAMARA said he regretted that the Council had laid down such minute regulations in regard to general education, and had endeavoured to press them upon the universities. Dr. Haughton and the provost of Trinity College, Dublin, knew more on the subject of elementary mechanics and the best mode of teaching it than all the Council put together; and it was absurd to endeavour to impose upon the University another method of instruction or examination. They would, if the Council persisted, pursue the even tenour of their way, and the Council could not refuse to register the qualification obtained. He hoped the Council would not put itself in antagonism with the great universities. It was absurd to try to teach Oxford the best mode of teaching and examining in English. All details of the kind should be left to the great teaching bodies themselves.

Dr. PETTIGREW supported the motion.

Mr. MARSHALL said he retained his opinion as to the importance of English as a subject of education; but if the universities thought that they could secure a proper examination in the subject in a collateral way he would not recommend the Council to interfere with them. They had, he thought, complete liberty to examine in English as they liked. He did not approve of the method adopted by the University of Oxford, but he would not interfere with their freedom of action. He suggested that the first part of the motion be omitted—viz., "That the examinations in general education conducted by universities be accepted as heretofore," believing that it was quite unnecessary.

Dr. STORRAR said that the universities had a right to adopt their own methods of teaching and examining in general education; and that the Council ought not to endeavour to draw the bow too tightly, or seek to use a mandatory power, but rather be content with exercising moral suasion. As to the teaching of English, it was difficult to get the older universities to take up English as a separate study; but at the University of London the examination in English was regarded as one of the most difficult of any, and the subject was one of the best as an instrument of education.

After some remarks from Dr. PETTIGREW, Dr. STRUTHERS and Dr. BANKS,

Dr. HAUGHTON said he objected to Dr. Humphry's motion. The existing state of things brought about by the action of the Council last year had left the Universities of Oxford, Cambridge, and Dublin frying in their own juice: Dr. Humphry's motion, however, took Oxford and Cambridge out of the frying-pan, and left Dublin in it; he therefore strongly opposed it.

Dr. HUMPHRY having replied,

Dr. HAUGHTON moved as an amendment that the word "preliminary" be omitted from the resolution.

Dr. BANKS seconded the amendment.

Mr. SIMON contended that if the word "preliminary" were omitted the motion would be mere waste paper. If there were anything special in the case of the examination at Trinity College it might be met by a proviso.

Dr. HAUGHTON said if "elementary mechanics" was not to be regarded as including statistics, dynamics, and hydrostatics, he would undertake that there should be an elementary

tary examination of students before registration at the Dublin University; but he could not undertake that the examination should cover the whole ground of fluids and solids. If his offer were accepted, he could vote for the motion, not otherwise.

Mr. SIMON said that the regulations of the Council would not permit of a definition of elementary mechanics which did not include fluids as well as solids.

Dr. HAUGHTON'S amendment was then put and negatived, and the original motion was carried by fourteen votes against four.

Dr. HUMPHRY said he had received a reply from the Cambridge University stating that Ebenezer Bryceson (as to whom he had been requested to inquire whether he had taken the degree of M.B.) had only taken the degrees of B.A. and M.A.

Dr. QUAIN moved the reception of the following report of the Pharmacopœia Committee:—

"The Pharmacopœia Committee have to report to the Council that the duty assigned to them has been so far completed as to enable them to lay on the table a revised copy of the New Pharmacopœia. The Committee recommend that, with a view to the publication of the work now completed, the course adopted by the Council, when the Pharmacopœia of 1867 was published, be now followed. On this subject the Council passed the following resolution on May 26th, 1866: 'That as soon as the proof of the new edition of the Pharmacopœia is ready a copy of it be sent to each member of the Council, with instructions that he will, within one month, return it to the secretary of the Pharmacopœia Committee, with such observations as he shall see fit to make thereon, to be submitted to the Pharmacopœia Committee; and that the Pharmacopœia Committee shall, after due consideration of such observations, hand over the proof, when finally approved, to the Executive Committee for publication.' Should the Council approve of the recommendation of the Committee, they suggest that the Council now adopt the resolution passed on May 26th, 1866, substituting the word 'chairman' in line 4 for 'secretary,' and adding 'sub' before 'committee' in line 6 of the above-quoted resolution. A copy of the completed work will be forwarded within a very few days to the members of the Council for their approval. The Committee cannot conclude their report on the completion of the Pharmacopœia without offering their testimony to the great care, the scientific skill, and the assiduity with which the editors of the work—Professors Redwood, Bentley, and Attfield, and others—have performed their duties."

Dr. QUAIN said that a copy of the Pharmacopœia would be sent to each member of the Council for suggestions before the work was finally issued. It would be a little larger than the previous edition, and would contain about a hundred more pages, but he hoped that the price would not be increased, as no charge would be made beyond the mere expense of production. No effort had been spared to make the work as perfect as possible. Its issue to the public might, he thought, be left with the Executive and the Pharmacopœia Committees, but if any grave question should arise steps could be taken if necessary to consult the Council.

Dr. STORRAR seconded the motion.

Mr. MACNAMARA said he had devoted a great deal of time to materia medica, and could appreciate the labours of the Pharmacopœia Committee. He was well aware of the great zeal and ability, and the great amount of time, that Dr. Quain had brought to bear in supervising the Pharmacopœia, and he begged to move: "That the warm thanks of the President and members of the Medical Council are eminently due, and are hereby tendered to Dr. Quain, chairman of the Pharmacopœia Committee, for his invaluable services in supervising the forthcoming edition of the British Pharmacopœia."

Dr. BANKS seconded the motion, which was carried by acclamation.

Dr. QUAIN said he was completely taken by surprise at the compliment paid him by the Council. Such a recognition was an abundant reward for any labours that he had given in connexion with the Pharmacopœia. He had only done his duty, and was only too pleased if the work contributed in any way to the credit of the Council and the advancement of the profession.

The Offices Committee presented a report in reference to their inquiries respecting a new site for a hall of meeting for the Council. Dr. Lyons, the chairman, had visited and inquired into the detail of lettings of two sites on the Thames Embankment. The first is that which immediately adjoins the Temple Gardens, and lies between them and Sion College. The cost is four shillings per foot square. The second site is on the Savoy Estate of the Duchy of Lancaster; and any portion of this site suitable for the purposes of the Council could be had at about two shillings per foot square rent per annum. It was assumed that a space of ground seventy-five feet by fifty feet would give ample accommodation in a well-planned two-storey building for a dignified and suitable council-chamber and the necessary offices. The letting of the present premises would in all probability balance the new rent of £375 incurred for the site. The Committee had considered Dr. Lyons' report, and were of opinion that one of the sites on the Savoy Estate of the Duchy of Lancaster would alone be adapted to the purpose, provided the Council were satisfied as to the necessity of removal and the convenience of the proposed site, and were prepared to incur the increased expenditure involved in the change.

Dr. LYONS, in moving the reception of the report, said that in the opinion of an architect whom he had consulted for his own guidance, the difficulties in the way of properly adapting the present building to the purposes of the Council were almost insuperable. After a careful inquiry over an extensive area in London, the only available sites appeared to be the two mentioned in the report.

Dr. QUAIN (a member of the committee) urged that the proposed site in the Savoy was objectionable on the grounds of inconvenience and expense. The rent of the present premises was £300 a year, but they were worth £600; while that of the premises in the Savoy would be £700 or £800. He thought that the existing premises could easily be so modified as to suit the purposes of the Council.

Dr. STORRAR (also a member of the committee) expressed his concurrence in the views of Dr. Quain, and objected to the large expenditure that would be required to erect a new building on the proposed site.

Dr. A. SMITH said the first question to be decided was whether the Council was willing to invest its large capital in a new and costly building.

Mr. SIMON thought that the Council should resign itself for the present to existing circumstances, and not go into the indefinite experiment of either largely altering the present premises or going to another site.

Mr. TEALE also recommended the Council to remain in its present premises. He thought that another room less objectionable than the present could be erected in another part of the building.

Dr. WATSON moved as an amendment: "That the report of the Offices Committee be referred to the Executive Committee with instructions that they continue the inquiry in the direction of improving the present premises, with powers to take professional advice, and to report to the next meeting of the Council."

Mr. TEALE seconded the amendment, which was agreed to. On its being proposed as a substantive motion,

Dr. STORRAR moved as an amendment: "That the report of the committee be referred to the Executive Committee with power to take such steps, under professional advice, as they may judge desirable to further improve the ventilation of the hall in which the Council meets, or, if necessary, to report on the improvement of the building at the next meeting."

Dr. QUAIN seconded the amendment, which was agreed to; and it was also passed as a substantive motion.

Sir H. PITMAN proposed: "That a committee be appointed to consider and report in what way, if any, the accumulated funds of the General Medical Council can be applied in promoting scientific research for the public good." The first consideration, he said, was whether the Council had power to appropriate any of its funds to scientific research. He thought it would be found that the Council had such power. Certainly it had funds at its disposal. From the account published last year it would be seen that during the last three years the average surplus income over expenditure had been £2500 a year, and during the last seven years the average had been £1300. The Council had now standing to its credit the sum of £38,000. That included sums in the hands of the Branch Councils; but, of course, the whole of those funds were under the direction of the General Council. The Branch Councils had no special interest apart from the General Council. They were permitted to have the control of a certain portion of the registration, but they were accountable to the General Council, with whom rested the

entire supervision of the funds, as would be seen by a reference to the Medical Act. The Act declared that "all moneys received by any treasurers arising from fees to be paid on registration, from the sale of Registers, from penalties or otherwise, shall be applied for the expenses of registration, and of the execution of this Act." The only question was whether his proposal would come strictly within the meaning of the words, "the execution of this Act." That it was so, he thought, would be clear from Clause 54:—"The General Council shall cause to be published under their direction a book containing a list of medicines and compounds, and the manner of preparing them, together with the true weights and measures by which they are to be prepared and mixed, and containing such other matter and things relating thereto as the General Council shall think fit, to be called the British Pharmacopœia; and the General Council shall cause to be altered, amended, and republished such Pharmacopœia as often as they shall deem necessary." His contention was that some portion of the Council's funds might be applied under that clause to investigations in relation to the British Pharmacopœia. To show the intention of the Legislature in such matters, he might refer to the Dentists Act, Clause 32, which said that all moneys received should be applied in accordance with such regulations as might be made by the Council in defraying the expenses of registration and other expenses of the execution of the Act, "and, subject thereto, towards the support of museums, libraries, or lectureships, or for public purposes connected with the profession of dentistry and dental surgery, or towards the promotion of learning and education in connexion with dentistry. In recent Medical Bills introduced into Parliament there had been a provision that any surplus funds might be applied to the promotion of such purposes as were contemplated for the profession of dentistry. Science had of late years made great advances, especially in connexion with sanitary questions, and the health of the public had greatly benefited by the improvements that had been carried out. He was anxious that some of the accumulated money of the Council should be expended in what, perhaps, might be called the physiology of therapeutics, with a view to making improvement in that direction, and keeping pace as far as possible with the progress of science in other directions connected with the profession. Why should the Council go on accumulating thousands of pounds every year? Notwithstanding the large expenditure on visitations, the Council had at least enough money at its disposal to justify it in applying some portion of its funds in the promotion of scientific research for the public good. The committee should, he thought, be a large one, so as to comprise every section of the profession.

Dr. DUNCAN, in seconding the motion, said it would be for the committee to inquire, amongst other things, whether the proposed expenditure was justified. For his own part, he thought it a very great grievance that the Council should possess such a large sum of money. If it could not get rid of it in the way proposed, it should do so in some other way. The responsibility of having so large an accumulated fund, making no use of it, and having no prospect of making use of it, was an unmixed evil.

On the motion of Mr. SIMON, the debate was adjourned at the rising of the Council.

FRIDAY, MAY 15TH.

SIR H. ACLAND, PRESIDENT, IN THE CHAIR.

The debate on Sir H. Pitman's motion for a committee on scientific research was resumed.

Mr. SIMON regarded it as absolutely unquestionable that the Council had nothing to do with the object named by Sir H. Pitman, and that any expenditure in the direction he had proposed would be a breach of trust. The Council was authorised to publish a Pharmacopœia; but that could not include the power to publish accounts of scientific researches such as those named by Sir H. Pitman. If the Council was receiving more money than it wanted, it could reduce the registration fee from five guineas to three, which would be quite within its power to do. He had had a good deal to do with grants for scientific research, and could assure the Council that the difficulties connected with the subject were very great.

Mr. MARSHALL said if it could be shown that all the expenses of the Council could be met by a registration fee of three guineas, the fee should be reduced to that sum. At present that could not be done, but in a few years he thought it could be easily carried out.

Dr. STRUTHERS thought that the powers of the Council were very limited, and did not extend to expenditure for scientific research. The funds, however, could legally and usefully be applied to an extended system of visitation of examinations.

Dr. WATSON hoped that the discussion would set at rest for ever the question of applying the funds of the Council to scientific research.

Dr. HUMPHRY hoped that in future the visitation of examinations would be carried out more energetically than it had been. That was certainly an object to which the funds of the Council could be properly applied.

Dr. LYONS reminded the Council that it might have duties to perform which would require a considerable expenditure. He referred especially to the visitation of examinations, which ought to be widely extended and embrace every branch of education. It would be a great misfortune if such a work were hampered by pecuniary considerations. There ought to be a thorough annual inspection and report to the Council, and it was impossible to say what the consequent expenditure might be. For that reason he deprecated legislation in the direction proposed by Sir H. Pitman.

After some remarks from Dr. SMITH,

Sir H. PITMAN, in reply, said it was singular that the members who opposed his motion had not before discovered that the registration fee might be reduced. His proposal was not that money should be at once expended for scientific research, but only that a committee should be appointed to consider whether that course could be adopted. As to visitations, if any great improvement had taken place (as had been alleged) the necessity for them should be less rather than greater. The cost of a visitation was enormous; but the expense of researches such as he had mentioned would be comparatively small, and it would have, he contended, a distinct relation to the Pharmacopœia, and would therefore be strictly legal. It was a dereliction of duty on the part of the Council to be receiving large sums of money which it could not usefully employ.

Dr. LYONS moved as an amendment: "That a committee be appointed to consider and report in what way the accumulated funds of the General Medical Council can be best applied for the public good in conformity with the duties imposed upon the Council under the Medical Act."

Dr. PETTIGREW seconded the amendment.

The PRESIDENT said he could not understand on what principle they were to conclude that if they had the power and the means they were not at liberty to inquire into the mode of action of those substances of which they were in the habit of prescribing doses. He also called attention to several previous meetings of the Council when similar proposals had been considered.

Dr. STORRAR thought that if the proposed committee were appointed, it ought to have the power of consulting counsel on the legal aspect of the question. He sympathised with the object of the motion, but could not consent to an illegal expenditure of money.

The amendment was then put, and negatived. The original motion was also negatived by a considerable majority.

The following report was presented from the Finance Committee:—

The Finance Committee report that the income of the General and Branch Councils for the year 1884 (ending Dec. 31st, 1884) has been £8424 2*s.* 3*d.*, an amount which exceeds by £478 14*s.* 9*d.* the income for the year 1883. The expenditure during the year 1884 has been £7084 6*s.* 7*d.*, which is £2633 0*s.* 1*d.* more than the expenditure of 1883. The Committee has, nevertheless, the satisfaction of reporting to the Council that, notwithstanding the large expenditure during the past year, the excess of income over expenditure for the year 1884 amounts to £1339 15*s.* 8*d.* The excess of income over expenditure for the year 1883 was £3494 1*s.* As regards expenditure, the largest item of increase has been that for fees to members of the General Council, in consequence of the two sessions of the Council held during the year 1884. This excess amounted to £1[illegible] 1*s.* 10*d.* The fees to members of the Executive Committee also show an increase of £173 11*s.* 8*d.* The preparation of the new edition of the British Pharmacopœia has involved an expenditure on account of £358 12*s.* 2*d.*, and in general printing there has been an increase of £39 12*s.* 7*d.* The only items of diminished expenditure for the year 1884 claiming notice, as compared with 1883, are a decrease of £18 14*s.* 5*d.* in h[illegible]

expenses, and £13 14*s.* 6*d.* in the production of the Medical Register. While, therefore, the total increase of expenditure is £2320 7*s.* 1*d.*, the total decrease amounts to £92 2*s.* 4*d.*, showing an actual increase in expenditure of £2228 4*s.* 9*d.* The average yearly income during the last seven years exceeds the average yearly expenditure by £1617. In the receipts (£585 17*s.* 11*d.*) of the Dental Registration Fund for the year ending December 31st, 1884, there is a decrease of £82 6*s.* 5*d.* over those of last year, while the expenditure, £896 2*s.* 9*d.*, has been greater by the sum of £151 4*s.* 7*d.* The deficiency of income for the year is thus £310 4*s.* 10*d.*, as compared with a deficiency of £76 13*s.* 10*d.* in 1883. Pursuant to instructions given at the meeting of the English Branch Council in 1884, the treasurers have made an additional purchase of £2500 consols in the names of the trustees of the Branch Council, thus making a total invested under this trust of £33,000 consols. The total amount now invested by the three Branch Councils is £38,669 17*s.* With respect to the reference from the General Medical Council—namely, "To present a scheme which will render it necessary in future that the Branch Council for England should advance the money required to meet the current expenses of the General Medical Council,"—the Finance Committee recommend the following plan to be adopted in future:—1. That an estimate of the sum probably required for the current year's expenses of the General Medical Council having been made by the Executive Committee at their first meeting in each year, the proportionate rate to be paid by each Branch Council in order to provide such sum be made by that committee, and that the half of that sum be paid in January and July of each year. 2. That the sums paid by each Branch Council be placed to an account to be opened at the bank in the name of the General Medical Council. 3. That any balance remaining on this account at the close of each year, over and above what has been required for the expenses of the General Council for that year, be calculated in the estimate of the sum required for the following year; or should there be any deficiency, that the respective Branch Councils supply such deficiency computed on the percentage rate.

The report was received and adopted without discussion.

Mr. MARSHALL moved: "That it is desirable that the first principles of physics, chemistry, and biology should be regarded as branches of a preliminary scientific training and of an examination, to be taken before the commencement of purely professional study." He thought there could be no question as to the proposal he had submitted being within the powers of the Council under the Medical Act; indeed, he thought it absolutely necessary that the question should be taken up. A circular had been sent to a number of persons asking their opinion on the subject, and many answers had been received. A large majority were more or less favourable to the establishment of some sort of special preliminary scientific examination. Inquiries had been addressed to fifty-eight persons: nine had sent no reply; eight were decidedly adverse, chiefly on the grounds of additional expense of time, and of the inexpediency of encumbering the curriculum; eight were moderately adverse; thirty-four were more or less in favour of the proposal; twenty-three were absolutely in favour of some form of preliminary scientific education; three were in favour of such a preliminary examination as was expressed in the conjoint scheme of the Royal Colleges of Physicians and Surgeons; and seven were in favour of such an examination, but thought it could not be carried out at schools for general education. The evidence was strongly in favour of the proposal, and no apology therefore was needed for his introducing it. It would, if carried out, have the effect of relieving the professional curriculum. It might be objected that a heavier burden in time and money would be imposed upon the students, but he did not think that that was an objection that the Council had to consider. It was rather an objection to be made by the withdrawal of those who could not afford the necessary education. If the number of students had to fall off, it was better that they should do so early in their career than that they should go through a long period of medical education, and then be disappointed. It had been stated that the supply of medical men was inadequate to fill up the waste, but that was really not the case. Taking an average of nine years, the number of students annually registered had been 1842, and the number of practitioners registered in the same time was 1109, showing an antecedent waste of 733. That was a proof that a number of men entered into medical training who never passed into the Register. It might be asked, How was the waste supplied? The antecedent waste before registration was 733 a year. The working waste was 856, and deducting that number from 1109 (the number registered), there was a balance of 253, representing the number entered on the Register yearly in excess of the waste. The number of students registered in 1879 was 2009. It would take those students five years to get on the Register, so that they would appear in 1884. The number of practitioners then registered was 1388, so that the antecedent waste had been 621, and the balance, after deducting 615 who had died and retired, was 713. They therefore need not be alarmed as to the question of supply and demand. There were many poor-law medical officers breaking their hearts on a salary of £50 a year who might get £100 a year if the numbers in the profession were diminished. He doubted, however, whether the proposed plan would really increase the length of time during which a medical student would have to study. A sound preliminary training would enable the students to get through their professional curriculum more rapidly, and time would in that way be saved. Experience showed that those who had had that kind of training were more apt students in their subsequent career. He had been very much surprised, however, at an answer given by one gentleman who said that he had not found that those who had a preliminary scientific training were more apt in their professional studies. His (Mr. Marshall's) experience was just the reverse. But should the preliminary training be conducted at the schools? It would, he thought, be futile to expect from the schools a sufficient preliminary education in the fundamental sciences. The latest report from the examiners at the Cambridge local examinations gave them but little encouragement to expect a good scientific training in the general schools of the country. The work would probably be best done in the scientific division of the medical schools, and it should be done before the students were permitted to register. The subjects to be taught were the principles of mechanics, physics, chemistry, and biology. He meant by biology a general outline of the systems of plants and animals, especially the structure and functions of vegetable and animal tissues. His object was to raise the lower ranks of the profession; the higher ones would take care of themselves.

Mr. SIMON, in seconding the motion, said as the subjects of education increased the more incumbent it became to provide for methodical teaching, without which students would find the task before them an almost hopeless one. General scientific subjects should be dealt with before professional subjects; the latter would then be more quickly and easily acquired. That view was enforced in a report of the Committee on Professional Education in 1869, which he had himself drafted, and which was accepted by the Council without alteration. The time at present given to medical education, forty-five months, was generally admitted to be too short. It might be long enough for a student who had had a preliminary scientific training; but without such a training at least fifty months should be given. With such a regulation the schools would provide the necessary instruction, say, in May, so that the students might begin their medical course in October; but they would be at liberty to acquire their preliminary knowledge where and how they pleased.

Dr. PETTIGREW thought that chemistry was too important to be treated as a mere preliminary subject. "Biology" was a vague term; and the necessary amount of knowledge respecting it could hardly be obtained in the way proposed. He should not himself object to lengthening the period of medical education, but feared that it might interfere with the needful supply of practitioners. He thought that, at present, the subjects of the curriculum were too numerous, and that their number should be lessened in order that they might be more thoroughly learned.

Dr. BANKS said there were many men entering the profession who were quite unfit for it. There ought to be two different grades in the profession, and five years ought to be the minimum period of study.

Dr. HUMPHRY, in supporting the motion, said that there was a very general feeling expressed by the gentlemen who had answered the questions addressed to them, that a general scientific should precede a purely professional education. The great defect in education was in regard to the knowledge of principles, and if this defect could be supplied at an early period, the advantage would be

enormous when the professional studies were undertaken. There were doubtless great difficulties in the way, but the appointment of a committee might lead to their removal. An expression on the part of the Council that the course proposed was "desirable" would be a useful preliminary step in dealing with the subject.

Dr. STORRAR said that the principle of the motion was enunciated twenty years ago in a motion brought forward by himself. Something more should now be done, and he hoped that a distinct recommendation would be given to the examining bodies. The scientific instruction at most schools was quite inadequate, but there were notable exceptions. At Eton and Rugby, for example, science was well and practically taught. At Bedford there was a complete laboratory, and the scientific training was excellent. As a rule schoolmasters, knowing nothing of science themselves, did not care about its introduction, but if there was a demand for it, it would no doubt be well taught. With regard to biology, it was absurd to suppose that it could be taught from books alone, but there was no reason why it should not be taught practically in the schools. He hoped that no attempt would be made to exercise control over the qualifying bodies; the Council should be content with forwarding a recommendation on the subject.

Dr. HAUGHTON thought that at least a year's preliminary scientific training should be required from the students.

Dr. CHAMBERS said that the brains of boys at school were not sufficiently developed to receive chemical and biological instruction. The subjects were of a special character, and should be included in the later medical curriculum. He did not object to the addition, but it was made at the wrong end.

Mr. TEALE thought the Council was mixing up general and professional education. The great object was that good training should be given at school, without reference to the particular subjects selected; and the more they tried to increase the subjects of early education the more likely they were to deteriorate it. The subjects referred to in the motion belonged to professional training, and should be so regarded. Dr. Michael Foster, in writing on the subject, had said: "I would not recommend a special preliminary scientific examination. In order to be adequate, it must be by special examiners, and the almost necessary consequence will be that it will become sooner or later too exacting." There was unfortunately a tendency to add to the curriculum before the question of time had been decided. Every examination added would, he thought, tend to deteriorate true medical study. He often heard complaints that men who had gone through their curriculum were not so well qualified to enter upon the profession as those who were turned out many years ago. The schools were being turned too much into cramming machinery, and any addition to the examinations would only increase the evil.

Dr. SCOTT ORR said that when examined by the Scotch University Commissioners he gave evidence almost identical with the views expressed by Mr. Marshall. It was not, of course, to be expected that the boys would get all the required information at the schools. Boys going straight from school to medical study often lost their first year; they did not know how to study, and had to be taught the preliminary lesson. It was scandalous that there should be so many rejections at the first examinations. By such an examination as Mr. Marshall proposed the unqualified students would be filtered out early, and the qualified ones would be better able to pursue their studies after their preliminary training.

Dr. STRUTHERS said that examinations were not to be trusted without a regular education at a college or university. He suggested that the consideration of the subject should be deferred until the question of the curriculum had been settled.

SATURDAY, MAY 16TH.

SIR H. ACLAND, PRESIDENT, IN THE CHAIR.

The adjourned debate on Mr. Marshall's motion was resumed.

Mr. MACNAMARA said that every member of the Council must sympathise with the earnest desire shown by Mr. Marshall that the important subjects mentioned in the motion should be thoroughly and carefully studied, but at the same time there might very well be a strong difference of opinion as to the mode in which that study should be carried on. The proposal seemed to be that those subjects should be taken previous to the commencement of professional study, and when once examined upon they were to be put on one side. No one who knew anything about the profession would under-estimate a knowledge of chemistry, and he could not approve of the suggestion that the examination in it should be passed before the student was registered; he would, however, be prepared to go the whole length with Mr. Marshall if it was to be subsequent to registration. Mr. Macnamara then gave a detailed account of the manner in which the several subjects were taught in the Royal College of Surgeons in Ireland, and expressed his regret that the Council had not taken up the recommendations first, dividing the whole course of study into sessions, and allocating to each its various subjects.

Dr. WATSON was glad that Mr. Marshall had brought forward his motion before the discussion commenced on the arrangements for study and examination in future. The present curriculum was certainly over-weighted. Some students of more than average attainment might succeed in it within the forty-five months, but in most instances those who did so had had a preliminary education of a very different kind from that which was to be obtained at an ordinary school. Generally, their being able to pass within the allotted time was due to the fact that they had virtually entered upon what might be called the intermediate professional studies before they passed into the rank of medical students. Mr. Marshall's proposal to put certain things into the preliminary examination appeared a very valuable one, as it would tend in some way to relieve the curriculum. Chemistry was not slighted by being put into the preliminary, but the chemistry which Mr. Marshall alluded to was what must, under any circumstances, be acquired before further steps could be taken in that science. But the question arose, When and how could physics and biology be studied? In his opinion there was only one way in which that could be done—namely, in those schools where such subjects were really taught. If there was one thing that was bad for a medical student, it was that, even if he did not pass his examination, he should carry on his study in further subjects. It was of the very highest moment that anatomical studies should not be conducted at the same time with clinical studies, for if they were it would be difficult to avoid the risk of carrying septic germs into the anatomical ward. Chemistry and physics might easily be dealt with in the winter session, and zoology and botany in the summer session. From every point of view it appeared to him desirable that the resolution should be passed.

Dr. SCOTT ORR considered that more than one year's study would be necessary to enable the student to pass the examination proposed. If the curriculum was extended at all, it should be in the direction of professional study, and not of preliminary study. Mr. Marshall's proposal might be all very well for university students, but extra-mural students would find it extremely difficult to comply with this regulation. He could not see the propriety of relegating chemistry entirely to the preliminary course. It should be, as it had hitherto been, a part of the first professional examination.

Mr. MACNAMARA proposed as an amendment: "That it is desirable that the first principles of mechanics, physics, chemistry, anatomy, and biology should be regarded as branches of a preliminary scientific training, and of an examination to be taken at the end of the first year of professional study."

The motion was seconded by Dr. PETTIGREW.

Mr. MARSHALL said there appeared to be a unanimous opinion that the schools could not be relied upon for a *bonâ-fide* scientific preliminary examination. The object of school education was to educate the mind in the instruments to be used for the acquisition of knowledge. There was no objection to boys at school being allowed to indulge themselves in botany, zoology, and the natural sciences generally—indeed, they ought to be encouraged to do so; but he did not think that any examination which might issue out of a study of this kind should be seriously taken into account. No examination in such subjects at this early period could be considered adequate as an introduction to professional education. It was necessary that there should be interpolated a truly scientific training which should be preliminary to the study of the human body as it existed in life and disease, which was the ultimate object of medical science. The intermediate training to which he referred should include mechanics, physics, chemistry, and general biology. It had been said that chemistry was so important a subject that it could never be taught properly if it was

separated; but he could not understand why it should not be taught even more effectually by itself than when the student was attending to his strictly medical studies. With regard to biology (a word to which he did not, like some members, object), the object should be to educate the student in the elementary principles connected with the structure and action of living things. The question was whether the course of scientific instruction should be introduced between the general education and the professional one. The main point was that it should be given before the student was allowed to be put on the Register. As to prolonging the curriculum, that was a question still hanging over them, and it would have to be dealt with hereafter. His own belief was that if the proposed plan were adopted, there would be as many students passing in the fourth year as there were now. The curriculum would have to be prolonged directly or indirectly. To prolong it directly was, he thought, objectionable. It would make some students lazy, and would not increase the chances of any.

Mr. SIMON said that all were agreed that before the commencement of professional study the reasonable competence of the students in the scientific subjects that had been mentioned ought to be ascertained. The question whether the term "professional," "preliminary," or "intermediate" should be applied to them was a trivial one in comparison with the essential question itself, which was that before anthropological specialities began the student should have some knowledge of mechanics, chemistry, physics, and biology. No doubt they would have to look forward to more time being required. How could it be otherwise? When some of them were young men the amount of scientific training required for men entering the medical profession was not more than was now required for the veterinary profession. He hoped that the Council would affirm the principle that before entering on medical studies the student should understand something of the attributes of the inorganic and organic world.

Dr. QUAIN thought that the treatment of disease had deteriorated. In consequence of the attempt to cram science down men's throats they had very little idea of good practice. It was absurd to suppose that the scientific knowledge now demanded could be acquired at school. The question was whether a five years' course should be required; and if so, how the time could be best spent.

The PRESIDENT said there could be no doubt that a scientific preliminary education, whatever it might be called, had become a necessity as an introduction to anthropological studies; and it was impossible that so much work could be put into the time at present prescribed.

Dr. LYONS was afraid that the medical student of the future would be in the position of Ginx's baby. He did not question the necessity of some such legislation as was indicated by Mr. Marshall's motion, but he was not sure that it would not be better to defer the consideration of the question until after they had taken up the question of the Council's recommendations. He thought that not less than two years' serious study would be required for a respectable knowledge of the first principles of physics, chemistry, and biology. Anything short of that would be practically useless. A two years' course would bring the student to the age of eighteen; and then nothing less than a four years' course would suffice for a thorough education in medicine, surgery, midwifery, pathology, anatomy, ophthalmology, and the other branches of which a full knowledge was required from the student before he was admitted to practise. That would bring him to twenty-two—the earliest age that should be allowed for admission. The two years' scientific preliminary training could be better given in one of the recognised universities, and it would, he thought (without committing himself definitely on the subject), be better to recommend the Legislature to establish a preliminary course in a university before admission to professional study. He hoped that the consideration of Mr. Marshall's motion would be deferred.

Dr. HAUGHTON thought that the Council was wandering from the real question, and discussing a great variety of details. The present regulations of the Council, to which the licensing bodies had assented, limited the period of medical study to four years, which included chemistry, physics, and biology; and they ought not to take the corporations and universities by surprise by passing Mr. Marshall's resolution without letting them know that it meant five years instead of four. If five years was the right time, let the Council say so. He for one would vote for it if the Council thought it right.

Dr. STRUTHERS said that a five years' course would be required if the preliminary scientific knowledge was not to be a mere sham. For himself he would far rather have medical students come to him well trained in classics and mathematics and knowing nothing about biology than have them come with a mere smattering of science. He should vote for the amendment.

The amendment was then put and rejected, 7 members voting for it and 10 against.

On the motion being put,

Dr. STRUTHERS moved as an amendment: "That the Council postpone its decision on the motion until it comes to decide on the questions of professional education and examination."

Dr. PETTIGREW seconded the amendment, which was put and rejected.

The original motion was then put, and on a show of hands there were nine in favour and nine against; but on the names being taken there appeared to be 9 in favour and 10 against, and it was accordingly declared to be lost. Three members did not vote.

Mr. SIMON moved: "That the statements which have been made to the Council, that the Council's accumulated funds amount to £38,000, and that the Council's annual income exceeds its annual expenditure by an average amount of £1600, be referred to the Finance Committee and to the Executive Committee; and that these Committees be instructed jointly to inquire, and jointly to report their opinion to the next meeting of the Council, whether the registration fee of £5 now charged to each person who enters the medical profession is more than enough to provide for the full efficiency of the Council in all its branches of duty, and whether the Council might properly proceed to make a reduction of the fee."

Mr. MARSHALL seconded the motion.

Dr. A. SMITH said that as three out of the four members of the Finance Committee were on the Executive Committee, he saw no reason why the matter should be referred to both committees.

Mr. SIMON said that Dr. Scott Orr, a valuable member of the Finance Committee, was not on the Executive Committee, and it was desirable to secure his services.

Dr. HAUGHTON had a strong objection to refer the matter to a committee; it was a question which the Council ought to decide itself. The benefit proposed to be given to the individual practitioner was infinitesimal, forty shillings once in his lifetime. It would be much better for the Council to keep its surplus so that it might be able to spend it on some useful objects.

Dr. STRUTHERS said that the money could be usefully spent on a more continuous visitation of examinations, and he proposed to move at a future sitting that the subject should be referred to the Branch Council to consider and report on it to the Council at its next meeting.

Dr. CHAMBERS considered that the money in the hands of the Council should be spent in such a way as to benefit those who had contributed it, and that to apply it to the reduction of future fees would be unjust to the old practitioners.

Dr. HAUGHTON moved as an amendment: "That the question of the reduction of fees on registration be now decided by the Council."

The motion having been seconded, was put and carried by 13 votes against 2.

Dr. HAUGHTON then moved that the registration fee remain *in statu quo*, and this, having been seconded by Dr. PETTIGREW, was also carried by a large majority.

Dr. CHAMBERS moved, "That the Council sanction the following decree passed by the Convocation of the University of Oxford, Feb. 24th, 1885:—'That no person shall be henceforward presented for the degree of Bachelor of Medicine who has not passed a qualifying examination, not only in medicine, but also in surgery and midwifery before the Examining Board for England, unless or until an examining board be appointed by the University for that purpose.' And that the Council also sanction the adoption by the Colleges of Physicians and Surgeons of England of the following resolution of the Committee of Management of the Examining Board for England of the said Colleges:—'That every member of an English university who shall have passed such an examination or examinations at his university as shall comprise the subjects of the first and second examinations of the Examining Board for Eng-

land, and who shall have completed not less than four years of medical study according to the regulations required by his university, be eligible for admission to the third or final examination of the Board, two years after his having passed all the other required examinations.'" He said that by the 19th Section of the Medical Act any of the Colleges or bodies might, with the sanction and under the direction of the General Council, unite in conducting the examination required for qualifications to be registered under the Act; and he now applied for the sanction of the Council to a temporary arrangement made by the University of Oxford with the Conjoint Board of the Colleges of Physicians and Surgeons of England. The degree of B.M. conferred by the University was not a degree authorising the recipient to practise, but only to teach and lecture. The licence to practise was given separately. When the Act of 1858 was passed, the M.B. degree was made a qualification, and was admitted on the Register by the authority of the Council; the Council, therefore, was responsible for it. The University, in order to carry out loyally the direction of the Council, had gradually increased its standard of examination. Then came the recommendation from the Council that all persons who received a qualification should be examined in surgery and midwifery. The University thought that if it went on increasing its standard in medicine according to the improvements in education, it must also increase it in midwifery and surgery; but it was felt that that would be oppressive to the candidate. The difficulty might, it was believed, be overcome by the arrangement mentioned in the resolution.

Sir H. PITMAN, interposing, said he thought that the Council had no authority to interfere in the matter, and that it was purely a question for the University of Oxford.

The PRESIDENT said that there was a legal question involved in the matter which had not yet been settled, and it was doubtful whether the Council had anything to do with it. Dr. Chambers, however, had acted quite rightly in bringing it before the Council, which he had done on his own responsibility.

The further consideration of the matter was adjourned.

MONDAY, MAY 18TH.

SIR H. ACLAND, PRESIDENT, IN THE CHAIR.

On the adjourned debate on the motion for sanctioning the decree passed by the University of Oxford,

The PRESIDENT said his attention had been called to the fact that in the decree in question reference was made to the "Examining Board *for* England," there being no such body. It should be "the Examining Board *in* England."

Dr. CHAMBERS, in resuming his address, said he had brought the matter forward as the representative of the Convocation of the University. The University had endeavoured to carry out the recommendations of the Council in regard to examinations in midwifery and surgery, and it was of opinion that such examination for Bachelors in Medicine would be best carried out in London. He asked for the sanction of the Council to the arrangement, without which the University might find itself in an awkward position, not knowing whether its examinations had been legalised or not. His attention had been drawn to the misdescription mentioned by the President. His belief was that the error was in the original decree; and in order that the error might be rectified, he would ask permission to withdraw his motion, on the understanding that he might be permitted to bring it forward again and discuss it on its merits.

Permission having been given,

Dr. HUMPHRY gave notice that he should move that in order to prevent misunderstanding the representative of the University of Oxford be requested to make it known to the University that there is not, at the present time, any examining board for England.

The Council then went into Committee to consider the existing recommendations of the Council, and the proposed alterations, herein adopted by the Branch Councils for England, Scotland, and Ireland.

In Recommendation 19, "the age of twenty-one shall be the earliest age at which a candidate shall obtain a licence to practise, and the age shall in all instances be duly certified," no alteration was proposed by the English Branch Council.

Dr. HALDANE, on behalf of the Scotch Branch Council, moved the substitution of the word "should" for "shall," urging that the former word was more appropriate to "recommendations," which had not the force of actual laws.

Dr. HAUGHTON seconded the motion.

Mr. SIMON thought that a distinction should be drawn between opinions of the Council that were imperative (such as those relating to the earliest age for admission) and the opinions that were merely the subjects of recommendation. The former, he thought, should take the form of standing orders.

Dr. WATSON supported the motion, which was put and agreed to.

Dr. BANKS moved "That the age of twenty-two be the earliest age at which a candidate shall obtain a licence to practise." If, he said, the question of age were considered after the question of the curriculum had been disposed of, he thought there would be a general consensus of opinion in favour of his motion. He was not alone in the opinion he had formed; for the King and Queen's College of Physicians, Ireland, had recommended that no candidate should be admitted to practise before attaining the age of twenty-two; and Sir Wm. Gull had recommended twenty-three as the earliest age. He (Dr. Banks) had brought the subject forward on a previous occasion, and at Mr. Simon's suggestion it was postponed until the subject of medical education was under discussion. They had had abundant evidence that the period of forty-five months, or even four years, was too short for an efficient education; and the result was that a number of immature youths had been admitted into the profession. If eighteen were the minimum age for admission to the Register, that would answer the purpose equally well.

Dr. A. SMITH seconded the motion, which, on being put, was rejected by a large majority, there being only two votes in its favour.

Dr. WATSON moved the omission of the word "duly" before "certified," regarding the word as meaningless. He said that the affidavit of the candidate himself as to his own age was accepted as a sufficient certificate.

The motion was seconded by Dr. PETTIGREW and agreed to.

In Recommendation 20, "No licence shall be obtained at an earlier period than after the expiration of forty-five months subsequent to the registration of the candidate as a medical student,"

Dr. HALDANE proposed to add the words, "and his commencement of study at a medical school." The object of the addition, he said, was to prevent candidates from being registered who had merely become pupils of a registered practitioner. The Scotch Branch Council was aware that in a number of cases students had availed themselves of that mode of commencing medical study, and in that way a year or more had in some cases been deducted from the period of education.

Dr. FERGUS seconded the motion.

Mr. MACNAMARA said it was felt by the Irish Branch Council that the work with a registered practitioner was a sham. They accordingly proposed that the recommendation should read, "No licence shall be obtained at an earlier period than at the close of the attendance on four winter and four summer sessions of medical study subsequent to the registration of the candidate as a medical student."

Mr. Macnamara's speech was interrupted by the announcement of the President that the hour had arrived when, according to arrangement, the Council had to consider the case of a medical practitioner summoned to answer the charge of having caused to be registered in the Medical Register a qualification which he did not possess. This case (that of Ebenezer Bryceson) was considered in private, and occupied nearly the remainder of the sitting, being then postponed for further consideration on Thursday. It wanted only a few minutes to the hour of adjournment when strangers were readmitted, and it was then considered too late for Mr. Macnamara to resume his speech. The remaining time was accordingly spent in the transaction of some formal (chiefly dental) business.

Sir H. PITMAN said it had been thought desirable to reconsider the standing orders with reference to penal measures, as to which there was at present no very clear mode of procedure. Such cases were becoming more frequent and more difficult to deal with, and it was desirable that the rules respecting them should be more exact. He moved: "That the Executive Committee, with the assistance of the legal advisers of the Council, be requested to revise

Sections 11, 12, and 14 of the standing orders having reference to penal measures, and to make at the next meeting of the Council such recommendations as they may think fit for amending the same."

Mr. SIMON seconded the motion, which was agreed to.

A communication was received from the Lord President of the Privy Council, enclosing a copy of a petition of Mr. E. Wooton, praying that his name might be entered in the Register as a dentist. The communication was ordered to be entered on the minutes.

Mr. MACNAMARA asked if the matter would be brought on for discussion.

Sir H. PITMAN said there was nothing to discuss. The petitioner, who had presumably been in practice before the passing of the Dentists Act, now asked to be registered, the time given by the Act having long since expired. That of course would be quite illegal.

A communication was received from the University of Pennsylvania (Department of Dentistry) asking for the recognition of its diplomas. After a short discussion as to the character of the course of study at the University (which Sir H. Pitman said had been decided by the Council to be below the required standard), the matter stood over, at the suggestion of Dr. Haughton, for further inquiry.

The Council then adjourned.

TUESDAY, MAY 19TH.

SIR H. ACLAND, PRESIDENT, IN THE CHAIR.

The debate on Mr. Macnamara's motion on Recommendation 20 was resumed.

Mr. MACNAMARA said it was strongly believed by the Irish Branch Council that four years of professional study were essential. The subject was more important than all the other recommendations put togetber, and if they did not take a firm stand upon it, it would be a sad thing for professional education. What had the Council done to promote the study of the numerous essential subjects named in their recommendations? They had decided that it could all be included in twenty-four months' study in a school; but would anyone gravely maintain that an adequate education could be given in all those subjects in so limited a period? He had not forgotten that by another regulation a year and a half of study could be carried on under a general practitioner. One subject on which the Irish Branch Council felt strongly was the subject of unqualified assistants. Students who had not completed their curriculum, or had not obtained any qualification, were allowed to go to a general practitioner for a year and a half, and that time might be accepted as a portion of the four years. The student, unqualified as he was, might even visit the sick poor or people of higher rank. In Ireland no such thing could happen. He had served his time as a dispensary doctor for some years, and if he had attempted to send one of his apprentices to visit a poor patient he would have been summoned before the board and summarily dismissed. He maintained that four winter and four summer sessions were little enough in which to teach subjects of so important a character. If the resolution proposed by Mr. Marshall, that the preliminary scientific subjects should be taken before the commencement of purely professional study, had been carried, the Council might then have been in a position to state that three winter and two summer sessions would suffice. With a view to making the recommendation as definite as possible, he begged to ask permission to substitute for the original motion the following: "That Recommendation 20 should be as suggested by the Irish Branch Council, that the course of professional study required for a licence shall occupy at least four years, of which four winter and four summer sessions shall be passed in any school recognised by any of the licensing bodies in Schedule A of the Medical Act."

Mr. COLLINS, in seconding the motion, said there could be no doubt that twenty-four months of medical study were insufficient for a student entering the medical profession. As to the study under a medical practitioner, in the majority of cases it was of very little value. A large number of practitioners would be unwilling to give the necessary instruction, and a still larger number of students were unwilling to receive it. After a long course of general practice, he could himself say that he had only had one pupil who was willing to receive the instruction that he (Mr. Collins) was able and willing to communicate. He had offered to prepare them in the various branches, but he could not get them to read or study; they preferred newspapers or novels.

Sir HENRY PITMAN said that Recommendation 21 required four years' professional study. The Irish Branch Council recommended that there should be four winter and four summer sessions. The question really was where the four years were to be passed. Hitherto it had been stated that at least three winter and two summer sessions should be passed at a medical school, leaving it to the discretion of the student to remain the whole time at the school or to spend some portion of the time with a registered practitioner.

Dr. HAUGHTON suggested that, as the Irish Branch Council accepted the Scotch proposal as far as it went, Mr. Macnamara should withdraw his motion in its favour, and bring forward the Irish proposal in connexion with Recommendation 21.

Mr. MACNAMARA assented to that course, and obtained permission to withdraw his motion.

Dr. HALDANE said that the Scotch proposal, which he moved, was: "No licence should be obtained at an earlier period than after the expiration of forty-five months subsequent to the registration of the candidate as a medical student, and his commencement of study at a medical school."

Dr. BANKS said he wished to move as an amendment (as suggested by the Royal College of Physicians, Edinburgh): "That the curriculum should extend over five years." There was, he said, a large body of opinion in favour of that proposal, and there was a very general feeling that the period of four years was not sufficient. It appeared from a return of the University College that only 23 per cent. of their candidates passed in four years. With one exception, the period of study required in England was shorter than that required in any other country. The period in Holland was seven years; in Sweden six or seven, and sometimes ten; in Denmark two years scientific and five medical; in Norway seven years; in Belgium seven years, sometimes six, and exceptionally five; in Russia five years; in Turkey six years; in Greece five years; in Italy there was no law, but the customary period was six years; in France six years for university study and examination. It was within his own experience that the period of four years was insufficient. Clever and industrious young men who passed the examination at the end of forty-five months were often so conscious of their unfitness to begin practice that they sought for a residentship in a hospital, or endeavoured to obtain instruction elsewhere, so as to be prepared to enter professional life. The recommendation of the Royal College of Physicians, Edinburgh, which had his hearty concurrence, would, he thought, commend itself to the Council. He knew what the arguments were against any prolongation. One gentleman had stated that the time at present required was as much as the student's social and pecuniary condition would allow. He (Dr. Banks) thought that they ought not to increase the facilities for entering the profession. It was, on the contrary, desirable to extend the period, and make the examination more stringent and expensive. His remarks, of course, did not apply to the universities. In the university which he represented the earliest age at which students entered was seventeen, and it was very improbable that less than five years could be passed in scientific and professional education.

Dr. HAUGHTON seconded the motion, adding that there was no chance of carrying it.

Dr. HALDANE said that, although he was personally in favour of a minimum of five years, he could not vote for it since he was, as the mover of the motion, the mouth-piece of the Scotch Branch Council, which had not adopted the proposal.

Mr. SIMON said that the question was virtually the same as that which the Council had refused to settle on Saturday. When Dr. Banks spoke of five years he no doubt intended that the studies of physics, chemistry, &c., should be included in that period. If so, a great deal might be said in favour of the motion. But if it was the intention that the whole period of forty-five months should be spent at a medical school, however desirable it might be for the student, he thought it would be retrograde legislation. If it could be safely said that there was no part of the medical curriculum that the student could acquire elsewhere than at a medical school, by all means let there be an absolute rule that the whole period should be spent at a medical school. But if it might be assumed that certain parts could be learned elsewhere, they had no right to make a rule of that description. In fact, it would be a tyranny. His view of

Dr. Banks' amendment depended upon what arrangement was made as to the preliminary scientific subjects. His own opinion was that those subjects should be passed before the commencement of purely medical study. The best course, he thought, would be to have a few words at the end of the existing regulations to the effect that no licence should be obtained at an earlier period than after the expiration of forty-five months subsequent to the registration of the student, and subsequent to his having passed an examination in the first principles of chemistry, physics, and biology. If those subjects were cleared out of the way, the period of forty-five months would be equal to Dr. Banks' five years.

Dr. HAUGHTON said that Mr. Simon was endeavouring to revive a corpse. The question had been decided on Saturday. He himself agreed that a five years' curriculum was the best mode of accomplishing the object.

Dr. BANKS said he was willing to modify his amendment by requiring that the first year should be devoted to pre-professional training. Personally he should prefer six years to five, but perhaps that would not be tolerated.

After some further conversation as to the wording of Dr. Banks's amendment, it was submitted as follows: "That the course of study for registration, if including elementary mechanics, physics, chemistry, and biology, should occupy at least five years."

Dr. DUNCAN said that the amendment could not be adopted because the Council had already arranged a curriculum and an examination that were inconsistent with it. The preliminary examination was fully laid down in print, and would come into operation on October 1st.

Dr. QUAIN suggested that the new arrangement should come into operation two years hence.

Mr. SIMON said that the question as to when the regulations should take effect was a matter for subsequent consideration.

Dr. HUMPHRY said he supposed that forty-five months would still be considered sufficient if the candidate possessed an adequate knowledge of elementary mechanics, physics, &c., previous to registration.

Dr. QUAIN thought it would be better to fix the period and decide afterwards as to the subjects of study and how they were to be taken. The Council had decided twenty years ago that no licence should be obtained at an earlier period than after the expiration of forty-eight months subsequent to registration; and also that the examination in physics, botany, and natural history might be undergone at an earlier period than the first professional examination.

Dr. HAUGHTON: They had not discovered "biology" then.

The PRESIDENT said it was true that the Council had considered the matter twenty years ago, but now, after a long experience, it was thought desirable to reconsider it in the light of that experience, with a view of making any alteration that might be deemed necessary.

Dr. BANKS said that in former times, when there was not so many subjects in the curriculum, a five years' course was required.

The discussion was adjourned, and the remainder of the sitting was occupied by the consideration (in private) of the case of Daniel Sutherland, who had been summoned to appear before the Council.

The following extract from the printed Minutes shows the business transacted during the absence of the representatives of the press:—

Moved by Dr. HERON WATSON, and seconded by the Rev. Dr. HAUGHTON: "That the Council proceed to consider the case of Daniel Sutherland, who has been summoned to appear before the Council, and to deal with it in accordance with Clause 29 of the Medical Act."

Amendment, moved by Dr. LYONS: "That the further consideration of Daniel Sutherland's case be adjourned for the space of one calendar month, in order to give him time to prepare such defence as he may be advised to do against the serious charges now laid against him; and that Mr. Farrer be instructed to communicate this notice to him without delay."

On the motion of Dr. LYONS, seconded by Sir HENRY PITMAN, the debate was adjourned until the next day.

Strangers having been readmitted, the Standing Orders were, on the motion of Sir HENRY PITMAN, suspended until the completion of the business before the Council.

Moved by Dr. HUMPHRY, seconded by Mr. MARSHALL, and agreed to: "That with reference to the motion by Dr. Chambers, respecting a decree passed by the Convocation of the University of Oxford, Feb. 24th, 1885, in order to prevent misunderstanding, the representative of the University of Oxford be requested to make it known to the University that there is not, at the present time, any Examining Board for England."

Moved by Sir HENRY PITMAN, seconded by Dr. SCOTT ORR, and agreed to: "That the following communication from the Faculty of Physicians and Surgeons of Glasgow be received and entered on the Minutes:—

'April 25th, 1885.

'SIR,—I am directed to transmit to you a copy of the subjoined resolution of this Faculty, passed at the ordinary meeting held on 2nd March, ult., and confirmed at the ordinary meeting held on the 6th inst.

'I am, Sir, your obedient servant,

'ALEXANDER DUNCAN, Secretary.

'W. J. C. MILLER, Esq., B.A.,
'Registrar of the General Medical Council.'

"Moved by Dr. Yellowlees, seconded by Professor Gairdner, and unanimously agreed to: 'That in the opinion of this Faculty instruction in insanity should be made compulsory in medical education; and that an expression of this opinion be transmitted to the General Medical Council.'"

(It will be observed that the Minutes state that after the case of Sutherland was adjourned strangers were readmitted. No intimation, however, was given to the representatives of the press who were in attendance that the Council was in open session, and hence no report was taken of the subsequent proceedings on Dr. Humphry's motion respecting the decree of the Convocation of the University of Oxford.)

WEDNESDAY, MAY 20TH.

SIR H. ACLAND, PRESIDENT, IN THE CHAIR.

The PRESIDENT said he desired to make a personal explanation. He wished to express his regret that on the occasion of the motion of Dr. Humphry on the previous day he had not taken the opportunity of drawing the attention of the Council to the matter. He had no idea that Dr. Humphry was in earnest in bringing the motion forward. It would be remembered that the Council had been in very serious and difficult discussion on legal business. They were on the point of breaking up, and the members were in movement, when Dr. Humphry proposed his motion, which was, in fact, a vote of censure on the University of Oxford. In the peculiar position in which he (the President) stood towards the University, it was manifest that he should say nothing in its defence or explanation concerning it, and he should therefore call on the representative of the University to make any observation that he might desire to offer. But, in fact, he did not take the matter *au sérieux*, and he allowed it to pass, the motion being carried without any observation. He would not go into the merits of the case, except to say that the University of Oxford had for many years done its utmost to develop education in the direction it thought fit, with express regard to the action of the Medical Council and to the interests of the country. Its desire was not to fly in the face of the general endeavours of the Legislature to establish combined examinations, and not to fly in the face of the general sentiment of the country by multiplying qualifying titles and diplomas. Acting in good faith, it had decided that it would in its educational arrangements accept the examination of a certain body composed of eminent persons in the metropolis; upon which, without any discussion or observation, a message was ordered to be sent to the University, having reference to a decree which it had passed in a loyal spirit, that there was not at the present time any "Examining Board for England." He was sorry that Dr. Humphry was not now present. What was the meaning of the communication to the University he could not, as president, state. All that he could say was that the motion had been moved by Dr. Humphry, seconded by Mr. Marshall, and passed without observation. It would have been well if the representative of the University had ascertained precisely what the University had done. He had not seen Dr. Chambers, but he had himself telegraphed to Oxford to ascertain the exact words of the decree in question, and he had been informed that the words were "the Examining Board *of* England.' That was not right, for the words should be "*in* England." As a matter of fact, however, the University had not used the words mentioned in Dr. Humphry's motion. If there was

anyone to blame it was himself for not being quick enough, in the confusion just before the Council adjourned, to call attention to the matter. He could not suppose that so curt a rebuke upon somebody unknown was to be made, and so the thing passed. He was sorry that he had not been quick enough to call Dr. Humphry's attention to the subject, and ask him to defer it until further information had been received.

Dr. HAUGHTON said it would be remembered that the transaction occurred within a few minutes of the hour of adjournment, at a time when the Council did things that it would not think of doing at any other period of its sitting. There ought now to be an appeal from Philip drunk to Philip sober. He presumed that Dr. Chambers, when moving for the Council's sanction to the decree, was referring to the conjoint scheme of the Colleges of Physicians and Surgeons.

Mr. SIMON hoped that the President would confer with Dr. Chambers and Dr. Humphry, with a view of bringing about a satisfactory arrangement. The motion was not irregularly passed, although it was quickly disposed of, the chairman of the Business Committee moving the suspension of the standing orders for the purpose. He hoped that the President would allow the matter to drop for the present.

Mr. MACNAMARA said that the suspension of the standing orders was moved *sotto voce*, and in such a hubbub that the proposal did not reach him; otherwise he should have objected to it.

Dr. CHAMBERS said that he had made a mistake in the description of the Examining Board. He believed its full title was "The Examining Board in England of the Royal College of Physicians, London, and of the Royal College of Surgeons of England."

Mr. MARSHALL said that as he had seconded Dr. Humphry's motion, some explanation might be expected from him in Dr. Humphry's absence. The object of the motion was merely to correct an error that had been made, and not to propose a vote of censure. It did not appear to him that the matter was very serious; but if it was so regarded by the President, he would give notice of motion that the Council should leave it to the discretion of the representative of Oxford to make the communication in any way he liked.

Dr. DUNCAN said there was no such body as "The Examining Board in England."

Sir H. PITMAN: It is "*an* Examining Board in England."

Dr. DUNCAN: Everybody knows what is meant; it is the Conjoint Board of the two Colleges.

The PRESIDENT: We must ask the representative of the University to communicate to them the full title of the Board. Of course, if Dr. Humphry's motion had been simply a request to the representative to point out that the expression used in the decree was not an accurate description of the Board, and that it should have been so-and-so, there would have been no objection. But this curt message is such as to startle anybody.

Dr. QUAIN: All that Dr. Humphry meant to do was to correct an inaccuracy.

The matter then dropped.

Sir HENRY PITMAN: When the Council rose yesterday I felt it my duty as Chairman of the Business Committee to look back and see what we had done during the last eight days, and also to look forward and see what we had to do during the few days that remain of this week. I am sure no one would desire that we should sit into next week. On looking at the programme I do not suppose anyone is sanguine enough to imagine that we can get through the business before us this week. We have forty-five distinct questions on these reports by the Branch Councils alone, and there are other questions besides. To-morrow will be in part occupied by a legal case, and then there will only remain Friday and Saturday; and I feel persuaded that if this business is got through it will be done in so hasty and unsatisfactory a manner that it will bring some discredit upon the Council. Therefore I venture to suggest that, after what fell from our solicitor yesterday as to what ought to be the notice given to Daniel Sutherland for his appearance here, we should not commit even the appearance of an act of injustice, but give him fair notice and time for his defence

Dr. WATSON reminded Sir Henry Pitman that the reporters were present.

Sir HENRY PITMAN: Then I will abstain from any further remarks upon the legal question; but in regard to the time at our disposal I think after conference with the President, who agrees with me, that it would be far better to have a short session before the year expires, and that all such legal cases should be submitted to that session. We shall then get on as far as we can with the business programme of to-day, and anything which may be left unfinished, and I am satisfied that there will be much left unfinished, might also be taken at the next meeting. I think it my duty to state these facts to the Council.

Mr. SIMON said he could not quite share the pessimist views of Sir Henry Pitman. There appeared to be one or two really difficult questions in connexion with the recommendations, one of which was almost decided on the previous day, and when that question was decided the remaining business, he thought, was not more than might be got through during the present week. It would be much more convenient to get the business through during the present week than to have an indefinite future appointment.

The PRESIDENT then read a letter which he had received from Sir Henry Pitman embodying the substance of his verbal communication to the Council as to the time occupied by legal business, and asking permission to take the opinion of the law advisers of the Crown as to the readiest mode of carrying into effect the penal clauses of the Medical Act.

The Council then proceeded to consider in private the case of Daniel Sutherland, who had been summoned to appear before it under Clause 29 of the Medical Act.

On the readmission of strangers, the Registrar announced that, having heard evidence and considered the defence of Daniel Sutherland as stated in his letter of May 13th, the Council resolved and adjudged him, after due inquiry, to have been guilty of infamous conduct in a professional respect, and, further, directed his name to be erased from the Register.

The adjourned debate on the reports by the Branch Councils in regard to the recommendations was resumed.

Dr. BANKS submitted his amendment to Dr. Haldane's motion in the following form: "That the course of medical study after registration should occupy at least five years, if the subjects of elementary physics, chemistry, and biology are included in that period, or at least four years if a satisfactory examination in these subjects has been passed previous to registration."

Dr. STRUTHERS, in supporting Dr. Haldane's motion, said he was strongly of opinion that four years of genuine study were sufficient, and that a fifth year would be a tax on ability and industry, keeping back the better-class of students. An average man, if industrious, could complete his course satisfactorily in four years. Many of the physicians and surgeons who had sent in their answers to questions addressed to them had declared their opinion that a period of four years was ample. Some said that four years were not enough. Not enough for what? Of course not enough to make consulting physicians or surgeons; but that was very different from simply entering on the practice of the profession. In Germany the period was four years, and during the whole of the first year the student was working at chemistry, zoology, mineralogy, and natural philosophy, the first examination taking place at the end of the second year. The French system was also an example in favour of Dr. Duncan's proposal.

Dr. DUNCAN said there was not much difference in the two proposals, but Dr. Banks' amendment overturned the decision of the Council as to the preliminary subjects, and he should therefore vote against it.

Dr. PETTIGREW supported the motion, and said he thought it would be very foolish to keep back industrious and intelligent youths and encourage lazy ones by extending the period to five years. He hoped that the Council would see its way to adopt that recommendation, and would be careful to introduce only such subjects as were fundamental and necessary. The students ought to have fewer subjects and more time to reflect as they proceeded with their education.

Dr. WATSON said he objected to Dr. Banks' amendment because it did not compel the student before beginning his professional study to put behind his back the subject of systematic chemistry, neither did the arrangement compel the students to pass an examination in systematic chemistry at the end of the first session, but he would be permitted to carry it on to a period in the course of his curriculum in which the study of it would seriously interfere with the study of such matters as anatomy and physiology. If a period of forty-five months were properly made use of it ought to afford abundant time for the student to acquire the

kind of formal systematic knowledge which was all that could be really expected from him.

Mr. SIMON, in supporting the amendment, said he could not see in the Scotch motion any security for getting in the purely medical education the desired relief from the preliminary subjects. If the professional curriculum was to be weighted with the elementary subjects five years would be wanted to do justice to it. The amendment permitted an alternative of four years with the understanding that an intermediate examination was passed before the strictly professional studies commenced.

Dr. BANKS referred to the case of Austria, where a period of five, six, and sometimes seven years was required, and cited Billroth's figures to that effect. Almost every young physician in England found it necessary to prolong his studies beyond the four years before commencing practice. The Scotch bodies were not unanimous in regard to their recommendation of four years, the Royal College of Physicians, Edinburgh, recommending five. At the Royal College of Surgeons, England, only 23 per cent. of the candidates obtained their diploma in four years.

Mr. MARSHALL recommended that the matter should be delayed, with a view of obtaining more unanimity on the subject. He was willing to accept the alternative provided in Dr. Banks' amendment, for there ought to be a certain flexibility in the arrangement, and it ought not to be too strictly enforced on the corporate bodies. Hospital authorities would not allow a house-surgeon to be appointed unless he was qualified, and if a man were not allowed to qualify until he had had an additional year of study a hardship would be inflicted on the student.

Dr. HUMPHRY thought the Council should be careful not to extend the minimum period of education too much. The question was whether the period assigned was sufficient to enable a student to obtain a fair knowledge. Fifteen per cent. now passed into the profession in the assigned period, and they ought not to be prevented from earning their livelihood. He did not suppose that any of the licensing bodies would at once alter their arrangements.

Mr. TEALE considered it important not to choke up the minimum examination to be passed in four years. In the Leeds Infirmary there were four persons under the house-surgeon who used to be called assistant resident medical officers. Until recently they were students who had passed all the requisite examinations, but had not obtained any qualification. Four or five of the best students were always competent for such appointments; but a year and half ago it was decided to appoint only qualified men, and the result had been that only on one or two occasions since had students from the infirmary school competed. He was inclined to vote for the modified, elastic proposal by Dr. Banks; it would still be open to the licensing bodies not to adopt it at once if they did not see good reason for it.

The amendment was carried by 11 to 8, and was also agreed to as a substantive motion.

The following foot-note was agreed to without discussion:

"Exception may be allowed in the case of any graduate in Medicine of an Indian, Colonial, or Foreign University, or of any student who, having completed the full time required by the Medical Council, and having given satisfactory evidence of general education, shall have spent the whole or three-fourths of that period at an Indian, Colonial, or Foreign University, the several licensing bodies being requested to communicate to the Council annually, in the month of January, a statement of the action taken by them respectively during the last preceding calendar year in regard to such exceptional cases."

The following existing Recommendation was then considered:—"The course of professional study required for a licence should occupy at least four years, of which four winter and three summer sessions should be passed at any school recognised by any of the licensing bodies mentioned in Schedule A of the Medical Act."

Sir H. PITMAN moved: "That the Recommendation be as follows:—'At least three winter and two summer sessions shall be passed at some school or schools recognised by one or more of the licensing bodies.'"

Mr. SIMON seconded the motion.

Dr. HALDANE moved as an ammendment: "That the recommendation be as follows:—'At least four winter and three summer sessions should be passed at any school recognised by any of the licensing bodies mentioned in Schedule A of the Medical Act.'"

Mr. MACNAMARA seconded the motion. He maintained that the subjects were so extensive, and the examinations so searching, and in some respects so practical, as well as theoretical, that the time mentioned in the amendment was the least that should be required if the student was to be adequately instructed.

The debate was then adjourned, and the remainder of the sitting was occupied with the transaction of some formal dental business.

THURSDAY, MAY 21ST.

The debate on Recommendation 21, respecting the time to be passed by the student at a recognised school, was resumed. Before it concluded, the Council proceeded (in private) to the further consideration of the case of Ebenezer Bryceson, which occupied nearly all the remainder of the sitting. On the readmission of the public, it was announced that the Council had decided that Ebenezer Bryceson had been guilty of infamous conduct in a professional respect, but did not, under all the circumstances, now direct his name to be erased from the Register. The Council then adjourned. It was stated that the sittings would not be prolonged beyond Saturday.

THE PRELIMINARY SCIENTIFIC M.B. EXAMINATION.

THE revised regulations for the above examination at the University of London have just been issued. The examination will take place twice a year, once for Pass and Honours, commencing on the third Monday in July, and once for Pass candidates only commencing on the third Monday in January. Candidates for the Pass Examination will be allowed to take all the three subjects of the examination—(*a*) inorganic chemistry, (*b*) experimental physics, and (*c*) general biology—at the same examination, or to take them at two separate examinations—that is to say, two subjects at the First Examination for which they may enter, and one subject at the Second Examination; or, reversely, one subject at the First Examination, and two at the Second. At the July Examination candidates have the option of entering for a Pass or Honours in inorganic chemistry and experimental physics; but they cannot take up Honours in botany and zoology unless they have entered for the whole examination, including—that is, a Pass in general biology. In chemistry and physics no candidate will be allowed to take both the Pass and the Honours papers in the same subject; but if he enter for Honours and fail to obtain them, he may be recommended for a Pass in those subjects provided he has shown a competent knowledge. The examiners will make no report upon the examination for Honours of a candidate who has failed in any part of his Pass Examination.

A detailed syllabus of the subjects required in a Pass Examination is given, and also of the subjects required in the Zoology Honours Examination. The following are the requirements for a Pass in general biology:—

The elements of vertebrate morphology and physiology as exemplified by the rabbit, the fowl, the pigeon, and the frog. The description of the external form and the nomenclature of the parts of these animals. The leading resemblances and differences in the plans of structure of the three. The chief features in their osteology, with especial reference to the skull and limbs, and the visceral anatomy of each, including the general structure of the brain, the spinal cord, and the sense organs. The histological character of blood, epidermal and epithelial organs, connective tissues, cartilage, bone, muscle, and nerve in these animals. The characters and mode of formation of their ova and spermatozoa. The chief stages of the development of the frog, fowl, and rabbit. The nature of the placenta in the latter. The structure and life history of astacus, lumbricus, helix, distoma, hydra, vorticella, and amœba. The elementary morphology and physiology of the flowering plant. The description of its external form. The leading modifications in the structural plan of the flower. The leading types of fruits; the modifications by which floral organs take part in their structure. The histological characters of the growing point both in stem and root; the mode of origin and leading characters of epidermal, fibro-vascular, and ground tissues. The development of foliar organs and of the branches of stem and root. The mode of origin, structure, and ultimate development of ovules and of pollen grains. The mode of development of the embryo and of the endosperm. The distinctive facts in the life history of pinus. The structure and life history of a fern, a moss, chara, fucus, penicillium, spirogyra, mucor, protococcus, saccharomyces, bacterium. Practical examination (six hours). Each candidate must be prepared to examine microscopically, to dissect, and to describe, specimens of the animals and plants referred to in the preceeding syllabus.

There is also a practical examination in chemistry, comprising qualitative analysis of the more commonly occurring bases and inorganic acids, in solutions containing one of each. A list of reagents and apparatus provided for this examination is appended.

The regulations, although issued too late to appear in the current volume of the University Calendar, will come into force at once; or rather candidates, who so desire, will be allowed forthwith to take advantage of the changes introduced in the revised regulations.

THE LANCET.

LONDON: SATURDAY, MAY 23, 1885.

DURING the past fortnight the agitation for increasing the facilities for obtaining degrees by students educated in the London medical schools has been steadily progressing. On one point all are agreed—namely, that industrious students of average ability and sound professional attainments are placed at a great disadvantage if they elect to pursue their full curriculum in the metropolis. In spite of what we may perhaps venture to call the best professorial and teaching staff and the greatest clinical opportunities that can be found anywhere, students are debarred from entering the London medical schools, and are driven elsewhere by the want of facilities in obtaining degrees. At the present time a degree is not only the object of legitimate ambition of a well-informed student, but, owing to the multiplication of universities and the easy terms on which it can be obtained in most university centres except the metropolis, it has a distinct commercial value to the practitioner, and this is being recognised more clearly year by year. The question, then, of how a similar advantage can be fairly secured to the London as to the provincial student is most pressing, and one which London teachers and educational authorities are anxiously considering and endeavouring to answer. In a multitude of counsellors there may be safety, but just now chaos reigns supreme, and all kinds of solution of the difficulty are being proposed and eagerly pushed into prominent notice. The practical methods of solving the problem are very few, and may readily be pointed out. The University of London is naturally the first institution to which we must turn. But the prejudices in favour of the vested interests of the present holders of its medical degrees and the traditions of the University will, in spite of all appeal, oppose any such levelling as is contemplated in the idea of a degree for average students. We have always contended that the University of London has mistaken its true function, and has sacrificed its real position as the centre of metropolitan medical education and the *alma mater* of London students, to the lesser aim of maintaining a high examination-standard, and of only numbering a select few among its graduates. Indeed it was only after a long struggle, and in the most grudging spirit, that the slightest departure from its ancient rigid regulations has been conceded. The Vice-Chancellor, at the recent presentation for degrees, intimated that little else than some slight modifications in its entrance examination would be done by the Senate to meet the popular demand. The degrees of this University, according to Sir JAMES PAGET, must only be obtained by showing a greater amount of medical knowledge than is required by any other degree-granting body. The prestige of its degrees must be steadily maintained. That this isolated position is not held by all the members of the Senate and graduates is well known, and is clearly shown by the action of Lord Justice FRY'S Committee of Convocation; but much pressure, and a steady infusion of educational reformers into the ranks of the Senate will be required before they are likely to be induced to depart from this standpoint; and the life tenure of its senatorships, aided by Crown nominations, is a grievous difficulty in the way of any real reform. All we can expect is petty tinkering and some small modification of the existing regulations. Seeing this, those who are anxious that all impediments should be removed from a medical student's career in London have turned their attention to the great corporations of the Royal Colleges of Physicians and Surgeons, and the recent fusion of their examinations has made the moment a most favourable one. On his recent re-election as president, Sir WILLIAM JENNER suggested that this question of degree-granting should be inquired into by the two Colleges; and last week the Council of the College of Surgeons, by a unanimous vote, appointed seven of its most influential members as delegates to meet a similar number from the College of Physicians, and confer as to "what steps, if any, can be taken to enable the two Colleges to obtain the legal right of giving the title of 'Doctor' to persons who shall have obtained the licence of the Royal College of Physicians of London and the diploma of the Royal College of Surgeons of England." This movement has apparently caused great surprise, and, now that it has an actual existence, a great conflict of opinions as to its wisdom. The proposal is to give the *title* of "Doctor," and not to confer *degrees* such as M.B., M.D., M.S., or B.S. The scheme will probably have the sympathy of most London teachers, and the best wishes for its success among the London students. On the other hand, it will be sturdily opposed by the graduates and authorities of every university in the kingdom, who will look upon it as an infringement of their rights and privileges. "Degrees should only be given by universities" will be their contention, and the conferring of a title will be confused by them with the granting of a degree. A greater objection, in our opinion, is that, although the medical examinations of the two Colleges fully warrant such a title, those in Arts and Science cannot be deemed satisfactory. A second division in the second class of the Pupils' Examination at the College of Preceptors, even if a Latin author who is never changed and a modern language be taken up, is too low a standard, and some other preliminary examinations now deemed sufficient for registration are but little better. A title of "Doctor" should imply more than this minimum of education in Arts. Physics and Chemistry are included in the Conjoint Examination Scheme, but Biology is unrepresented, and surely some slight acquaintance with this science should be a necessary preliminary to a title of "Doctor." These defects in medical education seem to us greater objections to the present movement than the opposition which may be anticipated from the Universities, in many of which medical examinations are less searching and complete than at the two Colleges.

Another body which must also be referred to in this question is the embryo Teaching University for London, whose future it is as yet very difficult to forecast. Will it merge into the University of London? If so, it will probably be of small use to students of medicine, however much it may affect those in Arts and Science. But if it attains to an independent existence, and holds out its hands to the great legal and medical corporations, as well as to the

educational bodies, it may be of the utmost service to medical education by supervising the preliminary knowledge and examining in Arts and Sciences, leaving the strictly technical examinations to the existing authorities. We infer that some such idea exists among its promoters, as at its meeting on Monday last, in considering how boards of studies and a governing body should be best constituted, so far as the Faculty of Medicine is concerned, it was expressly stated that in addition to the teaching element, representatives of the Royal Colleges of Physicians and Surgeons would be invited to take seats amongst the governing body.

THE General Medical Council has displayed a new quality. Its most redoubtable champions, up to Saturday last, would not have maintained that, with all its virtues, it was capable of promptitude. But in one brief moment the supposition of this "fair defect of nature" has been refuted. One act of decision gives hope of more, and we can only trust that a new future of firmness and business-like faculty is in store for this much-abused body. The peculiar nature of the subject in regard to which the Council showed this unexpected quality may be thought by some to derogate from the significance and the merit of its action. There is certainly something in the proximity of money which taints even the best natures, and throws a certain air of vulgarity over the highest conduct. So it is rather unfortunate that the noble action of Saturday had reference to a financial question. The Council is in trouble about money matters; not in the vulgar way of impecuniosity,

> "That horrid *want* of pence
> That vexes public men."

The difficulties of the Council are all the other way—the *embarras de richesses*. But, even so, they are becoming serious. Last year the Council received, chiefly from the shallow pockets of the entrants of the profession, no less than £8424 2*s*. 3*d*.—the largest sum, we presume, it has ever received in one year. Certainly there is nothing like it in the last seven years; and it is in excess by £478 14*s*. 9*d*. of the sum received in the year 1883. There is one virtue that nobody will deny the Council—that of knowing how to spend money; and with rising income it feels the corresponding duty of expenditure and cultivates its powers. Still it did not succeed in the last twelve months in making ends meet. It succeeded in spending the handsome sum of £7084 6*s*. 7*d*.—more by £2633 than the expenditure of 1883, and this upon perfectly impalpable objects,—but yet had to leave £1339 15*s*. 8*d*. unexpended, to be added to the ever-increasing investments of the Council, which now amount to £38,669 17*s*. The average income of the last three years has been £7884 12*s*. 6*d*., and the average expenditure £5452 1*s*.—showing an annual excess of income of £2432 11*s*. 6*d*. This is the pleasant dilemma of the Council—an income altogether disproportionate to the work done, and the prospect of an ever-increasing disproportion. The best members of the Council feel a good deal of discomfort on the subject, and a corresponding desire to do something to abate the scandal. Accordingly, two or three schemes have been suggested for this end. One, by Sir HENRY PITMAN, proposed the appointment of a committee to consider in what way to use the accumulated funds of the Council, so as to promote "scientific research for the public good." Dr. LYONS moved an amendment to this, and required that the application of the funds, while for the public good, should be "in conformity with the duties imposed on the Council under the Medical Act." Both these motions were negatived without much discussion on Friday, the 15th inst. But it was on Saturday, the 16th, that the unprecedented display of promptitude and decision occurred on a proposal by Mr. SIMON, seconded by Mr. MARSHALL. The motion was altogether reasonable and to the effect that the Finance and Executive Committees should consider and jointly report to the next meeting of Council whether the registration fee of £5 is more than enough to provide for the full efficiency of the Council, and whether the Council might properly proceed to a reduction of the fee. The very thought of delay in dealing with such a motion was intolerable. It was demanded that the Council itself should decide the great question immediately and on the spot. And, accordingly, all forms of notice being dispensed with, the Council went straight to the affirmation of the following proposal by Dr. HAUGHTON:—"That the registration fee remain *in statu quo*;" and then, with an easy mind, broke up for the Sunday's rest. The profession, however, will not contemplate the growing proportions of this disused and ever-increasing fund with the same satisfaction unless work is done by the Medical Council very different from what it has done this session, or even in the two sessions of last year, when it succeeded in spending £7084, and nearly £3000 of this over its own members. We cannot point to one act of the Council in the present session or in the last year that is of the least consequence in regard to medical education, or to one discussion that would redeem the reputation of the Council as a public body charged with vindicating the sanctity of medical registration and the rights of registered practitioners.

As a specimen of the work over which the £7000 is spent, we will give one instance, not to revert again at present to the perennial theme of Preliminary Education. The Council has been understood of late to be full of great ideas of extending the time of medical education, and throwing back the age at which a licence to practise could be secured. The existing Regulation as regards age is as follows:—"The age of twenty-one *shall* be the earliest age at which a candidate shall obtain a licence to practice, and the age shall in all instances be *duly* certified." Two great operations have been performed on this recommendation. The word *should* has been substituted for *shall*, and the word "duly" has been omitted altogether. Even with such discussions the Council cannot use up its large income, and yet strenuously opposes any diminution of it. Will Parliament and the profession always be so powerless to control a Council at once so useless and so costly?

The Council, on Wednesday last, passed a motion by Dr. BANKS, seconded by Dr. HAUGHTON, extending the course of study over five years, if the subjects of elementary physics, chemistry, and biology are included in that period; or at least four years, if a satisfactory examination in these subjects has been passed previous to registration. This recommendation looks serious, but Dr. MATTHEWS DUNCAN declares it to be practically a mere reaffirmation of the existing recommendation of the Council, which contemplates the disposal of the

subjects of physics and chemistry before the commencement of the four years of strictly medical study. And so the money of the profession and the time of the Council are spent.

THE Report of the Royal Commission on the Housing of the Working Classes has been received with a very general feeling of disappointment. The constitution of the Commission, and the time and labour devoted to the collection of evidence, had created hopes which have not been realised. It had indeed been expected that some definite and substantial remedy would be advanced for conditions which have long been thoroughly recognised and universally condemned. That the Report is almost barren in this respect is, perhaps, due less to an inability on the part of the Commissioners to grasp the subject with which they have had to deal than to difficulties which surround the question on every side.

If further evidence were required, it has been abundantly forthcoming, that overcrowding and its attendant evils exist to a very large extent in the metropolis and in other large towns, and that this, moreover, is the result of circumstances which the State has not been well able to control. Working people, with small and variable earnings, have been obliged to live near their employment, and hence opportunity has been given for high rents to be demanded for the worst accommodation; middlemen and others interested in house property have bought up the ends of leases when houses have been falling into decay, and have failed to keep them in proper condition. Freeholders have, in their turn, neglected to exercise the powers they possessed for maintaining their property in habitable condition, and sanitary authorities have not exerted themselves to enforce the provisions of the Sanitary Acts which affect this question. Thus, by neglect of duty with regard to the state of repair of dwelling-houses and by a system of overcharge, the working classes have suffered heavily both in their pockets and in their comfort.

But even if freeholders and sanitary authorities had done their duty and the owners of tenement houses had been satisfied with moderate profits, there would still be a great lack of accommodation, for at the present time the scarcity of space upon which suitable dwellings can be erected presents a physical difficulty which is not easily met. Increased facilities for railway travelling at reduced fares may assist a few to live at a distance from their work, but the loss of time spent in daily journeys is in itself a severe tax to those for whom time has a money value.

Thus, the Report has had to concern itself with a multitude of considerations, each, perhaps, important in its way and having more or less bearing upon the subject; but it leaves a strong impression that the remedies suggested are not very potent, while some of them raise questions of considerable moment. For instance, the proposal to devote for the purposes of artisans' dwellings the forty-five acres in the metropolis now occupied by prisons is an expedient that would give temporary and partial relief to the congestion of the districts in which the prisons are situated, while the further suggestion that in fixing the price "due regard should be had for the purposes to which it is intended to devote the land" has, indeed, raised a question which appears in its true light only when consideration is given to Lord SALISBURY'S proposal that the sites should be sold at cost price to some trust that will build workmen's dwellings upon them. The greater the desire to find an effectual remedy the greater the risk of accepting a principle which, on the face of it, seems to commit the State to socialism; for in this sense only can be construed the suggestion to provide accommodation for less than its money value. It is, however, a well-recognised fact that the condition of the working classes reacts on the whole community, and no objection need be taken therefore to the recommendation that the State should lend money for the erection of artisans' dwellings at the lowest possible rate, without loss to the national exchequer.

The enunciation of the principle upon which we have dwelt is, so far as we can see, the one thing novel in the Report; for the rest, old-fashioned remedies are once more exhibited. The amendments which are recommended in existing Acts appear to be well considered, and probably some good would result if they were carried into effect; thus, the proposal that the cost of proceedings under TORRENS' Act should in small districts be shared by adjoining districts will perhaps give some impetus to improvements under this statute. Again, the proposal to revive Lord SHAFTESBURY'S Act, which under the vestries has been a dead letter, by transferring it to the Metropolitan Board of Works, awakes a hope that it may yet have some influence for good. Much stress has been laid upon the default of local authorities to make and enforce regulations under the 35th section of the Sanitary Act for houses let in lodgings. While fully endorsing the opinion that these regulations would be beneficial, especially for the reason that they would tend to shorten proceedings which are otherwise necessarily tedious, it is obvious that there has been too much disposition to judge of the work of local authorities by this criterion and to overlook the action they have taken under other sections. The recommendation with regard to the position of medical officer of health is important, as giving recognition to the value of the service rendered by this official; but it should not be forgotten that he cannot be debarred from practice until his remuneration is placed upon a better footing, and until his tenure of office is more secure.

But while Acts are amended and recommendations are made that their provisions shall be enforced, the motive power is still wanting for this purpose. Until a wider public interest is created in the metropolis and elsewhere in local affairs, alterations of the statute-book are of little avail. That the efforts of the Commission may assist in this direction is certainly probable. The fact stated by Lord SHAFTESBURY, that very great improvement had taken place in the last thirty years in the dwellings of the working classes, is itself full of promise; and we may therefore hope that this improvement will continue, although no immediate remedy has been indicated by which the change is to be brought about.

THE report, which appears in another column, of a general meeting of the Association of Fellows of the Royal College of Surgeons of England, held on Wednesday last, contains the welcome information that a possible basis has been dis-

covered for the combined action of the Associations of Fellows and Members in their endeavours to amend the constitution of the Council, and to reform the general and academic administration of the College. Many circumstances have co-operated to give to the Royal College of Surgeons of England a large and almost predominating influence over medical education in this country; but, we repeat, the College as a political body has hitherto consisted only of the four-and-twenty gentlemen who have succeeded in getting themselves elected members of the Council. Though by implication the College is made up of Fellows and Members and a small governing body named the Council, the latter, in accordance with the pernicious traditions upon which the College was originally founded, has arrogated to itself all the power, influence, authority, and prestige which should strictly belong to the whole of the body politic and corporate. For the first forty-three years of its existence the Council was not only self-elected (so-called), but every member of it was elected for life. Forty-two years ago the order of Fellows was constituted, from and by whom members of Council have since been elected for a period of eight years, though eligible for re-election. Experience has, however, proved that this alteration, for well-known reasons, has had but little effect in restraining the vagaries of the Council or in increasing the influence of the Fellows in legislative acts of the College. After election every member of the Council at once passes out of the reach of remonstrance by the Fellows. How completely the Council regards itself beyond and above the censure of the Fellows is shown by its repeated rejection of many of the recommendations proposed by the Association of Fellows to be introduced into the new Charter. But, grievous as may be the lot of the Fellows, that of the Members is worse. From the first day of its existence until now the Council has done all within its power to render the status of *Member* of the College contemptible. Every charter, bye-law, standing rule, and ordinance has been conceived and executed in a spirit of antagonism to the Members. Members have been denied the right to sit in, or vote for members of, the Council, and one of the first bye-laws made by the Council was to the effect that no Member of the College should be eligible for the office of secretary. The spirit of this bye-law is still zealously fostered. How significant is the contrast with the College of Physicians in this respect! When these and the other disabilities imposed on the Members of the College are borne in mind, it is not surprising that the Association of Members has been provoked to demand a due and authoritative recognition of the corporate and academic rights and status of Members. The first proposals of the Association of Members were startling in their extent and pretensions. To confer electoral privileges upon any and every medical student as soon as he should succeed in obtaining the diploma of Member would, we believe, be neither conducive to the welfare of the College nor useful to medical education and legislation. The compromise suggested by the Association of Fellows ensures a reasonable and equitable representation of the special interests of the Members, at the same time that it commits the care of these interests to the consideration and keeping of those Members whose stability and stake in professional life imply adequate obligation and responsibility.

Annotations.

"Ne quid nimis."

MR. ERICHSEN, F.R.S.

ALL who take an interest in the Royal College of Surgeons of England will learn with regret that Mr. Erichsen has resolved not to seek re-election into the Council next July. Few persons beyond those who have followed the business of the Council closely are aware of the great services which Mr. Erichsen has rendered to the Fellows and Members, and of the impetus which his efforts have given to the cause of reform. Immediately after his election in 1869 he redeemed his pledge to seek for the Fellows and Members the right of holding meetings in the College. To these endeavours they are indebted for the facilities for holding the two general meetings in the year 1870, and the memorable meeting of March last year, when the alterations proposed by the Council to be made in the Charters were presented. But not only were the Fellows and Members indebted to Mr. Erichsen for the facilities for holding the last meeting, but it was through his personal action and interference that the occasion was discovered and secured; otherwise the alterations would have been smuggled through the Council without their knowledge. At all times Mr. Erichsen has been a loyal and strenuous supporter of the rights of the Fellows and Members, and in return he may rest assured that he has won the confidence, respect, and esteem of all, to a degree and in a sense unusual to members of the Council, if not entirely unprecedented.

WORRYING THE "MAD DOCTORS."

IT is characteristic of the human mind that when it once becomes disturbed on any subject it takes the worst possible view of the question at issue, and is liable at any moment to be worked, or likely to work itself, up to a very furor of indignation on the mere suspicion of personal wrongs in connexion with the suspicion awakened. This peculiarity is wont to assert itself, in and out of season, with striking, and occasionally inconvenient, force upon the slightest provocation. If a dynamite raid is made on public offices, private, and even obscure, citizens are panic-stricken with the fear of being singled out for the attack of the traitorous. If somebody suffers from lead-poisoning, the whole community is agitated with apprehension of a similar calamity. The diphtheria in milk of a small dairy supply in a limited area incites the multitude to eschew that generally wholesome and nutritive commodity altogether. There is therefore nothing unnatural, or indeed very remarkable, in the fact that those who feel themselves aggrieved by being, at any period of their lives, confined in lunatic asylums should take advantage of the opportunity afforded by a paroxysm of public lunacy law reform to worry the "mad doctors." Those who keep licensed houses for the insane, and those who sign certificates of lunacy, are having what our neighbours across the Atlantic euphemistically describe as "a bad time." We are sympathetically sorry for our brethren in trouble, and for those in bondage through fear of harassings and avengings similar to those which have fallen on the heads of the guileless, but, as it seems, not guiltless, victims of recent raids at law. How, and when will it end, this persecution of the innocent but wrong-doing medical practitioner in lunacy? Everybody who knew anything about the matter must have been aware that there was plenty of loose and perfunctory examining and certifying; and those who had adequate notions of the way in which the Commissioners in Lunacy had contrived to reduce their supervision to a ridiculous farce must have been prepared to discover that the existence of a standing Commission in Lunacy, so far as the

safety of the sane was concerned, afforded no real protection. We are unwilling to aggravate the troubles of these troublous times in lunacy, or we could not hesitate to insist strongly on the need of entire reconstruction at Whitehall. Indeed, we sincerely trust that, as Lord Shaftesbury feels compelled to resign, advantage will be taken of the opportunity to place the Commission on a new and totally different footing, with some sort of guarantee that its duties will be discharged in the future better than they have been in the past. Something more than "ticking off" the inmates of asylums on a list, and looking to see whether pots are clean and sheets carefully folded, with a little office business consisting mainly of the mere clerk's work of seeing whether the blank places in certificates are properly filled in, is necessary for the welfare of the insane and the security of Her Majesty's rational subjects; and more may certainly be expected of a Commission which costs the country upwards of £15,000 a year. Except for the *publicity* involved in the presentation of reports to Parliament, we do not believe the Commission would be worth 15,000 pence. If the Commissioners in Lunacy had done their work earnestly in the spirit as well as the letter of the law, this worrying of the "mad doctors" would have been impossible, because there would have been nothing of which to make an occasion for persecution—nothing, in fact, of which to complain.

CONFERENCES ON CHOLERA.

THE recent conference upon cholera held at Berlin did not make any notable advance upon the position taken up by the same body of scientists at their gathering last summer. To be sure, much has happened since then and a great deal more information has been obtained concerning the comma bacillus and its allies. Thus Professor Koch had in the first place to meet the numerous objections that have been raised during the past six months to his view that the comma bacillus is to be regarded as the actual cholera germ. The members of the conference now, as then, appear to have tacitly or openly coincided with Professor Koch's doctrine and all that flows from it. Indeed, had it not been for the presence of Professor von Pettenkofer there would have been little to debate about. Roughly speaking, the supporters of the bacillary doctrine represent the contagionist side, the opponents the non-contagionists, which has such ardent advocates as Dr. Cuningham and Sir Guyer Hunter. No doubt the battle will be fought over again at Rome, for Professor Koch represents Germany at the conference now assembled there. Professor von Pettenkofer's difficulties in admitting the comma bacillus to be the cause of cholera rested on many grounds, but in the main upon the epidemiological data, especially those having reference to the influence of locality and season. Yet he seems to have admitted the dissemination of cholera by human intercourse, although he could not admit that the introduction of a case of cholera on board ship could be the starting point of an epidemic. Altogether the doctrines enunciated by Professors Koch and Virchow seem to have had more cogency and to have been more definite than those advanced by Professor Pettenkofer. A great deal has been made of the question of drinking water, the purity of which does not seem to Professor Pettenkofer to be of such importance as the conditions of soil; and the often-cited instance of Fort William was claimed as proof of the truth of both assertions. But, as Professor Virchow pointed out, an improved water-supply necessitates improved means for the disposal of waste; and although the analogy he drew between typhoid fever and cholera may not be fully grounded, there is much to be said for it. The practical outcome of the conference was the recommendation of measures for the prevention of the spread of epidemics, the most important of which is the separation and isolation of the sick. At the same time the futility of the adoption of quarantine on land, such as, for example, was witnessed on the Italian frontier last year, was fully recognised. How far the conference at Rome will adopt the same course as that at Berlin is doubtful; in the present state of marked divergence of opinion and in view of the resolute tenacity with which unproved dogmas are held one cannot expect anything like unanimity from a heterogeneous gathering. Nor until agreement is arrived at as to the nature of the disease can we hope to formulate clearly the measures wherewith it must be combated with any hope of complete success.

THE ROYAL VISIT TO NETLEY.

AMONG the many noble qualities which characterise Her Majesty the Queen there is probably none which more endears her to the public than her sympathy with the afflicted and suffering. This has been often displayed in the case of her wounded soldiers on their return to their native land, and has not been wanting on the occasion of the present war in the Soudan. On Saturday last Her Majesty, attended by Princess Beatrice and Prince Henry of Battenberg, visited the sick and wounded in our great invaliding hospital at Netley. Her Majesty was met at the railway station by the General commanding the district and the Assistant Adjutant-General, and was attended by them to the hospital. There Her Majesty was received by Surgeon-General Murray, the principal medical officer, and by Professors Longmore, Smith, and De Chaumont, the chaplain, the Rev. J. C. Edghill, and Mrs. Deeble, the lady superintendent of nurses, who wore the Royal Red Cross and a medal conferred on her for her services in Egypt. Her Majesty visited the medical division, where the convalescents were drawn up in the corridor, the surgical division, where the wounded are under treatment, entering into conversation with many of them, and the sick officers' quarters. There were in the hospital at the time 71 wounded and 146 sick from the Soudan and Egypt, and shortly after Her Majesty left 83 more sick and wounded arrived from the Soudan. The effect of these visits of the Queen to the sick and wounded cannot but be gratifying to the army and cheering to the poor fellows, as showing the warm interest taken in them by Her Majesty and the members of the Royal Family. The visit on the present occasion was all the more to be appreciated as it involved a considerable amount of exertion and personal fatigue on the part of the Queen, who travelled from Windsor for the express purpose, returning to the Castle the same day.

CUTANEOUS AND DEEP REFLEXES.

THE tenth original article of the *American Journal of the Medical Sciences* gives the results of some observations on the cutaneous and deep reflexes. Dr. Philip C. Knapp of Boston, U.S.A., has examined the condition of the reflexes in 239 individuals admitted to the Boston City Hospital during the latter half of the year 1883. The points noted were the presence or absence of the different reflexes in each patient, together with a comparison of the reflexes on the two sides of the body, and a rough estimate of the degree of contraction after irritation. The following are the conclusions at which the author has arrived:—1. Absence of the plantar or cremasteric reflex is usually pathological, depending upon a direct lesion of the reflex arc or some cerebral disturbance. 2. Absence of the other cutaneous reflexes is not necessarily pathological. 3. Absence of the patellar reflex may be due to cerebral disturbance, especially in alcoholic subjects. 4. Ankle and patellar clonus are pathological. 5. The deep reflexes of the upper extremity are

of frequent occurrence, and have no special pathological significance. 6. The costal reflex is found in the majority of cases without general exaggeration of the reflexes, and with no signs of phthisis. 7. When the reflexes differ on the two sides of the body, though it usually signifies some unilateral disease of the nervous system, it is not always pathological. On the whole, the above propositions accord with the observations of Buzzard, Gowers, and others who have worked most at this important question. That the patellar reflex may be absent from cerebral disturbance is most probably correct; nevertheless it would be difficult in many cases to exclude the possibility of a direct damage to the reflex arc itself. The frequency with which the deep reflexes of the upper limb are present in cases of disease of the brain and spinal cord has probably been overlooked as the result of imperfect examination; and we are disposed to agree with the conclusions of Dr. Knapp.

BULLYING AT SCHOOL.

THE parents of most public school boys have had to undergo the painful experience of obliging a poor little boy to return to school in a state of dejection, if not in abject misery. The child has gone willingly enough to his preparatory school, where his companions are very much of his own age, and where he can hold his own. There, also, he has been tended with some approach to parental care. But his first few terms at a public school, whether as day boy or boarder, are a new experience to him of trial and often of wretchedness. All this becomes more or less known to his parents in the holidays. When term time approaches the boy gets miserable. The family doctor is often called in to arbitrate between father and mother, and settle whether the poor little fellow is well enough to go back to school or not. It is not often that the same ordeal has to be undergone in the case of girls, for school to them has attractions and often fascinations which in most instances are absent from boys' schools. It is not that school mistresses are less severe in discipline than masters, nor that the work at a girls' is less arduous than at a boys' school. The difference is that little girls are much petted by the bigger girls, whereas little boys are commonly browbeaten and oppressed by bigger boys. Any boy brought up in a refined home, under the guardianship of sensitive and high-minded parents, will in all probability experience some of the heaviest trials of his life during his first year or so at a public school. He will be buffeted about by his bigger schoolfellows, and often subjected to coarse and obscene language, and there will be little or no redress for him. We do not imply that every elder boy at school is obscene and brutal; but in most schools there is a number of really bad boys, and these sometimes from the highest social rank. As one black sheep taints the flock, so one evilly disposed boy contaminates "the set" he is in, and bullies all weaker than himself. It is often opposed to the immediate interest of the school to get rid of such a boy, for his parents may be influential. There are few places where one law for the rich and distinguished and another for the poor and obscure are so tacitly acquiesced in alike by masters and governors as at our public schools. We have often been struck by the dread parents have of making their dissatisfaction known either to the authorities or through the public press, for fear of the unpopularity into which it may bring their boys. The terrorism big boys exercise over little ones is scarcely greater than that which schoolmasters exercise over parents, by reason of a fear of the consequences to the boys concerned. Sir William Harcourt is rendering a great service to English school boys by giving the prominence he does to the fatal case of bullying at King's College, and thereby causing an act of justice to be done to parents of every grade. We do not imply that King's College is worse than other schools; but there, and elsewhere, has existed a lack of discipline in the intervals of class. The decision arrived at by the governors of King's College, that for the future safety of the boys the masters are to keep watch in rotation in the intervals of class, implies that their system has been defective in this particular. Indeed, it virtually admits the existence of the bullying complained of in their school, or of something equally objectionable. On the particular case in question which Sir William Harcourt has directed shall be inquired into by the Public Prosecutor, it would not be fitting to express an opinion. If this sad death convinces school authorities that boys cannot be let loose from class, in the absence of adequate supervision, without risk of injury to each other, and danger to the reputation of their school, and, if an injury should prove fatal, that they cannot hope to escape henceforth, any more than King's College has, one of the gravest charges that can be brought against a public body or an individual—the inquiry instituted by the Home Secretary will not be in vain. Whenever death takes place at a public school, either from injury or from disease, the law should provide a public inquiry. In the past there has been too much hushing up of such things; hence the prominence we have given in our columns to all matters concerning the welfare of the English school boy. Now that the Secretary of State has taken up his cause, he may hope for a happier future.

THE PRELIMINARY SCIENTIFIC M.B. EXAMINATION.

THE revised regulations for the Preliminary Scientific Examination, which will be found elsewhere, will, we fear, cause some disappointment. The concession that has been made by the Senate to the thrice-repeated demand of Convocation for a half-yearly examination is deprived of some of its grace by the withholding from the candidate who appears in January the chance of obtaining distinction. The Senate, in following what can only be supposed to be the recommendation of the examiners in this matter, has created a precedent for which there is little, if any, justification. To be logical, it ought forthwith to remove the Honours list from the January matriculation, for in what other respects does this Preliminary Scientific Examination differ in regard to medical degrees? Doubtless the intention is to encourage at least one year's study to intending candidates in Honours, and to make that year conterminous with the academical sessions. But as a matter of fact, there will be few youths so well prepared in the subjects of the Pass Examination as to present themselves for the Preliminary Scientific Examination within at least twelve months of passing matriculation, unless they avail themselves of the option given them to take up one or two subjects at a time. We are glad to see that Convocation has referred to its Annual Committee the question whether candidates who fail in one subject should be allowed to come up for examination in that subject only on a subsequent occasion. This would be most applicable to such an examination as the Preliminary Scientific, in which each of the three subjects of the Pass Examination is made to cover so wide an area. It must be confessed that the requirements of the examination have been placed very high. The subject of general biology, for example, includes a range of study that by itself would require prolonged and patient work, comprising a knowledge of animal and vegetable anatomy and histology, which there is at present little opportunity of obtaining. In the face of the extended requirements of the University of London, it is time that a serious effort be made to form science faculties and schools, which should have the sole responsibility of training youths in these preliminary subjects, and that no *medical* instruction be allowed to commence until this scientific study be accomplished. For all that, we are far from thinking that it would not have been both politic and

fair if the University of London had taken the opportunity to demand a little less science from those who wish to graduate in its medical faculty.

DISINFECTION AND DISINFECTANTS.

A COMMITTEE of the American Public Health Association have issued a preliminary report on the subject of Disinfection and Disinfectants, and the views expressed on the subject are eminently sound. It is explained at the onset that disinfection necessitates the actual destruction of any specific infectious material which gives rise to infectious diseases, and that the destruction must not be partial, but complete, if true disinfection is to be obtained. Popularly, the term disinfection is used in a much broader sense, and mere deodorisers and antiseptics are styled disinfectants, the result being much misapprehension and failure; for many such agents are entirely without value for the destruction of disease germs. This applies, for example, to the valuable antiseptic sulphate of iron or copperas. Antiseptics, however, exercise a restraining influence upon the development of disease germs, and hence they have a proper place amongst the agents to be used for certain purposes when epidemic diseases are prevalent. Many so-called disinfectants now in the market are mere deodorisers, and are quite valueless for their professed purpose. Chloride of lime is held by the Association to be entitled to the first place for disinfecting excreta; it is both trustworthy and rapid in its action. A solution of corrosive sublimate and permanganate of potash in soft water, in the proportion of two drachms of each salt to the gallon, is placed next, as being really effective, but slower in its action. Liquor sodæ chlorinatæ is also referred to, but it is dearer than chloride of lime, and has no special advantages over it. For clothing and bedding which cannot be washed, a temperature of 230° F. is recommended as sufficient for the destruction of all known disease germs which do not form spores. Super-heated steam under pressure is, however, a safer method to rely on, and, as stated in the memorandum, a less temperature of this agent probably suffices to effect the object than is the case with a dry heat. The report contains useful hints as to the quantities of the agents to be used, and as to the methods of their employment.

THE PREVENTION OF BLINDNESS.

A DEPUTATION from the Ophthalmological Society of the United Kingdom, consisting of Sir Wm. Bowman, Mr. Jonathan Hutchinson, Mr. John Tweedy, Drs. M'Keown, Brailey, and Abercrombie, was received last week by Mr. Russell, M.P., Parliamentary Secretary to the Local Government Board, and by the Registrar-General; Dr. Buchanan was also present. It will be remembered that an interchange of views has for some time past been going on between the Ophthalmological Society and the Local Government Board as to the best means of making the public aware of the danger attendant upon inflammation of the eyes in infancy. Some months ago, as an answer to some propositions made by the Ophthalmological Society to the Local Government Board, the Registrar-General argued that the increased expenditure necessary for carrying out the proposals of the Society would prove an effectual barrier. At the deputation it was urged that the public should be instructed through the medium of the Poor-law organisation and the registrars of births, and it was pointed out how this could be done by the employment of printed forms, which should be given, along with the papers for vaccination, to the individuals registering births. Though we should have been better pleased with a more forcible mode of bringing home the facts to the minds of parents, yet it must be admitted that the plan above suggested will probably be attended with much future benefit to the community if it be adopted, as seems not unlikely, by the Local Government Board. The benefit to be derived from such measures in preventive medicine may be expected to increase as years go by, for with the circulation of printed forms drawing attention to the perils of ophthalmia neonatorum there must go on an ever-widening dissemination of knowledge.

THE THAMES SEWAGE COMMISSION.

IT will be remembered that the Metropolitan Sewage Discharge Commission, appointed to inquire into the foul condition of the tidal portion of the Thames, divided their report into two parts, separated from one another by a considerable interval of time. In the first part they proved by an overwhelming mass of evidence the existence of a great, dangerous, and increasing nuisance, by which the river was fouled throughout almost the whole of the tidal portion. In the second part, published after a second inquiry, they discussed possible remedies. The Commissioners received less assistance in the second part of their labours than in the first, because the Corporation of London backed out of the work they had commenced so vigorously. It seems now to be generally admitted that the whole of the London sewage must be carried down at any rate to Sea Reach, and that even then it must be purified before passing into the river. Sir Joseph Bazalgette's scheme for taking the sewage to Canvey Island, near Southend, seems to promise as well as, or better than, any other. The minutes of evidence taken in the second stage of the inquiry are now before us, and contain much valuable scientific matter and some good maps and plans. Many well-known inventors and promoters of sewage schemes were examined, among whom may be mentioned Mr. Melliss, Mr. Sillar, and Mr. Bailey Denton; and their evidence will assist many in the not very easy task of deciding among the competing schemes. For ourselves, we incline to the opinion that the most promising system is precipitation followed by irrigation. As to the present frantic efforts of the Metropolitan Board of Works to remedy the mischief they have caused, they can only be described as absurd.

MEDICAL EDUCATION IN BOMBAY.

WHEN the Grant Medical College was opened in Bombay in 1845 the number of students was ten. After some fluctuations it was as low as fifteen in 1864-65, after which it rose again to forty-four or forty-five in 1873, and the average for the first twenty-eight years, during which period the students had not to pay anything for their education, was about twenty-five. Since that time, however, the number of students has steadily and rapidly increased, until it has reached three hundred, including the female class. The work of the hospital has also increased, and addition has since been made to that building, but not to the College. Further, there has not been any appreciable increase in the staff of teachers or in the hospital staff; the classes under each professor or teacher therefore are, and must necessarily be, so large and unwieldy that it must be impossible for the students to receive the benefit of the teaching as well as when the classes were small. This inconvenience cannot be got rid of by merely enlarging the present college premises. The teaching staff requires to be doubled along with the accommodation, and it has been suggested that the best and the most effectual way to give the much needed relief is not to have duplicate classes and teachers in one and the same college or building, but to have another college or medical school built in connexion with another hospital. The proposal seems a good one, and it is to be hoped that the Government will give it a careful and deliberate consideration. The Grant Medical College with its surrounding

hospitals and the European General Hospital could still be conducted on the old system. But with this yearly increasing number of students, one medical college with one hospital for clinical and other teaching is not enough, and more than one such institution may well be considered absolutely necessary.

PROFESSOR OGSTON'S VISIT TO THE SOUDAN.

LAST week Dr. Ogston, the Professor of Surgery in the University of Aberdeen, who has just returned from the Soudan, where he went with a view "to increase his efficiency in teaching and to increase his own personal information," delivered a lecture to the students on some points of interest in connexion with his short stay at Sawakin. After a brief notice of the very inadequate provision made for the wounded on the field of battle in former wars, he gave an account of the organisation and working of the bearer companies under the present system, of the mode of transport to the field hospital, and of the arrangements there made for the prompt and efficient treatment of the cases as they were brought in. We have but one objection to this description as applied to the war in the Soudan—that it describes the medical officers and men of the Medical Staff Corps as non-combatants, who "under the shelter of the Geneva Cross were recognised not only as non-combatants, but as having every claim to neutrality and protection." However true this may be in the case of war between civilised nations, it certainly is not applicable to such wars as that in the Soudan or in Zululand, and we regret that Professor Ogston did not point out this, as it greatly enhances the value of the services rendered by the medical department of the army in this campaign that they have been performed under such conditions of difficulty and personal danger. The Professor enlivened his lecture by two ghastly tales of the war, not from his personal observation, but which he had "on the best authority." He concluded by stating that "he felt quite confident that the amount of interesting matter that passed under his eyes in the short time he had been away would result in a great personal benefit to him; and it would be his best endeavour that, so far as was possible, the usefulness of what he had acquired should be extended to his students at the proper time." We cannot but regret that Professor Ogston did not communicate the result of his observations on the working of the medical service, on the condition of the hospitals, the treatment of the wounded, and the general impression he received as a professional onlooker, rather than deliver a lecture which might have been as easily got up without the trouble of going to the Soudan, and which seems to have been more of a type suited to the general public than for the information of his professional brethren or of the aspirants for admission into the medical profession.

THE URINE IN OSSEOUS LESIONS.

THE condition of the urine in osseous lesions has been studied by M. Verchère, who has formulated the following propositions (*La France Médicale*, May 7th). The facts have been arranged into two divisions according as the lesion is traumatic or inflammatory. The traumatic class is further subdivided into three groups. In the first group the osseous fractures were produced by insignificant causes, and examination of the urine showed that the discharge of phosphoric acid was much above the normal; consolidation of the fracture was not hindered by this excess of phosphates. The second group is composed of cases of fracture in which union was retarded; in these there was polyuria. In the third group there was delayed union with phosphaturia, which preceded the fracture and appeared to cause it. In inflammatory osseous lesions phosphaturia is the sign of a peculiar state of the system.

THE AFTER-CARE ASSOCIATION FOR THE CONVALESCENT INSANE POOR.

THE Rev. Henry Hawkins, chaplain to the Asylum at Colney Hatch, has done us the honour, in his "Plea for Convalescent Homes in connexion with Asylums for the Insane Poor," to quote the few words we wrote in support of an important project to which we are glad to observe that public attention is at last being called, and that, too, in a practical form. On Tuesday a bazaar was opened at the Town Hall, Kensington, by the After-care Association for the Insane Poor, and by its means a fair beginning of support was entered upon. The bazaar was to have been declared open by the much-esteemed Lord Shaftesbury, but unfortunately at the last moment the state of his lordship's health prevented him from being present. In his absence the Vicar of Kensington, the Hon. and Rev. E. Carr Glyn, officiated as chairman, and in a short but effective speech inaugurated the proceedings. Mr. Hawkins described with much care the intentions and objects of the Association, and Drs. Richardson, Hack Tuke, Savage, Norman Kerr, and others supported his earnest plea. If the Association succeeds in its efforts, we shall hope before long to see a series of new institutions springing up to perform two distinct philanthropic purposes—to afford a temporary resting-place for the poor on leaving the asylum, and a home to which they can from time to time return for friendly sympathy and wise direction.

THE LONDON TEMPERANCE HOSPITAL.

ON Saturday last a grand national bazaar in aid of the funds of the London Temperance Hospital was opened in the Floral Hall by her Grace the Duchess of Westminster. The special object of the bazaar is to raise a sum of about £8000, which is needed to defray the cost of the new wing of the hospital, which is now nearly completed. Up to the present time the hospital has consisted of three wards, with a total of fifty-two beds. The new wing includes five more wards, with accommodation for nearly seventy patients, so that the total number of beds will be raised to 120. One gentleman, who desires to be known only as an anonymous donor, has given no less than £5000 to the building fund, and with such an example of liberality before them it is hoped that the friends and supporters of the institution will clear off the outstanding debt upon the new buildings. The Duke of Westminster on Saturday handed a cheque for £400 to the chairman of the Bazaar Committee, and a further sum of £1100 was taken at the stalls during the afternoon. The stalls are picturesquely arranged to represent a mediæval London street, and are liberally and handsomely furnished. The bazaar will continue open every day until and including Whit Tuesday.

IMITATIONS OF ORGANIC TISSUES.

SENOR GARCIA DIAZ has exhibited to the Athenæum of Madrid some remarkable experiments in which he has been engaged for the last two years on the artificial production of imitations of organic tissues. He has invented an apparatus which he calls the "mechanical morphogene," which consists of a hollow cylinder containing a piston for compressing objects at the base. The substance employed is a mixture of sulphate of lime and oil. With this apparatus he has produced epithelial, fibro-cellular, and alveolar tissue. According to the time occupied in the descent of the piston, the nature of its inferior surface, and the proportion of oil in the mixture, different organic forms are obtained. In a second series of experiments Señor Garcia Diaz made use of hollow bodies which, on being compressed, showed perforations in the walls, and were by various other manipulations caused to assume an alveolar texture. Round cells

were also obtained by mechanical means. Polygonal cells required great pressure, as may be supposed from the positions they occupy in the human organism. He has also constructed a more elaborate apparatus, called the "pneumatic morphogene," with which microscopical preparations can be produced. In this apparatus pressure, heat, and inflation of air are combined in order to mould the outlines of the principal tissues. Varnish, from its adhering to glass, is the best substance for these investigations. With this, by means of a good deal of delicate manipulation, the most important organic tissues can be imitated, showing the author that their structure depends merely on physical conditions, no "mysterious living principle" being necessary for their production any more than for that of organic chemical substances, such as urea, which have long been shown to be capable of being built up synthetically by chemists.

DEATH OF PROFESSOR HENLE.

THE death is announced of Professor Jacob Henle of Göttingen. He was one of the last of the famous German school of scientists which flourished at the beginning of the present century, and was a most active worker all his life. When prosector and *privat docent* at Berlin, he published, in 1840, some pathological memoirs on Miasm and Contagion, Nervous Sympathy, the Course of Periodicity of Disease and Fever, subjects afterwards embodied in his more ambitious work—"Handbuch der rationellen Pathologie" (1846-1853), written when Professor of Pathology and Physiology at Heildelberg. In this work he foreshadows the notion of fungi playing a part in the etiology of disease. But it is in anatomy that Henle will be remembered best. His contribution to the knowledge of the structure of the kidneys completed the work of Bowman and Müller; and his famous treatise on Human Anatomy, commenced in 1855, has a world-wide reputation. In 1882 the celebration of the jubilee of his doctorate was signalised by the publication of a volume containing anatomical and embryological memoirs by many of his old pupils, amongst whom may be named Aeby, Bardeleben, Du Bois Reymond, V. Dusch, Flemming, Friedreich, Kölliker, Kühne, Langhaus, Merkel, Waldeyer, and Westphal. In the same year Henle himself contributed to the *Archiv für Microscop. Anatomie* a memoir of the life-work of Theodore Schwann.

THE CONTAGIOUSNESS OF PHTHISIS.

IN a paper recently read before the College of Physicians of Philadelphia, Dr. W. H. Webb strongly supported the doctrine that phthisis is contagious, and brought to his aid many marked examples in literature, and some personally known to him. He described an apparatus which he had devised for filtering air, with a view to discover whether tubercle bacilli could be found in the atmosphere of places of public resort. The trap consisted of a brass cylinder containing perforated steel discs plugged by thin layers of pyroxylin; the cylinder was connected at one end with a pump, and at the other with a funnel, which was placed over the ventilating flue of the place examined. Specimens of the pyroxylin obtained in these experiments were sent to Drs. Shakespeare and Morris Longstreth for examination. Dr. Shakespeare was only able to detect one unmistakable tubercle bacillus in the four specimens sent him; but Dr. Longstreth was more successful, finding the bacilli in four out of six slides prepared from one of the specimens. Considerable difficulty was, however, met with in the research, owing to the nature of the material and the necessarily great admixture with foreign matters. Scanty as this evidence is, it does, in Dr. Webb's view, sufficiently support his thesis, and he urges that the tubercle bacillus is an undoubted fact, and that clinical observation conclusively proves that healthy individuals living in an atmosphere contaminated by the phthisical will contract the disease. He accused the "non-contagionists" of having "wilfully, unhesitatingly, and without warrant, perverted the language, even absolutely falsifying the statements, of authors they quote in support of their cause."

THE FORTHCOMING EXHIBITION OF INTRACRANIAL TUMOURS.

THE Council of the Pathological Society have announced an exhibition of and discussion on intracranial tumours, to take place at the first meeting of the Society in February, 1886. The announcement of this intention at so early a date is doubtless made with the object of giving sufficient time and notice to intending exhibitors to get their material into order. The term "intracranial tumours" is to include cysts and gummata. It is hoped that the following features will receive consideration:—The nature of the tumours, their situation, size, probable duration, and age at which they occur; the number of them present in the brain; and the presence and situation of secondary tumours. It is desired that the discussion may be illustrated by as many specimens as possible, as well as by pictures and diagrams. In our opinion the exhibition and discussion in question are peculiarly happy suggestions, and we congratulate the Council of the Society on conceiving so fortunate a scheme.

THE DETENTION OF LUNATICS.

A REPLY has been received from the Local Government Board by the Mile-end Old Town Board of Guardians to a letter suggesting an extension of the provisions as to the detention of alleged lunatics in certain cases, proposed to be inserted in the Lunacy Laws Amendment Bill now before Parliament. The Lord Chancellor has, the Board states, with a view to its insertion in the Bill, given notice of a clause providing that where a constable, relieving officer, or overseer has knowledge that there is within the limits of his jurisdiction a person alleged to be a lunatic, for whose care and maintenance relief appears to be requisite, he may remove the alleged lunatic to the workhouse of the union; and the master of the workhouse shall receive him therein; but no person shall be so detained for more than forty-eight hours, unless in the meantime the provisions of the Act relating to the detention of lunatics in workhouses have been complied with.

ENORMOUS CALCULUS.

WE understand that a calculus far exceeding in size that mentioned in THE LANCET of the 2nd inst. as having been extracted by Sir Henry Thompson has recently been removed from the human bladder by Mr. Rivington at the London Hospital. The calculus weighed (avoirdupois) 1 lb. 9 oz. 2 dr. when removed. It weighs, now that it has been put together and in dry state with hollow centre, owing to absence of nucleus and débris, 1 lb. 6½ oz. (avoirdupois). The dimensions are thirteen inches in circumference lengthwise, and ten inches transversely.

LICKING ADHESIVE STAMPS AND ENVELOPES.

THIS is a perilous practice, against which the public needs to be put on its guard. We have seen bad consequences ensue from the habit, which is a very common one. Those who are frequently thus moistening the gum on adhesive surfaces suffer from local irritation, sore tongues, and the like, while every now and again we hear of special propagation of disease by the habit. A curious illustration of the way in which disease may be communicated was recently

brought under our notice. An envelope received from a person who habitually took large quantities of morphia hypodermically was reclosed by the person who opened it by licking the adhesive surface, with the result of making him violently sick. The mere touch of the tongue of the taker of morphia had rendered the gum intensely nauseous. If this could happen, obviously there must be grave peril of the transmission of disease by such means. It is not likely that many persons would even incidentally re close an envelope in this way; but the incident may serve to show how desirable it is not to run the risk of even taking in the impurities of new adhesive matters from stamps and envelopes. It is very easy to avoid the practice The danger only needs to be pointed out.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

AN election for a member of Council, in the room of Dr. Mapother, resigned, took place on Tuesday, the 19th inst., when Dr. Edward Hamilton, Professor of Surgery in the Medical School of the College, was elected without opposition. The annual elections for President, Vice-President, Secretary, and Council will be held on Monday, June 1st, when Dr. Cameron will be advanced to the Presidency, and most probably Mr. William Stokes will be elected Vice-President.

CHOLERA "VACCINATION" IN ALCIRA.

IN a letter in a Spanish medical journal from Alcira, the writer says that he has just proved the existence of Koch's comma bacilli in the stools of a case he has seen. He mentions also that the only two boys in an institution in that place who were not "vaccinated" by Dr. Ferrán at his first visit have been attacked by cholera, and that this fact has produced such a profound sensation in the town that all the inhabitants have the greatest faith in Ferrán's preventive. The same journal states that Dr. Ferrán has been dismissed from his post in charge of the hospice at Tortosa by the municipal authorities, who probably think that his time is so fully occupied in other ways that he cannot devote the attention to the local infirmary that is required, and that could be given by a less eminent medical man.

THE SALVATION ARMY AND LUNACY.

THERE has been a slight skirmish or interchange of shots between an outpost of the Salvation Army and a medical man on the subject of the proceedings of the army and lunacy. Surely "General" Booth does not need to be told that there is such a thing as religious mania, and that the sort of excitement his propaganda produces is likely to act injuriously on hysterical females and excitable males. Emotional perturbation is always mischievous. The weak feel it more than the strong. Every description of "revival" produces a crop of insanity. It is to unstable and excitable nervous centres this sort of enthusiasm appeals, and out of the multitude affected there must be some who break down.

EXTIRPATION OF THE GALL-BLADDER.

AT the Brussels Academy of Medicine Dr. Hyernaux reported a case of hepatic colic caused by gall-stones, in which Dr. Thiriar had extirpated the gall-bladder. Although the patient recovered, the majority of the speakers considered the operation undesirable and unnecessary. They thought that it ought to be borne in mind that this affection sometimes underwent a spontaneous cure, and they advised that it should be treated by a carefully regulated dietary and medicine, and that recourse should not be had to an operation fraught with such serious risk.

MEDICAL LEGISLATION.

THERE is reason to believe that the Government have some intention of introducing a Medical Bill after Whitsuntide.

THE CHOLERA.

WE are glad to be able to give an emphatic denial to the report that cholera has broken out in Durham. Not a single case has occurred in that city.

THE Select Committee appointed to consider the law relating to the control over telephone, telegraph, and other wires, in their report which has just been issued state that they, having heard evidence from the Post Office, the telephone companies, the various local authorities of the metropolis, the corporations of some of the leading provincial towns, and private owners and occupiers, have come to the conclusion that the risk of danger to the public from overhead wires has been very greatly exaggerated. At the same time they are of opinion that the probable development of the telephonic system makes it desirable that there should be some legislation on the subject.

PROFESSOR BURDON SANDERSON, on the 15th inst., delivered a lecture at the Royal Institution on "Cholera, its Causes and Prevention"; in the course of which he gave a short history of the manner in which at various periods the disease had spread, and stated that those who resided in the west and north of London need have no fear as to cholera if it fixed itself again in the east of the metropolis. He, however, predicted that if the disease intended to attack London this year it would long ago have been on the march.

AT a recent meeting of the Ballinrobe Dispensary Committee, it was stated that in the absence of the local medical man the porter of the workhouse attends the dispensary, dispenses medicine, extracts teeth, and vaccinates children. To make things worse, he is an illiterate man, unable even to read a label. After a long discussion, it was resolved that the porter be dismissed, and that the Local Government Board be called upon to hold a sworn inquiry into the circumstances.

A SPECIAL prize has been awarded by the Academy of Medicine of Paris to Dr. Murrell, Lecturer on Pharmacology and Therapeutics at the Westminster Hospital, for his introduction of nitro-glycerine as a remedy for angina pectoris and allied diseases. A sum of 500 francs has been awarded to Dr. Henri Huchard of Paris for his work entitled "Les Angines de Poitrine."

THE district of Pensa, in Russia, has decided to grant a pension to the families of its medical officers who have died from cholera. This is without reference to their length of service. The sum of 900 roubles is to be granted yearly to the families of qualified medical officers, and 180 roubles to those of members of the subordinate medical service.

DR. WYCHERLY, High Sheriff for the city of Cork, is to receive the honour of knighthood, in appreciation of the part he took in the reception of the Prince and Princess of Wales. Dr. Banks also is spoken of as likely to be the recipient of a baronetcy.

DR. FREDERICK TAYLOR having been elected Physician to Guy's Hospital, Dr. W. Hale White has been appointed Assistant-Physician to that institution.

THE Birmingham Hospital Saturday collection had reached the unprecedented amount of £6325 0*s.* 7*d.* up to the close of bank hours last Monday, showing an increase of £398 on last year's total.

DR. PETROV, Professor of Pathological Anatomy in the University of Kasan, Russia, has resigned, and the Faculty has nominated the prosector, Dr. N. Ljubimov, as his successor.

Two fatal cases of cholera are stated to have occurred at Marseilles.

CHOLERA CONFERENCE AT BERLIN.

(*Concluded from p. 918.*)

THE fourth sitting, on May 7th, was opened by a demonstration by Professor Koch of some inoculations with Brieger's bacillus, and of pure cultures of comma bacilli obtained from the intestines of guinea-pigs previously shown. He then resumed the debate, which he said had simplified comprehension of the subject, for the points of difference between himself and Professor von Pettenkofer were diminished by the latter's admission of the fact of individual immunity and the influence of traffic in spreading the disease. Nor did he himself deny that humidity of soil has some influence, especially in the surface layers, where organic matter decomposes; but this condition is only one, and not the foremost, of many factors. Local immunity is not explained by it solely, being due to very complex conditions, as exemplified in the case of Lyons. Mooltan, a town of the desert, is almost the sole place in India that enjoys immunity. He gave further instances of the risk of traffic with the cholera sick, and stated that the dangers of ship traffic do not depend on the extent of an epidemic on individual ships, but on the number of vessels attacked by cholera, and this is comparatively large. Turning to the third point proposed for discussion, he said there was no authentic fact of the atmospheric transmission of cholera. It might occur exceptionally, but as a rule the atmosphere only influences a cholera epidemic by the fact that the virus retains its power for a longer period in moist air, and speedily perishes in dry air. The soil may influence the spread of cholera by its physical property. It had been said that a clay soil was to a certain extent protective, but he cited instances showing that this was not invariably the case. He showed by various examples from India, Egypt, Paris, Genoa, and Naples that the subsoil water is no index of the diffusion of cholera; it is the various kinds of putrefaction in the superficial layers that are the important conditions in soil. Of the three factors, *x*, *y*, and *z*, which Professor von Pettenkofer declared some years ago to be necessary for an epidemic, was it the *x* or the *y* which is represented by the bacillus? Drinking water is of some importance; a certain percentage of individuals are protected from cholera by pure water, as was seen by a reference to plans and tables from Calcutta (especially Fort William) and from Bombay, Madras, Nagpore, Pondicherry, Alexandria, and Cairo.

Dr. GÜNTHER said that in Saxony during the epidemics of 1865, 1866, and 1873 the mortality among medical men, nurses, and gravediggers was not higher than the mean of the whole population; there was in 1865 and 1866 a higher rate amongst those who washed the linen of cholera subjects, but not in 1873. He gave examples from Elsterberg and the Gerbergasse at Dresden as apparently in favour of the protective nature of a clay soil. In Saxony the height of the epidemic of 1873 corresponded with the acme of the ground temperature at a depth of one metre.

Professor von PETTENKOFER read a paper on the Drinking Water Theory and the Immunity from Cholera of Fort William in Calcutta. He pointed out that according to Dr. Mouat the disappearance of cholera from Fort William was brought about not merely by the new water-supply, but by other extensive sanitary measures, including a thorough sanitation of the soil. The same obtained in other places, where an improved supply of drinking water has been regarded as the cause of the disappearance of cholera, for more careful scrutiny showed that the observation had been defective, or that many other hygienic measures had co-operated. Pure water *per se* was not a specific prophylactic against cholera, and he deemed it essential to assert this because people have been content to believe that with the introduction of pure water enough had been done, and therefore to neglect the more important matter of sanitation of the soil.

The final sitting took place on May 8th, when the debate on points 2 and 3 was resumed by Professor von PETTENKOFER, who said that when he proposed to regard the subsoil water as the index of cholera, he had not meant especially the rise and fall of the subsoil water, but only the variations indicated by the hydrometer in the humidity of the soil overlying the water. It was only such variations that were of etiological importance, and only those wells could be employed for measurement which did not change their level from other causes—e.g., not those depending solely on the levels of the nearest river. He postponed his reply to Professor Koch's criticisms to another opportunity, as he had not at hand data referring to many of them, and time would not permit of his entering upon them all.

Dr. B. FRAENKEL said that, since it had been clearly shown that the winter latency of an epidemic could be explained by the known vital tenacity of cultures of the comma bacillus, there only remained of the reasons advanced by Professor von Pettenkofer against the view that the bacillus is the cause of cholera this—viz., that the local and periodical characters of cholera epidemics are not to be explained by the vital peculiarities of the bacillus. But, once admit the bacillus to be the cause of cholera, and this difficulty disappeared. It traces the origin of an epidemic to something external to the human body, with certain special conditions, local and periodical, in addition. He asked Professor von Pettenkofer if, in what is known of such conditions, there are facts which preclude the view of the comma bacillus being the cause of the disease.

Professor von PETTENKOFER said that such conditions depend upon (1) the physical character of the soil, permeability; (2) its humidity and variations in this; (3) its impregnation with organic matter. He would willingly recognise the comma bacillus, and any bacillus considered by bacteriology to be the cause of cholera, as the special cholera virus, and abandon his doubts, if it were proved that the micro-organism answered to epidemiological facts upon local and periodical conditions. In that case it must, like the malarial virus, have some relation to the soil.

Professor VIRCHOW said that when Professor von Pettenkofer commenced his studies on cholera the idea was in vogue at Munich that a fungus was the cause of cholera; but the notion was corrected by Thiersch's experiments on white mice; and it was thought that the virus was formed later in the dejecta. Although these experiments may have been erroneous, yet Professor von Pettenkofer had not given up the notion of this late development of the cholera germ. In the inquiry into the various conditions in which fæcal matters are found, the soil very naturally occupies the foreground; and from this point of view Professor von Pettenkofer's labours had thrown much light. But whilst fully acknowledging their merit, Professor Virchow could not understand their exclusive standpoint. Why should the material that causes cholera, and that is present in the soil, be not also capable of passing into drinking water? Theoretically there was nothing opposed to that. Practically the question is reduced to the somewhat rough-and-ready one as to whether an improved water-supply can limit cholera epidemics; but there are many kinds of impurity in water. In reference to Professor von Pettenkofer's objection to the experience gained on this head—e.g., the facts Professor Koch related about Fort William that other improvements in sanitation occurred at the same time,—it must still be asked whether these other changes were also of value. In introducing a good supply of water, drainage was also improved, and both had undoubtedly a favourable effect. It is with cholera as with typhoid. Thus at Halle a sudden and permanent reduction in the frequency of typhoid followed the introduction of drainage, and buildings supplied with good drinking water have remained free from the disease. Yet it by no means follows that typhoid and cholera have nothing to do with the soil. It has been proved that the comma bacillus can exist in water; and were another fungus alleged to be the cause of cholera, the same must be proved of it. By subsoil water he did not understand, with Professor von Pettenkofer, the water that

soaks through from the surface. Subsoil water is an entity, and it is impossible to split it into different kinds. He had always maintained that fungi got their nutriment only in the uppermost layers of the soil, and this was important, since every kind of impurity could not be drained off. Dr. Babes had shown that in the struggle for existence the comma bacillus is speedily overborne by putrefractive bacteria; and, therefore, there must needs be varied and special circumstances for it to flourish, and further researches upon water on linen, &c., were required to elucidate them. Nor could personal predisposition to cholera be disputed, and in this connexion it must be remembered that the attack of cholera usually occurs during digestion, when living organisms might be passed into the bowel without being long in contact with the gastric juice. The atmosphere must also play some part, as in the diffusion of particles in the unpacking of linen and their conveyance to the mouth.

Professor KOCH reserved his arguments against Professor von Pettenkofer's views to another opportunity.

The fourth point was then discussed—viz., on the practical measures for attacking cholera. These were summarised by Professor KOCH as follows:—1. Measures for the direct destruction of the infective material, disinfection of dejecta, destruction or disinfection of linen, &c. 2. Sanitary works for carrying the virus away, drainage, good water-supply. 3. Competent supervision of communities for the speedy diagnosis of the earliest cases, in order to nip the epidemic in the bud; the sick must be isolated or so guarded as to prevent contagion. Infected houses to be vacated by the healthy, who must be supervised. 4. The instruction of the public so as to allay their fears, and make them aware of the dangers of uncooked food, unboiled well water, with particular warning against the use of infected linen.

Dr. GÜNTHER said one difficulty was to determine what water was dangerous and in what circumstances wells should be closed.

Professor KOCH said that no general rule could be laid down; but it was essential not only to ascertain the chemical characters of the water, but to determine how many and what kind of micro-organisms are present in it.

Dr. GÜNTHER alluded to the supervision of railway travellers, its difficulties and impossibilities, and its doubtful utility.

Professor KOCH said the regulations in this regard must be dictated in the humanitarian sense, as needed for the protection of the sick and in the interest of his companions.

Dr. S. NEUMANN pointed out that premonitory diarrhœa is excluded from control, and must yet be regarded as cholera.

Professor KOCH agreed, provided that comma bacilli were present in the dejecta.

Dr. KÖHLER, in view of the strict control over ship traffic, would like to support a practicable revision of railway traffic without disturbing travellers, so that the charge may not be brought against officials that nothing is done for the protection of people.

Dr. MEHLHAUSEN urged the importance of cleansing the water-courses, especially the smaller ones; and Dr. EULENBERG illustrated this point by instances of the spread of cholera through the Salzbach at Wiesbaden and the Schwarzbach at Liegnitz.

Professor VIRCHOW called attention to Bacon's portable disinfecting apparatus, and mentioned that the Berlin Town Council were about to erect special disinfecting establishments. Isolation of the sick was necessary, but a land quarantine would be impracticable with our complicated travelling system.

Professor KOCH laid stress on the disinfecting property of drying. His observation that the comma bacillus is rapidly killed by drying has been confirmed on all sides. Where carbolic acid and disinfection by steam were inapplicable, the virus could be killed by drying—e. g., in the case of furniture and dwellings. In many cases fresh lime-washing of walls would suffice. In reply to Dr. Pistor, he said that corrosive sublimate destroys the bacilli, but he did not recommend it as a disinfectant on a large scale.

Professor von PETTENKOFER stated that measures of isolation, disinfection, &c., did not determine the mildness or severity of an epidemic; but he admitted that measures must be taken to calm the public mind.

Dr. KERSANDT warned against *laissez-faire* on the part of officials on the outbreak of an epidemic. The State interest demanded that the public should feel that protective measures were taken, for that was the best way of calming them; and the State could do much to protect against cholera invasion. The sick must be isolated as far as possible, the water-supply supervised, and no measures which experience proves of value be neglected.

Professor VIRCHOW said that in Berlin in 1848-9 the view was held, and acted upon, that cholera was not contagious. The mortality was 12 per 1000, the highest experienced in Berlin. More was to be gained as guiding to what was to be done by the experience obtained from the individual case than the observation of the epidemic as a whole.

Professor MEHLHAUSEN spoke of precautions in the interment of cholera subjects, and, no member offering any further remarks, the conference was brought to a close by Professor Virchow thanking the foreign members for their attendance and their contributions, which was acknowledged by Professor von Pettenkofer, who said they had a common aim, and could meet to pursue it although their opinions might differ.

ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS.

A MEETING of this Association was held on Wednesday last, at 5.30 P.M., in the rooms of the Medical Society, Chandos-street, W. The chair was taken by Mr. George D. Pollock, and the meeting was well attended. The chairman in opening the proceedings said that the Committee of the Association had endeavoured to carry out the instructions intrusted to them. They had had one conference with a deputation of the Association of Members, at which the chief subject under consideration was the mode of election of members of Council. This question was patiently discussed on both sides, and the conclusions at which the Committee of the Association of Fellows had arrived were embodied in the resolutions which had been submitted by post to the members of the Association. Speaking of the deputation of Fellows from the Association to the Council of the College, Mr. Pollock said the deputation was fairly and kindly received, but the printed report which had been circulated showed how little was gained, by the conference with the Council of the Royal College of Surgeons. And although on the occasion of the conference he (Mr. Pollock) specially addressed the chairman of the sub-committee on the point that no Charter should be applied for without a further meeting between the Association of Fellows and the Council of the College, and had received the answer that this request should be carried out, yet the Council did not think it necessary to comply with that request or to treat it with any more courtesy than by a notice given to the secretaries of the Association that the Council had proceeded to the Home Secretary with a view of obtaining the new Charter. Having this state of affairs in view, the Committee of the Association had consulted together and had proposed to address a letter to the Home Secretary praying him not to approve the new Charter before the Fellows of the said College had represented their views to the Home Office, and before the President of the Association should have explained the objects which the Association had at heart.

A sub-committee for the purpose of drawing up the letter was nominated, and the letter was to read as follows:—"We beg to bring to your notice the following resolution, unanimously adopted at a meeting of the Committee of the Association of Fellows of the Royal College of Surgeons comprising at least one-fourth of the whole number, held on May 11th, 1885—viz., 'That a letter be addressed to the Secretary of State for the Home Department praying him not to approve of the amended Charter about to be applied for by the Council of the Royal College of Surgeons of England until the Fellows of the said College have had an opportunity of representing their views in the matter.' We are authorised on behalf of the Association to state that the views entertained by the Fellows of the College are in many important respects opposed to those held by a majority only of the Council, which consists of only twenty-four Fellows. In preferring this request, we would commend to your notice that we have good grounds for believing that no Charter will be acceptable to the body of Fellows and Members of the College which does not include the recommendations proposed by the Association of Fellows, but many of which have been rejected by the Council of the College. We beg

to enclose a copy of these recommendations with the replies of the Council." Signed by G. Pollock, A. Willett, J. Tweedy, and W. Bruce Clarke.

The meeting unanimously expressed its approval with the terms of the letter. The next business was the discussion of the following resolutions which had been drawn up by the Committee of the Association:—

1. That it is inexpedient for the Association of Fellows to unite with the Association of Members in its demand for representation. 2. That if, however, the Members should succeed in obtaining the right to elect members of Council, it is desirable that the existing rights of the Fellows should be adequately protected in the new Charter.

Some discussion took place on the nature and consequences of the conference between the Association of Fellows and that of Members. The secretary, Mr. Bruce Clarke, said that he had been in communication with Mr. Steele, the secretary of the Association of Members. The proposition "That the Fellows and Members (of the College) unitedly shall elect the Council, but no one shall sit on the Council unless he be a Fellow or a Member of ten years' standing," was the principal subject which the Committees of the two Associations had discussed. The last letter received from the secretary of the Association of Members asked what terms the Association of Fellows would be agreeable to accept. Mr. Alban Doran, Mr. Butlin, Mr. Gant, Mr. Barnes, and others spoke on the question, and the first resolution was moved and seconded, when

Mr. JOHN TWEEDY proposed as an amendment the following:—"That in the opinion of the Association of Fellows it would conduce to the welfare of the Royal College of Surgeons, and would tend to promote the interests of medical polity and education, if Members of the College were empowered to take part in the election of members of Council, provided, firstly, that no Member shall be eligible to vote until he has been such Member for a period of at least ten years; and, secondly, that the number of members of the Council elected by the Members of the College shall not exceed one-third of the whole Council." In proposing this amendment, Mr. Tweedy said that he had purposely abstained from conferring upon it with the other members of the Committee of the Association of Fellows. He confessed that, had the Members of the College never raised the question of direct representation on the Council, he should not have thought of claiming such representation for them. Small electoral bodies had a certain amount of convenience, and he considered that there was such a body in the order of Fellows of the College. Still, as we were brought face to face with a great question for reform, we ought not to shrink from it. It must be remembered that all these attempts at reform had come about us as the result of the general meeting of Fellows and Members held in March, 1884. Notwithstanding the representations made from all quarters to the Council of the College, this autocratic body had seen fit to reject all proposals and had simply increased its own autonomy. Speaking next of the rights of Fellows and Members respectively, Mr. Tweedy said that no doubt the President and others, his seniors, could remember the heartburnings that existed when the order of Fellows was created, and some would know as a matter of history the disgraceful circumstances under which the College originated. The old Corporation of Surgeons had been guilty of many acts of illegality, and parliamentary influence was brought to bear, happily without success, to condone these illegal acts. But though Parliament rejected these overtures, yet the part of courtly intrigue was well played, for George III. was prevailed upon to grant a Charter in which the Members of the College were entirely ignored. The Council was self-elective, and the Members of the College were left out of consideration altogether. After forty-three years of this disgraceful existence, the creation of the order of Fellows must be looked upon as a distinct advance, though it was a most arbitrary act, for the friends and relatives of members of the Council were made Fellows without any special claims. From that time to this nothing had ever been done for the Members, who were an increasing and intelligent body of men. They carry on the hard work of the medical profession; they were the ministers of surgical life. So that he thought that direct representation on the Council would not only be conducive to the welfare of the profession, but the Members of the College would feel that they were drawn to the College by bonds of interest and affection. And if these things came about, it seemed to him that the College of Surgeons would have a more brilliant career than it had ever had yet. He would limit the eligibility of the Members to those of ten years' standing, and this proposal would practically reduce the constituency of the Members to between three and five thousand, which would be composed of staid practitioners and men of mature intelligence. Feeling that their influence in the Council should be limited, he had introduced the final clause in his amendment.

Mr. ALBAN DORAN seconded this amendment, which he considered was based on sound principles. In moving the amendment, he thought Mr. Tweedy had shown himself to be a practical politician, for he faced matters as they were likely to turn out, and not as one should wish them to be.

Mr. OLIVER PEMBERTON accepted the amendment with a slight reservation to the effect that the Members should hardly be allowed to swamp the Fellows in the Council. He considered that the number of Members voting should not exceed the number of Fellows voting.

Mr. A. WILLETT also approved of the substance of the amendment, but regarded it rather as a rider or addition to the resolutions which had been submitted to the meeting. The letter read by the secretary from Mr. Steele showed that the Association of Members were willing to talk over the matter so that a common *modus vivendi* could be maintained between the two Associations.

Mr. JOHN TWEEDY said that he had made his proposition as an amendment on account of the wording of the first resolution.

Mr. WILLETT, Mr. BUTLIN, Mr. MACNAMARA, and others contended that there was really nothing in the proposed resolutions which could be construed as antagonistic to a mutual understanding between the Associations.

Mr. J. WICKHAM BARNES thought that a second interview should be had with the Association of Members before any details were arranged.

It was urged, however, that the amendment might be regarded as a basis on which the committees of the two Associations could meet and discuss.

Mr. POLLOCK suggested that the first resolution should be verbally altered.

Mr. R. DAVY said that he was horrified on reading the first resolution, which began in so unsympathetic a manner as "that it is inexpedient," &c. He believed in the old-fashioned proverb—"Vis unita fortior." It was not long ago, when danger threatened the College, that Mr. Trimmer, the secretary, had no hesitation in applying by letter to all Members. If Members were applied to in times of war, surely they had a right to be applied to in times of peace. His arguments were used in favour of a common platform, and the establishment of a common fellowship; and he thought the question was pretty much the same as that which had been fought out throughout the political world recently.

Mr. Willett and Mr. Tweedy then consulted, and the following amended resolution was put to the meeting and unanimously carried:—"That whilst it is inexpedient for the Association of Fellows to unite with the Association of Members in its demand for universal suffrage and for equal representation on the Council, yet, in the opinion of the Association of Fellows, it would conduce to the welfare of the Royal College of Surgeons, and would tend to promote the interests of medical polity and education, if Members of the College were empowered to take part in the election of members of Council, provided that no Member shall be eligible to vote until he have been such Member for a period of at least ten years."

After some discussion, it was moved by Mr. TWEEDY, and seconded by Mr. J. W. BARNES, that a copy of the resolution be forwarded to the Association of Members with a view of informing them of the policy adopted by the Association of Fellows as a basis on which the committees of the respective Associations might take conference. With such a policy, it was felt that the Associations might go to the Home Secretary, confident in their combined cause.

THE ceremony of laying the foundation-stone of the Northern Hospital, Winchmore-hill, for the reception of fever and small-pox cases above the pauper class, took place on the 16th inst. The building, which is in the modern style, is of brick, and consists of two storeys, with accommodation for 512 patients and the necessary officers and staff. The cost is estimated at £13,580.

SANITATION IN THE STRAITS SETTLEMENTS.

THE year 1884 was a healthy one in all the three Settlements. There was no epidemic of any kind, and the comparative freedom from contagious disease, even in sporadic forms, must be a subject of much congratulation to the various medical officers engaged in the institutions. The only cases of cholera, or choleraic diarrhœa, reported as having occurred in Singapore town took place in the Rochor district during December, and immediately following an unusually heavy rainfall. The persons seized occupied huts situated on the edge of the Kallang river, the water from which had been used for drinking purposes. Doubtless the heaviness of the fall had stirred up much organic débris from the sides and bed of the river, which had contaminated the water to a fatal degree. Four cases occurred in two days, all of which ended in death. The inhabitants were forbidden to drink from the river, town water was supplied to them, and the disease was at once arrested. It is a fact worthy of observation and beyond dispute, that the cases of cholera which now occur in Singapore do so almost always in a locality where town water has been found impossible or difficult to be procured. The drainage of the town generally is improving year by year, though in certain districts much remains to be done. There were admitted into the several civil hospitals in the Settlements 740 Europeans and 14,357 natives, which, together with 28 Europeans and 1030 natives who remained at the close of 1883, gives a total of 768 Europeans and 15,387 natives treated during the year. The number of vaccinations performed was 2341 at Singapore, 2436 at Penang, 3583 in Province Wellesley, and 2801 in Malacca. Comparing the mean temperature of the different stations, it is interesting to note that Singapore recorded the lowest temperature, Malacca next, then Penang, and lastly Province Wellesley; the variations were very slight, the difference between the highest (83°) and the lowest being only 1·9°. The highest temperature recorded during the year was 96·5° in Province Wellesley. At Singapore the total fall of rain during the year was 80·15 inches, against 71·13 inches in 1883; at Penang, 87·56 inches, against 87·74 inches; at Province Wellesley, 77·53 inches, against 81·73 inches; and at Malacca, 84·11 inches, being 7·08 less than that of the preceding year.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5767 births and 3487 deaths were registered during the week ending the 16th inst. The annual death-rate in these towns, which had been equal to 23·4, 21·1, and 20·2 per 1000 in the preceding three weeks, was last week 20·4. During the first six weeks of the current quarter the death-rate in these towns averaged 22·2 per 1000, against 23·3 in the corresponding periods of the nine years 1876-84. The lowest rates in these towns last week were 10·9 in Brighton, 14·2 in Bolton, 15·1 in Derby, and 15·5 in Bristol. The rates in the other towns ranged upwards to 25·0 in Sunderland, 27·7 in Manchester, 30·3 in Newcastle-upon-Tyne, and 33·4 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 449 and 481 in the previous two weeks, declined again to 463 last week, and included 143 from measles, 126 from whooping-cough, 50 from small-pox, 45 from "fever" (principally enteric), 37 from scarlet fever, 33 from diphtheria, and 29 from diarrhœa. No death from any of these principal zymotic diseases was returned last week either in Norwich or in Derby, whereas they caused the highest death-rates in Sunderland, Blackburn, and Newcastle-upon-Tyne. The greatest mortality from measles occurred in Birkenhead, Manchester, and Newcastle-upon-Tyne; from whooping-cough in Plymouth, Oldham, and Blackburn; from scarlet fever in Cardiff and Sunderland; and from "fever" in Salford, Cardiff, Sunderland, and Plymouth. The 33 deaths from diphtheria in the twenty-eight towns included 21 in London and 2 in Brighton. Small-pox caused 62 deaths in London and its outer ring of suburban districts, exclusive of 30 deaths of London residents in the hospital ships and camp at Darenth. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had been 1282 and 1361 on the preceding two Saturdays, further rose to 1364 at the end of last week; the admissions, which had been 246, 354, and 315 in the previous three weeks, declined to 211 last week. The Highgate Small-pox Hospital contained 69 patients on Saturday last, 10 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had declined in the preceding five weeks from 512 to 287, were last week 291, and 60 below the corrected weekly average. The causes of 82, or 2·4 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Newcastle-upon-Tyne, Sunderland, Brighton, and in three other smaller towns. The largest proportions of uncertified deaths were registered in Halifax, Bristol, Sheffield, and Norwich.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had steadily declined in the preceding six weeks from 25·0 to 20·6, rose again to 23·4 in the week ending May 16th, and exceeded by 3·0 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 17·2 and 17·5 in Edinburgh and Leith, to 25·5 in Paisley and 29·7 in Glasgow. The 570 deaths in the eight towns included 24 which were referred to whooping-cough, 19 to measles, 19 to diarrhœa, 8 to "fever" (typhus, enteric, or simple), 5 to diphtheria, 4 to scarlet fever, and not one to small-pox; in all, 79 deaths resulted from these principal zymotic diseases, against 81, 64, and 55 in the three preceding weeks. These 79 deaths were equal to an annual rate of 3·2 per 1000, which was 0·3 above the mean rate from the same diseases in the twenty-eight English towns. The 24 fatal cases of whooping-cough showed a further decline of one from the numbers in recent weeks, and included 9 in Glasgow, 6 in Dundee, and 3 in Greenock. The 19 deaths from measles, however, showed an increase, and included 18 in Glasgow. The 19 deaths attributed to diarrhœa showed a considerable increase upon recent weekly numbers, and exceeded by 7 the number returned in the corresponding week of last year. Six of the 8 deaths from "fever," 4 of the 5 from diphtheria, and all the 4 from scarlet fever, occurred in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 124, 117, and 95 in the preceding three weeks, further declined to 95 last week, and were 53 below the number returned in the corresponding week of last year. The causes of 82, or more than 14 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 34·0, 33·5, and 28·5 per 1000 in the preceding three weeks, rose to 35·0 in the week ending the 16th inst. During the first six weeks of the current quarter the death-rate in the city averaged no less than 32·8 per 1000, the mean rate during the same period not exceeding 20·9 in London and 18·5 in Edinburgh. The 237 deaths in Dublin last week showed an increase of 44 upon the number in the previous week, and included 14 which resulted from measles, 7 from whooping-cough, 5 from diarrhœa, 4 from scarlet fever, 3 from "fever" (typhus, enteric, or simple), 1 from diphtheria, and not one from small-pox. Thus 34 deaths resulted from these principal zymotic diseases, against 40 and 22 in the preceding two weeks; these 34 deaths were equal to an annual rate of 5·0 per 1000, the rate from the same diseases last week being 2·9 in London and only 0·4 in Edinburgh. The fatal cases of measles in Dublin, which had been 17 and 12 in the previous two weeks, rose again to 14 last week. The 7 deaths from whooping-cough exceeded the number in any recent week, and those from scarlet fever, "fever," and diarrhœa were also more numerous than those returned in the previous week. Six inquest cases and 7 deaths from violence were registered within the city; and 76, or nearly a third of the deaths, were recorded in public institutions. The causes of 35, or nearly 15 per cent., of the deaths registered during the week were not certified.

SALFORD HEALTH BULLETIN.

The Quarterly Health Bulletin relating to the first three months of this year affords most satisfactory evidence of the health condition of the borough of Salford. The annual

death-rate did not exceed 20·7 per 1000, which was 3·9 below the rate in the corresponding periods of the five preceding years; it was also 2·0 per 1000 below the mean rate that prevailed during last quarter in the twenty-eight large English towns. The information bearing upon the notification and isolation of cases of infectious disease shows the result of energetic sanitary organisation carried out with tact, the beneficial effect of which upon the health of the borough cannot well be over-estimated. The calculated death-rate of children under five years of age in the last quarter was 53·0 per 1000 living, ranging in the four registration sub-districts from 33·6 in Broughton to 72·9 in Greengate. No more conclusive evidence is needed that the sanitary authority of the borough should look for further health progress in Greengate registration sub-district. We should be glad to see other large towns following the example of Salford in the publication of Quarterly Health Bulletins containing similar statistical information, reflecting in so trustworthy a manner the health of the population.

THE SERVICES.

Among the officers who left Sawakin in the *Jumna* on the 17th inst., sick, was Surgeon-Major J. J. Crean. Staff Surgeon P. A. Hayes and Surgeons Hay and Mander are reported as sick on board the hospital ship *Ganges*. Amongst the officers who left Sawakin for England on the 15th inst. were Staff Surgeon C. J. Holmes and Surgeon W. C. Beevor. The following officers have left Egypt for England invalided: Surgeon-Major J. Kinahan and Surgeon C. E. Faunce.

WAR OFFICE.—Army Medical Staff: Brigade Surgeon George Langford Hinde to be Deputy Surgeon-General, vice Edward Malcolm Sinclair, M.D., placed on temporary half-pay; Surgeon-Major William Temple, M.B., V.C., to be Brigade Surgeon, vice George L. Hinde; Surgeon-Major James Shand Duncan, M.D., is granted retired pay, with the honorary rank of Brigade Surgeon; Surgeon-Major Charles Wyat Watling is granted retired pay, with the honorary rank of Brigade Surgeon; Surgeon-Major Edward Harford Lloyd, M.B., is granted retired pay, with the honorary rank of Brigade Surgeon; James B. Clarkson (L.R.C.P. & S. Edin.), Lieut. 19th Lancashire Rifle Volunteers, has been appointed to a commission in the Reserve of Officers.

Correspondence.

"Audi alteram partem."

THE ELECTION OF COUNCILLORS OF THE ROYAL COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—It may simplify the action of the Fellows at the coming election for Councillors at the College of Surgeons if you will allow me to say that it is neither my wish nor my intention to offer myself for re-election.

I am, Sir, yours obediently,

Cavendish-place, W., May 16th, 1885. JOHN ERIC ERICHSEN.

"PNEUMOTHORAX FOR HÆMOPTYSIS."

To the Editor of THE LANCET.

SIR,—In an annotation last week you were good enough to speak favourably of my plan of producing artificial pneumothorax. Will you allow me a brief space to point out some advantages which this plan offers over the method by free incision besides the ones you referred to. By using a fine hollow needle the operation can be done without moving the patient in his bed, without causing any pain, and without chloroform, therefore circumstances of great moment when the patient is enfeebled by disease or loss of blood. Moreover, the pneumothorax can be induced very gradually, and can be suspended or pushed on at the option of the operator. If it seemed desirable, very considerable pressure could be brought to bear on the lung; on the other hand, if for any reason it were thought advisable, by merely reversing the process, the injected air could be immediately withdrawn, and the *status quo ante* brought about. Once the chest-wall is incised we lose further control over its mechanism, and cannot undo our operation if for any reason it fails to fulfil our requirements. You justly point out the limited application of such a procedure, and yet if it can be undertaken without risk or danger, and if the operation can, so to speak, be undone without any difficulty, it may come to be tried at an earlier stage before adhesions to the chest-wall, solidification or other mechanical causes render the lung incapable of collapsing. Such a plan appears to me thoroughly rational and full of promise; it is but an extension of the principle of physiological rest to a diseased organ incapable of getting rest in any other harmless way. Where there are small cavities or aneurysms it is not improbable that a cure may be obtained in a few cases, for it would bring the walls of such cavities into contact with each other and so promote adhesion between them, and obliteration.

I am, Sir, yours faithfully,

ROBERT WM. PARKER.

Old Cavendish-street, W., May 18th, 1885.

PERSONAL EXPERIENCE OF COCAINE AS AN ANÆSTHETIC.

To the Editor of THE LANCET.

SIR,—As I believe I am the first member of the profession who has undergone a serious operation under the influence of the new anæsthetic, I feel that I ought to place my experience on record.

About eight years ago, being then in my sixty-second year, and finding that the sight of my right eye was not so good as formerly, I consulted Sir William (then Mr.) Bowman, who informed me that I was suffering from cataract. Finding my left and best eye failing me considerably during the past autumn and winter, I determined to have the right eye operated upon, and with this object placed myself under the care of Dr. Bell Taylor of Nottingham. As I have always had a strong tendency to squeeze the lids forcibly together on slight provocation, and instinctively resent in an exaggerated degree anything like the impact of a foreign body, even of a drop of water, I fully expected it would be necessary to inhale some general anæsthetic, although I dreaded the possible ill-effects of the vomiting and retching which either ether or chloroform might occasion. I had heard, of course, of the employment of cocaine in order to annul sensation during the removal of foreign bodies from the surface of the eyeball and in other slight operations, but never for one moment expected that it would suffice for the extraction of cataract in a hypersensitive individual like myself. The doctor, however, assured me that I should not feel it, and, to my great surprise, I found that this statement was literally true. The solution of cocaine was applied to my eye three times at intervals of five minutes before the operation, and each step of the operation was explained to me by Dr. Taylor as it was successively accomplished; the preliminary incision was completed without pain, as was also the excision of a small portion of the iris made in the upward direction—a satisfactory answer it appears to me to the query, Does cocaine affect deep-seated parts?

I can truthfully affirm that the whole affair was painless, that the cataract was removed without pain, that I have had very little pain or discomfort since, and can now, little more than a fortnight after the operation, see objects distinctly, make out words of small print, and am improving every day.

You have had satisfactory evidence of the value of cocaine before, but I venture to think none so conclusive as this which I have now to offer.

I am, Sir, your obedient servant,

Staindrop, Darlington. WM. COPELAND, M.R.C.S.

THE PROSECUTION OF IRREGULAR PRACTITIONERS.

To the Editor of THE LANCET.

SIR,—It is instructive, after reading the opening speech of Sir H. Acland *in re* the punitive powers of the General Medical Council, to turn to the daily papers to see how well the Incorporated Law Society protects the interests of solicitors. Hardly a day passes without one finding that a prosecution of some unqualified legal practitioner has been

undertaken by that body, or that some black sheep in the profession has been "struck off the rolls." As the case appears in the daily press, the public hears of it, and is instructed thereby. Contrast this with what happens at the General Medical Council: the proceedings are secret, and the result only appears in the medical press, and no further steps are taken to see that the man struck off the Register does not still practise. No prosecution for unqualified practising has been ever attempted by our ruling authority, and I do not suppose the general public knows of its existence. Our corporations or universities do not help us in the least to keep up the honour and dignity of our profession. Something ought to be done, or else men will soon ask, What is the advantage of being qualified at all? What with unqualified men, prescribing chemists, prescribing dentists, bone-setters, and the large race of spinsters, parsons, and others who do not hesitate to advise their friends to try their pet quack remedy, it is difficult to see the special advantages our expensive training has given us when a living has to be made for ourselves and those dependent upon us. It is a temptation to younger men to fling aside professional dignity when they find that fortunes are made by their unqualified opponents, who by their humbug and blatant advertisements attract the "custom" which the "gentleman" and the "educated" man loses because he has some love for the honour and dignity of his profession. We have a right to demand that we should be protected from this long-continued abuse, and that the public should be protected as well. If any further powers are needed by the General Medical Council—the General Meddling Council is a better name for it,—these powers can easily be obtained from Parliament. At present all we have to show for our registration fee is a single copy of the Register given (?) at registration. Other cases occur to me, but I must not take up more of your valuable space.

I am, Sir, yours truly,

Canonbury-place, May 19th, 1885. A. GEORGE BATEMAN.

"SUCCESSFUL ŒSOPHAGOTOMY FOR REMOVAL OF A HALFPENNY SWALLOWED THREE YEARS PREVIOUSLY."

To the Editor of THE LANCET.

SIR,—In your notice of the above case in THE LANCET of Saturday last you say that the child was treated for asthma, and that the swallowing of the halfpenny was lost sight of until this fact was elicited from the history of the patient given at the hospital a few weeks ago. As the little fellow was under my treatment for some months before he went, for the last time, to the Queen's Hospital, I beg leave to give the following short history of the case as far as it fell under my observation:—The child was first brought to me on Sept. 9th of last year, and at this time I learned from his mother that he had swallowed a halfpenny on Christmas Day, 1882. According to the mother's statement he was taken immediately to a surgeon, but as at the time the symptoms were not very urgent, no attempt was made to extract the coin. Subsequently he was taken twice to the Children's Hospital and once to the Queen's. According to the papers given to the mother he was treated at these institutions for bronchitis and asthma, and on the second occasion of her going to the Children's Hospital she was even ridiculed for supposing that the halfpenny had anything to do with the chest symptoms. When he came to me there was great difficulty both in breathing and swallowing, and much emaciation. Loud mucous râles were heard all over the chest, and there was impairment of resonance on the right side. I then gave it as my opinion that the halfpenny was impacted in the œsophagus, and by its pressure on the posterior wall of the trachea had led to the dyspnœa, and probably to some more serious change in the lung itself. The mother was unwilling at the time to take him again to the hospital, especially as I told her that in my opinion any attempt at removal would prove injurious, and perhaps fatal. In this I am glad to find that I was wrong, and that the skill of the surgeon has triumphed where the care of the physician was unavailing. I have only to add that while under my care he was treated with Parrish's syrup and cod-liver oil, and that for a time he improved greatly.

I am, Sir, yours obediently,

Birmingham, May, 1885. WILLIAM J. NOTLEY, M.D.

MANCHESTER.

(From our own Correspondent.)

VICTORIA UNIVERSITY.

AT the last meeting of the Court of the Victoria University, several matters of interest to the profession, and especially to medical students, came up for consideration. On the recommendation of the Council, it was resolved that candidates for the B.A. degree may, if not required to present both Latin and Greek in their intermediate or final examination, present in lieu of one of these languages, either French or German at their preliminary examination. The proposed interchange between the intermediate B.Sc. examination (Faculty of Science), and the preliminary examination in science (Faculty of Medicine), was postponed for future consideration. The following resolution, affecting especially old students of Owens College, was adopted, viz.: That anyone qualified before this year shall be admitted to the intermediate and final examinations for the degree of M.B. without having to pass the entrance examination in arts, or the preliminary examination in science, provided they have complied as students with all other requirements. This will enable many men who were students of the College before the granting of the charter to obtain a degree in medicine by passing examinations in professional subjects only. In the report presented to the Court allusion was made to the great loss the College and the University had sustained in the death of Dr. Watson, whose death, after a lingering illness, was chronicled in your pages recently. By his death the College loses both its professor of anatomy and its dean, Dr. Watson having been appointed to the latter office on the resignation of Dr. Gamgee last year. The latter has again, *pro tem.*, taken up the duties of dean. Rumour is already busy with several names for the vacant post of professor of anatomy, amongst them Dr. A. Young, who would be a formidable competitor against any candidate, he having for many years been senior demonstrator in the dissecting room prior to holding his present posts at the Infirmary and at the Salford Hospital.

THE CONSUMPTION HOSPITAL.

At the recent annual meeting of the subscribers to the Hospital for Consumption a very energetic report was submitted. This, the only hospital in the midst of so dense a population for the treatment of consumption and diseases of the chest and throat, has long laboured under many disadvantages. The accommodation has for some time past been inadequate to its needs, the numbers of patients increasing greatly every year, numbering for the year ending 1884 no less than 3032. The accommodation for the in-patients has been so defective that the Committee have taken a building at Bowdon, situate outside the smoke of the city, and have adapted it for the reception of sixteen patients, which accommodation is ultimately to be increased to sixty beds as soon as the necessary funds are raised, the amount now required being some £10,000. The out-patient department is also to be reorganised and the staff increased by the addition of another assistant physician. The income last year was £865, whilst the estimated expenditure for the coming one is estimated at £1500 at least, so that increased support will have to be found if the work of this charity is to be carried on efficiently.

CONFERENCE ON HEALTH AND EDUCATION.

The Conference on Health and Education lately held here may be looked upon as having been very successful, although at one time it appeared likely that the whole project would fall through. Under the presidency of Lord Aberdare the meetings were well attended, and many able papers were read by specialists on the various subjects submitted for discussion. Of course "over-pressure" came in for the lion's share of attention, and on the first day a paper was read by Mr. H. E. Oakeley, Her Majesty's inspector, in which he sought to prove that this mischief had been much exaggerated, whilst Mr. James Newbold, on behalf of the Manchester teachers, read a paper on the opposite side, asserting that over-pressure did exist to a large extent in elementary schools, and the latter view was apparently in favour with the majority of the audience. It was stated by one of the physicians to the Children's Hospital that during the past few years chorea had been more common amongst children of school age, and appeared to be often due to extra

school work. Lord Aberdare, in summing up at the conclusion of the Conference, stated as his conviction that the charge of over-pressure existing to any large extent was not proven, and that under any system made for large numbers, if too rapidly followed, a small minority might be adversely affected.

THE SALFORD GUARDIANS AND THE MEDICAL SUPERINTENDENT.

The dispute which has for some time been going on between the Salford guardians and their medical superintendent at the Hope Hospital, and which culminated in the sending down an inspector from the Local Government Board to make inquiry respecting certain charges of neglect brought against the superintendent, has been settled in a satisfactory manner, the inspector reporting that in one or two minor points of discipline and refusal to answer certain questions put by the guardians the superintendent had erred, whilst the more grave charge of neglect was of such a character as could be settled by the guardians themselves, and did not call for the intervention of the Central Department. It is to be hoped that we have now heard the last of this unpleasant matter, which for some time has occupied attention here.

OUTBREAK OF SMALL-POX.

After some years of almost entire freedom from small-pox Manchester is at last suffering from an outbreak which at one time threatened to assume large proportions, as many as forty fresh cases having been reported in one week. Extra accommodation has had to be provided at the Monsall Hospital, and it has also been contemplated to use tents or marquees to meet the sudden emergency that has now arisen. To guard against the extension of the outbreak notices have been issued both by the Manchester and Salford health authorities urging revaccination.

THE CITY BOUNDARIES.

A Bill is now before Parliament for the extension of the city boundaries, by which several of the adjoining townships will be absorbed into the city. Practically they are as much part of Manchester as the city itself, and much of the ordinary municipal work is performed by Manchester—such as gas and water-supply, removal of infectious cases, &c.; and it is certain that in several of them the question of sewage disposal will shortly have to be grappled with, and this can be done by the corporation in a far more satisfactory manner than by the individual action of each local board. Notwithstanding this, one of the largest of these townships—viz., Newton Heath—has opposed the Bill, and will not, therefore, at present, be included within the city boundaries. It is in this township that a large number of cases of small-pox of the present outbreak is occurring.

NEW SOCIETIES.

The new Pathological Society has got well to work, and has had two very successful meetings. The proposed new Medical Society has not got further yet than the preliminary meeting, already noticed in your columns, and it is not unlikely that should the old society make some concessions as to the provision of a reading-room, &c., in a more central part of the city, further steps will for the present be postponed.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

THE COLLEGES SITE AT NEWCASTLE.

AT last this vexed question appears to have approached a settlement by the vote of the Town Council on Friday last, by which it was agreed to allow the Colleges of Medicine and of Physical Sciences sufficient land in an eligible position whereupon to erect suitable buildings adapted to the growing requirements of these institutions. The land had been granted at the price offered—namely, £10,000—by a very large majority of the Council; so that this fact in itself will have great weight with the Charity Commissioners, whose sanction is requisite to confirm the transfer. There is, however, some strong outside feeling still expressed against the sealing of the deeds.

NEWCASTLE INFIRMARY.

Some little time ago I told you that the weight of medical opinion here was against the continuance of the infirmary in its present objectionable situation. The governors, while admitting this, thought that the erection of a new building was inopportune, but met the difficulty by what was called a temporary enlargement. Everything mundane may of course be considered temporary, but this new extension has a very substantial appearance (at least in bricks and mortar); so that I venture to say the removal of the infirmary from its present position is postponed for a generation at least, while the evils complained of will continue to be felt more and more. Dr. Coley of this city has appeared in the field since I last wrote as a candidate for the vacant post of physician at the infirmary.

SERIOUS ACCIDENT TO CHILDREN.

A very serious and unusual accident occurred on the 13th inst. at Seaham Harbour, Durham, by which seven children received injuries so severe that one has since died, and the lives of the others are in jeopardy. The South Hetton coal line is worked to the shipping station at the harbour in the manner usually adopted in the north—viz., by a wire rope running over sheaves. By some means the rope attached to the laden waggons got off the pulleys at a curved part of the line, and bore against a garden railing where some children were playing; the rope, being then pulled in a straight line, caught the children and threw them into a confused heap. Fortunately, the rope soon ceased running, or it would have sawn them in pieces; as it was, they were found bound down and helpless, requiring considerable force for their extrication. Drs. Gibbon, Beatty, and Dillon were soon able to render assistance. Some of the little ones received severe fractures and contusions; and one, since dead, had both legs fractured, with injury to the back. An inquest has been held, and it would appear from the evidence that some wear or defect in the sheaves was the cause of the rope slipping off.

MEASLES AT JARROW.

The very severe epidemic of measles at Jarrow has induced the medical officer of health to request the Town Council to pay the resident practitioners the customary fee of 2*s.* 6*d.* each case for notification, the health officers stating that it would be of immense advantage in stamping out the disease to know where the cases were. An economic councillor proposed "one shilling" as sufficient, but he could get no one to support him.

Newcastle-on-Tyne, May 19th.

EDINBURGH.

(From our own Correspondent.)

THE UNIVERSITIES (SCOTLAND) BILL.

THE General Council Associations of Edinburgh and Glasgow Universities are leaving no stone unturned which may in any way further the object which has brought them into existence. A joint meeting of the London members of the two Associations was held on Saturday at the house of Dr. Chalmers, at which several prominent graduates of both Universities were present. Sir J. Risdon Bennett presided. The meeting was called to adopt measures which may lead to the amendment of the Bill in consonance with the views of the Associations as already defined at their separate meetings. The following resolution, proposed by Dr. Crichton Browne, and seconded by Dr. Chalmers, was unanimously carried: "That this meeting of the London committees of the Associations of the General Councils of Edinburgh and Glasgow Universities is agreed that no Bill for the better administration of the Scottish Universities will be satisfactory which does not provide (1) for a largely increased representation of the graduates in the University Court; (2) for the transference of the management of the funds of the University from the Senatus to the Court; (3) for an extension, under proper restrictions, of the system of extra-mural teaching." The meeting also adopted a resolution suggesting the formation of kindred Associations in the Universities of Aberdeen and St. Andrews.

VOLUNTEER AMBULANCE ORGANISATION.

The movement inaugurated last winter by Surgeon-Major Evatt amongst the students of the Edinburgh School has prospered in spite of many difficulties, and a very efficient ambulance corps has been formed. Its equipments are as yet imperfect, and it has not yet received that Government

recognition which was extended without hesitation to a similar corps recruited from the London hospitals; but, notwithstanding its present small resources and its lack of official encouragement, it bids fair to have a most prosperous career. When recent events necessitated the sudden calling out of a Volunteer regiment in Toronto, the men were accompanied to the front by a Volunteer ambulance corps and bearer companies, completely equipped and thoroughly disciplined; and this corps played a most useful part in the arduous campaign which General Midleton has just brought to a successful issue. Very few of the Volunteer regiments in the old country have any complete provision in this respect, and although on all hands such accompaniments are recognised as essential to the welfare of a regiment in war time, there seems to be a strange obliviousness to the fact that the proper time for their formation and development is in time of peace.

CONCERT AT THE ROYAL INFIRMARY.

A very successful amateur concert was given for the benefit of the patients of the Royal Infirmary on Saturday evening. The large operating theatre made a fairly convenient concert hall, and was well filled by patients and their friends. The audience seemed much pleased with the entertainment which had been provided for them, and warmly expressed their thanks to the performers at the close of the proceedings.

Edinburgh, May.

PARIS.

(From our Paris Correspondent.)

THE TREATMENT OF CHRONIC EMPYEMA BY ESTLANDER'S OPERATION.

CHARLES EDWARD CORMACK, son of the late Sir John Rose Cormack, has just taken his degree of Doctor of Medicine of the Faculty of Paris, the subject of his inaugural thesis being "Traitement de l'Empyème Chronique par l'Opération d'Estlander." The thesis is an octavo volume of 140 pages, in which is given a very good historical account of the various operative measures that have been employed from the time of Hippocrates to the present in the treatment of empyema, the operation known as Estlander's being, according to the author, the only curative treatment for this affection, particularly when accompanied by fistulæ, which, however, should be resorted to only when all other means have failed. The author gives a full description of Estlander's operation; and the work, which contains seven photographic plates, is interspersed with cases illustrative of the advantages of this method over all the others hitherto employed. The thesis winds up with the following conclusions:—1. Against the suppuration and fistula which follow purulent pleurisy, Estlander's operation is the only measure which responds to the indications of treatment of this affection. 2. It is indicated when all other means have failed. 3. One of the strongest contra-indications, and one of the causes of the failure of the operation, is the great extent of the suppurating cavity. 4. Tuberculosis, when not far advanced, is not a contra-indication of the operation; the evolution of tuberculosis may be slackened by early operative intervention. 5. The extent of the costal resection should be proportional to that of the cavity which it is proposed to fill. This resection should always be largely effected, the non-success of the operations hitherto performed being due to insufficient resection.

CAFFEINE AS A LOCAL ANÆSTHETIC.

Dr. Terrier, guided by the chemical analogy that exists between cocaine and caffeine, experimented with the latter on a dog, and obtained complete anæsthesia of the cornea. The next day, a workman presented himself at the hospital complaining of great pain in the eye caused by a foreign body in the cornea. Two drops of a 2·5 per cent. solution of the hydrochlorate of caffeine were instilled into the eye, which so completely anæsthetised the organ that the patient felt no pain whatever during the removal of the foreign body. From these two examples Dr. Terrier declared at a recent meeting of the Société de Chirurgie that he considered himself justified in concluding that the hydrochlorate of caffeine is as much an anæsthetic as the hydrochlorate of cocaine, and that the one may be substituted for the other in all cases where a local anæsthetic is required. This accords with the experience of Dr. Fauvel, the well-known laryngologist, who considers this possibilty of substitution an immense advantage in a pecuniary point of view, as the price of cocaine is still very high, being sold in this country at thirty francs per gramme, whereas the caffeine is sold at two francs for the same quantity. Dr. Fauvel employs the caffeine, to the almost entire exclusion of cocaine, in all pharyngo-laryngeal affections, in a 2 per cent. solution, a few drops of which are added to a little water, and the affected parts painted with the mixture, which affords almost instantaneous relief. The painting must of course be repeated several times during the day, in order to keep up the analgetic properties of the drug. Dr. Laborde, however, does not consider caffeine a proper substitute for cocaine, as he had tried some experiments with the former alkaloid as well as with theine, and could not obtain the least anæsthesia of the cornea, even with a concentrated solution. Prof. Panas observed lately in his practice that a solution of cocaine instilled into the eye dilated the pupil as much as atropine, which was contrary to what he had noticed before. In seeking the cause of this difference of action, Prof. Panas discovered that the cocaine he then employed was not like that he was in the habit of using. On further inquiry, he found that the substance in question was the product of the second maceration of coca leaves, and contained a large proportion of hygrine, which possesses mydriatic properties as marked as those of atropine, without the anæsthetic property of cocaine; hence the number of failures with some samples of the latter drug.

CRITICAL CONDITION OF VICTOR HUGO.

Victor Hugo is lying most dangerously ill from congestion of the lungs complicated with an affection of the heart. He has been ailing more or less for the last three or four months, and it was on Thursday last that he was seized with the attack under which he is now labouring. On that day, he gave a dinner to his friends in honour of M. de Lesseps, and appeared in good spirits. It was, however, observed that he was rather paler than usual. The reception was over by eleven o'clock, and in the course of the night Victor Hugo felt himself seriously indisposed. Dr. Emile Allix, the usual medical attendant of the illustrious poet, was immediately sent for, and he noticed that the movements of the heart were very slow and feeble. With the use of stimulants the patient seemed to revive, and during the following day nothing particular occurred to cause alarm, but in the evening his condition became aggravated, and early next day Professor Germain Sée was called in, who recognised symptoms of pulmonary congestion and heart disease. The patient who, from his advanced age, is evidently in a very serious condition, is yet in full possession of his mental faculties. He has a great aversion to medicine, and refuses to take it when offered to him. The bulletin of this morning, signed by Drs. Vulpian, Germain Sée, and Emile Allix, announces that though the prostration of the patient is very great, there yet seems to be a slight tendency to amelioration.

Paris, May 20th.

MEDICAL NOTES IN PARLIAMENT.

Lunacy Acts Amendment Bill.

ON the 19th inst. the House of Lords went into committee on this Bill, when a series of amendments, proposed by the Lord Chancellor, of which notice had been given and which occupied thirteen pages, were inserted, and the Bill was ordered to be printed.

The English Registration Bill.

During the consideration in committee of this Bill, Lord Balfour of Burleigh moved the rejection of the clause which provides that the receipt of parochial medical relief shall not disqualify a voter; and after some discussion, in which the Lord Chancellor, the Marquis of Salisbury, the Earl of Belmore, Lord Fitzgerald, the Duke of Richmond, and the Earl of Kimberley took part, the clause was struck out on a division by 72 against 47.

The House of Commons on the 20th inst., after a somewhat lengthy discussion, agreed to the Lords' amendment by 107 to 66 votes.

Irish District Lunatic Asylums.

On the 15th inst., in reply to Mr. Corbet—who asked the Irish Secretary whether it was true, as recorded in the last Parliamentary report, that 318 of the persons appointed as governors of district asylums never attended a board meeting during the year 1883; whether these persons consisted chiefly of noblemen, deputy lieutenants, and justices of the peace, and were appointed by the Lord-Lieutenant under statute; whether the duties devolving on governors included sanctioning the admission of patients, taking contracts, and general fiscal control; and whether some system could not be devised under which so large a number of the governors would not absent themselves from their duties—Mr. Campbell-Bannerman said that, assuming the figures to be correct, it must be borne in mind that these asylum boards are very large, and that the object of having them so large is to secure, not that all the members should always attend, but that there shall always be a quorum for the transaction of the necessary business. He was not aware of any complaints of failure in this respect, and it is always in the power of the Lord-Lieutenant to strengthen any board when that is deemed necessary.

Small-pox in Manchester.

In reply to a question by Mr. Leahy, relative to the removal of the 5th Dragoon Guards from Manchester to Newbridge, the Marquis of Hartington stated that the strictest orders have been given that no civilians shall be permitted to accompany the regiment to Ireland in any capacity whatever, unless they are medically examined and certified by the medical officer to be free from small-pox or the danger of conveying it to others.

Assistant Paymasters and Surgeons.

On the 21st inst. Mr. Borlase asked the Secretary to the Admiralty if it was a fact that the assistant paymaster in H.M.S. *Devastation*, who had nearly sixteen years' seniority in that rank, was thirty-seven years of age, and had been twenty years in Her Majesty's Service, was still junior in relative rank to the surgeon of that ship, who had been only fifteen months in the service, and was about twenty-three years of age; and, if so, if it was the intention of the Admiralty to allow so great an anomaly to continue. Sir T. Brassey said the figures given by the hon. member were approximately correct. The age of the surgeon on the *Devastation* was some three years more than stated in the question. No material change was contemplated with reference to relative rank of paymasters and surgeons. It was anticipated that the promotion of assistant paymasters would become more rapid in the future; but medical officers who could only enter the service on the completion of a long and expensive course of professional training would always be in a position to claim superior relative rank.

Obituary.

WILLIAM WATKINSON MOXHAY, M.R.C.S., L.S.A.

READING has just lost another prominent member of the profession by the death of Mr. Moxhay, which took place on Wednesday, the 20th inst., at the comparatively early age of sixty-three. He was educated at Guy's, and was formerly assistant accoucheur at St. Thomas's. His chest at this time was supposed to be somewhat delicate, and he went to sea in the Royal Navy for several years, which entirely invigorated him. He was then made house-surgeon at the Royal Berkshire Hospital, and was subsequently elected surgeon to the hospital, which position he held up to the time of his death. He was an expert operator and a thoroughly sound practitioner. His funeral took place on Saturday, just one month from the time of the funeral of his late colleague, Dr. Wells. Many thousand persons were present, all his colleagues, and most of the local medical men, as well as the governors, officials, and nurses of the hospital, among whom he was much beloved. He was a prominent Freemason, and the members of his lodge attended in large numbers at his funeral, as well as those of the lodge of Oddfellows to which he was surgeon.

SETH B. WATSON, M.D.

WE regret to announce the death of Dr. Watson, honorary physician to the Radcliffe Infirmary, Oxford, in his seventy-fifth year, which took place on the 15th instant. His horse having stumbled, he was thrown to the ground, and died immediately. Educated at St. John's College, Oxford, and afterwards at King's College, London, and St. George's Hospital, Dr. Watson early became physician to the Radcliffe Infirmary. Independent in thought, he from the first opposed the then universal practice of bleeding. Naturally diffident and retiring, he did not publish his opinions. Alone in his views at that time, he naturally met with much opposition, and it was even suggested that he ought to resign his appointment. He, however, lived to see his views generally accepted. Later in life Dr. Watson published a work on "The Cholera at Malta." In this he was indebted for much local information to his friend, Sir John Stoddart, formerly judge at that place. Later still he edited and published Coleridge's "Theory of Life," which met with a rapid sale. Coleridge lived with Mr. Gillman at Highgate, and after Mr. Gillman's death a manuscript was found which Dr. Watson at once identified as the work of Coleridge. It will shortly be republished, with other works of Coleridge, by Messrs. George Bell and Sons. An elegant and accomplished classical scholar, with refined and sensitive feelings, Dr. Watson will be long remembered by those who knew him best as a person of no ordinary intellectual power and a sincere friend.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — The following candidates passed the Primary Examination in Anatomy and Physiology for the diploma of Member of the College at a meeting of the Board of Examiners on the 11th inst.:—

ANATOMY AND PHYSIOLOGY.—G. Alexander Sutherland, Edward H. Ezard, Alexander Primroses, John McLachlan, F. Miller Johnson, F. Wyville Thomson, Charles W. Hayward, Robert Jardine, Edward W. W. Carlier, Percy Wardle, and Alfred Mann, Edinburgh; Sydney M. Whitaker, Walter Thompson, William Summerskill and George Handcock, Leeds; C. Louis Williams and Robert A. Beaver, Liverpool; Basil R. T. Trevelyan, Bristol; Edward C. Masser, Birmingham; Charles J. Whitley, Guy's; N. C. Ridley, St. Mary's.

ANATOMY ONLY.—Albert W. Gray, Birmingham; James B. Jamerson and Edgar N. Darwent, Edinburgh; Henry Hamilton, Bristol.

PHYSIOLOGY ONLY.—Richard F. Shepherd and Alfred Borradaile, Edinburgh; Benjamin P. Johnson, Edmund Copper and W. Courter Costine, Liverpool; Lock Macdona, Manchester and Liverpool; John Fullard, S. Vere Duncan, King's College.

(Candidates referred for three months, 3.)

Passed on the 12th inst.:—

ANATOMY AND PHYSIOLOGY.—Edward Molyneux, Liverpool; W. Aldren Turner, M. L. Trechmann, Arthur E. Barlow, J. Francis Haswell, Charles P. Kennard, Frank A. Juckes, Johnston H. Acheson, Ralph H. Maddox, F. R. B. Hinde, J. Hill Convers, James Musgrave, H. Lloydd Roberts, J. C. Dunlop, Ernest C. S. Daniel, and W. Stacy Colman, Edinburgh; Charles P. Tanner and H. N. Cappe, University College; George A. Heberden, St. George's; H. T. Dudley Ryder, King's College; Adolph Bronner, Heidelberg; F. R. W. Brown, London; E. Marsh, Birmingham; W. Henry Hillyer, St. Thomas's.

ANATOMY ONLY.—D. W. Liebstein, A. L. Fuller, and A. Clement Gomez, University College; Hugh C. Addison and Benjamin J. E. Wright, King's College; E. O. Kingdon, St. Mary's; Thomas Walcot, Edinburgh; Sidney H. Badcock, St. Bartholomew's.

(Candidates referred for three months, 2; six months, 2.)

Passed on the 13th inst.:—

ANATOMY AND PHYSIOLOGY.—R. L. Cheatle, Francis H. Roberts, H. N. Baron, and Henry Smith, King's College; A. D. P. Hodges, London; Albert M. Sully, F. Barber Wells, Harold Dane, Charles T. Holland, Samuel Bullivant, and John E. Dyer, University College; James R. Anderson and E. L. Puddicombe, St. George's; Thomas Robinson and John Arthur Francis, St. Bartholomew's; W. L. Symes and W. H. Dolamore, St. Mary's; W. M. Helsham, St. Thomas's; A. G. W. Bowen, Guy's.

ANATOMY ONLY.—Henry J. Tizard, St. George's; Alfred W. Waller, St. Thomas's; Alfred R. Sieveking, St. Mary's.

PHYSIOLOGY ONLY.—A. H. Vassie, Edinburgh; C. H. Clayton, University College; H. A. Bray, King's College; C. Montague Leakey and Edmund D. Chabôt, London.

(Candidates referred for three months, 4; six months, 5.)

Passed on the 14th inst.:—

ANATOMY AND PHYSIOLOGY.—Francis H. Cooke, H. Cleveland Smith, H. F. C. Marvin, and Richard L. Roberts, University College; Arnold Caddy, C. Mackinnon Clark, St. George's Hospital; J. A. Pope Lockett, London; Arthur J. De Butts, A. Stephen Hanson, and Robert W. Senior, King's College.

ANATOMY ONLY.—Walter Watkins, St. Bartholomew's; F. Maurice House, Pieter C. De Wet, and H. Bowman Shepperd, St. Thomas's; J. Percival Westrup, King's College.

PHYSIOLOGY ONLY.—J. Valek Albert, St. George's; Philip J. Le Riche, University College; George H. Metcalf, Guy's; Frederick C. Auger, Charing-cross.

(Candidates referred for three months, 3; six months, 4.)

Passed on the 18th inst:—

ANATOMY AND PHYSIOLOGY.—Thomas F. Parry, Liverpool; Charles F. Marshall and G. E. Fryer, Manchester; G. Pirrie Boddie, Edinburgh; Ernest W. Evans, St. Bartholomew's; Reginald W. Bishop, C. Ramsden Salisbury, and J. V. B. Twamley, Leeds; J. Patrick Howe, Dublin; G. E. Roberts, University College; C. E. Matthews, Cambridge; J. Frederick Twist, Birmingham.

ANATOMY ONLY.—William C. Burt, R. Wynne Rouw, G. W. A. Mitchell, and F. Stanley Wood, Guy's; George S. Ridgley, E. A. T. Harris, and Edward Carnall, St. Bartholomew's; A. Pierrefield Walters, University College; James Magauran, Dublin; Walter Mitchell, Sheffield; John W. Smith, Aberdeen; W. James Watkins, Bristol; Rhodes Hebblethwaite, Leeds; J. Edmund Syme, Edinburgh.

PHYSIOLOGY ONLY.—Edwin Lambert, Leeds; Sidney E. Rossiter, St. Bartholomew's.

(Candidates referred for three months, 5; six months, 1.)

Passed on the 19th inst.:—

ANATOMY AND PHYSIOLOGY.—A. Evelyn O'Leary, Bristol; W. H. F. Noble and C. Alexander Ducket, University College; Alfred R. Nuttall, Alexander Harris, and Frederick O'Kinealy, St. Bartholomew's; Harry Corner and Digby F. B. Cotes, London; Harold A. Kidd, St. Mary's; Harford N. Edwards, Guy's; Sorabji M. Kaka, Bombay; H. Danvers, St. Thomas's; W. J. B. Carter, St. George's.

ANATOMY ONLY.—C. D. H. Rygate and E. E. P. Tindall, Guy's; Charles T. Bowen, St. Bartholomew's; J. T. R. Miller, St. Thomas's.

PHYSIOLOGY ONLY.—H. F. Devis, Bristol; J. D. H. Smyth, St. Mary's; James Bamfylde, Guy's.

Passed on the 20th inst.:—

ANATOMY AND PHYSIOLOGY.—J. Milles Thorne, R. Grieve Hicks, Percy W. Streatfield, and James W. Smith, Guy's Hospital; William Halley and Reymond E. Fasnacht, Charing-cross; P. Tranto, Carpenter, St. Mary's; E. Ashcroft Tudman, University College; E. S. Farquharson, London.

ANATOMY ONLY.—C. R. H. Buckley, C. Glover Thorp, and John P. Pendlebury, Guy's; Frentz W. Guiselin, W. G. R. Farquharson, St. Mary's; W. H. Hand, St. George's; Frederic W. Barton, University College.

PHYSIOLOGY ONLY.—Henry E. Belcher and H. H. Browne, University College; W. Fellowes Fisher and F. Stephen Reed, London; T. Hubbar Leggett and Ernest Loveday, St. Bartholomew's; Robert Stuart, St. George's; Frank Osborne, St. Thomas's; David T. Jones and Courtenay J. Fuller, Guy's; J. Ellison Finnie, Liverpool.

(Candidates referred for three months, 3; six months, 2.)

At the last Anatomical and Physiological Examination for the diploma of Membership of the College, 139 candidates presented themselves, 56 of whom, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their studies for three and some to six months; 21 were referred in both Anatomy and Physiology, 14 in Anatomy only, and 21 in Physiology.

COLLEGE LECTURES.—The annual course of lectures will be resumed on Monday, June 1st., at 4 P.M., by Professor Edward Lund, F.R.C.S.E., who will deliver three lectures on "Some of the Injuries and Diseases of the Head and Neck, Genito-Urinary Organs, and Rectum." Professor John Wood, F.R.S., will deliver three lectures on "Hernia and its Radical Cure," commencing on Monday, June 8th. Mr. Edward Albert Schäfer, M.R.C.S., F.R.S., will deliver three lectures on "Secretion," commencing on Monday, June 15th. Professor Charles Stewart, M.R.C.S. (Erasmus Wilson Lecturer), will conclude the course by delivering three lectures on "Inflammation," commencing on Monday, June 22nd.

The Library of the College is closed to-day (Friday), and will also be closed on Friday the 29th inst., for the purposes of the Fellowship Examinations.

UNIVERSITY OF CAMBRIDGE.—The following have been examined and approved at Cambridge University for the degree of Bachelor of Surgery:—

Andrews, John's.	Lynch, Caius.
Haig, Trinity.	Nichol, Caius.

ROYAL UNIVERSITY OF IRELAND.—The undermentioned have passed the examination for the degree of Master in Surgery:—

John Barron, W. J. Cowden, G. B. Crawford, M. H. Curtin, T. W. Dwyer, R. E. Foott, W. R. Hawkins, J. McAleer, Michael McCarthy, W. B. R. McWha, G. F. H. Marks, John Meenan, John Moore, James Musgrave, James P. O'Byrne, Robert Pettigrew, E. L. Pooler, John Ryan, William Sexton, Norman Smyth, Robert Thomson, F. J. Tresilian, J. J. Walsh, M. J. Whitty.

The following have obtained the degree of Master in Obstetrics:—

Maurice Connery, Alexander Corry, M. H. Hannigan, Daniel Hennessy, Michael McCarthy, Morgan McSwiney, W. B. McWha, Robert Petticrew, John Ryan, William Sexton, F. J. Tresilian.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 7th inst.:—

Tyndall, Francis, M.R.C.S., Liverpool School of Medicine.

Passed on the 14th:—

Dearden, Wm. Francis, M.R.C.S., Manchester School of Medicine.
Creighton, Edward, St. Thomas's Hospital.
Dobson, Leonard Charles Talbot, St. Bartholomew's Hospital.
Hall, Thomas Godfrey, Leeds School of Medicine.

THE Princess of Wales has consented to act as President of the Ladies' Sanitary Association in Dublin.

THE annual dinner in connexion with the Pharmaceutical Society of Great Britain was held on the 19th inst.

ON Wednesday night an outbreak of fire took place in St. Mary's Hospital, Cambridge-place, but was speedily extinguished.

GERMAN HOSPITAL.—The Queen has presented this Hospital with a donation of £100 as an addition to the collection made at the anniversary festival held on the 6th inst.

AT the sixth general meeting this session of the Hospitals Association on the 20th inst., Miss Louisa Twining read a paper entitled "Thoughts on the Diet of Nurses in Hospitals and Infirmaries."

AT the adjourned inquest on the 15th inst. touching the death of Dr. Charles Alworthy, of Toft Hill, near Darlington, which occurred on the 23rd ult., the jury returned a verdict of death from natural causes.

CHARING-CROSS HOSPITAL.—The Duke of Edinburgh presided on Wednesday at the triennial festival, held at Willis's Rooms, in aid of the funds of this hospital, when subscriptions to the amount of nearly £7000 were announced as the result of the meeting.

ON the 16th inst. the Archbishop of Canterbury opened the new infirmary of the Croydon Union. The designs are for six pavilions, with 643 beds; but up to the present only four pavillons, with 435 beds, have been erected. The cost of the building is £101,000.

THE LEVÉE.—At the Levée held by the Prince of Wales on behalf of the Queen at St. James's Palace on the 11th inst., Surgeon E. West Symes, M.D., of the 2nd West York (Prince of Wales's Own) Yeomanry Cavalry, was presented by Lieutenant-Colonel Edwards.

GLASGOW WATER-SUPPLY.—A Bill has passed a committee of the House of Lords giving power to raise the level of Loch Katrine and Loch Arklet, with a view of providing additional and improved water-supply to the Glasgow district, at a cost of over a million sterling.

ON Wednesday last, in the presence of a goodly company of ladies and gentlemen, Sir Spencer Wells unveiled a medallion of the late Mr. Peter Squire in the Examiners' room of the Pharmaceutical Society, Bloomsbury-square, of which Society Mr. Squire was one of the founders.

UNIVERSITY OF BRUSSELS.—At the May examinations for the degree of M.D., eleven English candidates presented themselves, of whom the following five were successful:—William Budd, Herbert Fenton (distinction in Anatomy), Herbert Spencer (distinction in Medicine and Surgery), G. Walter Steeves, and Charles R. Walker.

A CONFERENCE was held at Canterbury on the 15th inst. between the various sanitary authorities of the district, to consider the best means to be adopted for dealing with an outbreak of cholera or other epidemic disease during the approaching summer. There being no infectious hospital in the district, it was resolved that hospital tents should be hired, and immediately on a case of disease being reported, isolation should be resorted to.

JUDGE ABDY ON MEDICAL CHARGES.—In an action brought by a medical man in the Colchester County Court the plaintiff's counsel said the amount claimed was £20 2s. Defendant had paid £8 8s. into court since the bill was delivered. The account began in 1879, and extended until 1882. The counsel for the defence said his client felt that he was being very harshly used by the plaintiff in consequence of the manner in which the action had been brought. A number of very unnecessary visits had been paid. His honour (Judge Abdy) said he was astonished at the moderation of the charges made by country medical

practitioners. He did not know any body of men who worked harder. The jury found for the plaintiff for the full amount claimed.

ST. BARTHOLOMEW'S HOSPITAL, ROCHESTER.—The whole of the brickwork on the north side of the hospital is now in course of repair, and stone windowsills are to be provided. The general sanitary condition of the building has been engaging the attention of the Board of Trustees for same time past; and it has now been decided to carry out some work in connexion with the present sanitary arrangements at considerable cost.

KING'S COLLEGE HOSPITAL.—The festival dinner in connexion with this institution was held on the 16th inst., the Duke of Cambridge, President of the hospital, in the chair. The number of in-patients received during 1884 was 2193, and of out-patients treated 15,103. The deficit in 1881 amounted to £8689; in 1882 it was reduced to £2576; in 1883 it was £2889; and last year it again rose to the large sum of £6668. During the evening subscriptions and donations amounting to £2229 were announced.

TRAINING SCHOOL AND HOME FOR NURSES.—An examination, written and *viva voce*, was held at the St. Marylebone New Infirmary, Notting-hill, on the 13th inst. Lectures and chemical teaching had been given by Mr. John R. Lunn, medical superintendent, Mr. Larder, assistant medical officer, and Mr. Clifford, dispenser, on Chemistry and Hygeia, and by Miss Wyld, lady superintendent of the Nurses' Home. The School for the Training of Nurses for the Sick Poor was opened on the 22nd of July, 1884, and is in connexion with the "Nightingale Fund."

FIFESHIRE MEDICAL ASSOCIATION. — The spring meeting of this Association was held at Dunfermline on the 1st inst. Dr. Dow, the president, read a paper on the Management of Habitual Drunkards, and Dr. Naysmith one on Practical Sanitation. Dr. Brakenridge exhibited a case of Elephantiasis Græcorum. A proposal by Dr. Moir to have a course of health lectures given in the principal towns in Fifeshire was heartily adopted. An able paper was also read by Dr. Turnbull in favour of the Scottish legal system of sending lunatics to asylums.

AT the third international conference of the Societies of the Red Cross, held last year in Geneva, the Empress of Germany offered 5000 francs and a gold medal as a prize for the best model of a soldiers' barrack and field hospital. The barrack must be large enough to contain twelve beds, easy of transportation, made with interchangeable parts, and capable of being taken down and reconstructed. The designs are to be sent to Antwerp by September 1st, 1885, when a committee will decide on their respective merits.

THE HUNTERIAN MUSEUM.—A special meeting of the trustees of the Hunterian Collection was held at the Royal College of Surgeons on the 15th inst. to elect four trustees in the vacancies occasioned by the decease of Dr. Allen Thomson, of the Duke of Buccleuch, and Mr. Cæsar H. Hawkins, and by the resignation of Mr. William Hunter Baillie, when the following gentlemen were respectively elected to fill such vacancies:— Professor H. H. Flower, LL.D., F.R.S., the late Conservator of the Museum; Lord Wolsingham; Sir James Paget, Bart., LL.D., F.R.S., late President of the College; and Mr. Wm. Hunter Baillie, jun.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BABST, C. T. U., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer of Health to the Willington-on-Tyne District, vice C. W. C. Fletcher, M.R.C.S., L.R.C.P., resigned.

CHILDE, C. P., M.R.C.S., has been appointed Assistant House-Accoucheur to King's College Hospital.

CRABB, JAMES, M.D., C.M.Ed., has been appointed Medical Officer for the Upper Holloway West District of the Islington Union, vice Cowen.

DAVIES, HOWARD, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Workhouse, Pontypridd Union, vice Hopkins, deceased.

EAST, C. H., L.S.A.Lond., has been appointed Physician's Assistant to King's College Hospital.

EASTON, THOMAS, M.A., M.B.Ed., has been appointed Medical Officer to the Wigtownshire Combination Poorhouse; and Medical Officer to the Parochial Board of Kirkcolm, and to the Corsewall Lighthouse.

GRAY, J. P., M.R.C.S., L.S.A.Lond., has been appointed Ophthalmic Clinical Assistant to King's College Hospital.

GRIFFIN, JAMES, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Cropredy District of the Banbury Union, vice Thompson, resigned.

HARRIES, J. F., M.R.C.S., has been appointed House-Surgeon to King's College Hospital.

HUGHES, E. A., M.R.C.S., L.R.C.P., has been appointed Physician-Accoucheur's Assistant to King's College Hospital.

JEFFREE, F., M.R.C.S., has been appointed House-Surgeon to King's College Hospital.

JENKINS, JENKIN, L.F.P.S.Glas., has been appointed Medical Officer for the Pontypridd District of the Pontypridd Union, vice Hopkins, deceased.

KEALY, JOSEPH PATRICK, L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer to the Gulgong Hospital, New South Wales.

KILHAM, CHARLES SPEIGHT, L.R.C.P.Lond., M.R.C.S., L.S.A.Lond., has been appointed Assistant Medical Officer to the Workhouse, Sheffield Union.

LEWIS, P. G., L.S.A.Lond., has been appointed Assistant House-Physician to King's College Hospital.

MCDOUGALL, AYMER ROBERT, M.B., C.M.Ed., M.R.C.S., has been appointed Honorary Surgeon to the Chesterfield and North Derbyshire Hospital, vice Foulds, deceased.

PADDISON, EDMUND HOWARD, M.D.Lond., M.R.C.S., has been appointed Assistant Medical Officer to the City of London Lunatic Asylum, Stone, vice Mercier, resigned.

PRIESTLEY, R. C., M.R.C.S., has been appointed House-Surgeon to King's College Hospital.

SELLICK, J. HENDERSON, M.R.C.S., has been appointed House-Surgeon to the North-West London Hospital, Kentish-town-road.

SUTHERLAND, JOHN R., L.R.C.S.Ed., has been appointed Medical Officer for the Rainton District of the Houghton-le-Spring Union, vice Jackson.

VACHELL, HERBERT REDWOOD, M.D., M.R.C.S., L.S.A.Lond., has been appointed Out-patient Medical Officer to the Glamorganshire and Monmouthshire Infirmary, Cardiff, vice Thomas Wallace, M.D., appointed Surgeon.

VIOLETTE, WILLIAM BRADLEY, M.B., C.M.Glas., has been appointed Government Medical Officer and Vaccinator for the District of the Lower Richmond River, New South Wales.

Births, Marriages, and Deaths.

BIRTHS.

BOTHAMLEY.—On the 13th inst., at Cadogan-terrace, Victoria-park, the wife of W. P. Bothamley, M.R.C.S., of a son.

DREW.—On the 20th inst., at Saville House, Buntingford, Hertfordshire, the wife of J. Bowerman Drew, F.R.C.P.S. & L.M., of a daughter.

FLINT.—On the 14th inst., at Westgate Lodge, Westgate-on-Sea, the wife of Arthur Flint, M.D., of a daughter.

HOLTHOUSE.—On the 15th inst., at Reigate, the wife of Edwin Hermus Holthouse, F.R.C.S., of a son.

JOYNT.—On the 25th ult., at Hanover-street, Kingston, Jamaica, the wife of Surgeon-Major H. W. Joynt, Army Medical Staff, of a daughter.

MARRIAGE.

FOLEY—TWEDDLE.—On the 14th inst., at St. Leonards, Streatham, Charles N. Foley, M.R.C.S., to Mary Elizabeth (May) Tweddle, daughter of the late Edward Tweddle, of Norwood, S.E.

DEATHS.

ALLEN.—On the 15th inst., at Ardleigh Lodge, Romford, very suddenly, William Edward Allen, F.R.C.S., Brigade-Surgeon, Bengal Army (retired), aged 50.

BARNES.—On the 13th inst., at 6, Portland-square, Carlisle, Dorothy, younger daughter of Henry Barnes, M.D., F.R.S.E., aged 1 year and 4 months.

COLEBROOKE. — On the 19th inst., at Brightlands, Southborough, Tunbridge Wells, Henry Colebrooke, M.D., aged 70.

CREE.—On the 15th inst., on board the steamship *Dorunda*, on his way home from Queensland, Percy Kinburn Cree, M.R.C.S. & L.S.A.Lond., Surgeon R.N., aged 29.

GRAVES.—On the 14th inst., at Canning-place, Kensington-gate, John Stewart Graves, Deputy Inspector-General of Army Hospitals, late Surgeon of the 4th Light Dragoons, and for many years Surgeon at the Tower of London.

LEE.—On the 12th inst., at Ashbourne, Derbyshire, John Lee, M.D., aged 81.

MOXHAY.—On the 13th inst., at his residence, London-street, Reading, William Watkinson Moxhay, M.R.C.S., aged 63.

OLDMAN.—On the 16th inst., at Huntingdon, John Oldman, M.R.C.S., L.S.A.Lond., Surgeon-Major, 5th Battalion King's Royal Rifle Corps, the second son of the late Thomas Oldman, Esq., of Gainsborough, Lincolnshire, aged 48.

PACKMAN. — On the 11th inst., at Anerley, John Daniel Vittoria Packman, late Surgeon, H.E.I.C.S., aged 71.

PRIEST.—On the 13th inst., at Waltham Abbey, Essex, Arthur Priest, M.R.C.S., L.R.C.P.Ed., aged 66.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, May 21st, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
May 15	29·98	N.W.	50	45	99	62	43	...	Cloudy
,, 16	29·83	W.	53	47	103	61	45	...	Cloudy
,, 17	29·75	W.	51	47	95	57	44	·03	Cloudy
,, 18	29·89	N.W.	48	43	95	58	41	·15	Cloudy
,, 19	30·10	W.	50	45	85	57	43	·02	Hazy
,, 20	29·60	S.W.	50	47	...	...	47	·13	Raining
,, 21	29·39	W.	48	46	99	57	43	·16	Raining

Medical Diary for the ensuing Week.

Monday, May 25.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

Tuesday, May 26.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

ROYAL INSTITUTION.—3 P.M. Prof. Gamgee: Digestion and Nutrition.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8 P.M. Dr. Spencer Cobbold: Cases of Hæmaturia due to Bilharzia (illustrated by Specimens).—Dr. Angel Money: The Experimental Production of Chorea and other Results of Capillary Embolism.

Wednesday, May 27.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department: 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.

BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens as usual. Discussion on Dr. More Madden's paper on Fibro-myomata.

Thursday, May 28.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. C. Meymott Tidy: Poisons.

Friday, May 29.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—9 P.M. Mr. J. J. Coleman and Professor J. G. McKendrick: Mechanical Production of Cold, and Effects of Cold on Microphytes.

Saturday, May 30.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Rev. C. Taylor: "The Teaching of the Twelve Apostles," an Ancient Document, with Illustrations from the Talmud.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

"DRINKING PARAFFIN OIL."

To the Editor of THE LANCET.

SIR,—In THE LANCET of May 9th a case under the above heading is recorded by Mr. Willson. In January last I had to deal with a case where paraffin oil was accidentally swallowed, of which the following is a brief account.

J. H——, aged forty-three, stableman, took with him as usual to his work a tin flask containing tea. There was a similar flask in the stable, which contained about half a pint of paraffin oil. The two flasks having been carelessly placed near each other, he, feeling thirsty, picked up the wrong one, and swallowed nearly the whole of its contents. I saw him in the surgery about an hour afterwards; he was pale, and his face wore an anxious expression, more the result of mental distress than of actual suffering. There was a strong odour of paraffin oil in his breath. He complained of his throat feeling hot and dry, and of a sensation of warmth in the epigastrium, but there was neither pain nor tenderness on pressure. There was no nausea. The pupils were normal. The pulse was full and rapid, chiefly, I think, the result of excitement. An emetic of twenty grains of sulphate of zinc was given, and the vomiting encouraged by copious draughts of warm water. By these means the stomach was thoroughly emptied. The vomited matters consisted of water, a small quantity of viscid mucus, a little partially digested food, and about eight ounces of paraffin oil. For after-treatment I ordered demulcent drinks and a dose of castor oil. He went to work next morning, feeling none the worse for his experience of the day before, not even the slightest indication of gastric irritation having shown itself, although the paraffin oil must have been in contact with the mucous membrane of the stomach for at least an hour. There was very little food in the vomited matter, so that the mucous coat had not the protection from irritation which the abundant presence of food would have afforded.

I am, Sir, yours faithfully,

Hanwell, May 11th, 1885. T. C. M'CULLOCH.

Mr. U. M. Snyder.—1. Analogous cases are often met with, but are not easy to explain.—2. Bichat's work, of which the first edition was published in 1805, was translated into English by F. Gold, M.R.C.S.; but it has long been out of print. An American edition of this translation was published in Boston (Richardson and Lord) in 1827 (*vide* Index Catalogue of the Surgeon-General's Library, Washington).

W. D. D. Parks, B.A., L.K.Q.C.P.—Our correspondent's letter is written with almost invisible ink and on very thin paper; but, so far as we can make it out, we agree with him in very lightly esteeming the American degree of which he speaks.

Mr. J. Morth is referred to a general notice at the head of this column.

DR. TIBBITS' MEMORIAL FUND.

To the Editor of THE LANCET.

SIR,—Will you kindly allow me to acknowledge through THE LANCET, with many thanks, the following contributions received towards the fund being raised for the widow and nine children of the late Dr. E. T. Tibbits, Physician to the Bradford Infirmary, whose life was so suddenly brought to its close by an attack of acute pneumonia on April 14th last:—

Dr. Frederick Orton	...	£10	0	0	Dr. Saul	...	£2 2 0
Dr. G. Oliver ...	...	5	5	0	Saml. Knaggs, Esq.	...	2 2 0
W. E. Rawstorne, Esq.	...	5	0	0	H. E. Taylor, Esq.	...	1 1 0
Francis Vacher, Esq.	...	5	0	0	A. Locker, Esq. ...	...	1 1 0
Mr. and Mrs. Vertue Edwards ...	... ...	2	2	0	Dr. H. M. Tuckwell	...	1 1 0
					Dr. Wakley ...	...	2 2 0

Further contributions will be thankfully received by me, or by Mr. W. Maw, Secretary to the Bradford Infirmary.

I am, Sir, yours faithfully,

JOHN APPLEYARD, F.R.C.S., M.B.Lond.

1, Clifton-villas, Manningham, Bradford, Yorks, May 19th, 1885.

ORTHO-PHENOSULPHONIC ACID.

F. VIGIER, in a French pharmaceutical journal, states that of the three phenosulphonic acids the ortho-acid only has antiseptic and disinfecting properties in a marked degree. It is not so poisonous as phenol, as much as ten grammes having been taken in small doses in twenty-four hours without inconvenience. The subcutaneous injection of 2·8 grammes proved fatal to a dog. It appears to be a powerful antiseptic, although it is exceeded in this respect by its sodium salt.

Mr. E. A. Rodway.—The number is probably very small; but we have not the information at hand.

Microscope is perhaps a little hypercritical. Men are but children of a larger growth, and seem to like pictures. This is a pictorial age.

Mr. Walter Spencer will find a full description of the examinations for the degree in THE LANCET of April 18th last.

Mr. R. Thackray.—We cannot promise without seeing the paper.

A CASE OF INTUSSUSCEPTION.

To the Editor of THE LANCET.

SIR,—Cases of this kind are sufficiently rare to be worth recording, and the following may prove interesting enough to find a place in your columns.

On May 11th last a young married woman brought her baby, a girl aged six months, into my surgery at 6 P.M., saying that "she could not make the child out," as she had been constantly crying for two hours just after giving a sudden scream, and before this she was perfectly well. The child seemed pinched about the face, and was very restless; there was no feverishness or elevation of temperature, and I could not then decide what was the matter. I ordered her a little soothing medicine, and requested to know later on how she was. At 10 P.M. I was sent for, as the child seemed worse. On my arrival I was told that she had passed on two occasions a quantity of blood, which the mother showed me on her lap. I at once suspected that I had to deal with a case of intussusception, and ordered the child to have an enema, and prescribed two-drop doses of opium and five-drop doses of tincture of belladonna every two hours, with hot fomentations to the abdomen.—12th: The child was seen three times; she had passed a restless night, with fits of pain and straining, and vomiting of rather clear fluid; had not taken the breast. The enema had had no effect. There was now to be felt a decided hardness in the left iliac fossa, and the abdomen was somewhat swollen; no urine had been passed. The medicine had for the most part kept down. The enema was repeated twice. I passed my little finger up the rectum, but could detect nothing; this part of the bowel seemed quite free. Hot poultices were applied all day.—13th: The child was decidedly worse in every respect, and in the evening I managed to borrow after some difficulty a pair of bellows, and attaching to them a piece of indiarubber gas tubing, and to this the elastic nozzle of an enema syringe, I pumped up for about twenty seconds a quantity of air, and then left for the night, with orders to continue the medicine, and to wet the lips with milk and a little brandy.—14th: There was no relief to the child, and she seemed to be getting worse; so in the afternoon I had the bellows used again more vigorously and for a longer time, the nurse using them while I held the tube in the rectum. On my last visit at night there had been no relief, except that the child had passed some urine; but it seemed to me that the abdomen was slightly softer. I could, however, give but slight hopes of recovery.—15th: The father at an early hour left a note at my house, asking me to visit the child soon, as he thought there was a change for the better. On my arrival I found that an hour or two after I had left on the previous evening the bowels had been freely open, and again about five o'clock in the morning, and that the child had had a refreshing sleep, and had taken the breast freely. The abdomen was quite soft, with very little pain, and the child looked comparatively bright. I thought it best to continue the medicine, but at longer intervals.—16th: There was great improvement in all ways, the child feeding freely without sickness. The bowels not having acted, I ordered a small teaspoonful of syrup of senna to be given in the evening. This, however, was not required, as on my visit next morning (May 17th) I learned that the bowels had acted naturally twice, and found the little one being dressed, and laughing and screaming at its father, perfectly recovered.

I am, Sir, yours very truly,

Queen's-park, Harrow-road, May 18th, 1885. A. L. GRIFFITH.

Mr. Thos. Cantrell.—Our space is too fully occupied at present to allow us to entertain the proposition.

W. J. N.—A copy of the work is to be sent to every registered medical practitioner.

CEREBRAL SURGERY.

To the Editor of THE LANCET.

SIR,—At the discussion at the Medical and Chirurgical Society last week it was stated that one of the difficulties to be contended against in operations on the brain was that of controlling the hæmorrhage. For this I would suggest pressure by decalcified sponge, such as is used in sponge grafting. Three times I have used it, or seen it used, for stopping hæmorrhage from cerebral sinuses, and once for bleeding from brain tissue; in each case it acted most satisfactorily. After some hours the sponge may be removed, or it may be gradually clipped off with a pair of scissors until only a very thin layer remains.

I am, Sir, very truly yours,

Birmingham, May 20th, 1885. GILBERT BARLING, F.R.C.S.

MR. BARNARDO'S HOMES.

THERE are now twenty-six different institutions under the direction of Mr. Barnardo, F.R.C.S.Ed. Of these, the Ragged Schools were founded in 1866; the Boys' Home, Stepney, in 1869; the Children's Hospital in 1872; the Girls' Village Home in 1873; the Little Boys' Home, Jersey, in 1880, and the other branches subsequently. From 1866 to the present year 1829 boys and girls have actually been received. There are 602 girls and 754 boys still in the institutions, while 2190 other children have received education, in whole or part, during 1884. Thus, a total of 4319 children were benefited during the year. Three hundred and fifty children have emigrated during the year, 320 boys and girls going to Canada, 9 girls to South Africa, and 21 boys and girls to Australia. The donations for all purposes during the year amounted to £60,423, which is the highest amount ever reached, and an increase over the previous year of £1700. The disbursements exceeded the income so much that the bankers' account was actually overdrawn by £5469. An exceedingly useful work is being accomplished by Mr. Barnardo, and it is to be hoped that the support accorded to him in the future will enable him to materially extend his field of labour.

M. C. C.—Try *forcible* pressure on the ganglion by means of the thumbs. Subcutaneous incision of the wall of the ganglion is another method.

SMALL-POX AND CHICKEN-POX.

To the Editor of THE LANCET.

SIR,—I have seen recently several cases of chicken-pox in adults which have been sent to small-pox hospitals, probably partly owing to the disease not being looked for at this period of life. In distinguishing cases of chicken-pox from small-pox I have chiefly relied on three points:—1. The nature and duration of the general symptoms, which seem sometimes to begin with the eruption in chicken-pox, at other times to go on after the eruption has come fully out. They are also mild. 2. The rapidity with which the eruption has become vesicular. An aborting small-pox eruption may be distinguished from a scabbing chicken-pox eruption by its not showing evidence of previous vesication, unless it has absorbed at a pretty advanced stage, when the differentiation of the diseases is aided by other circumstances. 3. The distribution of the eruption. This in small-pox generally conforms to the rule of being most abundant on the face and head, next on the limbs, preferably the arms, and least on the trunk. Chicken-pox is less regular, but usually most spots are found on the back. I would suggest that medical practitioners not familiar with the two diseases should occasionally refresh their recollection of the symptoms, &c., by looking over Dr. Collie's articles in Quain's Dictionary of Medicine, which from their practical nature will, I am sure, benefit others as they have done myself.

I am, Sir, your obedient servant,

JAMES A. PHILIP.

Metropolitan Asylums Board River Ambulance Service, May 19th, 1885.

Z.—Of course, each case of illness has to be studied separately, and idiosyncrasy has to be kept in view.

MR. DANIEL MURRAY O'HARA.

To the Editor of THE LANCET.

SIR,—It would be invidious on the part of Mr. Daniel Murray O'Hara to endeavour to disprove the remarks in the paragraph in your columns of the 16th inst. It was my intention to have invited the attention of that gentleman to the reports circulated in the Liverpool papers concerning him, and to have called his attention to the fact that I had already communicated to the Branch Medical Council in Ireland some months ago the imposition that was being then practised on his, I venture to hope, unsullied name. Seeing, however, that you have unfortunately fallen into the error, I hasten to assure you that I thoroughly sifted the circumstances on the occasion to which I have referred. I think you will find that the person who has committed suicide is Owen Patrick O'Hare, who had been sentenced to penal servitude for some offence some years ago, and scratched off the Register in consequence. This man assumed the name of O'Hara, being very similar to his own, and, unfortunately for him, has been the victim of self-sacrifice. If Mr. Daniel Murray O'Hara, with whom I am unacquainted, has been relieved of a weight on his mind, so much the better, from whom no thanks are needed by

Your obedient servant,

May 15th, 1885. AN OLD CORRESPONDENT.

P.S.—I enclose my card.

Dr. Randustz (Berlin).—The London institution is the only one of the kind of which we have knowledge.

USE OF THE TRICYCLE IN PREGNANCY.

To the Editor of THE LANCET.

SIR,—In reply to your correspondent, "A Member of the Cyclists' Touring Club," I would record my opinion that a pregnant woman may, with ordinary precautions, ride a tricycle to full term. Hitherto I have found it difficult to persuade them to take the exercise after the seventh month; but from feelings of delicacy only, not from inability.

I am, Sir, yours faithfully,

Leeds, May 18th, 1885. JNO. GEO. NEVITT.

M.B. (Bournemouth).—If the family were *successfully* vaccinated in four or five places at the time our correspondent states, they may regard themselves as sufficiently protected against small-pox. If after a number of years they were definitely exposed to infection, there could be no objection to their being vaccinated again, with a view to making assurance doubly sure; but this would be unnecessary in all but very exceptional cases.

Student.—Our correspondent sends specimens of medical advertising from the local newspaper. A change of residence must be made known; but it is better done by card to patients. The advertising of names of honorary medical officers in hospital and dispensary arrangements is better avoided.

A Constant Reader (Altrincham) has not enclosed his card.

J. D. F.—There is an institution of the kind at 11, Fitzroy-square, W.

COCAINE TABLETS.

To the Editor of THE LANCET.

SIR,—For convenience of administration and for efficacy I can recommend the cocaine tablets (¼ gr.) of Messrs. Burroughs, Wellcome, and Co. The tablet will dissolve in the eye, or may be made into a solution with a few drops of water. I have tried them in a case in which some lime had accidentally touched the eye, and where the pain was most intense. The relief given was very marked. In some cases requiring removal of small foreign bodies this anæsthetic action was very grateful to the patient, and materially assisted in their easy removal. Mr. Wright, senior surgeon to the Halifax Infirmary, to whom I gave some of the tablets for experimental purposes, informs me that, having employed them, he is perfectly satisfied with the results, their action being definite and pronounced. The tablets are made in such a way as to take up a minimum of space—a dozen will go into a very small glass tube. They are stable, and in this form there cannot be any fear of the development of any fungus, and in this respect they present advantages over solutions of cocaine.—Yours truly,

Halifax, May 18th, 1885. TH. M. DOLAN, M.D.

J. A. B.—In the absence of anything to the contrary, the fees must be supposed to belong to the principal.

Health.—Spencer Thomson's book, "Health Resorts of Britain," might be of service to our correspondent.

M.B.Lond. is referred to our Students' Number.

A. Z.—A French qualification is now, we believe, indispensable.

"RINGWORM."

To the Editor of THE LANCET.

SIR,—There is no doubt that recent cases of ringworm of the scalp should always be cured by one application, and with no fear of the return of the disease. But a recent case is seldom seen; therefore unless careful supervision be made, involving separation, the avoidance of irritation from brushes, soap, &c., the disease returns sometimes with severity. I am, Sir, yours truly,

F. E. WILKINSON, M.D., M.R.C.S.

Burton Dassett, Leamington, May 24th, 1885.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. McCall Anderson, Glasgow; Dr. Latham Cambridge; Professor Longmore, Netley; Mr. Rivington, London; Dr. Bristowe, London; Dr. Sharkey, London; Mr. Snyder, Belmont, Pa.; Dr. Price, Waterloo; Mr. J. A. Philip; Dr. Suckling, Birmingham; Dr. Pringle, London; Mr. G. Barling, Birmingham; Mrs. Weldon, Holloway; Mr. A. G. Russell, Harrogate; Mr. Hughes, Hatfield; Mr. Edwards; Dr. J. S. Ferris; Mr. Parks; Dr. Wilkinson, Leamington; Mr. Shirtliff, Kingston-on-Thames; Mr. J. G. Hill, London; Mr. Copeland, Staindrop; Dr. J. Shaw, London; Mr. T. J. Barnardo, London; Mr. G. E. Walker, Liverpool; Mr. J. R. Lunn, London; Mr. Holderness, Windsor; Dr. Hawkes, London; Mr. Erichsen, London; Mr. Keating, Manchester; Mr. Russell, Liverpool; Dr. Diver, Kenley; Mrs. Seaton, London; Mr. Clark, Swadlingcote; Messrs. Maguire and Son, Dublin; Mr. Marshall, London; Mr. Leeson, Brighton; Mr. Carter, London; Mr. Farmer, Bridgewater; Miss Going, Truro; Mr. Abbott, Sheffield; Mr. Hakeman, London; Mr. Ferguson, Cheltenham; Mr. Marret, Wisbech; Dr. Sturridge, Kendal; Messrs. Funk and Wagnalls, New York; Dr. Cosgrave, Dublin; Dr. Thursfield, Shrewsbury; Dr. W. Spencer, Streatham; Dr. Ewart, London; Mr. R. W. Parker, London; Mr. A. L. Griffith; Dr. Dolan, Halifax; Mr. A. G. Bateman, London; Mr. Nevitt, Chapel Allerton; Mr. F. W. Grant, Elgin; Mr. C. E. Paget, Kendal; Mr. Spitta, Clapham; Mr. Sample, London; Dr. W. J. Notley, Birmingham; Messrs. Manlove and Co., Notts; Mr. H. Lee, London; Dr. Ridge, Enfield; Messrs. Sharp and Co., London; Dr. McKenzie, London; Mr. Waddell; Mr. Whitford, London; Messrs. Evans and Co., Liverpool; Mr. Greenwood, Liverpool; Mr. Betts, Lincoln; Mr. Tunmer, Harrogate; Messrs. Mackay, Edinburgh; Mr. Myers, Great Grimsby; Mr. Reckett, Windermere; Mr. Elliott, Carlisle; Mr. Barron, Manchester; Mr. Brown, Westgate-on-Sea; Dr. Hunt, Guildford; Mr. R. Harrison, Liverpool; Dr. Strahan; Mrs. Carless, Liverpool; Mr. Maythorn, Biggleswade; Mr. Fiddler, St. Helens; Dr. Thomson, London; Messrs. Richardson and Co., Leicester; Mr. Scott, Manchester; Mr. Freeman, London; Mr. Twyford, Hanley; Mr. Jago, London; E. W. S.; W. J. N.; K., Kensington; M.A., Oxford; M.B., Oxford; J. D. F.; M. C. C.; M.D., Edmonton; Physician and Surgeon.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Thomazz; Mr. White, Manchester; Messrs. Low and Co., London; Mr. Woollett, Lowestoft; Messrs. Savory and Moore, London; Mr. Middleton, Darlington; Mr. Sergeant, London; Mr. Beswick, Chester; Mr. Cook, Hay; Miss Hartley, Belfast; Mr. Jones; Mr. Granger, Robin Hood's Bay; Dr. Hogg, Falkland; Dr. Mackay, Eske; Mrs. Higginbotham, Glasgow; Mr. Aitken, Tevay; Mr. Francis, Burnley; Mr. Tanner, Bicester; Mr. Horsfall; Mr. Warner, Sheffield; Mr. Montgomery, Londonderry; Mr. St. Dalmas, Leicester; Mr. Everton, Birmingham; Mrs. Tubb, Bicester; Dr. Robertson, Oldham; Messrs. Byles and Son, Bradford; Mr. Faber, Stockton-on-Tees; Mr. Sturrick, Dundee; Dr. Eberle, Thirsk; Mr. Flint, New York; Messrs. Farwig and Co., London; Dr. Tate, Notts; Mr. Heap, Hanley; Mr. Jones, Sheffield; Mr. Mackay, London; Mr. Mason, London; Mr. Smith, Brighton; Mrs. Griffith, London; Mr. Llewellyn; Mr. Sharpley, Newark; Mr. Owen, Tipton; Mrs. James, St. John's-wood; Mr. Drew, Buntingford; Dr. Braye, Whitechapel; Mr. Sherwood, Eastbourne; Mrs. John, Oxford; Mr. Burcombe, Lincoln; Mr. Corkoram, Loughborough; Mr. Marsh, Hindley; Mr. Evans, Oswestry; Mr. Scott, Easingwold; Dr. Parry, Bridgend; Dispenser, Mile-end; H. S. S.; C.; B. B., Hull; M.B.; H. S., Southport; G., Balham; Surgeon, South Shields; A. B., Leicester; Y. M., York; A. F. R.; Medicus, Ebbw Vale; M. R.; A. F., Burnley; M., Lea Bridge; H. M. H.; M.B., Norbiton; C. D. K., London; F. C., Halifax; T. B., Selby; Medicus, Notts; D. C.; Physician; P. R.; E. C. F.; B. B.; R. L. Z.; Alpha, Carnforth; A. P.; C. L., Oldbury.

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Clinical Lectures ON SCLERODERMA.

By H. RADCLIFFE CROCKER, M.D., M.R.C.P.,
PHYSICIAN TO THE SKIN DEPARTMENT OF UNIVERSITY COLLEGE HOSPITAL, PHYSICIAN TO THE EAST LONDON HOSPITAL FOR CHILDREN.

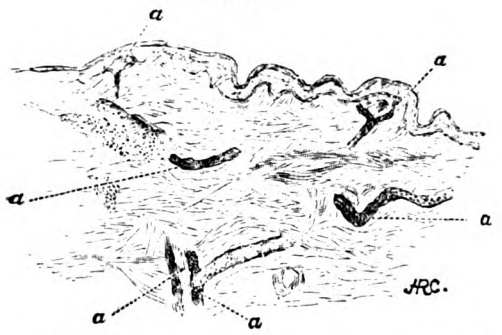
LECTURE II.

CIRCUMSCRIBED AND MIXED SCLERODERMA.

(*Concluded from page 929.*)

IN reviewing these cases, we find that, in addition to what I have just said about distribution, the patches, though usually unilateral, are often bilateral, and occasionally symmetrical or in the median line; that they may be evolved in a few days or take many months to develop; that they are irregular in outline, of variable size, single or multiple, raised, depressed, or level with the surface, sometimes thicker, sometimes thinner than normal, usually yellowish or pinkish white, but often deeply pigmented in various hues, often, but by no means always, surrounded by a vascular zone; that they are atrophic at first, hypertrophic at least in some elements later on, sometimes sharply defined, at others merging imperceptibly into the healthy skin, hairless, smooth or corrugated, not deficient in sensibility, but

FIG. 1.



the sweat secretion is in abeyance, usually superficial, affecting the skin only, and capable of being pinched up, but sometimes firmly united to the subjacent tissues and even to the bones. This last feature applies chiefly to the bands, which, like the patches, may be sunk into sulci or raised into ridges; in short, it seems to be scarcely possible to make any one statement that would be applicable to all cases, and being a rare disease and so very variable it is desirable that all instances should be recorded.

We will now pass on to the consideration of the anatomy and pathology of this form. The anatomical conditions exemplified in the sections before you are as follows (the changes are almost confined to the corium). Taking the earliest stage, the white atrophic spot which I described to you in the case of Mrs. L——, from whom the specimens were taken, we find many of the vessels of the superficial longitudinal plexus, and the vessels in some of the papillæ, blocked by thrombi; but more frequently the vessels lying horizontally are alone occluded (Fig. 1); as a consequence there is atrophy of many of the papillæ, and in some parts, where the disease is more marked, there is degeneration of the deep cells of the epidermis. Cell masses, apparently leucocytes, lie round many of the vessels like a sheath and diminish their lumen, especially those of the sebaceous glands, hair-follicles, and the sweat-ducts, but not round the deeper lying sweat-glands themselves. A fibro-cellular network connects the cell groups; and vessels can often be traced into the cell masses, and end abruptly as if the vessel had ruptured. The vessels of the deep plexus are not usually affected in this stage, but the connecting vessels of the two plexuses may be. (Fig. 2.) There is no lardaceous or other change visible in the vessel walls. Later on the changes go deeper: there is great increase of the connective and elastic tissues of the corium from fibrillation of the cell effusion which now affects the deeper vessels, involving even the upper layers of the fat, and, by the contraction of the newly-formed fibrous tissue, vessels are obliterated, the sebaceous glands are atrophied, the sweat-ducts obstructed, and occasionally even the sweat-glands also. These anatomical facts will explain the clinical aspects of the disease; the atrophic spots which marked the onset and spread of the patches are produced by the cutting off of the blood-supply below them by the thrombi, and the thrombi are probably produced by cell effusion round the vessels pressing upon the vessel walls and leading to clotting of the blood at or beyond the point of pressure. The atrophic spots are the base of the anæmic devascularised area, and the vascular zone so often seen round the patches is due to the collateral hyperæmia that is usually found round an anæmic area. The pigmentation and small extravasations of blood are the result of the same process of collateral hyperæmia. When the cell effusion organises into fibrous tissue and contracts we get thickening of the deeper part of the affected skin, and the patch is perhaps drawn into wrinkles, as it is not attached to the tissues below, as the skin in the bands usually, and that in the diffuse cases always, is; in these cases the contraction being vertical as well as lateral, the skin is drawn into a furrow in the case of a band, or general shrinking is produced in the diffuse form, in which you may remember the anatomical changes were of a precisely similar character; in fact, the difference lies, in my opinion, solely in this, that in the patches the changes are almost entirely superficial, while in the diffuse form the deeper part of the skin and subjacent tissues and often the muscles and bones are involved, while

FIG. 2.

the superficial part may escape or not. But what preceded and produced this thrombosis and cell effusion the anatomy does not tell us, and we are driven to theorise that the vaso-motor or trophic nerves are at fault, and permit the leucocytes to be effused from their walls, and block to a greater or less degree the blood and lymph flow; for there can be no doubt that the lymph as well as the blood circulation is involved, or we should have simply atrophic spots, such as we saw in the case of William M——, in association with morphœa patches. The treatment in these circumscribed cases is even more unsatisfactory than that of the diffuse form. Nothing internal can influence the disease directly, and our aim must simply be to raise or keep the patient up to as vigorous a condition as his constitution and circumstances permit. With regard to local treatment, I know of none that has any effect for good; but I also know that any irritating application does harm, both in spreading and increasing the thickness of the patch. Judging by the influence of improved circulation in the diffuse form, measures adapted to this end would probably be of benefit, and galvanising the skin in the neighbourhood suggests itself, but I should not recommend it over the patch itself. Fortunately, however, while we can do so little, nature can aid herself; and although she often takes many years to restore the damaged tissues, she eventually nearly always succeeds.

We have now left for consideration the mixed or diffuse unsymmetrical cases, and they will not detain us long. They are but few in number, but are interesting and important because they are links which connect together the other forms that we have been considering.

The first case is the classical one of Elizabeth N——,[1] which has been described by such able pens as those of Addison, Hilton Fagge, and Hutchinson, and is the case selected for the atlas of the Sydenham Society, which

[1] Guy's Hospital Reports, series 3, vol. xiii., 1867.

enables me to show you her portrait and you to realise better the verbal description. I need only describe to you the history of the onset of this extremely interesting case and the distribution of the lesions; individually the lesions are the same in character as those we have already described, but the association of patches supervening on the diffuse disease is very interesting, and also the unilateral character of that condition. The concurrence of ordinary keloid is paralleled in a slight degree by the case of Mrs. L——. Now, I want you particularly to observe that we have two stages in the development of this case: the first marking the onset of the diffuse acute, the second of the chronic circumscribed, form. In the onset of the diffuse part of it we observe it was very sudden, without apparent cause and preceded by œdema. So far these features are not very exceptional, and we have seen them all illustrated in our last lecture,[2] but its distribution was hemiplegic, and did not involve the upper extremity, nor the face at that time, but only the left side of the trunk and the whole of the left leg. The very opposite of what usually occurs, the distribution being usually paraplegic, but involving the upper half of the body. The distribution in this case is that of a spinal hemiplegia in the upper dorsal region. Some time later the second stage set in. The history does not enable us to infer the exact period, although we know that it was within a year, but we only learn the distribution of the new phase three years after the onset of the disease when she came under Dr. Addison's care. This was the stage of the development of patches. They came on slowly as far as can be gathered, and with the exception of those on the face were to a great extent right-sided, no special distribution in a recognisable nerve area was to be made out, but the patches on the left side of the face point to the influence of the fifth nerve, which is a not uncommon distribution for morphœa, as we have already seen. So far as the patches are concerned, there is nothing very unusual either in their development, physical characters, or distribution; it is their association with the diffuse form which is the chief point of interest, and this is rendered still stronger by the following two cases, where the patches preceded the diffuse condition and in one spread from the patch till it involved a larger tract. The first of the two is Mr. Gaskoin's case, to which I have before alluded as remarkable in so many ways that it deserves to be recalled at least in a brief abstract. The patient was a woman aged thirty-five, and the onset of the disease was described with confidence by the patient to a mental shock during pregnancy, and there was no history of rheumatism, gout, or syphilis. The disease was first noticed in the form of two patches on the outer and upper part of the right thigh; the patches increased in number, amounting to about thirty, and were situated more on the anterior than on the posterior surface of the body, rather more on the right side than on the left, and not in corresponding situations, and more on the lower than on the upper limbs. They were depressed in the centre, pigmented in various tints, brown, red, purple, yellow, and yellowish-white, were to some extent anæsthetic, though some were painful and tender, and attended with excessive pruritus. About three years later, after going to the seaside in inclement weather, she returned with "pasty œdema" of the legs and trunk, and the colour returned to the skin very slowly after pressure. The œdema gradually disappeared in the course of the ensuing six months, and simultaneously the skin became sclerosed, spreading from the morphœa patches, which became diffused over a large surface, losing their concavity and defined outline. The patient emaciated, losing two stones in weight, and gradually the whole skin, except the head, became involved, and the patchy was converted into a diffused atrophic scleroderma. At a later period the face was also affected below the forehead, but not the buccal mucous membrane. For the many and other interesting details I must refer you to Mr. Gaskoin's description in the sixtieth volume of the Medical and Chirurgical Transactions.

Here is another somewhat similar case, related by Dr. Dyce Duckworth. A servant, aged sixteen, had some patches of morphœa on the left thigh; seven years later she had an attack of acute rheumatism, and the patches spread and got harder; six months later the left foot and leg got hard and stiff, followed by the right foot and leg, and both forearms and hands, which were sclerodactylous. The disease was symmetrical on the arms and below the knees; there was none above the edge of the patella on the right leg, but there was a streaky band of induration on the left leg, which connected the diffuse part of the disease with the enlarged original patches on the inner and back part of the thigh. In Mr. Gaskoin's case you observe again, after exposure to cold, induration spread from the patches and became general. This is distinctly stated, and is in opposition to the view Mr. Hutchinson takes that morphœa never spreads, but only increases in size by fresh patches forming near and coalescing. Dr. Duckworth also states that after an attack of acute rheumatism the patches spread and got harder, and later diffuse scleroderma developed symmetrically on the extremities.

These three cases, then, show us that the morphœa condition may precede or follow the diffuse form, which in this class of case is always in the shrunken condition; and it appears to me that patchy scleroderma is almost as nearly related to diffuse scleroderma as patchy eczema is to general eczema. But I would have you to understand that while I regard them both as the outcome of the same pathological process, and occurring probably in individuals of the same constitution, the exciting cause of the two forms may be very different in its nature. The pathology, diagnosis, and treatment are the same in this as in the other forms of scleroderma.

[2] As the case has been repeatedly described and commented on, the relation of the case is omitted.

CLINICAL STUDY OF THE LIVER VIEWED THROUGH THE URINE.

BY GEORGE OLIVER, M.D. LOND.

(*Continued from page 884.*)

No. II.—THE PHYSIOLOGICAL AND CLINICAL ASPECTS OF THE BILE SALTS IN THE URINE.

IN *hæmoglobinuria* the blood-corpuscles undergo rapid and wholesale solution, and the liberated hæmoglobin dialyses into the urine. Since I began to use the peptone test I have only examined the urine of one case of this interesting ailment—interesting specially from the pathological relationship which it suggests between a suddenly induced hepatic or portal disorder, flooding the blood with the central component of the bile, and the rapid hæmolysis. I am indebted to Dr. Tyson of Sheffield for sending me the sample to which I refer, and which enables me to demonstrate what I, and probably others, have long suspected—namely, the presence of a large quantity of bile salts in the urine of hæmoglobinuria. This is the specimen, a good example of the urine provided by this curious disease. The quantity at my disposal being very small, I dilute it to the specific gravity of 1008, and I obtain a deep blood-coloured solution. On dropping a citric acid test-paper into sixty minims of this diluted urine, a dense zone of precipitated proteid soon forms across the middle of the column, the portion of the urine below it remaining quite clear. Those of you who were present when I read my former paper will call to mind that I pointed out that when this zonular precipitation takes place in urine of normal reaction[1] the presence of bile salts along with albumen or a proteid may be inferred. This urine is a good example of the fact, for the precipitate is very copious, though the urine is diluted fourfold. In order to obtain a notion of the amount of the bile salts by the peptone test in urine containing blood or the elements of blood, it is necessary to boil it (being at the same time careful not to add acetic or any acid either before or after the boiling), when the hæmoglobin and albumen coagulate, as in this example, into brown masses, and then to filter; this done, the diluted urine before us produces the standard opacity when only four minims are added to sixty minims of the test solution, so that I take it the bile salts are 1500 per cent. in excess. Furthermore, the boiled and filtered urine produces a good reaction with Pettenkofer's test, as you observe.[2] By the side of the tube showing Pettenkofer's

[1] The specimen under examination is acid. When the urine is alkaline the zonular precipitate from a citric test-paper dropped into it may arise from an alkaline modification of albumen, as well as from albumen along with bile salts.

[2] Inasmuch as there are no trustworthy means by which the results obtained by any new test for bile salts may be checked (otherwise, I suppose, there would not exist the need for a new test at all), one must fall back on broken reeds. The tests introduced by Casali (oxidising agents, barium peroxide, stannous or antimonious chloride, along with sulphuric acid)

reaction, I place another showing the dense zone of precipitated peptone induced by the diluted urine on which the peptone test solution has been run. I can but refer to what the examination of one specimen of hæmoglobinuric urine suggests; whether or not the same observations can be made in other cases remains to be seen.

An important observation was made by Dr. George Harley respecting the albumen of hæmoglobinuria, which now, in this sample at least, receives explanation if bile salts are present as well as albumen. This observer remarked that the albumen was readily dissolved by a slight excess of acid,[3] and that is so in the urine before us. The fact is indeed shown by the zone which appears on dropping into the diluted urine a citric test-paper, the excess of acid at the bottom of the tube preventing the appearance of the precipitate there. The following observation of Dr. Wickham Legg is also very important in connexion with the presence of bile salts in hæmoglobinuric urine.; the urine of a gentleman who had an attack while under examination was immediately put under the microscope, when, says Dr. Legg, "there was no difficulty in recognising many red blood-corpuscles. The urine was set aside till the next day, when it was again examined. This time I could not discover a single corpuscle."[4] Other observers have likewise detected the same fact, and if you place under the microscope a drop of blood along with a solution of bile salts you will witness what in all probability takes place in hæmoglobinuria, either before the urine is voided (for there are cases in which not a blood-disc can be detected in the freshly discharged urine) or after its emission.

I have already referred to the effects of catching cold in increasing the normal discharge of urinary bile salts. Is the hæmoglobinuric patient, because of some curious susceptibility to chilling, an example of this fact on so large a scale that bile salts are let loose, as it were, from the portal organs into the systemic blood, so as to discharge the hæmoglobin from an immense number of the blood-discs? I have pointed out the association that appears to me to subsist between the increased urinary elimination of bile salts and ague, as well as the diseases of that organ of ever-varying capacities—the spleen; and I am inclined to view these observations as at least interesting, if not suggestive, when studied by the side of the symptoms and pathogeny of hæmoglobinuria.[5]

(*b*) *Scurvy.*—In the four cases examined there was a large excess. I show you the urines of two convalescent cases of scurvy which I lately saw at the Seamen's Hospital, Greenwich; they both contain over 200 per cent. increase of bile salts.

Capillary hæmorrhage is also a prominent feature of the cholæmia of jaundice, leucocythæmia, diseases of the liver and spleen, and of fevers—at the onset especially. The epistaxis of hepatic disease, and of cardiac disease inducing congestion of the liver and spleen, will doubtless occur to your minds as a probable example of a cholæmic hæmorrhage. May not cholæmia be sometimes a determining cause of cerebral hæmorrhage—as perhaps especially in those cases in which apoplexy follows an unusually hearty meal? In animals which succumb to the intravenous or subcutaneous injection of bile salts the blood is found imperfectly clotted. This defect in the coagulability of the blood of the cholæmic—a fact which has frequently been recorded post mortem—suggests an explanation of the liability to alarming and persistent hæmorrhages which these patients not unfrequently exhibit after some trifling operation, such as the extraction of a tooth; and furthermore, may it not be a factor in some cases of menorrhagia and flooding?

7. *Cardiac asthenia.*—The biliary salts greatly reduce the force of the heart's action, and the frequency also, if the patient is fever free, or there is no cause of reflex irritation present. The fact is sometimes well illustrated by the slow and feeble pulse of jaundice. But my observation leads me to view the depressed cardiac action of cholæmia as not only of pathogenic interest, but of some practical importance under special circumstances—such as the administration of anæsthetics. At any rate, this appears to be the teaching of a late well-attested experience. An anæmic patient, about twenty-five years of age, whose urine had contained during the preceding three months from 100 to 150 per cent. increase of bile salts, went to her dentist in Leeds, without consulting me as to the advisability of inhaling an anæsthetic: and the dentist wrote me as follows: "Leeds, April 14th, 1885.—I have just had Miss X——, a patient of yours, with me, to have a lower molar tooth and an upper bicuspid root removed under nitrous oxide gas. I have administered it to her before, with the usual results. To-day all went well until I was just on the point of operating, when the breathing suddenly stopped and she collapsed. By a prompt use of the ordinary means of restoration she recovered, and after half an hour's rest did not appear anything much the worse, except that she continued to feel faint." It is surely worth while to keep such a fact as this in mind. In this case there were no signs of recognisable organic disease of the heart or other organs.

II. *The urinary elimination of bile salts is insufficient.*—Hitherto I have spoke of an excess of bile salts in the urine: I now come to consider the possible, if not probable, condition implying retention of these elements in the blood from imperfect evacuation of them by the excretory channels—kidneys, bowels, and skin. To decide this question demands a much larger experience than mine, and the accumulation of a multitude of carefully recorded facts, such as are not at present at my command. Hence every position that I advance I look upon as merely suggesting either a standpoint or a point of departure for further observation. I would divide the cases into two classes—namely, those in which the bile salts are present in great excess in the blood and the elimination of them by the kidneys is checked or rendered defective; and those in which the production of them is not excessive, but the renal discharge is subnormal. In all there must be a persistent and increasing retention of these excrementitious matters in the blood; perhaps only now and then relieved by the vicarious efforts of the bowels or skin, or by an occasional spurt, as it were, of the kidneys.

The production is increased but the elimination is inefficient.—When the systemic blood is greatly surcharged with bile salts—as in fever, jaundice, and certain forms of anæmia,—the patient, it would seem, is as a rule safe from acute poisoning so long as the kidneys discharge them with freedom. It is true he suffers all the while from the textural degenerations induced by the presence of them in excess in the blood; but while the charge of them is kept down below a certain dose, as it were, by efficient elimination, he runs no risk of imminent danger. It is otherwise when the kidneys and the other emunctories fail to bale out the pernicious material; for then it accumulates and effects further destruction of the cellular elements, and may even reach that percentage proportion which experiment has shown will induce convulsions and coma—a catastrophe which may, however, be averted for a time by a vicarious evacuation from the bowels or the skin, or perhaps by blood-letting. In high fever, especially at the onset in children, this is by no means an uncommon event;[6] and it is possible that now and then a fever patient has been sacrificed by the injudicious checking of a critical or vicarious evacuation. It is likewise occasionally met with in jaundice; when the patient unaccountably becomes apparently uræmic, or at any rate he is seized with convulsions and dies comatose. It is, therefore, of some practical importance, whenever there is a large proportion of bile salts in the blood—as, for example, in fever and jaundice—to see that the renal elimination of these noxious constituents is sufficiently free; and when a decided falling off takes place, while the fever is high or the jaundice is unabated, the observer should be ready to assist evacuation by other channels, and should be on his guard not to check a salutary discharge.

In chronic cholæmia my experience inclines me to think

have proved worthless in my hands for urinary observation; and the evidence of Pettenkofer can only be taken for what it is worth, for it is easy to prove that it reacts with albumen. But my observation on the reactions provided by albumen and by bile salts with Pettenkofer's test has led me to recognise a difference, the purple zone of albumen appearing at once either at or more generally just above the line of contact of the urine with the sulphuric acid, and freely diffusing itself upwards into the urine, while the colour reaction with bile salts requires time, is rarely immediate, and appears in the upper layer of the sulphuric acid, there often appearing a clear space between the zone and the urine. A point of great practical importance in using Pettenkofer's test is to prevent charring by inserting the tube at once into cold water after running down the sulphuric acid.

[3] Med.-Chir. Trans., vol. xlviii., p. 170.

[4] On Paroxysmal Hæmoglobinuria, St. Barth. Hosp. Rep., 1874, p. 77.

[5] I am inclined to think that hæmoglobin is present in the cold infusion of the splenic pulp. The elasticity and contractility of the envelope of the spleen, its amenability to reflex contraction, and its capacity of dilating to a large size, are, I think, important physiological facts to be duly weighed in our reasonings about hæmoglobinuria. (See Addendum.)

[6] The reader will bear in mind that in children under six years of age the liver weighs more in proportion to the body weight than obtains in after years.

that a check to the renal elimination of the bile salts may lead to retinal or other hæmorrhages, or to some similar results of the toxæmia. For example, an anæmic girl who for some months had been discharging a considerable excess of bile salts by the kidneys, one day complained of some curious sensations about the left eye, when I found the renal discharge of the biliary elements had gone down to nearly the normal amount. Suspecting that a retinal hæmorrhage had taken place, I sent the patient to Dr. Hartley of Leeds for his independent report, which amply confirmed my suspicion.

(To be continued.)

ONE HUNDRED CASES OF VARICOCELE TREATED BY THE SUBCUTANEOUS WIRE LOOP.

BY RICHARD BARWELL, F.R.C.S.,
SURGEON TO CHARING-CROSS HOSPITAL.

ON the 10th ult., two lads, Henry B——, aged seventeen, and John J——, aged sixteen, came under my care for the cure of varicocele, which had caused their rejection by the examining officers of Her Majesty's navy. On April 16th I performed on these lads the operation which I introduced some years ago—viz., that of passing subcutaneously round the veins a wire loop, which, being tightened every other day, first occludes and then slowly cuts through them. In the case of Henry B——, this process was completed and the wire came away on the thirteenth day; in the case of John J——, on the fifteenth day. In neither case was there any suppuration or swelling, and only momentary pain at the times of tightening the wires. I have already described the method of operating,[1] and shall therefore on the present occasion give a very brief account of the procedure, the object of this communication being to analyse the results of 100 operations which I have now performed.

The only instruments required are a needle armed with about ten inches of silver wire, gauge twenty-six, or even a little less; a pair of pliers, and an oval shield of vulcanite, one-eighth of an inch thick, with a long diameter of an inch, a short one of about three-quarters of an inch. Near each end is a brass upright, projecting a quarter of an inch. Close to the spots where these uprights are fixed the shield is perforated by oblique channels which open on the other side near the centre. The surgeon must very carefully separate all the veins from the vas deferens, and squeezing together between his left thumb and index the two sides of the scrotum, he keeps the duct and the spermatic artery behind and the veins in front. He then thrusts the armed needle through that half of the scrotum from without inwards, thus placing the silver wire between the above-named parts; he then reintroduces the needle at the previous hole of exit, and when its point lies within the scrotal cavity he relaxes his grasp on that part, and partly by passing the needle onward, partly by manipulating the veins behind its point, he brings the original opening of entry towards it and extrudes the needle. It is only necessary to be sure that no veins escape, and that no part of the lining fascia of the scrotal cavity is included. When these manipulations are completed the veins are encircled by a loop of wire, the ends of which hang out of one puncture at the outer side of the sac. These ends are passed each through one of the holes in the shield, and when drawn sufficiently tight are secured by twisting them round the uprights. It is well, however, to place three or four folds of lint—or better still, a piece of felt, in which a slit has been cut—between the shield and the skin. Every other day the wire must be unwound from one of the uprights,[2] tightened, and replaced. Thus it acts as a very slow écraseur and cuts through the veins in some time between eight and sixteen days, according to the bulk of the varicocele.

Of the 100 cases operated on by me in hospital and private practice I have kept notes; their analysis is as follows:—In no case was there any bleeding, shivering, pyrexia, erysipelas, or other disquieting manifestation. In 16 there was slight suppuration; in 15 of these the pus found its way out along the wires, and gave rise to no trouble; in 1 a little abscess formed in the thickness of the scrotum and was evacuated by an incision one-third of an inch long. In 12 there was a little ulceration where the shield pressed against the skin; it healed when the wire came away. In 1 there was some orchitis, which lasted five days. In 71 there were none even of these trifling complications, the course of events being precisely like that of the cases above recorded. Three patients would not submit to be confined, but walked out after the second day; one of these belonged to the class in which some suppuration occurred, the other two to that in which no complication took place.

The above may be termed the immediate effects of the operation. There remain still to be considered the remote or ultimate result, and therewith the conditions previous to operation.

A (1 case)—Testicle only represented by a small pultaceous mass; the bunch of veins considerable, larger than the gland. (Patient aged twenty-seven.)

B (13 cases).—Testicle very soft and small.

C (47 cases).—Testicle much diminished and of considerable softness.

D (32 cases).—Testicle somewhat diminished and soft.

E (7 cases).—Slight varicocele operated on for the sake of passing examination.

In the first four categories, chiefly in the second, third, and fourth, the organ was the seat of more or less pain; in 23 cases this was severe.

A.—The pain ceased, and the testicle became both a little harder and larger; the patient thought it regained some function. He married five months after the operation, and is the father of four children.

B, C, D.—In every case the testicle became harder, and regained some of its dimensions immediately after the operation, but did not entirely resume its natural consistence and size until after a considerable time: in some of the worst cases, so far as I was able to trace, being as much as two years; in others, and more especially in the younger patients, three months.

E. — The slight cases under this heading passed the examining board very soon after operation.

I lost sight of most of my 100 cases within a few months of operation, chiefly hospital patients, some of whom I never saw again after their discharge. One case (*A*) I even now see occasionally, nineteen years and a half after operation. The left testicle is still smaller and softer than normal; the right one is healthy, and unusually large. Of the 92 belonging to classes *B*, *C*, and *D*, I have only seen 28 at an interval of more than six months after operation. In all of these, except 2, whose testicles were still somewhat soft,[3] a perfectly normal condition existed. One of these cases, a gentleman who had been married fifteen months, had a rather large varicocele; the testicle was very slightly softened; but he had almost constant pain in it, and after coitus this was so increased that he described it as agony. After operation the pain subsided considerably, and in seven weeks had entirely disappeared, nor did it recur. I kept this patient under observation for twenty-seven months. Three others (not included with the above 28) contracted gonorrhœa and one syphilis. Of the former, one had orchitis of the left (very slight) and one of the right testicle. The gentleman who contracted syphilis neglected himself, and remained deeply affected for nineteen months. Since that time he has remained free from any manifestation, except occasionally ulcerated fissures at the side of the tongue.

This is all the information I can give concerning the 100 operations. The safety and efficacy of the procedure are, I think, fairly attested by these results. The very slight degree of pain, either at the time or afterwards, should also be mentioned. I have operated on five cases without any anæsthetic.

George-street, Hanover-square, W.

[1] THE LANCET, vol. i., 1869, p. 711; also vol. i., 1875, p. 820.

[2] I have lately modified twisting the wire round the upright, and now fix it by means of a binding screw.

[3] At from six to eight and eight and a half months respectively after operation.

THE agitation and controversy which have for several months existed between the Canterbury Corporation and the owners of some sixty private wells, the supplies from which were condemned as polluted and unfit for drinking purposes, are at length reported to have almost settled down.

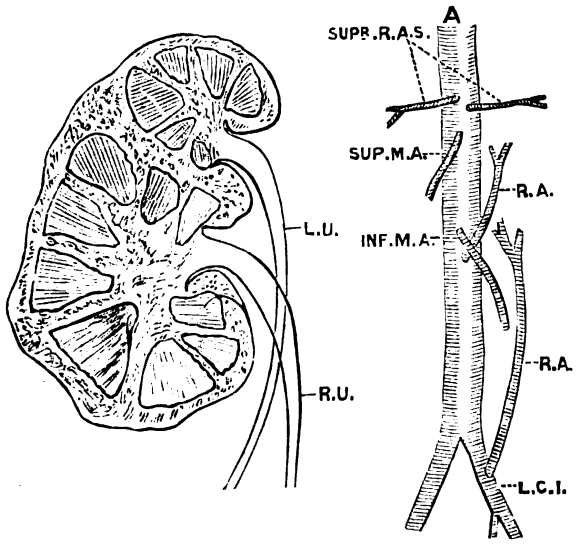
REMARKS ON TWO CASES OF SINGLE KIDNEY.

BY P. W. MACDONALD, M.B. & C.M. ABERD.,
DEPUTY MEDICAL SUPERINTENDENT, DORSET COUNTY ASYLUM.

CASES of congenital absence of one kidney are comparatively rare. Mr. Henry Morris, in an address before the Medical Society of London, said:—"Out of 8068 post-mortem cases there were but two instances of congenital absence, and one only of congenital atrophy, of the kidney."[1] To have met with two cases in less than one hundred necropsies has, judging from recorded cases, been the experience of none, and I have thought the following remarks might be of interest to those who give their special attention to the surgery of the kidneys.

The first case I met with was in 1881. The subject was a male patient suffering from epileptic dementia. He died on April 27th, and a necropsy was made forty-eight hours after death. The brain, lungs, and heart were found to be, as far as the naked eye could discern, normal. Liver large and congested; capsule adherent. Cut surface shiny and dark-coloured; blood oozed out; whole organ soft and

FIG. 1.

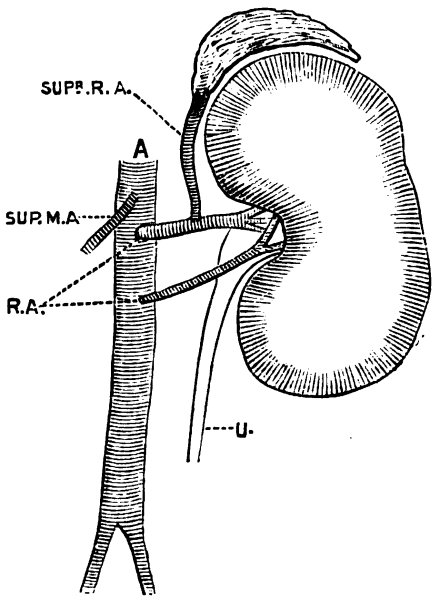


probably fatty. Spleen normal. The liver and spleen being removed, I then proceeded to remove the kidneys, and found they were absent from where they normally ought to have been. Reflecting the mesentery and small intestines, one large kidney was found lying on the spinal column opposite the second, third, and fourth lumbar vertebræ. (Fig. 1.) It was enveloped in a natural capsule. It was large, weighing over 11½ oz., and somewhat irregularly shaped. Vascular supply abnormal and large. One branch had its origin from the aorta, and a second one from the left common iliac artery. The branch from the iliac artery, which was the larger, entered at the normal pelvis, and the one from the aorta at the second or smaller pelvis. There were two ureters. One came from the normal pelvis of the kidney, the other from a sort of second pelvis at the upper end of the kidney. Both entered the bladder normally. The one from the smaller pelvis passed behind the one from the normal pelvis, and entered the bladder on the right side (as right ureter). The other ducts and glands in connexion with the prostate were normal. There were two supra-renal capsules, one situated on each side of the eleventh dorsal vertebra, therefore quite unconnected with the kidney. Pelvic organs normal.

The second case was that of a female patient, who was admitted into this asylum on Aug. 16th, 1883, and died on Dec. 3rd, 1883. This patient was also the subject of epilepsy. At the necropsy, made twenty-four hours after death, the body was emaciated, and there was slight œdema of the left leg. Head: Thickening and opacity of the arachnoid over the frontal lobes and atrophy of the left superior frontal convolution. Pia mater easily removed. No apparent congestion. Heart large, and muscular structure pale; valves closed. Both lungs were studded with caseous nodules, and there were several rather large cavities in the left lung. There were pleuritic adhesions. The liver was soft and pale. On section, there were signs of commencing fatty changes. The capsule showed whitish patches. The spleen was normal. Intestines normal and no ulceration. On proceeding to remove the kidneys, no trace of the right kidney or ureter could be found. The left lay in its normal position; was large, weighing over nine ounces. (Fig. 2.) The suprarenal capsules were normal. There was one ordinary-sized ureter, which entered the bladder on the left side. There were two renal arteries; one large one coming off from the aorta below the superior mesenteric artery, and a second smaller one an inch below the larger. The larger one gave a branch to the left supra-renal capsule. The right capsule received a branch from the aorta. The kidney was congested, but not otherwise diseased. Pelvic organs normal.

In neither case was it known during life that there was only one kidney present—a fact easily understood when it is stated that in the first case the patient was an epileptic dement, and at no time of his residence in the asylum had he shown any symptom of kidney mischief, and at last died from

FIG. 2.



general decay. The subject of the second case (female) was also suffering from epilepsy with maniacal symptoms, and after a short residence in the asylum succumbed to one of the most dire diseases, phthisis. The œdema of the left leg in this case was due to an enfeebled and embarrassed circulation. It will thus be seen that there was at no time any necessity to make an external examination of the kidneys, and consequently the fact remained unknown till met with on the post-mortem table. The interesting points are the abnormal site of the kidney with its two ureters, in one case, and the large and abnormal arterial supply in both. There would have been much difficulty in arriving at even a probable diagnosis as to the site of the kidney, in the first case, had need arisen to map out the kidney on the living subject, a proceeding which is at no time attended with certainty; for Mr. Luther Holden says: "I have never succeeded in satisfying myself that I have distinctly felt its rounded lower border in the living subject, nor even in the dead."[2] As already mentioned, the kidney was large and irregular. On section it seemed to be one large kidney with a smaller one joined on to its upper end. The smaller pelvis had separate and distinct pyramids, and there was a rather thick cortical layer between them and those of the larger or normal pelvis. The arterial supply was abnormal in both cases, and the branch supplied by the left

[1] British Medical Journal, vol. i., 1885, p. 134.

[2] Landmarks, Medical and Surgical, p. 38.

common iliac artery would have caused much annoyance in any operation on that artery or in its immediate neighbourhood.

Numerous cases of the congenital absence of one kidney have been met with and reported. Mr. Jonathan Hutchinson, in a clinical lecture[3] delivered at the London Hospital, mentions a case and draws attention to the dangers that may arise in such cases from suppression of urine by renal calculi or any other untoward event. Mr. Gubbin[4] reports a case of complete absence of the left kidney and suprarenal capsule, and quotes a series of cases collected by Dr. Brenner in 1838.[5] Dr. Brenner states that in a third of his cases there was malformation or arrest of development in one or other of the genital organs. Mr. Thomas Wilmot[6] mentions a case of single kidney, and states that the apparent cause of death was the secondary formation of an abscess in the kidney. In 1878 Beumer collected a series of cases, and drew attention to the effect of the absence of one kidney on the sexual passions. In the literature on the subject to which I have had access I fail to find a reported case of single kidney with two ureters. Notwithstanding that such cases are rare, it is, nevertheless, necessary in these days of advanced abdominal surgery to recall and bear in mind such important abnormalities, for a timely thought in this direction might save both surgeon and patient from unpleasant recollections.

Dorset County Asylum.

ON AURAL EXOSTOSES.

BY GEORGE P. FIELD, M.R.C.S.,
AURAL SURGEON TO ST. MARY'S HOSPITAL.

THE following four cases of exostosis in the auditory canal have been recently under treatment by me. I now place them on record—first, because they afford further demonstration of certain important facts which I have already insisted on—namely, that ivory aural exostoses can be successfully removed, not only without great risk, but with decided benefit to the patient, relieving him sometimes of grave cerebral symptoms, and, as a rule, completely restoring the power of hearing; secondly, because I find that it is still customary to inform persons afflicted with these growths that they must make up their minds to endure permanent deafness, the dangers of any possible operation for their relief being such as to render it entirely unadvisable. How contrary to actual experience is this latter statement has been well shown by my first case, that of Dr. G. M—— of Waterford, operated on in October, 1877, and described in THE LANCET for July 20th of the following year. As I have there remarked, the patient, when I first saw him, was suffering from extreme depression of spirits; for, knowing each of his ears to be completely obstructed by a dense bony tumour, he felt himself to be for life debarred from the pleasures of society. The result of operation in his case was thorough restoration of hearing, which now, after the lapse of eight years, remains as good as ever.

The origin of ivory aural exostoses has been repeatedly attributed to gout, rheumatism, or syphilis, alone or combined; but, as I first pointed out in the discussion of my earliest case, a certainly far more general cause is a chronic inflammation of the walls of the external meatus, such as might be produced by habitual sea-bathing. The Hawaiian islanders, as readers of works of travel are aware, are practically amphibious; and Professor Wyman has directed attention to the significant frequency of ivory exostoses in the external auditory meatus of their crania. The four cases that I have operated on during the past three months, I have been interested to find, afford evidence of one and the same exciting cause—persistent sea-bathing. A former opinion of mine, that hereditary predisposition might be excluded from the probable sources of ivory aural exostoses, I have had occasion to modify to some extent; for one of my most recent patients is a younger brother of my first case, and suffered in an exactly similar way from exostoses in both ears, though happily, unlike him, requiring only one operation for their extirpation, instead of repeated treatment occupying altogether seven hours; it must, however, be noted, that both patients had for years been accustomed to bathing in the sea three or four times a day. In hospital practice I have, as others, remarked, the absence of instances of ivory aural exostosis, whereas the softer growths are not infrequent. Seemingly another peculiar feature in connexion with the disease is that in certain districts it is commoner than in others. Thus, I have had four cases from Waterford, three from Ipswich, several from the south of Ireland, and one each from Hull and West Hartlepool, &c. The operation of drilling the tumours with the American dental engine, as first suggested by Dr. Arthur Mathewson of New York, I have more than once described.[1] For further information as regards the varieties, mode of occurrence, and characteristics of osseous tumours of the meatus, I would refer to the third edition of my book, p. 69.

I will now proceed to give, as briefly as possible, an account of my four most recent cases.

The first is that of Mr. W. G. D. G——, aged forty-six, a gentleman living near Waterford, whose history I do not think I can do better than give in his own words, as follows: "I was first troubled by an abscess in my right ear in Sept. 1883, the effect, probably, of sea-bathing, and the frequent use of an old spring-board some beggar put up on Kelly's Rocks, evidently for the benefit of the medical profession. The abscess caused deafness for some three or four weeks, but was eventually cured by the application by Dr. O'Farrell of a solution of caustic. In October, not being satisfied with the feel of my ear, I consulted Mr. Fitzgerald in Dublin, who said the passages in both ears were much contracted, and I might eventually have to get them operated on. He prescribed a lotion, which I used for some time, and hearing came back all right. In 1884 I was yachting from the middle of May till the end of September, and took a header or two off the main boom each morning. At the end of the season I was again troubled with an abscess, this time in the left ear, causing deafness. At the end of November I consulted Mr. Field, who diagnosed double ivory exostosis. After the removal of a polypus from the left ear its hearing returned; but the exostoses had now so increased that, as soon as I could spare time, early in February, I had the worse ear, the left, drilled, the operation lasting sixty-five minutes. In consequence of leaving London before the ear was sufficiently healed, it became filled with granulations, which gave much trouble to get rid of from the beginning till near the end of March. On the 9th of that month the other, or right, ear was operated on, chloroform being administered for one hour and ten minutes, and in it also hearing is now (April 11th) nearly restored." I may add to this account that by April 25th audition was quite perfect in the left ear, and well nigh so in the right.

The next case is that of Mr. S. W——, aged twenty-six, sent to consult me by Mr. Swannick, of West Hartlepool, in Nov. 1883. He was then suffering from slight deafness of both ears, caused by the presence of exostoses, which I suggested should be removed if they gave rise to any further trouble. When, in Feb. 1885, he came back to me, I found the left external meatus considerably lessened in calibre, and the right almost completely blocked by the exostoses. I had now no hesitation in recommending early extirpation of the growths. On Feb. 24th, chloroform having been administered, I succeeded, after fifty minutes' labour, in effectually drilling through the obstruction in the right ear. The patient recovered well from the operation, and had one or two returns of his nocturnal giddiness during the next few days. My colleague, Dr. Broadbent, who saw him, kindly gave me the following opinion of his case:—"Mr. S. W——'s attacks may be conveniently called epileptiform, but they have not the character of epilepsy proper, inasmuch as there appears to be neither convulsion nor loss of consciousness. I am disposed to fear that they differ in a more important respect, and that they are attended with danger to life. I do not think, however, that, like some of the cases recently reported, the attacks are due to the slow pulse with which they are accompanied. In my opinion they are cerebral in origin, and the retardation of the pulse is secondary. I did not find much on examination which threw light on the case. The optic discs were small and pink and without sharp outlines; and the retinal veins were large; but there was no neuritis. The right temporal artery was more conspicuous than the left, and pulsation

[3] THE LANCET, vol. ii., 1874, p. 1.
[4] British Medical Journal, vol. i., 1883, p. 115.
[5] Virchow's Archiv.
[6] British Medical Journal, vol. ii., 1883, p. 1014.

[1] See THE LANCET, July 20th, 1880, and April 1st, 1882; British Medical Journal, Nov. 24th, 1883; also see Roosa's work, sixth edition, p. 485.

was visible in it. It is quite possible that the attacks may have been due to the exostosis which you have removed, especially if secretion had accumulated behind it; but time alone can decide this. The case puts me strongly in mind of one that I saw many years since. The attacks, one of which I witnessed, corresponded closely with the description given by Mr. S. W——, and the intellect was unimpaired to the last. The patient died in an attack, and on examination there was found tremendous thickening of the frontal bone. In any circumstances it was right to remove the exostosis; and I shall be greatly interested in the result." The result was so far satisfactory that the hearing became quite restored in the ear operated on, and the patient, after a month's absence, went home apparently quite well. On the 29th of April Mr. Swannick wrote to me as follows:—"Since his return he has had a few fits, one of which, at evening service on Sunday, was severe. From that date till now I have been giving him bromide of potassium three times a day, and he has had only one slight attack. The gloominess and depression that come on every evening at about 7 o'clock are diminishing, and he feels altogether happier. The only question that now arises is whether the second ear (the left), which is almost closed, should be operated on."

The next case, that of Dr. W. L. M—— of Waterford, brother of Dr. G. M——, operated on eight years ago, as above mentioned, is thus described by the patient himself:—"W. L. M——, a medical man, aged thirty-five, strong and healthy, has been all his life a great sea-bather. He has never had syphilis. In August, 1884, he first began to experience a disagreeable 'fulness' in the ears, most marked in the left; unaccompanied, however, by either pain or deafness. Thinking this was probably caused by the presence of wax, on Aug. 19th he syringed out the left ear with warm water, rendering it immediately very deaf. As during the next few days hearing was not recovered, he became uneasy; and on the 22nd he consulted Dr. Storey in Dublin, who diagnosed a large exostosis in each ear, with irritation and inflammation of the left meatus. A solution of nitrate of silver (ten grains to the ounce) having been applied daily, the patient on the evening of the 28th recovered his hearing. Mr. Field, whom he saw in London on Sept. 22nd, confirmed Mr. Storey's diagnosis. The exostoses were then both of considerable size, that in the right ear being the larger; but as there was still ample room for the passage of sound, Mr. Field recommended him to report himself at intervals, so that the progress of the disease might be observed. For the next few weeks no inconvenience whatever was experienced. On Oct. 23rd, when Mr. Field was again consulted, there was evident, but still only very little, enlargement of the right exostosis, while that of the left was scarcely perceptible. On the occasion, however, of the next visit, on March 12th, 1885, although hearing had in the interval continued perfect, and no distress or pain had been suffered, Mr. Field advised an operation without further delay, both exostoses having increased so much that an extremely constricted space remained for the admission of sound. The patient accordingly went home, and, having made the necessary arrangements for remaining in London, returned thither on March 24th. On the same day Mr. Field operated on both ears. The exhibition of chloroform, which lasted fifty-five minutes, was not followed by any sickness, pain, sleeplessness, or lack of appetite. There was, however, great deafness, and on the day after the operation healthy pus was discharged from both ears. On March 27th the patient was able to be up, and on the 30th he called on Mr. Field in his own house. On April 16th whilst still very deaf he removed from London. On the day following the left meatus cleared up sufficiently to admit of distinct hearing for about three hours, the right improving in a less degree. During the next fortnight hearing was very variable, being sometimes perfect with the left ear for hours, at other times absent for days together." On the return of the writer of the above from Ireland, on May 8th, to see me again, I found the ears still somewhat swollen but presenting plenty of room for the passage of sound. The curious feature in this case is its exact resemblance in symptoms and in the gradual recovery of hearing by both ears to that of the brother, Dr. G. M——, already alluded to.

My next instance of removal of aural exostosis is afforded by Mr. H. C. W—— of Ipswich, aged twenty-five, who has furnished me with the subjoined account of himself previous to the operation:—"It was in May, 1881, that I first felt inconvenience in hearing, but my deafness, which was not total, passed off in some four weeks. In January, 1882, I gradually lost all use of my right ear; and during the end of February and early part of March I had much pain in it, which my doctor could not relieve. On the 28th of last month I called on Mr. Field, who told me the ear would require an operation. He gave me a lotion which almost immediately relieved my pain, and after applying this thrice a day for some three months my hearing returned. Subsequently, until December, 1884, I was able to hear perfectly, although conscious of something in the ear which prevented one from pulling it about with impunity. In that month I grew quite deaf; and in March, 1885, I began once more to suffer pain, which was very acute. When, on April 13th, I for the second time consulted Mr. Field, he pronounced an operation absolutely necessary, and this, on the 21st, was performed." It remains to be added that in this case the growth was very large, and, after the use of the drill, had to be broken up with bone forceps,[2] in a manner similar to that described in THE LANCET, April 1st, 1882. The patient recovered well from the operation, which lasted sixty-five minutes. His hearing is now (May 10th) almost perfect, and in a few days he will return home.

A consideration of the above and other cases leads one to the following general conclusions with respect to ivory aural exostoses:—1. They are by no means necessarily associated with a rheumatic, gouty, or syphilitic diathesis. 2. Their causation can, with strong probability, be ascribed in many, if not in all, cases to some local irritation of the external auditory meatus, such as may be set up by habitual sea-bathing. 3. They can be most efficiently treated only by drilling, which with proper precautions—notably the use of a pliant and not brittle steel guard to protect the ear in the event of slipping of the drill—is a perfectly safe operation. 4. Their prompt removal is indicated in all cases where (*a*) they hinder the elimination of secretions and discharges from the auditory canal; (*b*) where they occasion pain by pressure on neighbouring structure; (*c*) where they threaten completely to block the meatus, and so to deprive the patient partially or wholly of hearing.

Lower Seymour-street, W.

THE BULLÆ OF PEMPHIGUS.

BY GEORGE THIN, M.D.

IT has been stated by Gibier[1] that acute pemphigus is due to a parasite. The microbe of acute pemphigus, according to this author, presents a beaded appearance when fully developed, the elements being grouped in rows consisting of two to twenty joints. Development takes place from minute spherical bodies isolated or irregularly grouped, or contained in zoogloea. This organism was found in the liquid of the bullæ, and in the urine of the patient who formed the subject of his investigation. In the liquid of the bullæ in a case of chronic pemphigus the same author found a few bacteria moving slowly (*rares bactéries à mouvements lents*).

In a well-marked case of pemphigus in which I have recently examined the fluid of the bullæ I was unable to discover any organism.

A tall strong man, aged fifty-two, who had always enjoyed good health, consulted me on February 3rd, 1885, on account of an eruption. He stated that two months previously he had a rigor, and that within the next two or three days several "bladders" appeared on his forehead. Others then came out on his chest, arms, and legs, and had continued to appear more or less ever since. I found his face, neck, temples, and ears the seats of a bullous eruption, which in the aggregate involved on the lower part on the face more than half the surface. There were also several bullæ on the chest, back, arms, and legs, some being full of clear serum, some collapsed, and some burst, leaving a red moist surface covered with folds of epidermis. His general health was

[2] This was one of those cases which may be dealt with by the use of a chisel and hammer, or, as I prefer, by bone forceps, for the exostosis was not so hard as in the three cases just described. A large quantity of bone was removed from this patient's ear, and the external auditory meatus afterwards looked large and open. The chisel I believe to be absolutely useless for ivory exostoses, and nothing but the drill, which makes only a small orifice (quite sufficient for the passage of sound), is of any service.

[1] Annales de Dermatologie et de Syphilographie, vol. iii., p. 102.

not perceptibly impaired. Fresh bullæ continued to come out, and I had an opportunity of observing them in the earliest stage from their first appearance as minute, scarcely raised, vesicles, not much larger than a pin's head, with a central depression, and as large bullæ about two inches long, three-quarters of an inch broad, and about half an inch high.

On three separate occasions I examined the fluid of the bullæ microscopically without observing any organisms. I also prepared a number of cover glasses, on which the fluid was dried in the now familiar way, and the glasses, after being heated, were floated on solutions of aniline dyes and properly prepared for examination. No organisms were stained. In one preparation, examined fresh with the addition of a solution of gentian violet, some epidermic cells were found in the fluid, and to one of these micrococci were found adherent. The results of examining the fluid of the bullæ, both fresh and after being dried and stained, were thus, so far as organisms are concerned, entirely negative. A few white blood-corpuscles were found in the fluid. On Feb. 6th and 10th attempts were made to cultivate any organisms that might be present. The bullæ were opened largely with a purified lancet. A pure platinum wire was plunged into the depths of the bullæ, and tubes of sterilised gelatine-peptone meat infusion inoculated in the usual way. Two neutral, two alkaline, and one acid tube were thus inoculated and put aside at the ordinary temperature of my laboratory. Up to April 13th nothing had grown in the tubes, the gelatinised meat infusion having in the meantime become considerably shrunk.

These observations do not prove that no organisms are present in the fluid of the bullæ of chronic pemphigus, but they tend to show that typical pemphigus may exist without the presence in the bullæ of organisms which can be put in evidence by the methods on which reliance is now placed. The organisms described by M. Gibier could not have been present in my case.

Queen Anne-street, W.

A CASE OF LUMBAR COLOTOMY.

By WILLIAM DOBBIN, M.A., M.D., &c.,
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ON March 24th, 1884, I visited a dispensary patient, Elizabeth L—, aged seventy, married, residing at Tullyrain, near Banbridge. She was a tall woman, emaciated and cachectic-looking, but was not confined to bed. She stated that she was troubled with piles, and had suffered from painful defecation, attended with a bloody discharge, for nearly three years. Lately her condition had become much aggravated as the constipation was more difficult to overcome, and there was much distressing tenesmus. On examination I found that there was a small tumour of stony hardness at the posterior margin of the anus, which doubtless had been formerly a pile, but was now a mass of scirrhus. The sphincter was a rigid circle which would admit only the tip of the finger, the introduction of which caused extreme distress. Per vaginam I found that a hard nodulated mass extended upwards for some four inches, projecting into the vagina in front and apparently encircling the lower end of the rectum. Avoiding mention of the dreaded word cancer, I told the patient that the only mode of relief was by an operation, but that it might be delayed for some time if she were careful to keep the stools soft by castor oil. An occasional opiate was administered when the pain was very severe, and I kept her under observation, visiting her from time to time when in the neighbourhood.

Matters went on without much marked change for nearly four months, when, on the 17th of July, I received a message saying that she could not bear her condition any longer, and that she would submit to any operation for relief. As soon as possible I proceeded to her house accompanied by Dr. Smyth, J.P., and Dr. Tweedie of Banbridge, who kindly afforded me their valuable advice and assistance. They concurred in the diagnosis of malignant stricture of the rectum, and agreed that lumbar colotomy ought to be performed at once. Chloroform having been administered, the colon was opened in the left loin by Callisen's operation as modified by Mr. Bryant, all of whose directions in the various steps of the operation were carefully followed. Hardly a tablespoonful of blood was lost. Some difficulty was experienced in seizing the gut, as rather unexpectedly it was found to be empty. After the sutures were fastened the part was dressed with carbolised oil on lint, a pad of oakum was applied, and the whole secured by a binder. Ordered to have milk diet for a few days, and fifteen minims of tincture of opium in half an ounce of water every four hours.

July 18th.—The patient has passed a good night, and feels very comfortable. Pulse 80; tongue clean; skin cool: no pain or tenderness. Wound dressed; looking healthy. Ordered five grains of compound ipecacuanha powder every four hours in place of the draught.—19th: Wound dressed. The patient feels very comfortable.—20th: Wound dressed. A good deal of flatus has passed through artificial anus, but no fæces. Flatulent distension complained of; a linseed-meal and mustard poultice to be applied to abdomen. In addition to anodyne powders, to have a grain of quinine three times a day.—21st: Wound dressed. Since last visit there has been a free discharge of semi-fluid fæces through artificial anus; abdomen much less distended; some appetite for food; in good spirits. Compound ipecacuanha powder to be discontinued, except five grains at bedtime.—22nd: Wound dressed; free discharge of fæces continues; sutures removed; most of skin wound healed by first intention; opening in bowel firmly united to skin.—23rd: Wound dressed. Discharge of fæces has been enormous since the middle of the night; a good many scybala have passed.—24th: Wound dressed. Since last visit fæces have passed in large quantity, but have now ceased. She is clean and comfortable, and is in good spirits.—25th: Since last visit a small quantity of fæces passed per vaginam. This happened only once.

On July 28th, during the night, the patient's husband, who alone lived in the house with her, died suddenly in the bed beside her; and the poor creature, being dreadfully frightened, made her way in a half-dressed state to the house of a relative, who lived about half a mile off, for the purpose of seeking assistance. Fortunately, the journey did her no injury, although she fell several times. After the fatigue passed away she made a capital recovery. A pad of fine tow was kept constantly over the artificial anus, and was fastened in position by a binder. A new pad was applied after each action of the bowels, which took place usually once in the twenty-four hours. Under these circumstances the woman's health continued fairly satisfactory till the end of October, when a large abscess formed and discharged in the left hip. From this period she gradually became weaker and more cachectic, and finally sank on Nov. 24th, four months and seven days after the operation.

Remarks.—Surgical interference without doubt prolonged the life of this patient. It not only relieved her from painful and exhausting straining efforts at defecation, but retarded the progress of her malady by preventing the irritating passage of the fæces over the diseased bowel. What is more important still, existence was rendered endurable and the woman was enabled to end her days in comparative comfort. After the first week she told me she was easier than she had been for two years, and that she was already more than compensated for submitting to the operation. Such a result is ample justification for operating, and I should have no hesitation in recommending colotomy in a similar case. The operation is not excessively difficult if Mr. Bryant's directions as given in his work on the Practice of Surgery are carefully attended to, and it is not more dangerous than herniotomy, if done in good time. There is no necessity for a patient the subject of artificial anus to wear any special appliance, since a pad of fine tow is quite sufficient. It is cleanly, cheap, and a fresh one can be put on whenever required. I have reported this case, occurring in the practice of a country surgeon, as it may encourage others similarly situated to carry out a serious operation even in the confined bedroom of a dispensary patient.

Banbridge, co. Down.

DR. G. E. PAGET.—At the next quarterly meeting of the governors of Addenbrooke's Hospital, the Lord-Lieutenant of the county will, on behalf of the governors, be asked to accept a bust of Dr. George Edward Paget, F.R.S., Regius Professor of Physic in the University of Cambridge, which has been provided by the subscriptions of a large number of persons, the list being headed by his Royal Highness the Prince of Wales and his Royal Highness Prince Edward of Wales.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prooemium.

GUY'S HOSPITAL.

SURGICAL CASES UNDER THE CARE OF MR. BRYANT.

OF the following cases, the hernia, which was under the care of Mr. Bryant, is an example of an unusual condition of the hernial sac and position of the intestine, for which it is somewhat difficult to account without a history of taxis. The case described by Mr. Bond is uncommon. There is a similar condition illustrated in the article on Hernia in "Holmes's System of Surgery," vol. ii. The series of abdominal operations performed by Dr. Wallace are interesting and important.

CASE 1.—*Intra-parietal Strangulated Inguinal Hernia; Operation; Recovery.* (Reported by Mr. Rymer.)—Maria E——, aged fifty-three, was admitted into Lydia ward on Oct. 4th, 1884. The patient is healthy, and has had twelve children. She has had a slight rupture for years; it appeared after a strain. She kept her bed at first for about a week, and has worn a truss pretty regularly since. On the 3rd she neglected to put on the truss, and the rupture came down. She applied the truss, and the rupture appeared to go up, but she felt uncomfortable all day, and in the evening was sick. She did not sleep all night. Next morning she was sick again, and the vomit appeared fæcal.

On admission, when the patient was lying on her back in bed, no external signs of rupture were visible, but upon manipulation a tense swelling could be felt in the right inguinal region behind the abdominal muscles, above and external to the internal ring. The patient had another fæcal vomit. She was given chloroform, and an exploratory incision was made about an inch in length over the middle of Poupart's ligament, and one inch above it. The inguinal canal was laid open and the internal oblique and transverse muscles divided. When the sac was reached it appeared very much to resemble the tunica albuginea of the ovary. When this was opened a small quantity of bloodless fluid escaped. On careful examination this sac proved to be the old inguinal sac, hardened and thickened by the constant pressure of the truss. The finger was introduced and another large sac was felt. This sac was well slit up with a pair of scissors, and at one point there was a ring which admitted the finger into the peritoneal cavity. This ring was freely divided. Now the intestine could be seen, and was taken up and pushed back into the abdomen. The parts were put into apposition and held by three gut stitches, and the wound dressed with a pad of iodoform gauze and a sponge. This unusual appearance was seemingly caused by the constant pressure of the truss having broken down the band of the first sac and forced the intestine into a second sac, which was formed between the peritoneum and the iliac fascia. The patient had diarrhœa after the operation. A one-grain opium pill was given; ice to suck.

Oct. 5th.—Patient has not been sick since the operation; she feels easier. Wound dressed; there was very little discharge.

7th.—Diet: milk, beef-tea, bread-and-butter.

8th.—Bowels acted once yesterday; no diarrhœa. Wound appears somewhat swollen and inflamed.

10th.—Part of wound has healed by primary union; the inner part gapes a little; patient is in no pain.

12th.—Discharge rather purulent.

20th.—Wound very healthy.

24th.—Wound entirely healed.

Nov. 4th.—Patient has a well-fitting truss. Got up in the evening.

8th.—Went out apparently quite well, except for a cough.

CASE 2. *Dislocation of the left Knee-joint Outwards; Reduction; Cure.* (Reported by Mr. Paget.)—Philip D——, aged forty-eight, an ostler, was admitted into the Accident ward on Oct. 1st, 1884. The patient was leading a horse when it became frisky and knocked him down, twisting his leg He could not rise, and was brought to the hospital.

On admission there was dislocation of the left tibia and fibula outwards off the internal condyle of the femur. There was effusion of fluid into the knee-joint. Under chloroform the leg was flexed upon the thigh, and then extended with traction inwards, the thigh being held outwards. The bones slipped easily into their place. The fibula appeared a little loose. The leg was put upon a back splint with foot-piece, and cold, by means of Leiter's tubes, applied to the knee. One-sixth of a grain of morphia in solution was injected subcutaneously.

Oct. 2nd.—Did not sleep well. In a good deal of pain.

3rd.—Still in a good deal of pain, and there is considerable effusion into the knee.

21st.—Effusion going down. Ice bag still on.

28th.—Knee still feels hot. Left knee measures 14½ in. round; right knee 13¾ in.

Nov. 4th.—Bavarian splint put on.

14th.—The circumference of both knees is now the same.

CASE 3. *Lipoma of Scalp; Excision; Cure.* (Reported by Mr. Palmer.)—Henry H——, aged thirty-nine, a coachman, was admitted into Job ward, on Oct. 13th, 1884. The patient has had good health all his life. Twenty years ago he first noticed a swelling about the size of a pea on a level with the tip of his left ear and 2 in. posterior to it. It was pulpy and freely movable over subjacent bone, and not painful; this has gradually increased in size. On admission, the tumour is about the size of a hen's egg—i.e., 3½ in. from above downwards and 4 in. from side to side. It is soft and pulpy; there is no fluctuation; the bone beneath the growth appears to be excavated. The skin is not dimpled, and can be drawn together over it.

Oct. 14th.—Under chloroform, an elliptical incision was made from above downwards. The skin was dissected from either side of the tumour. The integument was found to be much adherent, and it was necessary to separate it down to the base of the swelling. The tumour was then removed, and the wound dressed with iodoform gauze. The growth was a pure lipoma.

21st.—The patient has had hardly any pain or inconvenience from the operation. The upper part has healed by primary union. The remainder is granulating.

Nov. 3rd.—Wound quite healed, and there is no discharge whatever. The patient feels quite well.

This case is worthy of record from the fact of the position of the tumour, lipomata being very seldom met with on the head.

BRISTOL GENERAL HOSPITAL.

CASES OF ANEURYSM IN THE LOWER EXTREMITY TREATED BY DIGITAL COMPRESSION; REMARKS.

(Under the care of Mr. NELSON C. DOBSON.)

CASE 1. *Simultaneous Aneurysm of both Popliteal Arteries.* T. F——, aged forty-three, a healthy, well-made man, a gamekeeper by occupation, and subject at times to considerable exertion in the way of walking and watching, was admitted in 1880. Has had gonorrhœa, but not syphilis; takes freely of beer, but is not a spirit drinker; his father suffers from gout, but the patient has never suffered from this; there is no albumen, and the heart sounds are normal. He states that two years ago he noticed an aching pain in the bend of his left leg, and some time since he discovered a swelling in the ham, which pulsated. He, however, continued to work regularly. Six weeks ago he noticed a similar swelling in the right ham.

When the man came under Mr. Dobson's notice there was an aneurysm in each popliteal space—that in the left being the larger, and measuring five inches in length and three inches in breadth; the swelling on the right side being as large as a hen's egg. Both swellings exhibited the ordinary characteristics of aneurysm, but in both firm pressure of the stethoscope was required to bring out the bruit. There was nothing abnormal about either limb otherwise. No other aneurysm could be discovered elsewhere. The heart was irritable in action, and the whole arterial system seemed to partake of the same irritability, both femorals at the groin pulsating unduly and giving one the idea that they were rather dilated at that point. He was kept in bed for a fortnight, and ordered a restricted diet according to Tufnell's plan, with for a few days five drops of tincture of digitalis

three times a day; and during the fortnight he was also given regularly five grains of iodide of potassium three times a day. Mr. Dobson did not attach much importance to the drugs, except perhaps that the digitalis steadied the circulation; he believed it to be a drug, though suitable to this particular case at the outset, which requires much caution in its administration in aneurysms. Probably diet and quiet were most useful of all the medical treatment.

On May 13th digital compression was commenced by relays of students. Prior to its commencement a quarter of a grain of morphia was administered subcutaneously, and a like amount after about eight hours. The method of applying the compression was in all cases the same—viz., first ascertaining the dead weight that would control the pulsation (in this case about seven pounds); a graduated bag filled with shot to this weight was made. The compressors were two at a time, the duty of one being to place his index, middle, and ring fingers across the artery at the pubes; the weight was then placed over the middle finger, and thus with very little exertion on the part of the assistant and with but small discomfort to the patient the circulation was controlled. The second assistant applied his hand lightly to the aneurysm, and immediately informed his colleague when the circulation was not effectually controlled. This last point Mr. Dobson considered most important, as he had formerly found without this observation on the part of the second assistant that the person in charge of the artery above was inefficiently controlling it. By the small expenditure of force required when aided by the weight, two assistants could work satisfactorily for two hours, changing places every twenty or thirty minutes. After sixteen hours the pulsation in the left popliteal was thought to have ceased. On the next day, however, as there was slight pulsation, digital compression was continued, and after three hours and a half it was finally left off. On the 17th there was a slight thrill in the sac, but no pulsation; and on the 19th there was slight pulsation in the posterior tibial. No especial symptoms followed the compression, and the aneurysm was cured. After giving the patient some days' rest, digital compression of the right femoral in the groin was commenced in the same way, and the aneurysm of the right popliteal was cured after eleven hours and a half. The after-progress was satisfactory and without feature. This patient was seen recently, and he was continuing quite well.

CASE 2. *Large Aneurysm of the Left Femoral at the Apex of Scarpa's Triangle.*—H. P——, aged sixty-three, a shoemaker, was admitted on Jan. 16th, 1885. He is an anæmic, flabby, delicate-looking man; never had syphilis. Four years ago he was kicked by a man in the region of the present swelling. There is a slight scar in the skin in this situation, but from careful inquiry the conclusion was arrived at that the blow had nothing to do with the aneurysm. The heart is sound, and no aneurysm was discovered elsewhere. The femoral is dilated in the groin, and pulsates forcibly. There is a swelling in Scarpa's triangle as large as an infant's head; he first noticed this about a month ago; it was then not larger than a hazel nut. There is not much pain, and no œdema of the limb. The swelling pulsates with marked distensile pulsation, and on auscultation there is a very decided bruit. The swelling is soft, and gives one the idea of its walls being tolerably thin; no arcus senilis; pulse 76. He was kept in bed, liberally fed, and had a mixture of iron and quinine for a week. On Jan. 23rd, at 10.45 A.M., digital compression, assisted by an 8 lb. weight, was commenced, a quarter of a grain of morphia having been previously given subcutaneously. The details were the same as in the former case, hot water bottles being placed in his bed, and the limb lightly wrapped in cotton-wool. 2.15 P.M.: The limb was blue and congested, with some amount of swelling generally. The patient was drowsy and pale, his pulse feeble, and he was sweating profusely. The tumour still pulsates. By 6.30 P.M. the congestion had passed off; it was probably occasioned by too much pressure, especially on the vein; the tumour is diminished in size; pulsation in the sac is not well-marked when pressure is taken off the artery. Compression was continued until 8.30 next morning (about twenty-one hours). There is still slight pulsation, but the sac feels firm and solid. On Jan. 27th, not being quite satisfied with the condition, Mr. Dobson ordered digital compression again for six hours, when the aneurysm was cured, and has remained so; the bruit had ceased entirely after four hours' compression on the second occasion. The tumour, which is now solid, is diminishing in size, and the superficial femoral above the tumour can be felt blocked. In the beginning of April this patient was again seen, and was remaining well.

Remarks by Mr. DOBSON. The points of interest in Case 1 are that both popliteals were affected at the same time; the combination of weight, indirectly applied through the fingers of a skilled assistant; and the immediate appreciation of any defect in the process by his colleague who had charge of the aneurysm. These may seem small matters, but it is the small matters that make up the difference between success and failure in digital compression. I regard Case 2 as particularly successful, because I considered the patient a bad subject for any operative interference, and from his general condition, as well as the local condition of the artery, I felt sure that had digital compression failed the Hunterian ligature would have laid him open to more than ordinary risks. The blueness and congestion of the limb were very ugly to look at, but they soon passed off when the pressure was moderated. In both cases I endeavoured to check entirely the blood stream through the aneurysm during the compression. It was found necessary to caution the assistants against over-exerting themselves, there being a natural tendency to employ more force than was absolutely necessary to check the blood stream, but the success of the cases was attributed in a great measure to their intelligence and zeal. The first aneurysm was thus cured by nineteen and a half hours' compression divided into two terms of sixteen hours and three hours and a half. The second aneurysm was cured by eleven hours and a half of continuous compression; and the third by about twenty-one hours on the first occasion and six hours on the second, with an interval of three days between the two; a result which may be considered favourable when compared with the statistics of instrumental compression. Spontaneous aneurysms of the lower extremity are surgically amongst the most interesting of the aneurysmal class; but judging from my own experience in the Bristol General Hospital I should say that in this part of the country at least they are not common. I have only admitted under my own care during the last ten years three cases of this disease in the lower limbs, and I can only call to mind another instance of this disease in which my colleagues have sought a consultation during the same period. I have, therefore, thought that a short history of the two cases might be of surgical interest, not only on account of the complete success of the treatment adopted, but also as illustrating certain important points in the history of such cases, as well as allowing me the opportunity of emphasising the importance of the minute attention to detail which is necessary to bring to a successful termination any such case. With reference to the first case which I have mentioned, sufficient time—viz., five years—has elapsed to be certain of the permanence of the cure.

LEICESTER INFIRMARY AND FEVER-HOUSE.

STRANGULATED FEMORAL HERNIA WITHOUT CONSTIPATION; OPERATION; DEATH; NECROPSY; REMARKS.

FOR the following case we are indebted to Mr. C. J. Bond, house-surgeon.

E. H——, a healthy woman, aged fifty-seven, has suffered from right femoral hernia for four years, and has never worn a truss. The hernia had been reducible up to Nov. 27th of last year, when during exertion the tumour suddenly increased in size; in a couple of hours the patient felt sharp pain in the swelling, and vomiting occurred. From this date (Nov. 27th) up to her admission on Jan. 7th, 1885, she suffered more or less from vomiting, which came on at irregular intervals, and is said to have "smelt very bad" on one occasion. The bowels were moved irregularly at intervals of two or three days. Sometimes there was diarrhœa, and the last motion was on Jan. 4th, three days before admission. Up to this time she had been getting up, and went to see a medical man on this day. On her admission on Jan. 7th she was in a state of semi-collapse, but was operated on immediately. The little knuckle of gut, though red, was not very dusky, nor apparently much inflamed, and in no way gangrenous. The stricture, which was tight, was divided, and the gut returned. No omentum was seen. The patient never rallied after the operation, and died in a few hours.

Necropsy, with remarks by Mr. BOND.—The portion of intestine was found lying close to the opening of the crural canal;

the mark left by the constricting band was very plain, and, what is especially noteworthy, did not involve the whole circumference of the intestine, but passed obliquely on one side within about half an inch of the mesentery, and on the other rather nearer this edge; thus not obliterating the whole calibre of the bowel, but leaving a narrow channel along the mesenteric border of the gut. It is this fact which, I think, throws light on the peculiarity of the symptoms; for here is a case of strangulated hernia in which the strangulation is so complete in a portion of the intestinal tube as to lead to perforation, and yet in which, owing to the obstruction having been partial only, the symptoms are spread over a period of six weeks, and the bowels are moved, though irregularly, throughout that time. Attention seems to have been diverted from the real cause of the symptoms by the fact that though the patient vomited she did not get appreciably worse, and by the absence of constipation. The standard works on surgery mention no exception to the rule of complete constipation in strangulated hernia—in fact, do not refer to cases of strangulation of portions only of the whole calibre of the small intestine; and the condition doubtless is not common. At the same time there are specimens showing it in several of the London museums—two in that of University College, described in the catalogue by Beck and Shattock; but no account is given of the symptoms before operation. It would thus seem well to remember that it is possible to have cases of strangulation of a knuckle of intestine of such severity as to lead to perforation, there being no constipation, the symptoms resembling those of a case of chronic partial obstruction of the whole tube. At the upper part of the site of the stricture at one spot there was an opening into the intestine, through which fæcal matter had, evidently just before death and since the operation, escaped into the peritoneum, and helped to bring about the fatal result; there was no general peritonitis. In THE LANCET for March, 1882, I published some cases from which it seemed to me very probable that in cases of injury to the intestinal wall from extreme nipping, the perforation takes place from within outwards, and not from without inwards, commencing in ulceration and destruction of the mucous coat first, and, as in this case, nearly always at the site of the upper stricture, or that limiting the upper, full, dilated portion of intestine above the strangulated part. In this case it would also appear that the tight constricting band, though involving only a portion of the whole calibre of the gut, had by pressure caused not only ulceration of the mucous membrane at several points along its path, but at one point destruction of this and the muscular coats, leaving only the band itself, the thin peritoneum, and some plastic lymph to close the opening. As long as the knuckle of intestine remained *in situ* no escape occurred; but as soon as this band was divided, the adhesions broken down, and the intestine returned into the abdomen, fæcal matter rapidly escaped, though none was seen at the time of the operation, and the gut was for this reason returned instead of being left, with the stricture relieved, outside the abdomen, or an artificial anus being made.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Hæmaturia from Bilharzia Hæmatobia.—Experimental production of Chorea.

AN ordinary meeting of this Society was held on the 26th inst., Dr. George Johnson, F.R.S., President, in the chair. The meeting was prolonged for half an hour in order to discuss the second paper.

Dr. SPENCER COBBOLD read a paper on cases of Hæmaturia due to Bilharzia. The author explained that the terms "endemic hæmaturia" and "Bilharzia disease" can no longer be regarded as synonymous, and insisted upon the necessity of separating the dysenteries and hæmaturias that are, and that are not, due to parasites. Any measures of prophylaxis, to be successful, must have for their basis an intimate knowledge of the genesis of the parasite, and to this end the author had made some experiments with very young specimens of Helix alliaria; these molluscs were subjected to the action of the swimming ciliated embryos; the latter, however, though constantly sticking to the snails, refused to penetrate their bodies. The living ciliated larvæ were next subjected to the action of certain drugs: alcohol, santonin, salt, &c. The embryos were found to be excessively sensitive to stimuli of all kinds. Thirteen cases of the disease were fully described. Post-mortem investigations have shown that the home of Bilharzia is the portal system, where the adult worms have been found in great numbers, including, however, but few females, and only a small proportion in sexual combination. The eggs accumulate within the chylopoietic branches of the portal vein, and also within certain systemic veins that anastomose with them. To the dispersion of the eggs nearly all the symptoms of the disease are due, and the intimate relation between the chylopoietic veins and the systemic veins supplying the genito-urinary passages is sufficient to explain why the kidneys, ureters, bladder, and rectum are all liable to become the seat of the disease. An outline of Sonsino's classification of the Bilharzia infarcts was given. The author considered the remarkable variations of the eggs of Bilharzia to have no pathological or clinical significance. The employment of medicated injections and "surgical treatment" were both condemned, and reliance was rather placed on good climatic conditions, general tonics, and other means, to aid the curative efforts of nature. Dr. Cobbold showed eleven specimens of the adult worm, six of the worm as it occurred in the human being and five in the ox. Dr. Sonsino had also sent him through the kindness of Sir Joseph Fayrer a specimen of Bilharzia crassa, which was a larger and stouter parasite, the eggs were different from B. hæmatobia, and had spines at both ends. He showed several other kinds of Bilharzia, some of very large size. Mounted preparations of a bladder which showed miliary infarcts in the left seminal vesicle were also exhibited. Some stones which had been removed by cystotomy had been sent to him by Dr. Kartulis; the eggs formed the nuclei of the calculi. Photographs and microscopic preparations illustrated the paper.—Dr. GEORGE JOHNSON said that the main point of contention was as to the effect of local treatment.—Dr. JOHN HARLEY said that it was to be wished that we had completed the life history of the parasite, but he thought that no advance had been made. He referred to his original observations on the subject. He could not agree that improvement in the general health was necessary for the cure of the disease. Very healthy people took the disease, and large numbers of robust individuals suffered from it. Nephritic colic was sometimes observed as the result of the disease. Whereas no cure had been effected in Dr. Cobbold's cases, he had had one case under his care in which local treatment was attended with success. He spoke of the value of soluble drugs like iodide of potassium injected into the bladder; also of the use of the oil of the male fern. He had never recommended the use of perchloride of iron, and condemned anything like heroic treatment. His remarks were illustrated by reference to cases which had been under his care.—Dr. COBBOLD, in reply, thought that cures of the disease might be mere delusions, for the parasite may exist for a long time without giving rise to symptoms. He was glad that there was so little divergence of opinion in regard to treatment. Reference was made to the observations of Mackie, in some of which the ova were found in the rectum and sigmoid flexure, but not in the bladder. The parasites did not enter the bladder through the urethra. The notion that the parasites were free in the bladder was an erroneous one. The "bedchamber" and principal seat of the parasites was the portal system, and Kartulis had counted no less than 300 specimens (and the number might be much greater) sexually combined in the portal vessels of one case.

Dr. ANGEL MONEY read a paper on the Experimental Production of Chorea and other results of Capillary Embolism. The experimental investigation of which this communication is the first contribution was begun in October, 1884. The animals used have been rabbits, guinea-pigs, cats, and dogs. The emboli found most suitable were arrowroot particles, granules of potato starch, and carmine. The particulate liquid was generally injected into the common carotid artery. Sometimes the injection was made towards the brain, but, as a rule, the liquid was injected towards the heart. It is exceedingly easy to produce embolism of the capillaries of the brain, but it is very difficult to get embo' into the capillaries of the upper part of the spinal cord wi out causing death by paralysis of respiration. The important clinical observation which has come ou' experiments is the production of involuntary m

indistinguishable from those of chorea. These movements have not been accompanied by appreciable paralysis or spasm. The chorea of the animals experimented on never resulted from capillary embolism of the brain. In nearly every animal in which the brain was affected with capillary embolism some form of "uncontrollable" movement was present, allied, the author believes, in essential nature to chorea. The "chorea" of the animals experimented on was always the result of embolism of the capillaries of the spinal cord. The want of development of the pyramidal tracts in the animals under consideration possibly affords an explanation of the reason why chorea does not in them result from embolism of the brain proper. The author is of opinion that the reasons given for locating the lesion of most cases of chorea in the human subject in the brain are too powerful to be upset by experiments on animals so far removed from man as those experimented on by him. When the "chorea" of the animals experimented on was well marked, reflex action in the spinal cord was exaggerated. The suggestion is made that in the few cases of chorea in the human being where the reflexes are exaggerated, the spinal cord will be found to be the seat of the pathological condition. Rhythmical repetitions of one movement and also irregular succession of different movements have both been observed, so that experimental "chorea" both resembles and differs from the chorea of man and the ordinary chorea of dogs. Spinal paralysis has been observed as the result of the author's experiments, and also complete facial palsy. The respiration and cardiac action are variously affected by capillary embolism. The temperature appears to be always lowered, but it is difficult to eliminate the influence of the shock of the operation. Capillary embolism may give rise to any symptom of disease of the nervous system. As a rule, the capillary emboli gave rise to no pathological lesion recognisable by the microscope or naked eye. The view is supported that chorea is due to defective nutrition of the same kind as that which leads to paralysis, though in a less degree. This defective nutrition may be brought about by many causes, of which embolism is one. The relationship of chorea to involuntary movements generally was discussed. Suggestions were made for differentiating the varieties of chorea.—Dr. HUGHLINGS JACKSON thought the paper was one of great value. That irregular, involuntary movements of any kind had been produced by artificial embolism was a very important thing. That the movements were or were not like those of chorea in man was not the question of first importance, although one of great moment. We could in no circumstance expect to see abnormal movements in a dog's forelegs, like the elaborate movements of a child's arm in chorea; the dog was not capable of such movements. The fact that in human chorea the movements were very elaborate, was some evidence as to localisation—pointing to the morbid affection of some part of the nervous system "high up," where the nervous arrangements were very special and complex. Since 1864 Dr. Hughlings Jackson had held that the seats of the lesions in chorea were convolutions near the corpus striatum, at the same time, after Kirkes, suggesting that the lesion was often owing to plugging of small arteries; he had never undertaken to show that this process was the scle one productive of chorea. That some convolutions did represent movements was, since the experiments of Hitzig and Ferrier, certain. As the face was affected in chorea, it was clear that there was some lesion above the spinal cord; cases of hemichorea in which the face was affected were inexplicable on the view that the lesion was spinal only. Certainly cases of post-hemiplegic chorea and pre-hemiplegic chorea were inexplicable on that view; in these cases, indeed, cerebral lesions had been found (Weir Mitchell, Charcot, Raymond, and Demange). It might, however, be said that in ordinary chorea in man spinal lesions also were concerned; they had been found by Dickinson and Ross. Again, it had been proved by Legros, Chauveau, Carville, and Bert, that in a choreic dog the abnormal movements of its foreleg persist after section of the cord above the origin of the nerves for that limb. Dr. Hughlings Jackson had found the same. In the canine chorea of veterinarians the movements were rhythmical, and it did not follow that in this animal such comparatively simple movemements might not be capable of development from activity of spinal centres, whilst they might not be so in a higher animal, as in man much more elaborate movements were often seen. Albertoni, Franck, and Pitres affirmed that an epileptiform seizure started in a dog by faradaic irritation of some part of its motor cortical region, continued in spite of sudden removal of the part of the cortex excited. An objection often brought against the hypothesis of embolism and thrombosis was that these processes led to destruction of nervous elements. That was perfectly true; and it need not be said that from destroyed nerve tissue there could result no movements of any sort. But then it was equally true that with destructive lesions there sometimes occurred over-development of movements—e.g., post-hemiplegic chorea. It is certain, too, that epileptiform seizures occurred in some cases of local cerebral softening from thrombosis or embolism. A condition for repeated seizures was established. In these, and in most cases of chorea, everyone had two opposite motorial states to account for, some paralysis and some over-movement. Destruction of some nervous elements from embolism could only account for the paralysis in chorea; there must be on any hypothesis an over-activity of some other nervous elements to account for the co-existing over-movements. He reasserted that over-movements of some kind (post-hemiplegic chorea, athetosis, epileptiform seizures) do occur in cases where there are destructive cerebral lesions. Dr. Hughlings Jackson thought the researches of Dr. Dickinson (Med. Chir. Trans., vol. 59) went a long way towards proving the hypothesis of embolism and thrombosis as a cause of chorea. He said this with great respect, as Dr. Dickinson rejects that doctrine. Dr. Dickinson said the lesions in chorea were determined in position by the course of the arteries in the brain notably by the middle cerebral, which, as he stated, are the favourite routes of emboli. He wrote, "The first visible change would seem to be the injection or distension of the arteries, succeeded by extrusion of their contents to the irritation and injury of the surrounding tissues." Was not this like a description of embolism or thrombosis? He found also spots of sclerosis "degeneration of nervous elements;" the sclerosis was usually periarterial. Now, this sort of change, the sclerosis, a negative one, softening in miniature, could not cause movements of any kind. There must be another change, an opposite one, else there would not be the over-development of movements. Moreover, Tuckwell, Bastian, and Ross, had found plugging of arteries in some cases of chorea. Dr. Ross in his great work on Diseases of the Nervous System related a very important case, confirming Dr. Richardson's observations. Ross found plugging of anterior or antero-lateral arteries of the cord, and also necrotic spots in the corpora striata. Regardless of any hypothesis, Dr. Money's researches proved that in some way some involuntary movements are producible by embolism. It could scarcely be but that his work would be of great scientific and practical importance; it constituted a new starting point. Dr. Hughlings Jackson concluded by remarking that in chorea there was often a condition for embolism or thrombosis; that the movements were hemiplegic or double hemiplegic; that emboli most often did get into the middle cerebral artery which supplies the convolutions supposed to be morbidly affected in chorea, and that slight faradaic excitation of these convolutions did produce elaborate movements, although it was not yet proved that it set up a persistent condition for a quasi-spontaneous succession of different movements at different intervals as such as occurred in chorea.—Dr. CHARLEWOOD TURNER contributed some observations from fatal cases of chorea in the child. Some large nervous cells taken from the third layer of cells at the fissure of Rolando were much swollen and distorted; these were large polar cells. The nuclei were obscured. All the cells of this layer were not affected. A paralytic condition of the motor nerve cells in this particular part of the brain, from which volitional impulses are transmitted to the muscles, might account for the phenomena of chorea. In chorea no properly arranged movements were possible. If the control of the highest centres were removed, then the emotional movements would be increased in activity; for it was probable that the movements of emotion were energised from other parts of the grey matter of the brain. Reference was made to the views of Dr. Hughlings Jackson on the alliances of incoördination with paralysis. Dr. Turner thought the embolic theory scarcely sufficed to explain the phenomena of chorea, for the effects of capillary embolism soon passed away. Where permanent destruction was caused as the result of embolism paralysis resulted.—Dr. OCTAVIUS STURGES spoke of the great value of the experimental investigation made by Dr. Money. He, however, thought there were clinical points in chorea which showed that chorea could not

be due to structural lesions. A slight febrile attack or an acute specific fever, such as scarlatina or typhoid fever, would abolish chorea, and the chorea would not return so far as he knew on recovery from the acute specific fever. Then there were other points in the history of chorea which went against the embolic view. The sexes were so differently affected, and in a matter of race there was so much difference. Indians were but little affected. The movements observed in animals, though they were spoken of as chorea, did not appear to him to be of that nature. Again, emboli were absent in most cases of fatal chorea occurring in children. He questioned whether the movements observed by Dr. Angel Money ought to be called chorea.—Dr. COBBOLD drew attention to some observations made by Böllinger, Friedberger, and others of aneurysm in the horse, which was so frequent in horses more than seven years old. It was stated that 90 per cent. of such horses were affected with this "worm" aneurysm. The worm was called strongylus armatus. Various irregular nervous movements resulted from the introduction of these worms into the arterial circulation, into which they got from the aneurysms.—Dr. JOHN HARLEY said that he had shown that cryptopia could give rise to choreic movements. Narceia dissolved in glycerine and injected under the skin of small animals gave rise to lethargy and convulsions. The alkaloid was absorbed into the circulation and deposited in the tubules of the kidneys and produced a physical anuria which no doubt gave rise to the convulsions, which set in about three hours after the hypodermic injection. He asked whether there were any emboli in the kidneys in Dr. Money's experiments.—Dr. BROADBENT said that the paper required a great deal of careful reading, but it was plain that the whole investigation was one of immense value, and it opened the door to further investigations, which could not but be productive of great results. Speaking of human chorea, he thought age rather than race and sex was the most important factor. He had held that capillary embolism was one cause, but by no means the sole cause, of chorea. Dr. Money had shown that almost every symptom of nervous lesions could be caused by capillary embolism. The rhythmical movements in animals were not the equivalent of chorea in the child. Human chorea was distinctly a cerebral affection, as the cases of hemichorea also bore out. He had more than once seen hemichorea followed by paralysis and reappear as the palsy disappeared. He knew also that febrile affections caused chorea to disappear.—Dr. ANGEL MONEY, in reply, contended that he had not suggested that chorea was usually caused by embolism. His observations merely pointed to the conclusion that embolism was a probable cause in some cases. He considered that Dr. Sturges was not in harmony with clinical observation in believing that chorea was always due to one cause. Dr. Money's chief contention was that any symptom of disease of the nervous system could be caused by capillary embolism. Chorea was due to a defective nutrition of certain parts of the nervous system, and this defective nutrition might be brought about by many means, embolism among the number. He had stated in his paper that the reasons for locating the lesion in the brain in human chorea were irrefutable. In reply to Dr. Harley, he said that there were no emboli in the kidneys, and that the spontaneous movements came on immediately after the injection of the artificial emboli into the arterial circulation. He thanked Dr. Cobbold for the information given with regard to embolism in horses.

PATHOLOGICAL SOCIETY OF LONDON.

Varicella Gangrenosa.—Thrombosis of Veins from Gonorrhœa.—Addison's Disease.—Atrophy of Adrenals.—Rodent Ulcer.—Secondary Glioma.—Calculus in both Ureters.

THE last ordinary meeting of the session was held on Tuesday, the 19th inst., Dr. J. S. Bristowe, F.R.S., President, in the chair. The subject of the relations of Addison's disease to the adrenal bodies was in the ascendant.

The report of the Morbid Growths Committee on Mr. Treves' cases of tumour of the soft palate was read by Mr. Shattock. The report stated that the first tumour was an alveolar sarcoma; the second tumour was a spheroidal-celled carcinoma, but not improbably it had commenced as an adenoma.

Dr. PAYNE read notes of a case of Varicella Gangrenosa, which occurred in a girl aged three years. An ulcerated eruption was seen on admission to the hospital, and varicella had been present a month before. At the autopsy there were signs of acute miliary tuberculosis; to his knowledge there was only one other post-mortem record, and this was by Dr. J. Abercombie; in this case tubercular disease, not so extensive, was also present. It might be a mere coincidence that tubercle and varicella gangrenosa should be associated, though it might possibly be a factor in the explanation of the occurrence of gangrene in such eruptions. He discussed the other possible relations of the two affections. The combination of the varicellar and tubercular poisoning, if not inducing the gangrene, might at all events have led to the fatal result of the two cases in question.—Mr. BOWLBY showed a drawing of a case of varicella gangrenosa made from the body of a male child aged ten months, who had had varicella fourteen days before he was first seen. There were altogether six gangrenous patches. The infant recovered and left the hospital; it died a day after in convulsions, but no necropsy could be obtained. A second case, that of a female child aged eight months, who had had doubtful varicella ten weeks before admission, was narrated. The vesicles became purulent and ulcerated, and some went on to a sloughy state. A fresh crop of vesicles came out whilst the patient was in hospital, but none of these went on to gangrene. The third case mentioned was that of a female infant aged eighteen months. The sores were much the same as in the other cases. No doubt a gangrenous condition might supervene on cutaneous eruptions which were not varicella, though they were vesicular, and possibly the second case was of this nature.—Dr. RADCLIFFE CROCKER had seen two fatal cases and some of an intermediate degree. The tubercular association of gangrenous ulceration was suggested by Dr. Barlow some time ago. In one of Dr. Crocker's fatal cases there was a strong tubercular history, and it was said that an elder brother died from tubercular peritonitis. In some cases of gangrenous eruption there was no distinct history of chicken-pox. The gangrenous condition did not always appear to come from the varicellar eruption itself, but in the skin which had not been the seat of the varicellar vesicles. There were, he thought, various grades of the affection; deep pustules sometimes formed and healed without any gangrene supervening. The gangrene sometimes appeared as the varicella was subsiding. In other cases, as in one of Mr. W. Haward's, the fourth day was the date of the onset of the gangrene. A septic change occurring in the secretion might explain some cases. Death from pyæmia was not unknown in connexion with these eruptions. Evidence of tubercle was not to be obtained in some of the cases. In his experience the eruption sometimes appeared to be benefited considerably by sulphocarbolate of soda administered internally.—Dr. PAYNE, in reply, had not been aware that Dr. Barlow had suggested that tubercle was an active agent in bringing about the gangrene of such cases as those in question, though he had some recollection of such a suggestion in connexion with vaccinia gangrenosa.

Mr. BILTON POLLARD showed a dissected specimen of the Pelvic Viscera and Veins of a case of Thrombosis consequent on Gonorrhœa. The patient was a woman aged nineteen, who had suffered from gonorrhœa for thirty-six days before death. The other symptoms present were pyrexia, the temperature ranging between 100° and 102°; some pain in the knee and fixation of the right hip-joint. The symptoms of disease of the hip-joint were at times equivocal. Death was due to embolism of the pulmonary arteries. The specimen showed thrombosis of the left common iliac vein, left internal iliac vein, and vaginal veins. There was no ulceration in the vagina. The cartilage of the femur and acetabulum of the right hip-joint was eroded, and the joint contained purulent material. No other joints were affected. Mr. Pollard thought the case remarkable in that so serious a set of conditions should complicate a case of gonorrhœa without giving rise to symptoms sufficient to call attention to the perilous state of the patient.

Dr. SAUNDBY showed the Spleen and Semilunar Ganglia of a case of Atrophy of the Suprarenal Capsules. The patient was a female aged eighteen. At the age of thirteen she was first seen, and it was noted that she had a somewhat Italian cast of countenance and complexion. She was treated afterwards for anæmia, amenorrhœa, and other disorders, but Addison's disease was not then suspected as the cause of her ailments. About August, 1884, there was pyrexia, and then the spleen was found to extend to the umbilicus, being much

enlarged. An attack of faintness in January, 1885, was premonitory to a fatal seizure, from which she died comatose a few days later. All her life the urine had been dark and contained a large quantity of indican; a trace of hæmoglobin was found on one occasion. The heart was somewhat hypertrophied. Some pigment arranged in chains in the cortex of the kidneys was seen in sections of these organs. The adrenals were much atrophied; one weighed ten grains and the other eighteen grains. The spleen weighed sixty-six ounces. He referred to McMunn's spectroscopic researches, which seemed to lead to the inference that the function of the suprarenal bodies was to destroy the effete blood pigment. Other points of interest in the case were referred to. The father died at thirty-seven with an enlarged spleen and passed black urine all his life, and a brother had an enlarged spleen and many attacks of melanuria. Dr. Saundby commented on the three important elements of an enlargement of the spleen, of the dark-coloured urine, and of the occurrence of these symptoms in one of three members of the same family in which these symptoms coincided. In Greenhow's work mention was made of an enlargement of the spleen in two cases, but no stress was laid on it. Rosenstein, in the fifty-sixth volume of Virchow's *Archiv*, stated that he had found a large quantity of indican, ten times the normal quantity, in the urine of cases of Addison's disease.

Dr. SEYMOUR TAYLOR read notes of some cases of Addison's Disease. The first was that of a female, single, aged thirty-five, who had all the signs well marked of Addison's disease. The pigmentation was typical. The viscera were healthy; the capsules were in the ordinary cheesy condition; the spleen was not enlarged. No tubercle was found in the other viscera; there was no pigment on the vagina; the labia minora were pigmented, especially about the nymphæ. Sections of the nymphæ were shown, which presented a great contrast between the external and internal surface. The pigment was seen in the rete mucosum and in the intercellular cement in the deeper layers of the epidermis. There were also many scattered pigment granules in the cutis vera. The second case presented the same changes in the nymphæ. Neither of the two women had been pregnant, and so the pigmentation could not have resulted from pressure on the veins.

Dr. HADDEN read notes of a case of Atrophy of the Suprarenal Capsules with Addison's Disease. The patient was a single woman aged thirty. Vomiting was the first symptom, and began eight months before admission. The tongue and gums became pigmented. Pigmentation of the skin and mucous membranes was present on admission to hospital. The superficial reflexes were marked; the knee-jerk absent. Constant vomiting, attacks of fainting, headaches, and drowsiness were the main symptoms. Death took place suddenly three weeks after admission, just after an attack of vomiting. At the autopsy pigmentation of the vulva, skin around the anus, and upper end of the gullet were noticed. There was no tubercle anywhere; the adrenals were equal and distinctly small; the diminution was specially noticeable in thickness; the shape and colour were normal; the free edge was irregularly notched. The length of the left suprarenal was one inch and a half and its breadth three-quarters of an inch. The connective tissue around the capsules and sympathetic nerves was healthy. Microscopically, the suprarenal body showed much fibrous thickening of the investing capsule. There was a richly fibrous nucleated growth in the zona glomerulosa. Many of the cells were atrophied, and most were replaced by the newly formed tissue. In some parts the cell spaces were surrounded by dense fibrous tissue, and the spaces themselves were empty or contained atrophied cells. The nucleated growth passed inwards between the columns of cells in the zona fasciculata, separating them into islets. In many places the epithelial cells had undergone nuclear proliferation. The medulla was very scanty and difficult to distinguish. There were large areas of round cells, similar to those seen in the suprarenal body, in the semilunar ganglia. There was also a little granular pigment in the connective tissue. The nerve cells were probably healthy. The lymphatic glands were healthy. The state of the adrenals resulted from a chronic interstitial change, similar to that seen in cirrhosis of the liver. The lesion was identical with that of the thyroid gland in myxœdema. He regarded it as probable that no constant morbid change is essential for the production of either Addison's disease or myxœdema. The lesion must be a destructive one. Tizzoni's experiments were referred to as proving that in rabbits pigmentation of the skin occurred after destruction of the suprarenals. It was difficult to say that the change in the semilunar ganglia had any share in the production of the disease. Nevertheless, it was probable that the sympathetic nerves are at fault in Addison's disease. The rich supply of nerve fibres to the semilunar ganglia suggests that there is a relation between them and the sympathetic. Destructive disease of the adrenals must involve the nerve fibres which enter them. There may be a supplementary relation between the two, or the suprarenals may exert a controlling or moderating influence on the sympathetic.

Dr. KINGSTON FOWLER showed the Adrenals and Semilunar Ganglia from a case of Addison's Disease, which occurred in a woman aged twenty-six who was under the care of Dr. Cayley at the Middlesex Hospital. The duration of the disease was three years. The illness began with an attack of vomiting, which lasted one week. These attacks became more frequent. The pigmentation was fairly marked. Syncope closed the scene. The adrenals were much atrophied. The right one was calcified and contained a caseous nodule in the centre. The left one was still more contracted. The nerves did not present any obvious changes. The case was doubtfully one of Addison's disease. He thought that Dr. Saundby's case was not an ordinary one of Addison's disease, and if there were any of the Addisonian element in it, it was probably mixed up with some other diathesis.

Dr. SAMUEL WILKS considered that the occurrence of atrophy of the adrenals supported Addison's original contention, which was to the effect that any destructive lesion could cause the symptoms of the disease. It was true that many cases of cancer, effusion of blood, and abscesses of the adrenals had been shown in which no symptoms of Addison's disease were present; but then he contended that both the adrenals were not destroyed by such conditions. The disease which could cause absolute destruction must be a slow integral change and probably of an inflammatory nature. In the early stages of such a change the organ might be enlarged, subsequently degeneration of a fibrous, calcareous or caseous or mixed kind would occur, whereby the organ might be totally destroyed. Such changes were to be seen in the liver and kidneys, which, however, being more vital organs, could not be totally destroyed without causing death. In the mamma and testis such changes could lead to the complete disappearance of the organs.—Dr. HALE WHITE did not doubt that the ganglia in Dr. Hadden's case did not present an abnormal appearance. He thought we should not pay too much attention to the abnormal change. Addison's disease could occur without any change in the ganglia that could be recognised by histological examination.—Mr. VICTOR HORSLEY did not think the evidence supported the doctrine of disease of the sympathetic nerves as the cause of Addison's disease.—Dr. BRISTOWE thought the evidence so far adduced confirmed the original statement of Addison that the disease was caused by anything that destroys the adrenals completely. The view that Addison's disease was a tubercular disease of the capsules was not the correct one. He believed that the special function of the capsules was not a nervous one, though it was one which was essential to the well being of the economy. He conjectured that these bodies have certain special duties to perform in the way of removing waste products, or else as supplementary to other functions; and when these functions were disturbed, the organism suffered in some definite way which we clinically recognised as Addison's disease.—Dr. WILKS repeated that it was only possible to get total destruction of the bodies when there was an integral change in the organ itself. And he doubted whether any adventitious disease could cause complete destruction of both adrenals.—Dr. SAUNDBY said the spleen was of a dark purple colour, soft and pulpy. A large amount of pigment scattered amongst the cells was seen in microscopic sections. There was simply atrophy of the adrenals and no fibro-nucleated growth. He regarded it as a case of primary atrophy. The semilunar ganglia showed no special change. His own experience strongly supported the view which Dr. Hadden had advocated.

Dr. THIN gave an account of the sequel of a case of Rodent Ulcer fully described by him in 1879 in the Pathological Society's Transactions. The theory of the structure of rodent ulcer therein advocated was still maintained by him. The man since 1879 had been admitted into Middlesex

Hospital under the care of Mr. Morris, where he was in 1881. His death took place in September, 1884. The disease had spread from its original site on the scalp, when it was the size of a five-shilling-piece, until it had caused great destruction of the neck and side of the head. The distinctive and characteristic histological appearances were still to be observed in the borders of the large destructive ulcerating mass. The idea that a rodent ulcer becomes epitheliomatous was not borne out by Dr. Thin's case.

Mr. GEORGE LAWSON exhibited the drawings and post-mortem preparation of a case of Secondary Glioma. The patient, a little girl aged two years and two months, had the left eye removed by Mr. Lawson in December, 1883. In January, 1884, he removed the right eye, as it was distended with a gliomatous tumour, causing great pain. From both these operations the child rapidly recovered, and from each experienced great relief. In the following month, February, the child was admitted into the Middlesex Hospital with a recurrence of the tumour in the left orbit. The tumour continued to grow until it not only protruded beyond the orbit but covered the whole of one side of the face, overlapping the nose, the mouth, and the lower jaw. The child was kept free from pain by repeated small doses of morphia, and she took her food well. She died on August 3rd, 1884. There were no brain symptoms until a few days before her death, when she had several epileptic convulsions. At the post-mortem examination the whole of the left side of the face was occupied by a large tumour, slightly ulcerated in places. There were no secondary deposits in the organs of the chest or abdomen. In the fibres of the right deltoid muscle there was a lobulated mass, having the same appearance as the orbital growth. On removing the calvaria the dura mater was seen to be covered at irregular intervals with deposits of glioma varying in size from a pea to a penny. On cutting through the membranes, the convolutions were seen somewhat flattened and the meningeal veins distended. On removing the brain a tumour about the size of a small orange was seen occupying the pituitary fossa and neighbouring portions of the sphenoid bone, apparently having originally sprung from one or both optic foramina.

Mr. CULLINGWORTH (Manchester) showed specimens of Impaction of a Large Calculus in each Ureter, which were taken from a woman aged thirty who had had a swelling in the right side for two years; the symptoms dated back ten months, when a distinct attack of pain in the back and right side was first experienced, and during which attack there was much pus in the urine. This attack lasted two weeks, and similar attacks came on from time to time. Pyuria was observed to the extent of half the quantity of urine passed. An operation with a view of removing the diseased kidney or relieving the pyo-nephrosis was undertaken by the abdominal section. The right ureter was found to be obstructed immediately above its opening into the bladder. The ureter was opened, and a calculus was removed which was the size of a walnut. Three days afterwards symptoms of uræmia set in and the patient died. At the autopsy the left kidney was also found to be full of abscesses, the ureter was dilated and contained a calculus at its lower end. Had the existence of disease in both urinary tracts been suspected, he should not have operated in the way he had done. The pus came from the left kidney, for the right ureter was perfectly impervious as the result of the impaction of the stone.

The following card specimens were shown:—

Dr. Goodhart: (1) Viscera from a case of Phosphorus Poisoning; (2) Specimens of Leprosy of Hand and Larynx for Dr. Beaven Rake of Trinidad.

Dr. Burnet: Primary Melanotic Sarcoma of Liver.

Mr. Makins: Primary Sarcoma of Tibia.

Dr. Sharkey: (1) Impaction of a Coin in the Œsophagus for twenty months; (2) Aneurysm of Heart; (3) Multiple Epithelial Growths in the Œsophagus.

Mr. Poland: Sections of Epithelial Growths in the Viscera after Epithelioma of the Tongue.

Dr. Chaffey: (1) Multiple Sarcoma in a child; (2) Lympho-sarcoma of Bladder.

Mr. Hutchinson, Jun.: Epitheliomata of Hand.

Mr. Arbuthnot Lane: (1) Bony Process from Humerus; (2) Displacement of Foot from Fracture of Bones of Leg; (3) Fracture of Sternum.

Dr. Gilbert Barling: (1) Round-celled Sarcoma of Peroneus Longus; (2) Alveolar Sarcoma of Triceps.

Dr. Hale White: (1) Perforating Tubercular Ulcer of Intestine; (2) Grain of Corn causing Typhlitis and Intestinal Strangulation.

Dr. C. Turner: Aneurysm of Aorta communicating with the Superior Vena Cava.

Mr. Shattock: Hernia into the Fossa Duodeno-jejunalis in a child.

Dr. Hebb: Melanotic Sarcoma of Spleen, &c.

Dr. Dawtrey Drewitt: Persistent Branchial Fissure in a child (living specimen).

Mr. F. B. Jessett: Lower Jaw removed by operation for Cancer (recent specimen).

Mr. A. E. Barker: Gangrene of Finger Ends, probably due to syphilitic arteritis.

Mr. Bland Sutton: Difficult Labour in a rickety monkey.

CLINICAL SOCIETY OF LONDON.

Report of the Committee on Spina Bifida.—Successful Œsophagotomy.—Raynaud's Disease.—Surgical Treatment of Tumour of the Bladder.

THE last meeting of the session of this Society was held on May 22nd, Mr. Thomas Bryant, F.R.C.S., President, in the chair.

The report of the Committee on Spina Bifida was read by Mr. R. W. PARKER. The subject was divided into two parts: (1) the pathological anatomy of spina bifida; (2) its treatment.

1. *Pathological Anatomy.*—The term "spina bifida" was used to define certain congenital malformations of the vertebral canal with protrusion of some of its contents in the form of a fluid tumour. With very rare exceptions the malformation affected the neural arches of the vertebræ, and the tumour projected posteriorly; in rare cases, however, the bodies of the vertebræ were involved, the tumour in such cases protruded anteriorly into the thorax, abdomen, or pelvis between the lateral halves of the bodies affected. The museum specimens were discussed under the following headings:—(1) Position of tumour; (2) size and configuration of the sac; (3) coverings of sac; (4) disposition of meninges within the tumour; (5) size and configuration of the deficiency in the neural arches; (6) disposition of the spinal cord and nerves; (7) unusual variations; (8) the process of cure. The result tended to show that the specimens fell under three divisions:—(1) Protrusion of membranes only (simple meningocele); (2) protrusion of membranes together with the spinal cord and its appertaining nerves (meningo-myelocele); and (3) protrusion of the membranes together with the spinal cord, the central canal of which was dilated so as to form the sac cavity, the innermost lining being constituted by the expanded and atrophied substance of the cord (syringo-myelocele). The committee stated that the meningo-myelocele was by far the most frequent, while simple meningocele came next, and syringo-myelocele last. As a typical example of the common kind, a specimen now in the College of Surgeons was quoted. This was a case of lumbo-sacral spina bifida, the size of a Tangerine orange, sessile, but constricted slightly at the point of attachment. The tumour presented normal skin for a short distance round its base, but the central portion consisted of a thin translucent membrane; along its vertical axis the tumour was slightly furrowed, this furrow corresponding to the attachment of the cord to the inner surface of the sac wall. The spinal cord ran almost horizontally across the upper part of the sac, and then became incorporated with the sac wall, from which also the lowest nerves arose; they then passed across the sac to gain the intervertebral foramina, from which they issued normally. The anterior and posterior roots of the nerves were separated from each other by an exaggerated ligamentum denticulatum. A careful dissection was often necessary in order to distinguish simple meningocele from syringo-myelocele. Mention was made of several variations; among these the division of the sac into smaller loculi, and the occurrence of bony outgrowths across the vertebral canal button-holing the spinal cord, were the most remarkable. Careful microscopic examination of the sac wall in a typical case of meningo-myelocele had disclosed the continuation of the central nervous system within its median vertical portion, the integrity of the central canal of the cord within this part, and the absence of true skin over it. It further displayed the absence of any meningeal cavities behind the incorporated portion of the spinal cord; it was clear, therefore

in the first place, that the nerve roots, which traverse the sac, arise from this intramural portion of the central nervous system, and that all expressions of descriptive pathological anatomy which imply a distribution of the nerves to the sac wall are a reversal of facts. Even more important than this, the histology of the sac wall in a typical case, by demonstrating the integrity of the central canal of the included portion of the cord, showed beyond dispute that the neural furrow does not remain unclosed in spina bifida, nor after having been closed is it subsequently distended by dropsy and ruptured. The absence of true skin from the central portion of the sac wall was next adverted to. The membrane implied that the mesoblastic basis of the true skin, and the structures lying in subjacent connexion with it, had not been developed. The presence of the cord in the sac wall offered no difficulty of explanation when its epiblastic origin was remembered. The theory therefore which best explained the pathological anatomy of spina bifida was that which assumed a primary defect of development of the mesoblast from which the structures closing in the vertebral furrow were developed.

2. *Clinical Course and Treatment of Spina Bifida.*—In order to form a correct estimate of the value of treatment by the injection of Dr. Morton's iodo-glycerine solution, the committee had endeavoured to ascertain as far as possible the natural history of the deformity when untreated, and had prepared tables of cases treated in various manners for purposes of comparison. As regarded the natural history of the deformity, the Registrar-General's report for 1882 showed 649 deaths from spina bifida in England and Wales, of which 612 died under one year of age. The committee held that, though a certain number of these deaths were due to local causes—rupture of the sac, draining away of the cerebro-spinal fluid, and subsequent septic meningitis—yet in a large proportion of cases death ensued from the marasmus and general defective nutrition so frequently associated with the deformity, and which could not be remedied by any local or other treatment. The tables next dealt with treatment by injection with simple solutions of iodine, and showed a considerable amount of success. Then ligature of the sac was considered, and here again good results seemed to have been obtained. Excision likewise had a considerable proportion of success. The plan of repeated tapping and pressure gave the least successful results of any. The injection of Morton's fluid, according to the committee's tables, showed a percentage success of between fifty and sixty. The high mortality was thought to be largely due to the treatment having been adopted in unsuitable cases on account of its simplicity and supposed safety. In spite of the favourable results of ligature and excision of the tumour as shown in the tables, the committee felt themselves compelled to report against these methods of treatment. There was reason to think that the published cases might be misleading, owing to some cases of failures not being recorded, while all the successes, being regarded as surgical triumphs, were almost certain to have been recorded. Moreover, it seemed probable that a careful selection of cases had been made. The committee therefore advocated the plan of treatment by injection, and preferably by the injection of Morton's fluid. The report was signed by Mr. Howard Marsh, Mr. A. Pearce Gould, Mr. H. H. Clutton, and Mr. R. W. Parker.

A large collection of drawings, illustrating the usual forms, as well as the most noticeable variations, of spina bifida was exhibited, and the committee especially acknowledged the help which Mr. Shattock had rendered them.

The PRESIDENT said that the report contained a collection of information which could be found nowhere else. He ventured to say that many previous notions would have to be given up when the report became public property.

Mr. GEORGE LAWSON read the report of a case in which he had performed successfully Œsophagotomy for the removal of a plate with three false teeth, which had been accidentally swallowed and was impacted in the œsophagus. The patient, a milkwoman, aged fifty-five, was admitted into Middlesex Hospital on Jan. 14th, 1885, having about half an hour previously swallowed a vulcanite plate with three artificial teeth. Mr. Lawson endeavoured, without success, to remove the foreign body with a pair of long curved œsophagus forceps. An incision about three inches in length along the lower prominent border of the sterno-mastoid muscle was made; the sterno-mastoid and the omo-hyoid with the carotid sheath were drawn outwards, whilst his colleague, Mr. Gould, drew the trachea in the opposite direction, and with his fingers on the right side of the neck pressed the œsophagus towards the incision. The œsophagus was now visible, and the plate could be easily felt with the fingers. A vertical incision was then made in the œsophagus on to the plate, and after some difficulty the plate was removed by dividing it with the bone forceps. No sutures were put into the œsophagus. The superficial wound was then partially closed with sutures and covered with boracic lint charpie, over which was placed carbolic gauze and oil-silk. The patient was ordered to be fed with nutrient enemas and Slinger's nutrient meat suppositories. On the following morning the wound was dressed, and there was found to be a very free discharge of saliva and mucus through it. On the 19th, the fifth day after the operation, some redness appeared around the wound, and this increased for two or three days. This was followed by an offensive discharge, with some sloughs of cellular tissue. On the 20th, the seventh day after the operation, as much of the fluid taken by the mouth continued to escape by the wound, Mr. Lawson introduced an œsophagus tube with a funnel-shaped extremity, which projected about six inches from the mouth. This was kept in, and through it the patient was regularly fed. The tube was worn until February 8th, when, as the wound in the œsophagus was apparently closed, it was removed. During this period the tube was changed about every four or five days for purposes of cleanliness. On February 22nd the external wound was healed, and the patient since then has been able to take her food as usual. She has left the hospital, and is now quite well.—Mr. LEDIARD (Carlisle) contributed some notes on a case of œsophagotomy. The patient was admitted into the Cumberland Infirmary with a tooth-plate in the œsophagus, which had become dislodged from the mouth during sleep some twenty-four hours previously. There was pain on swallowing and emphysema of the neck. Various attempts prior and subsequent to admission failed to remove the plate, which was believed to rest somewhere behind the thyroid cartilage. Œsophagotomy was performed, but nothing was found in the pharynx or cervical portion of the œsophagus; it was believed that during manipulation on the table the plate may have been unconsciously moved from its resting-place, as the mucous membrane of the œsophagus behind the cricoid cartilage was somewhat bruised. The wound healed well. The plate was passed per anum on the nineteenth day, and the patient went home quite well, having been in hospital a month. The plate measured 1½ in. by ¾ in., and had sharp points and a hook at one end.—Mr. T. BRYANT said that no doubt the employment of the tube was a useful form of practice, but he thought that soft rubber tubes, like those used by Mr. Charters Symonds, would be an improvement on the hard tubes. Dr. Lediard's case taught us that we should not be in too great a hurry to interfere in such cases. He knew of the case of a man who passed a large plate with teeth eight days after the plate was swallowed. Sutures should not be put into the œsophagus where there was ulceration.

Dr. COLCOTT FOX read notes on two cases of Raynaud's Disease. A woman, aged forty-one, of extremely nervous temperament, dated the commencement of the disorder from ten years back, but though this was the period when her attention was attracted by pain, it is probable that she suffered from slight attacks for some years previously. In the earlier stages all her fingers continually went "like white wax." This condition of recurrent local syncope gradually gave place to local asphyxia, and the feet became involved. The fingers gradually lapsed into a state of chronic asphyxia, which was intensified by frequent attacks of more severity, often leading to "blood blisters and ulceration." The nutrition of the phalanges has suffered greatly, so that her hands are crippled, the fingers are fusiform in shape, livid, shiny, and withered, the nails variously distorted, and the end phalanges much atrophied and almost immovable. The nose and ears are affected to some extent on exposure. Cold and nerve shocks are ready exciting influences. The second case, that of a man aged fifty-one, was of considerable interest, from the fact that, like one of Raynaud's cases, he suffered from diabetes. His hands were not deformed, but he had suffered for several years from "dead fingers." He sought Dr. Fox's advice for symmetrical gangrenous patches on the skin, which recurred, and later for an attack of asphyxia of one great toe and lower third of the inner side of the leg, and then it was found that he had been attacked in a similar manner, though more severely, in the other toe, and on another

occasion "blood blisters" had formed beneath the end of his toes. Dr. Fox concluded his paper by giving a reference to some cases which have been recorded as scleroderma of the extremities. A woman with the latter disease was shown to illustrate the difference between it and Raynaud's symmetrical gangrene of the extremities.—Dr. BERNARD O'CONNOR referred to a case of symmetrical gangrene associated with intra-thoracic tumour which he had shown during the last session at the Pathological Society.—Mr. HARRISON CRIPPS was inclined to look upon the gangrene of the second case as due to the diabetes. He considered that the pathology of Raynaud's disease might be regarded as midway between that of a frost-bite which was due to local influences and that of senile gangrene, which was almost solely due to constitutional causes. Mention was made of a severe case of widely distributed gangrene; the gangrene affected those parts which were at the very periphery of the circulation.—Dr. BARLOW asked to be allowed to supplement his former paper published in the Transactions of the Society by an account of some subsequent observations of the cases therein recorded. He wished to say something of the important question of therapeutics. He spoke of the use of the constant current in two of the cases. The first case alluded to was that of the man aged forty-two, who first suffered from severe paroxysmal attacks which had gradually become chronic, in which the chief symptoms were pain, coldness, and blueness, followed by tingling. In the autumn of 1883 the treatment was begun. At first one pole down the spine and another on the extremity was the method used as advocated by Raynaud. Later on he used with better results two poles to the asphyxiating part. This was done with the aid of a bath of salt water or by "painting" the part with both poles, which was the simplest and best method. Twenty minutes a day was the time devoted to the treatment, which lasted from August to April, and was followed by most decided benefit, which had been permanent. Shampooing was also advised to be continued, and had been practised before the galvanism, with but little success however. Acute paroxysmal attacks he had also treated by means of the constant current. In August, 1884, he had under his care the case of a girl in whom the asphyxia appeared in the hands and feet, lasted about two hours, and generally came on about 9 A.M. or 5 P.M. There was intense pain, and the feet became quite black to about two inches above the ankle. Drawings of this condition were exhibited. This case, which was treated by repeatedly reversing the current, of the strength of about twenty cells, gave decided results, for during some of the attacks but one foot was treated, and this foot recovered whilst the other remained black as long as in an ordinary attack. Nitrite of amyl was used, but had no influence on the local asphyxia, although the physiological effects were produced. In some cases the use of the constant current locally at the commencement of an attack effectually prevented its development. He suggested that the constant current and vigorous shampooing would prove beneficial in Dr. Fox's first case. He thought the action of the galvanism was simply that of a local stimulus to the circulation.—Dr. COLCOTT FOX, in reply, said in his cases the most severe pain was experienced as the attack was passing off. He did not think the gangrene was due to the diabetes in his second case, which had all the characters of Raynaud's disease.

Mr. WILLIAM ANDERSON read notes of a case of Papilloma of the Bladder. The patient, aged fifty-three, was admitted into St. Thomas's Hospital on August 9th, 1884, with symptoms of vesical tumour of twelve years' duration. The first indication of the disease was an attack of apparently spontaneous hæmaturia in 1872. After the third attack the relapses appeared about four times yearly. The hæmorrhage was for a long time the only symptom, and nothing confirmatory could be educed by investigation of the urine or by vesical examination, except a peculiarly localised tenderness in the region of the trigone on contact with a sound. In June, 1884, a vesical catarrh became superadded. On Aug. 14th the *boutonnière* operation was performed, and a soft flocculent growth was found occupying the region of the trigone, extending upwards for about one inch and a half from the internal meatus, and one inch on either side of the median line. The mass was removed by means of forceps, some hæmorrhage resulting. The progress of the case was satisfactory, and on Sept. 10th, twenty-seven days after the operation, the patient was discharged well, except for a minute perineal fistula and a trace of blood in the urine. He is still in good health. The points of interest in the case were the extremely slow evolution of the tumour, twelve years, and the absence of conclusive evidence of the nature of the disease before the digital exploration of the bladder. Under such circumstances any operation determined upon could only be exploratory in the first instance, but the patient probably owed his life to the surgical intervention. Theoretically it seems probable that relapse would take place sooner or later in a rather large proportion of cases considering the difficulty that must frequently arise in making sure of the complete removal of every portion of the tumour. Bearing in mind also the very slow development of the primary growth in many instances, it might be expected that the signs of recurrence would occasionally be deferred until a very late period. Out of thirty-eight cases in which the nature of the tumour was sufficiently indicated in the report, there are four instances of undoubted and four of probable recurrence, all within a year of the operation. Complete relief is noted in one case for five years up to the date of record; in one for four years; in five for two years; and in four for periods ranging between twelve and fifteen months. In nineteen other cases no signs of recurrence had appeared at the time of the report, but the observations had been limited to a term of less than twelve months. There are thus as yet only eleven cases out of thirty-eight in which is registered an immunity of one year and over, against eight cases in which relapse is noted as certain or probable.

Mr. BERNARD PITTS read notes of a case of Tumour of the Bladder. The patient, aged forty-three, was admitted to St. Thomas's Hospital on September 10th, 1884, suffering from some hæmorrhage from the bladder. He had a blanched and debilitated appearance, and stated that he had been passing blood with his urine for more than two years, and that of late the hæmorrhage had considerably increased in quantity. He had never suffered pain, but had been troubled of late with irritability of the bladder. The urine was offensive, deep red in colour, and contained much clot; microscopical examination showed traces of villi. A perineal exploratory operation was performed on Sept. 15th, and a large pedunculated tumour discovered on the right side, just below the orifice of the ureter. With serrated forceps portions of the softer part of the growth were broken off, but the wire of a strong écraseur was subsequently passed round the pedicle and the whole of the tumour thus removed. The pedicle was about one inch long, and of the thickness of a finger. A soft tube was left in the wound, and removed on the fourth day. The patient made a quick recovery, and on October 7th was passing all his urine the right way. He rapidly regained health, and has had no trace of further hæmorrhage up to the present time. The tumour, on microscopical examination, proved to be a fimbriated papilloma with the usual structure. Some remarks were made on the diagnosis of the case, which depended rather on the prominence of the hæmorrhage as a symptom than on the microscopical evidences in the urine. The probe-pointed gorget was tried but abandoned, and the dilatation of the neck of the bladder was made with an ordinary director as a guide for the finger. There was a good deal of bleeding during the manipulation with the forceps, and the operation would have been less prolonged if the écraseur had been used in the first instance. It was not, however, until portions of the growth had been removed that the extent of the pedicle was discovered. The prognosis in this case was a very favourable one, for by using the écraseur the pedicle was cut off quite close to the wall of the bladder, and the rest of the vesical surface was examined by the finger and found to be healthy.—Mr. R. J. GODLEE considered that it was justifiable to make an incision into the bladder in cases which must inevitably be fatal. He referred to such cases in which it was impossible to remove the whole growth, but the patient's life might be prolonged, and certainly their existence rendered more tolerable, by incision into the bladder with removal of as much of the malignant growth as was possible with safety. — Professor HUMPHRY said, on invitation from the President, that his was the first case of exploration of the bladder that had been done in this country. He had heard that the boy was quite well two or three years after the operation. He had been much struck by the long period of cessation of hæmorrhage in cases of villous tumour of the bladder. He first became aware of this fact by a study of the specimens in the museum of St. George's Hospital. He could not interpret this fact. The multiple character of

the growths was one reason why they were so difficult to cure radically.

Mr. T. BRYANT, in bringing the business of the session to a close, said that he considered that the great function of the Society was to discuss papers; and he thought it should not encourage the reading of long papers. The encouragement of full debating powers was all-important in a clinical society, for such debates served to show some fallacy or to elucidate new facts in the most telling manner.

The following specimens were exhibited:—

Mr. Jessett: A case of Plastic Operation for Epithelioma of Lower Lip.

Dr. Colcott Fox: Two cases of Raynaud's Disease.

Dr. de Havilland Hall: A case of (?) Rheumatoid Arthritis, with nodules on the head and clavicle, probably of syphilitic origin.

Dr. Hale White and Mr. Arbuthnot Lane: A patient with a Cervical Rib.

Dr. A. T. Myers: A case of Raynaud's Disease in a boy aged twelve years, in which the ears were affected, and there was Paroxysmal Hæmoglobinuria. The blood showed signs of disintegration of its red discs.

Dr. Stephen Mackenzie: A Remarkable Case of Nævoid Condition of Scalp, having a configuration very like the cerebral convolutions.

Mr. R. W. Parker: Sacro-coccygeal Meningocele.

Mr. Arbuthnot Lane: Fracture of both Superior Cornua of the Thyroid Cartilage.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

AT a meeting of this Society on March 6th,

Mr. BRUCE CLARKE showed a boy aged nine, who was convalescent from a Compound Starred Fracture of the Occipital Bone, together with a Linear Fracture of the Frontal Bone. Tetanus with emprosthotonos set in on the thirteenth day after the accident. Also a case of Union after Fracture of the Lower Epiphysis of the Humerus in a boy, and a successful case of operation for Strangulated Inguinal Hernia.

Dr. THOROWGOOD read notes of two cases of Peritoneal Abscess following attacks of enteric fever. Case 1 was that of a little girl aged ten years, seen with Dr. Eyre of Forest-hill. The patient's illness commenced about Dec. 2nd with symptoms of true peritonitis; typhoid spots subsequently appeared. Two days after return of temperature to normal a swelling appeared at the umbilicus, which, on being punctured, discharged a large quantity of foul-smelling pus. A drainage-tube was inserted, and beef-tea, tonics, and brandy were given, and, notwithstanding congestion of the base of the right lung, the wound was quite healed by Jan. 17th, and the patient made a good recovery. Case 2 was that of a woman aged thirty, who was admitted into the West London Hospital on Oct. 14th, 1884. The attack commenced on Sept. 27th with rigors, and was followed by vomiting and diarrhœa. Temperature on admission 100·4°; pulse 132. The patient lay on her back with her knees drawn up, and complained of much abdominal pain. On Oct. 17th the right side of the abdomen was very tender, and two typhoid spots were observed. Pea-soup motions; diarrhœa moderate. On the 21st an abscess was opened underneath the jaw, and healthy pus flowed out. The patient seemed to be doing well. On Nov. 2nd her temperature was 101°, pulse 132. A troublesome cough came on suddenly, followed by a copious expectoration of pus mixed with blood. There was dulness, with crepitant râles, at right base. On Nov. 6th the abdomen was noticed to be swollen and distinct fluctuation was felt; abundant purulent expectoration; pulse 150, temperature 101·5°; fluctuation in abdomen became scarcely perceptible after the copious expectoration of pus. Exhaustion set in, and, notwithstanding stimulating treatment and diet, the patient died on Jan. 26th. The source of the pus was the question which presented itself in this case. Suppuration of mediastinal glands was suggested, but there had been no difficulty in swallowing nor any noticeable dulness about either posterior or anterior mediastinum. The fluid in the peritoneal cavity appeared thick and similar to that expectorated. This, with the persistent crepitant râles at the extreme base of the right lung, gave support to the opinion that the pus came from an abscess below the diaphragm. The patient's previous health had been excellent. Nothing was noticed in relation to the liver. The post-mortem examination by Mr. Percy Dunn showed that a large abscess had formed in a sac quite apart and shut off from the intestines on the right side, and had worked its way upwards, perforating the diaphragm on both sides, ultimately finding its way into the bronchial tubes.—Dr. TRAVERS thought that in the absence of internal symptoms the diagnosis of typhoid fever on the strength of one spot was hazardous.—Dr. BENNETT said that though he had seen many undoubted cases of typhoid without spots, he had never seen a case where the spots did not class it as one of typhoid.—Dr. THOROWGOOD said the spot in his case was a typical one, and appeared about the time when the eruption was to be expected (second week); at the same time he was not prepared to say positively what the case was, nor was he enabled to say what the starting-point of the abscess was. No evidence of cicatrisation was found in the intestines.

Dr. HERRINGHAM showed a child aged three years and a half, in whom Hemiplegia had come on fourteen months ago. There was at that time palsy of the left arm and leg, and of the lower facial muscles of the left side, with almost complete palsy of the third nerve on the opposite side. Rhythmical tremors of the left side, increased by exertion, began even before the palsy was noticed, and continued ever since. The right third nerve had now almost recovered, but contraction and rigidity had set in on the left side, and were increasing. The child was in good health, and growing fast; no loss of mental power; never any optic neuritis; nor any history of syphilis or rheumatism. Heart normal. Iodide of potassium, arsenic, and tonics had had no effect. The diagnosis was a lesion in the right crus cerebri.—Dr. BENNETT said he saw this case some months ago, and was one of those who diagnosed the case as one of chorea. He did so again to-night, and his prognosis was favourable.—Dr. THOROWGOOD said that all along his opinion had been in favour of a slight hæmorrhage into the right crus, probably from thrombosis. Mr. LAWRANCE, the President, said the movements seemed rather convulsive than choreic in nature.—Mr. THOMPSON asked whether the gentlemen who diagnosed the case as one of chorea were aware that complete hemiplegia existed on the right side, and that no improvement had taken place.—Dr. HERRINGHAM said, in reply, that no one who had watched the case had ever thought it to be chorea, nor could he conceive of anyone doing so, unless they understood by chorea "anything that shakes"; here the movements were rhythmic, in chorea they are distinctly not so; again, in no case of chorea of which he had heard had paralysis of the eye, or rigidity, or paralysis without wasting, occurred as here. As to the possibility of the presence of a tumour, he thought the lapse of a year had put it out of the question, as the tendency of cerebral tumours was to a fatal result. Eyesight had been normal all along; and there was no trace of heart mischief.

HARVEIAN SOCIETY OF LONDON.

AT the meeting on May 21st, the President, Dr. T. Morton, in the chair,

Dr. F. H. CHAMPNEYS read a paper on Certain Points in the Diagnosis of Cervical Stenosis. The author described briefly the anatomy and physiology of the cervix uteri; its cavity, its orifices, its secretion. As regards the os internum, it was pointed out that this orifice really belongs to the uterine body, and reasons were given for thinking that its size is variable in the same individual, and that it is not rigid, but undergoes spontaneous dilatation, being under the dominion of uterine polarity. He then discussed the diagnosis of stenosis, and showed that no certain inference could be drawn from difficulty in introducing the sound, because it could not be guaranteed that the sound was passed exactly in the calibre of the canal (though this could be assured in the case of the os externum), and because it might catch in a fold of mucous membrane. The diagnosis could, however, be made if difficulty in withdrawing the sound were experienced, because the instrument then travels of necessity in the right path. The paper concluded with notes of sixteen cases of cervical stenosis observed at St. George's Hospital.—The President, Dr. John Phillips, and Dr. A. Routh took part in the discussion. In answer to questions from various speakers, Dr. CHAMPNEYS expressed his disapproval

of the operation for incision of the os internum on the grounds of the risk to life which it involved. Vaginal examinations of virgins should be avoided as a rule. Nevertheless where necessity demanded an examination, the fact of virginity should not be allowed to stand as an obstacle to the patient's chance of recovery. This should specially be borne in mind in connexion with dysmenorrhœa, which in the author's opinion often laid the foundation of serious pelvic disease.

Mr. H. E. JULER offered some remarks on the Use of the Ophthalmoscope in the Practice of Medicine. Dealing first with the methods of ophthalmoscopic investigation, the author described the three modes of examination known as the direct method, the indirect method, and the shadow test. Among the ocular affections which constantly recurred in ordinary medical practice, and for the safe diagnosis of which the ophthalmoscope was necessary, Mr. Juler referred to albuminuric retinitis, optic neuritis, retinal hæmorrhage, atrophy, tobacco amaurosis, and faulty refraction. The subject was illustrated by numerous diagrams, and by the use of artificial models of the eye. The more recent forms of ophthalmoscope were also exhibited, and their use practically demonstrated.—Dr. SANSOM referred to the use of the ophthalmoscope in children's practice. With a little care and patience it was possible to examine the eyes of most, if not of all, children. Great assistance in matters of diagnosis could thus be obtained. Thanks to this help, he had frequently been able to recognise the existence of hypermetropia, of cerebral tumour, and of renal disease. The extended employment of the ophthalmoscope could not be too warmly advocated.—Dr. Alderson, Dr. Sydney Phillips, and Dr. Culver James also took part in the discussion.

The next meeting of the Society was announced for October 15th, 1885.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

AT a meeting of this Society on April 8th, Norman Chevers, M.D., C.I.E., President, in the chair,

Dr. G. B. LONGSTAFF read a paper on the Seasonal Prevalence of Continued Fevers in London. The author referred to the well-known decrease in the mortality from "fever" in recent years. This decrease, he stated, was mainly under the heads of typhus and simple continued fever; the mortality from enteric fever in London had remained comparatively stationary for the last ten years. Since 1869 no fewer than 4374 deaths had been attributed to simple continued fever in London. Following the method of Messrs. Buchan and Mitchell, the author had constructed a diagram showing the seasonal prevalence of the three forms of fever in London. The data made use of were the admissions to the London Fever Hospital, the admissions to the hospitals of the Metropolitan Asylums Board, and the weekly deaths in London since 1869. The results obtained from these various sources were in the main concordant. Enteric fever yielded a well-marked curve; the disease was least prevalent in late spring and early summer, most prevalent in the autumn. The curve of scarlatina was very similar to that of enteric fever. The small numbers available in the case of typhus did not give such well-marked curves, but such as they were, they were very different from those of enteric fever. The mortality and the admissions to hospital from typhus were at a minimum in July, August, or September; from this minimum they increased to an autumn maximum in October, or more usually in November; they were generally excessive throughout the winter; and another maximum, commonly higher than that in the autumn, occurred in January or February. The fall might be sudden in March, or more gradual, and as late as May. Simple continued fever appeared to be even less influenced by season than typhus; the imperfect curve yielded by it, contrary to expectation, showed no autumn maximum like that of enteric fever. Like typhus, simple continued fever showed a maximum in January or February and a minimum in August or September. The author of the paper considered that the deaths still so frequently assigned to simple continued fever were really due to some other cause, and suggested general tuberculosis, septicæmia, and pneumonia. The figures brought forward showed that the hospitals of the Metropolitan Asylums Board dealt with an increasing proportion of the cases of infectious disease in London; but this increase was steadiest and most marked in the case of scarlatina. In 1884 the proportion of deaths in the hospitals of the Board to the total deaths of the metropolis was 11 per cent. for enteric fever, 19 per cent. for typhus, and 16 per cent. for scarlatina.

Dr. THORNE THORNE exhibited some Plans of Isolation Hospitals which had just been issued by the authority of the Local Government Board, and which are designed to meet the requirements of small and sparsely populated districts in such a manner as to secure the best available separation, both of diseases and sexes, without the need for erecting separate pavilions. One of the plans showed how, under one roof, four beds might be placed so as to secure this end. Special arrangements were also made by which nurses could be provided with bedrooms in the same building without any chance of their apartments becoming infected with ward air. This plan is eminently adapted for securing to small towns of some 4000 inhabitants or less, or to public institutions, the maximum accommodation at the smallest cost. The other plan provided twelve beds instead of four, all under the same roof, but having no aerial communication with each other. The pavilion is not only adapted to towns of some 10,000 inhabitants, but it should always be provided as one of the pavilions where two or more are to be erected, its advantages being considerable where only one or two cases of a disease are under treatment, and also for the purposes of isolating doubtful or special cases.

CAMBRIDGE MEDICAL SOCIETY.

AT a meeting of this Society held on April 10th,

Dr. GROVE (St. Ives) related a case of Recovery after Severe Injury to the Head with Symptoms of Fractured Base. He was summoned at 6.30, on November 3rd, to the wife of a farmer who had met with an accident. She was forty years old, and was always healthy and temperate. She had returned home an hour previously from marketing, and had driven the pony carriage round to the yard, but fell in getting out. She was found with her head lying on the stone step in a pool of blood, which was running out of the right ear; she was insensible, and vomited soon after being removed into the house. When seen she was almost unconscious, but answered in monosyllables when spoken to loudly. The right meatus was filled with blood, which trickled out. She was placed in bed and ice applied to the head. There was no sign of injury to the scalp, the pupils answered sluggishly to light, and the pulse was slow, about 60. The next day she was more conscious, her face was flushed, and the pulse 84; she had vomited several times during the night. The right side of the face was swollen and bruised, and she complained of pain in the head; blood mixed with serum was flowing from the ear. The head was shaved, ice applied, and five grains of calomel were given. The third day she was better, slept more quietly, pulse 96, bowels relieved. On the fourth day, on lifting the eyelid of the right eye, blood was seen freely effused under the conjunctiva, and the day after there was evidently some paralysis of the right side of the face, with diplopia and indistinct vision with right eye, loss of sensation on that side of the face, and complete deafness with the right ear; any movement of the head caused great pain. She was fed on milk for about a month, and the bowels kept well open. The improvement was gradual, and in six weeks she was able to walk into another room. Her condition about four months after the accident was as follows: she is quite deaf with the right ear; the taste is impaired on the right side of the tongue; and the sensation on the right side of the head and face is diminished; the sight also of the right eye is not so good as the left, but there is no diplopia now. Dr. Grove was of opinion that the injury was caused by a direct blow in front of the right ear. The subsequent symptoms were very grave; the severe hæmorrhage from the internal ear and the paralysis, indicating injury to the fifth and seventh nerves, pointed to fracture, probably, through the petrous portion of the temporal bone.

Dr. EARLE (Melbourn) exhibited the Temporal Bone of a Suicide with Bullet Wounds. In February, 1884, he was sent for to see a man who was said to have committed suicide, and he found that he had shot himself in the right ear. The external ear was slightly swollen, and there was some hæmorrhage, but besides this there was little to be noticed. A bullet could be felt with the probe, deep in the

ear, but could not be extracted. He was then insensible, but he partly regained consciousness during the next few days. On the seventh day there was copious discharge from the left eye, and on the tenth day the right eye also became involved, and there was ulceration of the cornea of the left, which ultimately collapsed. There was also slight facial paralysis. On the fifteenth day he died, and a post-mortem examination revealed the presence of two bullets (a fact that had previously been suspected, as two chambers of the revolver were found empty). One bullet was found embedded in the mastoid process of the temporal bone, the other was found at the junction of the squamous and petrous portions of the temporal bone with the great wing of the sphenoid. The inner table of the skull was not pierced, but raised up, and over this the dura mater and pia mater were blackened to about the size of a sixpence; above this there was an abscess in the cerebral substance containing about a drachm of pus. It seemed remarkable that the man could have discharged two chambers of his revolver, with the results already related, with such unerring aim as not to injure the external ear, particularly as the absence of any blackening about the orifice of the auditory canal would seem to indicate that the pistol could not have been held very close. Further, that the bullets did so little damage as experiments with the rest of the cartridges proved that, at the distance of a yard, a bullet would go clean through a three-quarter inch deal board, and even at ten yards would be very deeply embedded.

Dr. EARLE also showed a specimen of Aneurysm of the Arch of the Aorta, which he had removed from a middle-aged man who died suddenly. He had been a patient at Addenbrooke's Hospital under Mr. Laurence Humphry with symptoms indicating a tumour pressing on the œsophagus, but there were no definite physical signs. The aneurysm was in the third part of the arch of the aorta, and had ruptured into the œsophagus by a small ragged orifice.

Dr. BRADBURY exhibited a specimen of Sarcoma of Ovaries, and read the case of a woman, aged thirty-eight, single, from whom the growth was removed. Her condition when admitted into the medical wards on March 7th, 1885, was as follows: the patient was thin and had rather the "ovarian expression," the abdomen measured thirty-five inches at the umbilicus, not uniformly distended but larger on the right side, where a hard swelling could be felt, it was dull to percussion; elsewhere percussion was resonant except in flanks. The lower part of the chest was dull to percussion on both sides, with feeble breathing, more especially on the right side. Urine 1025, no albumen. The ascites and effusion into the pleura increased and the legs began to swell; on March 22nd, there being much dyspnœa, the right pleural cavity was tapped, and 104 ounces of serous fluid drawn off, with temporary relief. The patient died on March 25th. The post-mortem examination showed much ascites, and in the right iliac region was found a large irregularly nodulated hard tumour pushing the intestines aside, and pressing the uterus downwards and to the left side. It was not adherent to surrounding parts, and was evidently growing in the right ovary. The left ovary was the seat of a similar tumour, only much smaller. The uterus was healthy. The peritoneum, especially that covering the under surface of the diaphragm, and the mesentery were studded with hard flattened nodules of small size; similar nodules were found covering the left pleura and lung, and there was much clear fluid in both pleural cavities. A microscopic examination of the ovarian tumours and secondary nodules showed that beneath the outer white glistening capsule was a zone of varying thickness, corresponding apparently to the tunica albuginea of the normal ovary, consisting of lamellæ formed by fasciculi of large spindle-shaped cells. From this zone septa descended into the bulk of the tumour, dividing it into larger and smaller lobules, and finally became lost by blending with the deeper substance. The lobules were good examples of the mixed-celled sarcoma, and some contained remains apparently of small Graafian follicles. All the secondary growths examined proved to be mixed-celled sarcomata. A direct connexion between the pleural and peritoneal growths was seen in the diaphragm, where clusters of sarcoma cells stretched along the lymph spaces between the tendons and muscle bundles and connected the serous sacs.

VACCINATION GRANT.—Dr. James Tily of Chiswick has received the Government grant for efficient vaccination.

THE GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

THURSDAY, MAY 21ST.

SIR H. ACLAND, PRESIDENT, IN THE CHAIR.

THE Council went into committee for the further consideration of the recommendations of the Branch Councils. The debate was resumed by

Mr. SIMON, who said that in adopting the proposal of Dr. Banks yesterday the idea of the Council was that the second alternative should be adopted by the student, and that before entering on his professional course he should pass an examination in mechanics, elementary physics, chemistry, and biology. The promoters of the amendment, however, appeared to think that four years should be spent at a recognised medical school. His own view was that as much liberty should be allowed to the student as possible. Could it be gravely asserted that if a man spent six months as an assistant house-surgeon in a good provincial hospital like those of Bradford and Sheffield, or at a lying-in hospital, the time so spent should not be included in the curriculum? The English proposal left room for alternatives of that kind. If too much pressure was put on the student in favour of medical schools, the result might be that the number of students would be altogether out of proportion to the opportunities for practice. Thus several dressers might gather round one patient, and there were stories of two dressers having to attend to one leg between them. The Council ought to call in to the aid of medical instruction as many hospitals and infirmaries as possible. Many of the members of the Council were also members of recognised medical schools, and they should be on their guard against *εἰδωλον*. If a committee of curriers were considering the question of armouring ships they would probably come to the conclusion that there was nothing like leather. He objected to tyrannical regulations. If it were possible to do with an examination without any curriculum at all, he should be in favour of it. The English proposal was as far as it was desirable to go, and he hoped that the amendment would not be pressed.

Mr. TEALE agreed that it was undesirable to rivet the fetters too closely. Each branch of the kingdom should be at liberty to adopt the method it thought most convenient.

Dr. PETTIGREW deprecated the system of pupilage alike for the student, the profession, and the public. A busy practitioner could hardly be expected to give much time to teaching. In a hospital it would be better for the student to have only one case well demonstrated than a great number of cases treated in a general way. He did not think three winter and two summer sessions sufficient. Many instances had arisen of the evils produced by unqualified assistants, and they were calculated to bring the profession into disrepute. He was therefore in favour of Dr. Haldane's amendment.

Dr. HUMPHRY protested against Scotland and Ireland laying upon England a yoke which she was unable to bear. Scotch students might be willing to listen to a hundred lectures on surgery in six months, and to profit by them; but it was otherwise with English students. The details and processes of education should to a great extent be left to the licensing bodies themselves. To the Scotch and Irish mind a pupil was an unqualified practitioner, but in truth he was not a practitioner at all. In many cases it was a good thing for a young lad from school to be placed under a judicious medical practitioner, who could look after not only his studies but his morals. He had himself commenced his studies with a strong dislike to everything connected with the profession, but he was placed under a superior medical practitioner in a town where there was a hospital, and where his abhorrence was converted into an ardent love for his studies. Subsequently he had three years in a medical school, and then had the good fortune to become surgeon to a hospital. At hospitals like those at Brighton and Norwich the student was under first-rate practitioners, and it would be monstrous to exclude work done at such places from the curriculum.

Dr. STORRAR admitted that no better instruction could be given than at hospitals like that at Norwich, and under a good medical practitioner; but the Council's recommenda-

tions were not mandatory, and the bodies might interpret them with some latitude. If, however, the four years' study were not clearly specified, students might devise means for evading the regulations, and parents might do the same from motives of economy. The College of Surgeons and the College of Physicians might be justified in allowing a year to be passed at the hospital at Exeter or Leeds, but that was different from laying down as a principle that four years might mean something less than it really did.

Dr. HAUGHTON thought that the debate was the most important of any in which he had taken part since he had been on the Council. In Ireland there were thirty-two county infirmaries with from forty to sixty beds, and there were also fever hospitals. Many of the most distinguished physicians and surgeons in Ireland had attained high rank after attending those infirmaries, which were recognised by the College of Surgeons. The time spent in a county infirmary was regarded as equal to half the time in a metropolitan hospital; and it was the same at Trinity College if the surgeon at the infirmary was considered competent by medical professors. But Ireland would never recognise apprenticeship to a private practitioner, who could not possibly teach mechanics, physics, chemistry, zoology, and botany. No doubt an exceptional result of private study had been produced in the case of Dr. Humphry, notwithstanding his imperfect education (laughter), but Dr. Humphry would have risen still higher if he had been trained on the Scotch or Irish system (much laughter). He (Dr. Haughton) strongly objected to giving the student permission to spend a year and a half out of the four years as an apprentice.

Dr. HUMPHRY reminded Dr. Haughton that the resolution only referred to recognised schools, not to infirmaries or hospitals.

Dr. SCOTT ORR said he did not think there should be one rule for England and another for Scotland and Ireland.

Dr. DUNCAN said he objected to the English proposal, because it was practically undoing what was done on the previous day. It was absurd to require five years and not to require any more study. He had opposed the five years, not because he objected to that time, but because he thought the motion premature. After all, the Scotch proposal only required thirty-three months out of the sixty to be spent at a medical school, leaving twenty-seven months to be spent elsewhere. That was a most liberal arrangement; indeed, he thought far too liberal. With such an arrangement the provincial hospitals would have plenty of applicants for their offices. With regard to attendance on lectures, he had no doubt that the present movement for a teaching university for London was for the purpose of extending professorial teaching and providing more lectures. English students were as desirous as Scotch students to have more lectures, as he could state from his own experience. At present the lectures on midwifery in London were very meagre. Some courses did not consist of more than twenty lectures, which he considered a mere farce. Some of the students who had attended such lectures in an eminent school had told him that they wished they had never gone to them, as they were not worth hearing.

Dr. Duncan's speech was interrupted by the announcement that the hour had arrived which the Council had appointed for the further consideration of the case of Ebenezer Bryceson. Strangers then withdrew, and the case was considered in private.

On the readmission of the public it was announced that the Council had agreed to the following resolutions:—(*a*) "That Ebenezer Bryceson is judged, after due inquiry, to have been guilty of infamous conduct in a professional respect, in that he has produced to the Royal College of Surgeons of England forged certificates of professional study." (*b*) "That the General Medical Council, though it adjudges Ebenezer Bryceson guilty of infamous conduct in a professional respect, does not, under all the circumstances, now direct his name to be erased from the Medical Register."

Sir H. PITMAN moved: "That the solicitor of the General Medical Council be authorised to take the opinion of such counsel as he may think fit as to the readiest mode of carrying into effect the penal clauses of the Medical Act."

The motion was agreed to without discussion.

Dr. STRUTHERS suggested that, as all the educational business could not be completed at the remaining sittings of the Council, it would be better to take the other business first.

The Council then adjourned.

FRIDAY, MAY 22ND.

SIR H. ACLAND, PRESIDENT, IN THE CHAIR.

The further consideration of the motion and amendment with regard to Recommendation 21 first occupied the attention of the Council. By permission of the Council the amendment was altered to read as follows: "At least four winter and three summer sessions shall be passed at a school or schools recognised by any of the licensing bodies mentioned in Schedule A of the Medical Act."

Dr. DUNCAN, continuing, said that upon coming to London he increased the number of lectures on midwifery from a nominal forty, which was a practical thirty, to between seventy and eighty. The lectures were given every day in the week, and it was the largest midwifery class in England. If he gave 100 or 120 lectures, he was sure students would attend regularly. When the question of midwifery was under consideration about six or eight years ago, two of the most eminent medical lecturers on midwifery in London wrote clamorously for an increase from forty to 100 in the number of lectures. Dr. Humphry's opinion therefore, as to the capacities of English medical students, was not held by some of the eminent midwifery lecturers. The recent movement for a teaching university in London was doubtless partly the outcome of a desire for introducing into London what might be called the Scotch system of education. It would be a very great pity, he thought, if the extension of the curriculum for five years was not utilised in that way. He was satisfied that the apprenticeship system in England and Scotland was only valuable under peculiar conditions. If that system was ever restored, it must be in that modified collegiate method which was practised with great advantage in Edinburgh and Dublin. He should therefore support Dr. Haldane's amendment.

Mr. MACNAMARA said he was surprised to hear the observation of Dr. Humphry recommending the Council to legislate for Scotland and Ireland, and not to attempt to touch England. He wished to say that sitting round the Council table of his College were some of the most distinguished men in medicine, surgery, and midwifery (including Dr. Kidd), all of whom were engaged in teaching, and most of whom had commenced as grinders; and seeing that such men had suggested and enforced the plan of education now pursued in Dublin, it was only natural that the Irish representatives should bring it before the Medical Council. They were assembled not to legislate for one division of the kingdom or another, but to make general laws applicable to all. Dr. Humphry had told them of his own experience in connexion with his residence with a provincial practitioner. He (Mr. Macnamara) might be permitted to narrate some experience of a different kind. On the previous evening he had met a distinguished officer in the army; he had been educated according to the Irish system, and attributed to that method the high position which he had attained. He was an apprentice of his (Mr. Macnamara's), and he said: "After I left you I went to provincial practice as an assistant, and I was so disgusted with it that I resolved to enter Her Majesty's service. The gentleman had a large practice. I used to go round and prescribe for patients, and when I came back I often found my prescriptions altered because the medicines were too expensive. The pupils made up the prescriptions, and that was the experience they had to enable them to present themselves for examination. The practitioner himself taught them nothing because he did not know anything to teach. The students spent part of their time in compounding prescriptions, and the rest of the time in smoking." They could never consent to anything of that kind in Ireland or Scotland. Their duty was to legislate for the United Kingdom, and to provide one system of education applicable to every portion of Her Majesty's dominions. What the College of Surgeons in Ireland did was to allow twelve months in a provincial hospital to count as six months in a metropolitan one; but if a man spent his whole lifetime in a provincial hospital he must still spend four winter and three summer sessions in a recognised medical school. In three towns in Ireland there were not only hospitals but admirable schools, where the student could carry on his studies as well as in Dublin.

Dr. HUMPHRY desired to remind Mr. Macnamara that he had never suggested separate legislation for one portion of the kingdom. The resolution he had supported was that at least one winter and two summer sessions should be passed at some recognised school, but that if either of the three

divisions of the kingdom desired to extend that period it should be at liberty to do so.

Mr. MARSHALL, in supporting Dr. Haldane's amendment, said that, having gone on the line of extending the period of study, the Council would be inconsistent if it did not endeavour to utilise the additional period in the best possible way. It was the business of the Council to take care that students had a good knowledge of the science on which medicine was founded. When men left the schools they rarely returned to them, and it was only the education received in the schools over which the Council could exercise any control. They could not control practitioners, but they could insist on a high-class scientific education in the medical schools of the country.

Dr. STRUTHERS considered that the point at issue was the most important of those that had been brought before the Council. The three years' English system had always been looked upon in Scotland in connexion with the drugging and apprenticeship system, which was the worst feature of practice in England. No doubt the student might learn something from a general practitioner, but would he learn as much as he could at a medical school? The practitioner was a busy man, constantly in the saddle or in his brougham, and the pupil was chiefly occupied in making up prescriptions, learning really nothing of what was inside the body. It was impossible to combine a trade and a profession. According to the English system, a medical man might be tempted to say, "I do not think my patient needs anything, but if I prescribe a dose, it will be 2*s.* 6*d.* or 5*s.* in my pocket." Such a system was degrading. The medical man in Scotland was a gentleman occupying the same position as the clergyman and the lawyer. Was that the case in the provinces in England? ("Yes.") According to his experience it was not.

Mr. SIMON: As much as in any other division of the kingdom.

Dr. STRUTHERS said that apprenticeship was part and parcel of the English system. It had been said that the Scotch graduates were not fitted to be good assistants. The fact was that they were too good to be assistants. They would make bad assistants in the same way that they would make bad grocers' assistants, and in that sense the worse they were the better. The student must begin with anatomy and physiology, and then proceed to pathology, and have some clinical training besides, before he was fit to visit patients. A man might have a thousand midwifery cases and yet be an unqualified man. The fourth year was really the best year for the student, and they could not afford to lose sight of him during that year.

Mr. SIMON said that no doubt amusing stories could be told with reference to general practitioners; and if it contributed to Dr. Struthers' happiness to believe that Scotch graduates were too good to be assistants to English practitioners, they could have no objection to it. But the question was not one of medical apprenticeships. The main question was whether public provincial hospitals should be recognised, or whether there should be a narrow limitation of medical education to a comparatively small number of specially privileged schools. They had no right to say that a medical practice could not be learned in a provincial hospital. His own bias would naturally be in favour of a London medical school, but he objected to a despotic law such as some members of the Council desired to impose. The English proposal was that a certain minimum period should be spent in a particular way; but if any of the licensing authorities desired to increase the period they were at liberty to do so.

Dr. CHAMBERS said he was anxious to extend the curriculum, in order to afford an opportunity to candidates for holding residentships or other medical appointments.

Dr. QUAIN said it was true that a man might get but little good from his residence with a general practitioner, but he might get still less good at a medical school. He believed that Dr. Struthers greatly undervalued the training to be obtained under a general practitioner. As to the value of lectures, with great respect to Dr. Duncan, he did not think very highly of them. He himself took honours at the University of London in midwifery, and never attended a lecture in his life. He could say as much against that kind of education as Dr. Struthers had said against apprenticeship. They wanted to get at results. Let the examinations be duly visited and made complete, and they wanted nothing more. As to whether there should be three or four sessions, he was ashamed to discuss such questions. Medical education was of a most unpractical character. A few weeks ago he visited a patient, and on asking the medical attendant how she was, he replied, "Temperature 100·5°," but he could tell him nothing about the state of the bowels or the urine.

Dr. WATSON said that what they had to consider was the difference between the education given at a medical school and that obtained in the condition of pupilage. He objected to maintain a condition of matters which to his mind was exceedingly bad. To decide upon the briefer period, and to leave it open to the universities and corporations to determine what they would demand, would be an unfortunate step for the Council to take. After all the steps that had been taken by the Council, there was one thing especially needed to elevate the condition of the profession—viz., that the practitioner should cease to be a druggist. As to the education likely to be received under a country practitioner, he considered that it would be worse than nugatory. He had been told by a friend who had been a pupil of a general practitioner in London (now dead), who had a number of ladies of distinction under his care, that sometimes when the medicines were being dispensed he would say, "Lady So-and-so is too well; put a little antimony in her mixture." Nothing of that kind would be likely to occur in connexion with the education given in a public school. Dr. Humphry had given a true picture of his own early experience, but it should be remembered that since that time the profession had undergone a great change. The present days were far removed from the time when one of the duties of a practitioner's assistant was to go body-snatching.

The PRESIDENT, before putting the amendment, said he had heard with some regret more than one humorous description of things that had occurred in former days in connexion with the medical profession. Anyone of his own age could confirm the truth of the descriptions: but he was quite sure some of the most hard-working, wise, and honourable Englishmen were to be found among country practitioners. He had, from accidental circumstances, a considerable knowledge of them in various parts of England, and if he were asked for a typical man of a practical, serious, and benevolent character, he would undertake to produce him from among the general practitioners of the kingdom. He also knew something of the difference between the circumstances of a Scotch and an English practitioner. It was an error to suppose that it was possible for all country practitioners in England to rely upon the quality of the drugs or the skill of the druggist in remote districts. In many cases the medicines could not be properly dispensed if they did not do the work themselves.

The amendment was then put, and carried by a majority of 16 against 5, three members not voting.

On its being put as a substantive motion

Dr. LYONS moved as an amendment: "That at least four winter and three summer sessions be passed at any school and hospital recognised by any of the licensing bodies mentioned in the Medical Act." This, however, was not seconded, and it accordingly fell to the ground. The motion was then put and carried.

The next recommendation considered was No. 22: "No teaching or licensing body should insist on the student taking more than one course of lectures on any one subject."

Sir H. PITMAN said it was the opinion of the English Branch Council that the recommendation should be omitted altogether; but perhaps it would save time to accept the suggestion of the Scotch Branch Council, seeing that anatomy and clinical instruction were exempted from the general rule laid down.

Dr. HALDANE moved, in behalf of the Scotch Branch Council, that the recommendation should read as follows. "No teaching or licensing body should insist on the student taking on any one subject more than one course of lectures, which should include practical instruction, but practical anatomy and clinical instruction should be exempted from this recommendation." In Scotland, he said, a course of lectures generally included 100, besides 50 as an additional practical course. That number was too great, and involved considerable additional expense to the student. Some of the 100 lectures should be devoted to practical teaching, except in the case of practical anatomy and clinical instruction. A single course, however, in practical anatomy and clinical instruction was not sufficient.

Dr. HAUGHTON said he was willing to accept the Scotch proposal if "surgery" were included in the exemptions.

Dr. HALDANE accepted Dr. Haughton's suggestion, and the motion was modified accordingly.

Mr. SIMON thought that the matter should be left to the

discretion of the schools. He agreed with the suggestion of the English Branch Council that the recommendation be omitted, and he would move as an amendment that that course be adopted.

Mr. MARSHALL seconded the amendment, which was carried by a majority of 11 against 9; and it was also carried as a substantive motion.

Sir H. PITMAN moved that Recommendation 23 read thus:—"The following are the subjects without a sufficient knowledge of which no candidate should be allowed to obtain a qualification entitling him to be registered:—(1) Chemistry, including the principles of the science, and the details which bear on the study of medicine, and the rudiments of heat, light, and electricity; (2) anatomy; (3) physiology; (4) materia medica and pharmacy; (5) pathology; (6) medicine, including medical anatomy, clinical medicine, and therapeutics; (7) surgery, including surgical anatomy and clinical surgery; (8) midwifery, including diseases peculiar to women and to new-born children; (9) theory and practice of vaccination; (10) forensic medicine."

Mr. SIMON seconded the resolution, which was then put and carried.

Dr. HALDANE moved: "That hygiene be added—viz., No. 11."

Dr. HERON WATSON seconded the motion, which was agreed to.

Dr. SCOTT ORR moved: "That mental disease be added as a separate subject—viz., No. 12." He remarked that numbers of practitioners were quite at sea with regard to insanity, although the most appalling consequences might result from their ignorance.

Dr. DUNCAN seconded the motion, which was supported by Dr. BANKS.

Dr HAUGHTON, referring to the recent trials in Dublin, said on that occasion many witnesses were called, some to swear that the accused was insane, and others that he was shamming. Such a state of things was a scandal to the medical profession.

Dr. HERON WATSON approved of clinical education in mental disease.

Dr. PETTIGREW considered that the subject might come in as a department of medicine.

Dr. STRUTHERS moved as an amendment, and Mr. SIMON seconded: "That the following footnote be inserted:—'It is understood that insanity, diseases of the skin, and other subjects on which special instruction may be given, are included in the above enumeration.'"

Dr. LYONS said that a Bill having reference to mental disease was now in Parliament, and it would not do for the Council to treat the subject as a mere subsidiary matter.

By permission of the Council, Dr. STRUTHERS then withdrew his amendment, and the original resolution was agreed to.

The Council then determined to dispense with Recommendations 24, 25, and 26.

Sir H. PITMAN moved, and Mr. SIMON seconded, that Recommendation 27, chap. 5, read as follows:—"The professional examinations shall be so framed as to secure that the knowledge of every practitioner whose name appears in the Medical Register has been tested in all the subjects of professional education which the Council deems essential—namely, (1) chemistry, including the principles of the science and the details which bear on the study of medicine, and the rudiments of heat, light, and electricity; (2) anatomy; (3) physiology; (4) materia medica and pharmacy; (5) pathology; (6) medicine, including medical anatomy, clinical medicine, and therapeutics; (7) surgery, including surgical anatomy and clinical surgery; (8) midwifery, including diseases peculiar to women and to new-born children; (9) theory and practice of vaccination; (10) forensic medicine; (11) hygiene; (12) mental disease."

The motion was agreed to.

The recommendations that had been passed in committee were now adopted by the Council.

The following report by the Dental Committee was, on the motion of Sir H. PITMAN, seconded by Dr. H. WATSON, received and ordered to be entered on the Minutes:—

"The case of Charles Rudolph Werner (Minutes for May 20th, Clause 14) having been referred to them to ascertain the facts in regard to such cases, the Dental Committee find these facts to be as follows: That Charles Rudolph Werner (registered on December 31st, 1878, as in practice before July 22nd, 1878) was on December 8th, 1884, in the Sheriff Court of Mid-Lothian, held at Edinburgh, convicted of misdemeanour, and thereupon sentenced to six months' imprisonment in due course of law."

The Council then rose for the day.

SATURDAY, MAY 23RD.

SIR H. ACLAND, PRESIDENT, IN THE CHAIR.

The Council reassembled at one o'clock.

Sir H. PITMAN, as chairman of the Business Committee, asked the President what course the Council desired to take in respect to the offence committed by Mr. Ebenezer Bryceson under Sections 39 and 40 of the Medical Act.

The PRESIDENT said that that question of course referred to the entry of the Bachelor of Medicine degree of Cambridge upon the Register. He could not say what course the Council was likely to take with reference to that, but he thought it his duty to apply to the solicitor of the Council to ascertain what, if anything, in his judgment should be done. As soon as his reply was received, it would be laid before the Council; but of course that could not be done during the present sitting.

The Council then resolved itself into committee for the purpose of the further consideration of the reports by the Branch Councils in regard to the General Council's recommendations as to the age at which students should be licensed to practise, and on professional education and examination.

Clause 29: "The professional examinations should be arranged in two divisions, the first division to embrace the more elementary subjects. The first division may be completed at or before the close of the second year of professional study, but the second division not till the expiration of two years after the passing of the first division, nor before the completion of the fourth year of study. The examinations, and the subjects included in each, should be such, and in such order, as may ensure, as far as possible, a due continuity and sequence of study."

Sir H. PITMAN moved the adoption of the English Branch Council's recommendation, although he could not quite agree with it: "The candidate should not be admitted to the second examination till he has passed the first, and he should not be admitted to the third examination till at least twenty-one months after passing the second, nor until the completion of forty-five months of medical study." His own feeling was that the final clause of the existing recommendation was the only one that the Council should adhere to. It seemed to cover all that they desired to lay before the licensing bodies. The Council should confine itself to general principles, and if those principles were not carried out, and they were sufficiently serious to warrant any interference with the privileges of the bodies, it would then be time enough to interfere.

Mr. SIMON seconded the motion.

Dr. HAUGHTON moved as an amendment the recommendation of the Irish Branch Council—viz., that the first two paragraphs of the existing recommendation should be omitted and the last paragraph retained.

Dr. BANKS seconded the amendment, which was agreed to.

Sir H. PITMAN moved the omission of Regulation 30, which specified the subjects to be included in the first and second divisions of the examinations. He said the principle was admitted in the clause just agreed to, and the Council had already expressed the opinion that they should not state in what manner the subjects were to be considered.

Dr. HAUGHTON seconded the motion.

Dr. STRUTHERS thought the Council might define what the final examinations should be, though he did not think they could possibly agree as to the earlier ones.

Dr. PETTIGREW said the Scotch Branch Council entered into the matter very carefully, and divided the examination into three divisions, specifying the subjects. From the student's point of view this was of very considerable importance, and he did not see what harm could accrue from such a scheme as was presented by the Scotch Board.

Mr. MACNAMARA said they could not follow out the recommendations of the Council in Ireland, because their scheme of education involved examination at the end of each year.

Mr. MARSHALL moved as an amendment: "The final examination shall not take place till the termination of the full period of medical study, and should include medicine, surgery, midwifery, forensic medicine, hygiene, and mental diseases."

Dr. STRUTHERS seconded the amendment.

Mr. SIMON deprecated detail, and adhered to the opinion that the original proposal to omit the table was the better one.

Sir H. PITMAN said the subjects laid down were really

those adopted by all the licensing bodies. They might be quite well left out. After all, they were but recommendations, and were not needed, as they had already been adopted.

On the suggestion of the PRESIDENT, the amendment was divided, and the first clause, "The final examination shall not take place till the termination of the full period of medical study," was agreed to.

The second clause, specifying the subjects, was withdrawn; and the first clause, on being put as a substantive motion, was agreed to.

Clause 31, "An examination in the earlier subjects of professional study should take place before the end of the first year of professional study," was omitted; and Clause 32, "The professional examination should be conducted both in writing and orally, and they should be practical in all branches in which they admit of being so," was agreed to.

With regard to Clause 33, "Not less than two examiners should take part in every oral and clinical examination,"

Sir H. PITMAN moved the adoption of the English Branch Council's recommendation, which merely contained a verbal alteration, "Two examiners at least," &c.

Dr. STRUTHERS seconded the motion.

Dr. HAUGHTON said he approved of the recommendation heartily as far as the clinical examination was concerned, but there would be great difficulty in carrying it out with the oral examination. There was great risk of error in clinical examination, and therefore the necessity of having it conducted by two persons; but he did not accept the necessity of having two examiners in an oral examination or examination by papers.

Dr. PETTIGREW said this rule was not made in the interest of the examiners, but of the students, so that they might feel that they were not in the hands of one man.

Mr. MACNAMARA said the opinion of the University of Dublin, as expressed by Dr. Haughton, was quite an opposite opinion to that entertained by the College of Surgeons in Ireland. They heartily concurred in the view the Medical Council had adopted, and had so recast their Court of Examiners that they were now in a position to have two at each oral or written examination.

Dr. MATTHEWS DUNCAN thought it was not necessary in the case of the written examination to have two examiners to read every paper. With regard to the oral, speaking for himself as an examiner, he thought it extremely unsatisfactory to examine alone. It was a question, not of honour on the part of the examiner, but of responsibility.

The motion adopting the recommendation as altered by the English Branch Council was agreed to.

Recommendation 34, "The questions to be answered in writing should be submitted to the whole body of examiners for consideration and revision if desirable, before being proposed to the candidates," was, on the motion of Sir H. PITMAN, omitted.

Recommendation 35: "The written answers should be submitted to more than one of the examiners."

Sir H. PITMAN moved that this should stand as recommended by the English Branch Council: "The written answers should be submitted to at least two examiners."

Mr. SIMON seconded the motion.

Dr. HAUGHTON asked whether it was wise to put on record a number of recommendations which bodies for one reason or another would pay no attention to.

Dr. DUNCAN moved the omission of the clause, which was seconded by Dr. HAUGHTON.

Dr. HALDANE moved as a second amendment the recommendation of the Scotch Branch Council: "That a candidate should not be rejected on any written examination, unless his answers have been submitted to at least two examiners."

Dr. PETTIGREW seconded the amendment.

Dr. DUNCAN said if one or two examiners read the written papers, those one or two did not reject the men; they merely laid them before the Board of Examiners for rejection. He therefore maintained that one was sufficient, and that this recommendation should be omitted altogether, because the papers were there for the whole board to read, and not for two only.

Mr. MACNAMARA said that in Ireland students were rejected on a written examination; but the papers were there to be referred to by the whole board if there was any question about the matter. He was in favour of omitting the recommendation.

Dr. HUMPHRY could quite understand the Council leaving the matter to the licensing bodies; but they were not doing that; they were laying down certain general principles, one being that no part of an examination should be entirely conducted by one person. It was not casting the slightest slur upon the honour of the individual examined, but it was assuming that which they knew to be the fact, that examiners had sometimes particular views which they considered to be of vast importance. This applied to the written as well as to the oral examination; it was all very well to say the papers were before the board, and that they could look at them; the fact was the board did not look at them. He thought no part of the examination should be left to one examiner.

The amendment to omit the clause altogether was negatived.

Dr. Haldane's amendment was then put, and carried by 11 votes to 8. On being put as a substantive motion, it was agreed to by 12 votes to 6.

Clause 36, "Excellence in one or more subjects should not be allowed to compensate for failure in others," was agreed to, with the substitution of the words "other subjects" for "others."

Clause 37: "The professional examinations should be held by the several licensing bodies, except in special cases at stated periods, to be publicly notified."

Sir H. PITMAN moved the adoption of Clause 37 as amended by the English Branch Council: "The professional examinations should be held by the several licensing bodies at stated periods, to be publicly notified, and if, for exceptional reasons, special examinations be held, the fact, with explanations, should be notified to the General Council at its next meeting."

Mr. SIMON seconded the motion.

Dr. HAUGHTON preferred the existing regulation. The examination should be held at stated times, except in special cases, and those special cases ought to be very grave. He moved that the clause be retained as it already existed.

Dr. PETTIGREW seconded the amendment.

Mr. SIMON said it was felt that in certain cases special examinations would be necessary, and all that the English Branch Council asked was that if they were held they should be specially reported to the General Council. The amendment that there should be no special examination could not be universally accepted, and that being so, the Council desired to have some security applying equally to all the divisions of the kingdom.

Dr. PETTIGREW said if it was known that the professional examination could be held only by the several licensing bodies at stated periods, to be publicly notified, it would take away all excuse for troubling those bodies to grant special examinations.

The amendment was agreed to.

Clause 38: "No university of the United Kingdom should confer any degree in medicine or surgery, whether that of Bachelor, Doctor, or Master, upon candidates who have not graduated in Arts, or passed all the examinations required for the Bachelorship in Arts, or passed, after due course of education, examinations such as are *bonâ fide* academically equivalent to those required for a degree in Arts.'

Sir H. PITMAN moved, and Dr. HAUGHTON seconded, the omission of this clause, which was agreed to.

Clause 39: "As a general rule, none of the higher degrees or qualifications in medicine or surgery should be conferred on persons who have not shown evidence of higher professional attainments."

This clause was also omitted.

Clause 40: "In the examinations on several of the subjects of the curriculum—such, for example, as chemistry, including chemical physics, physiology, and materia medica—the licensing bodies should limit and define by schedule the extent of examination."

Sir H. PITMAN moved that this clause be accepted, with a slight verbal alteration, as recommended by the English Branch Council.

Mr. SIMON seconded the motion.

Dr. PETTIGREW moved as an amendment the omission of the clause.

Dr. HAUGHTON seconded the amendment, which was agreed to.

Clause 41 was agreed to in the following form: "In no case should the examination of a candidate in any subject be conducted exclusively by his teachers in that subject in the school in which he has been educated."

Clause 42, "Observation with the microscope should form part of the examinations for a licence," was, on the motion of Sir H. PITMAN, omitted.

The adoption of Clause 43 was then moved by Sir H. PITMAN as altered by the English Branch Council: "Every candidate for the final professional examination should be required to give evidence that he has had sufficient opportunities of practical study, with care of patients, medical, surgical, and obstetrical, in hospital, dispensary, or elsewhere."

Dr. HAUGHTON seconded the motion, which was agreed to.

Clauses 44 and 45, providing that in examinations in anatomy candidates should understand that they might be called upon to perform actual dissections, and specifying the form of the returns to be made for the licensing bodies, were omitted.

The Council then resumed, and adopted the various recommendations agreed to in committee.

Dr. HAUGHTON moved: "That, in accordance with the recommendation by the Preliminary Examination Committee (Minutes for May 20th, p. 84), the examinations of the Queen's Colleges of Belfast, Cork, and Galway, and those conducted by the Civil Service Commission, be removed from the list of recognised preliminary examinations." The ground upon which this was recommended was because those examinations were superseded by the matriculation examination of the Royal University of Ireland, to which those Colleges were now affiliated. The committee also recommended that the name of the Civil Service Commission be also removed from the list, as their examinations were not fixed at a definite standard, but varied with the service for which they were intended, and also because these examinations were not attended by medical students.

Dr. STORRAR seconded the motion.

Dr. LYONS deprecated taking any step which would bring the Council into collision with the Civil Service Commission, which was one of the most powerful bodies in the kingdom at the present day.

Dr. HAUGHTON said the Civil Service Commission had sent in no answer to the questions forwarded by the Council.

Sir H. PITMAN said the Commission was very much surprised that it came to be put upon the list at all.

Dr. HAUGHTON said nothing could be further from their intention than the idea of giving such a body as that a slap in the face. It was a splendid body, but it did not want to be on their list; and the very fact that it was utterly unable to give the Council the information they wanted, showed that it ought not to be there.

The resolution was agreed to.

Dr. STRUTHERS moved: "That a more complete and continuous system of visitation of examinations is desirable, and that it be referred to the three Branch Councils to consider the subject and to report on it to the Council before its next meeting."

Dr. HERON WATSON seconded the motion.

Sir H. PITMAN said he was rather against pledging the Council to the statement "that a more complete and continuous system of visitation of examinations is desirable," but he saw no objection to the Branch Councils having the subject referred to them for consideration and report. He therefore moved, and Dr. Struthers was willing to accept the amendment: "That the question of a system of visitation of examinations be referred to the three Branch Councils for their opinion, and that they be requested to report to a future meeting of the Council."

Mr. MARSHALL seconded the amendment, which was agreed to.

Notices of motions by Dr. Lyons and Dr. Struthers having been withdrawn, the Council proceeded to deliberate in private upon the report by the Dental Committee with reference to the case of Charles Rudolph Werner, who was on Dec. 8th, 1884, convicted of misdemeanour at Edinburgh and sentenced to six months' imprisonment.

On the readmission of strangers, it was announced that the Council had resolved: "That the Council direct the registrar to erase from the Dentists' Register the name of Charles Rudolph Werner."

Mr. SIMON moved: "That the case of Mr. Bryceson, as regards his having caused himself to be registered as M.B. of the University of Cambridge, though not possessed of the qualification, be referred to the Executive Committee, and that the committee have authority to take, on behalf of the Council, such course as the legal advisers of the Council may advise to be taken, under Sections 29 and 30 of the Medical Act."

Dr. DUNCAN seconded the resolution, which was negatived by 10 votes to 7.

The PRESIDENT said, from communications which he had received, he had no doubt that he should have to summon the Council to an autumn session. He should take steps to ascertain what was the most convenient time. He tendered the thanks of the Council to Sir H. Pitman, the chairman of the Business Committee, and to the Registrar, for the admirable way in which the business had been conducted; and with this the sittings for the present session were brought to a close.

EXTENSIVE AND FATAL INJURIES, WITH FEW AND SLIGHT EXTERNAL EVIDENCES.

To the Editor of THE LANCET.

SIR,—I send you the following case, which occurred at Kingston-on-Thames this week, as showing what extensive and severe internal injuries co-existed with but comparatively trifling outward appearances:—

A coal porter was found in a crouched position on the line of metals in the railway station coal yard, on his knees and elbows, with his forehead on the ground, quite dead. At the post-mortem examination the external appearances were as follows:—There was a not very well marked bruise (i.e., small patches of ecchymosis here and there) in the front of the chest and abdomen, measuring 10 in. by 7½ in.; and a well-marked bruise, under cover of the upper arm, 3 in. from the apex of the axilla, measuring 6 in. by 6 in.; the abdominal wall was protruding about the umbilicus; and emphysema existed on both sides of the abdomen and right side of the chest; the left scrotal pouch was greatly distended. Such were the external appearances; but on continuing the examination the following injuries were revealed. The scalp, bone, meninges, and brain were normal. On examing the chest, numerous small ecchymoses were found, corresponding to the bruises, some also under the sternum and cartilages of the ribs on the left side, and on the visceral and parietal layers of the pleura. The left pleural cavity was filled with fluid blood, containing the spleen (torn in three places); the stomach separated from the gullet at one end and the pylorus at the other, and a portion of the liver about 4 oz. in weight. The left lung was penetrated (the spleen, stomach, and portion of the liver were forced through an opening in the diaphragm, admitting the double fist). The right pleural cavity was filled with fluid blood, containing numerous small fragments of liver, forced through a small tear in the diaphragm. The right lung was much bruised in its upper part; the heart was empty and natural. When opened the abdomen was found to contain numerous small clots and fragments of liver interspersed among the viscera; the major portion of the liver was reduced to pulp, and what remained was traversed by fissures in all directions. Many mesenteric veins were ruptured; four yards of small intestine were forced into the left scrotal pouch, and about one yard and a half into a small pouch in the perineum. The bladder was ruptured to the extent of admitting four fingers, and the symphysis pubis was fractured. The right kidney was torn in three places, and the suprarenal body smashed. The left kidney was bruised, with three extravasations of blood, and the suprarenal body smashed. The aorta was completely ruptured on a level with the fractured spine, and lacerated three inches lower down. The left psoas muscle was ruptured and pulped. The third rib on the right side was fractured in front; and the fourth, fifth, sixth, seventh, eighth, ninth, tenth, eleventh, and twelfth ribs were fractured and splintered in various places, some in two and others in three. The first rib on the left side, close to the sterno-clavicular articulation, and the ninth, tenth, eleventh, and twelfth ribs were also broken. The ligaments of the ninth and tenth dorsal vertebræ were torn across; the tenth dorsal vertebra was fractured across, and the spinal cord and membranes were also severed. The vertebræ on the left lateral aspect from the second lumbar vertebra were fissured upwards to the transverse fracture of the tenth dorsal vertebra. The transverse processes on the right and left of the lumbar vertebræ were fractured, that of the second left lumbar vertebra in two places. The bones of the extremities were sound.

The man had evidently been nipped between the buffers of heavy trucks and dropped on the line, where he was found.

I am, Sir, yours truly,

Kingston-on-Thames, April 28th, 1885. E. M. SHIRTLIFF.

THE LANCET.

LONDON: SATURDAY, MAY 30, 1885.

IT is a notable remark of HUME'S, that the ancient history of England is nothing but a catalogue of reversals; everything is in fluctuation and movement; one faction is continually undoing what was established by another. So it is, *mutatis mutandis*, with the Medical Council, which has just finished one of its longest and least creditable sittings. All its laws are in a state of fluctuation and movement, and with the less excuse, as it is a continuous body, made up for the most part of the same individuals. Nevertheless, its Recommendations are continually being reversed, and a great part of the time of one of its meetings is occupied in undoing the Recommendations which occupied a great part of the time of a previous sitting. The last meeting affords a striking illustration of this charge. No less than seven or eight of the chief Recommendations of the Council were erased, which comes to very much the same thing as reversal. Let us enumerate a few of these Recommendations. We remember that some of them were argued and fought for by some of the best members of the Council, and, if we mistake not very much, some of them have received their quietus from gentlemen who a few short years ago fought bravely for them. But to the actual reversals. If there was one thing more than another that the Council seemed agreed upon not long since, it was that there should be an examination *at the end of the first year*, with the view of giving the young student a sense of responsibility sooner than he is apt to feel it. At the recent sitting this Recommendation was omitted. Perhaps the one point on which there was, two or three years ago, the greatest consensus of opinion was that in examinations in certain subjects, as chemistry, chemical physics, &c., there should be a limitation and definition by schedule of the area or extent of examination. And this limitation was enjoined in Recommendation 40. Recommendation 40 has now been omitted, and henceforth the poor candidate will have no guide in the trackless and vast domain of these wide subjects. A most wholesome Recommendation (22) was passed a few years ago, asserting that no licensing or teaching body should insist on more than one course of lectures on any one subject. The "lecturing" element in the Council has attacked this Recommendation with success, and it is gone, and there is nothing to prevent teaching and licensing bodies exacting an unreasonable attendance on several courses of lectures on the same subject; in other words, an unreasonable amount of fees on every subject in the curriculum. This is the kind of work which brings the Council into disrespect. The reversals which we have instanced, our readers will see, are only specimens; but they are very significant ones, of great moment to medical students. Their moment is increased by noticing how the Council has been extending the curriculum, adding new subjects, and doing its best to add to the time to be spent at a medical school. This may be all right; but it is very unfortunate that such burdens should be imposed by a Council so deeply representative, not of the student or the practitioner, but of examining and teaching bodies, whose interest we will add whose pecuniary interest—lies in prolonging and complicating the process of medical education. As our readers know, we are not of the number of those who see any immediate prospect of the public being undersupplied with medical men. We have shown frequently of late how ample is the supply of medical students, and how crowded are the ranks of the profession, leading in most places to a competition and pressure which in the professional sphere are not a little unseemly. We have pointed out that this state of matters justifies the Council in any reasonable measures for correcting laxness in medical education, and for improving the quality and methods thereof. But in the positive legislation of the Council there is too much suggestion of mere blind faith in lectures, time, medical schools, &c. On the motion of Dr. HALDANE, the time of study to be required of medical students is no longer three winter and two summer sessions, but "four winter and three summer sessions," and all this to be "passed at a school or schools recognised by any of the licensing bodies in Schedule A of the Medical Act." There is an extensive and a growing impression outside the Council that one conspicuous defect in the education of medical students nowadays is their ignorance of ordinary practice, and that one great improvement would be to require a certain time of the student period to be spent in private practice under the supervision of a private practitioner, whose work would supply cases and experience which are not to be met with in hospital practice. But such practical methods have no favour with the Council, which believes in nothing but the Schools recognised by the infallible nineteen bodies mentioned in Schedule A. How different might medical education be if the Council contained fewer representatives of those charmed bodies in Schedule A, and a few of the representatives of the men that carry on the actual medical practice of the country. Again, Dr. BANKS has succeeded in passing a resolution extending the curriculum over five years. As we explained last week, this resolution was so modified as to be not so formidable as it looks. It was made only to apply to cases in which certain preliminary subjects—elementary mechanics, physics, chemistry, and biology—had not been disposed of before the commencement of strictly medical work; and such cases are supposed to be exceptional. Still Dr. BANKS'S motion is the expression of the wish of the Council to extend the length of time spent in medical schools, for which undoubtedly he adduced some powerful arguments. What is to be regretted is the constant change of the Recommendations of the Council, and the fact that the very constitution of the Council gives colour to the charge that the members of it are thinking more of the bodies in Schedule A which they represent than of the poor overburdened medical student who had ten subjects on his back before the recent meeting, and has now twelve, with the prospect of five or ten more if some other Council be not devised, or some other method of using the time and money of the present one. One resolution of much interest, proposed by Mr. MARSHALL, was passed—viz., to appoint a small committee, consisting of Dr. HALDANE.

Dr. A. SMITH, and himself, to superintend the preparation of statistical returns relating to the medical profession. The Council has the materials of such statistics, and it has the money to have them analysed and certified. We have seen lately how much the facts about the profession may be misstated, to the great detriment of it and the public. We feel thankful to Mr. MARSHALL for his resolution, and expect to feel much more so for the work to which it commits him and his colleagues—two gentlemen very likely to prove useful co-operators, and one of whom, Dr. AQUILLA SMITH, has already done good work of the sort.

THE paper which Dr. ANGEL MONEY read at the meeting of the Royal Medical and Chirurgical Society on Tuesday last was an original contribution to experimental pathology, having an important bearing on clinical medicine. The investigation clearly showed that a great variety of clinical phenomena could be brought about as the result of embolism of the capillaries of the spinal cord and brain. Dr. MONEY went further than this, and generalised to the effect that any symptom or group of symptoms could be caused by obstruction of the smallest bloodvessels. It is not improbable that the generalisation will be found to hold good. Indeed, as was argued by the author of the paper, the number of symptoms observed in the experimental investigation was sufficient to defend the position which had been taken up. Sudden death, cerebral and spinal paralysis, simple twitching, rhythmical twitching, choreoid movements and the so-called *mouvement de manège*, movements of rotation, and other forms of these "forced" or "uncontrollable" movements, were all observed as immediate effects of the introduction of granules of starch into the arterial circulation. Many of the symptoms were observed in one and the same animal. The most important observation which Dr. MONEY claims to have made was the occurrence of a succession of different movements, such as could not, allowance being made for the anatomical difference between animals and man, be distinguished by him and several other gentlemen from the movements of human chorea. There is almost overwhelming evidence of the dependence of most cases of chorea in the human being on disturbance primarily in the *brain*, but it is by no means certain that chorea may not be caused by lesions situate lower down than the basal ganglia. And the experiments were held to prove that in the cat and guinea-pig these choreoid movements were the result of nervous discharges originating in the nerve-cells of the spinal cord. The evidence on this point appeared to be conclusive. In a cat the abnormal movements were limited, roughly speaking, to the upper half of the body, the reflex actions were greatly exaggerated over this area, and the autopsy showed the granules of starch only in the vessels of the upper half of the spinal cord. There were no movements and no exaggerated reflexes in the lower half of the body, and no emboli in the lower half of the spinal cord. Emboli were widely scattered in the brain in the same cat, but that the cerebral lesion was not the cause of the choreoid movements seemed to be proved by the foregoing and following considerations. When in another cat the emboli were shot up the internal carotid artery and only reached the brain, no choreoid movements occurred in the limbs or trunk, and there was no obvious alteration in the state of the reflexes. Dr. HUGHLINGS JACKSON, in the course of the discussion, remarked on the importance of the discovery that irregular movements, of no matter what kind, might be caused by capillary embolism. He also argued that in the cat and other animals, whose cerebral and muscular structures were very different from those of man, it was impossible for the varied movements of human chorea to occur, for the reason that these animals did not possess the mechanism for the production of such movements. The question remains, "Does human chorea ever result from capillary embolism?" Dr. HUGHLINGS JACKSON, Dr. BROADBENT, and the author of the paper are of opinion that some cases of chorea may own this causation. Several pathological observations have been recorded tending to prove this point; but it must be confessed that until we have in our possession a series of experimental investigations on the nervous system of such animals as monkeys, whose nervous system approaches nearest to that of man, the question must remain unsettled.

WE invited attention in a recent number to a company which had been proposed for insuring lives without the assistance of the members of the medical body as advisers on the question of the life of the insurer. We now direct the notice of our readers to certain other proposed or *de facto* companies, in which not the life exactly but the health of the assured is provided for. It would appear that there are at the present time no fewer than three of these last-named companies before the public in competition for favour. The first of these is called the Medical Attendance Assurance Association; the second, the Health Assurance Association; the third, the Sickness and Accident Assurance Association. The object professed by the Medical Attendance Assurance Association is to indemnify its insurers against the expense of providing adequate medical attendance for themselves or their families during illness resulting from disease or accident the insurers, subject to mere nominal restrictions, having the option of selecting their own doctors. This is the first part of the programme; but there is a second, in which it is provided that the company shall indemnify, by weekly allowances or compensation, those whose source of income fails during illness, or shall recoup these persons the loss accruing through having to employ a substitute during illness to attend to their duties or business. The other two offices embrace in their plan the latter part only of the above. They propose to recoup the sick for losses sustained during sickness; and the Sickness and Accident Office, as its name implies, takes up accidents as well as ordinary illnesses. With both these last-named offices medical attendance is, so far as we can see, self-provided. The sick select and pay their own medical advisers.

The idea of an insurance for sickness amongst the richer classes is not altogether novel, although it has never yet been carried out to a sufficient extent to prove its value or its success. But practically in the sick club system the scheme has been tried amongst the working classes. In most of the sick clubs the provision for medical assistance is secured by the services of one medical man for one club. But there are, or if there are not now, there have been

clubs in which the patient has had the right of selecting his own doctor, just as is suggested in the Medical Attendance Assurance Office. In this experience, therefore, we find the test of the whole subject. Again, we find the test of the whole question in those dispensaries in which the subscribers have the right to make their own medical selection. We are not prepared to say that the system which in these cases is in practical operation is always bad in its working. In some instances we must acknowledge that it acts fairly well. There are, however, elements of success in such instances which do not exist when the wealthier classes of the community come under the experiment. In the poorer classes the rate of fee for medical assistance is at one and the same time very moderate, and taking it all in all very uniform. In plain terms, the sick adopt the plan because it respectably suits their modest means. They could not easily get the required advice more cheaply if they were not subscribers to the club or dispensary; and they understand that, under the advantage of the system, they are obtaining, often from the same practitioner, the self-same benefit as other and wealthier patients obtain at a much higher cost. Therewith they are satisfied. If they were rich they would not be satisfied, a fact which is proved every day from the well-known circumstance that as men rise in the social scale they pass in the doctor's books from the dispensary or club book into the private book.

In forecasting on the scheme of the first-named new company, we have to ask if it is probable that patients who can, if they will, pay any reasonable fee to any physician, surgeon, or accoucheur, will consent to tie themselves to a method the whole success of which will depend either on a levelling system of payment or on the introduction of a third or middle agency between the sick man and his skilled adviser. We consider that the forecast is not favourable to the scheme, but if we should prove to be wrong, our mistake will be succeeded by a social change in medicine, a socialism which in a few years will bring about an entire revolution, leading probably to the abolition of fee-taking and book-keeping altogether, and to the institution of an order of practitioners remunerated by districts or communities in fixed annual stipends, and bound to give their services to all who summon them. The club doctor in high places, receiving an annual income in quarterly payments, will then be *Fortunæ filius;* and the electrical attraction of the gold and silver piece wrapped in mysterious envelope and handed with more mystery, will remain only as a memory.

OPINION as to the best mode of treating the wound left after amputation of the mamma, is much divided just now in Paris, opposite views being firmly held by surgeons of equal eminence and experience. On the one hand, we have a school led by M. VERNEUIL, teaching that no attempt whatever should be made to secure healing by primary intention, but that the large wound left after free removal of the breast and of the axillary lymphatic glands should be allowed to close by granulation. In support of this view they allege that when the operation is properly performed it is impossible to secure union by first intention, and that the attempt to do so induces surgeons to narrow the limits of the operation, and so to render recurrence of the disease more certain and more rapid. They further assert that the opposite practice is dangerous, as it increases the liability to erysipelas and other forms of blood poisoning, and that the time taken for the final healing of the entire wound is not at all, or not materially, diminished. On the other hand, we find MM. TRÉLAT, CHAMPIONNIÈRE, and POLAILLON representing another school, and holding equally firmly that as a rule union of the wound by first intention is not only the quickest but the best mode of healing in the majority of cases, and that when properly carried out, after a carefully planned and executed operation, it does not expose the patient to risk of local or general poisoning, or increase the danger of recurrence of the malignant neoplasm. When views so divergent are expressed by such high authorities upon a line of practice very common in the experience of all operating surgeons, a careful consideration of the question is demanded by all engaged in this department of practice. As in other similar cases, we should expect to find much of truth on each side.

Three points are to be considered in operating for cancer of the breast: the successful removal of the disease, the safety of the operation, and the speedy restoration of the patient to health. The relative importance of these points depends upon the view that may be held of the value of the operation. If it be held that it is impossible or impracticable so to operate as to prevent altogether, or to postpone for more than a short time, recurrence of the disease—if, in other words, the advantage of the operation be slight, then the certainty and speed of recovery from the operation become of greater relative importance than in the opposite condition. Where the possible advantage to be gained is great, the price to be paid for it may not unreasonably be increased. When we apply this test to amputation of the breast we find that while the success of the operation in retarding or preventing recurrence is only too small, yet it is such as to justify the surgeon in asserting that in well-selected cases he may hope to postpone recurrence of the disease for many months or years, if not permanently. From this point of view the thoroughness of the operation becomes the chief aim of the surgeon, in comparison with which the other considerations named are of secondary importance. Where, on the other hand, in more advanced cases of disease, the utmost that can be hoped for is an amelioration of the patient's condition and a short respite from the ravages of the disease, the severity of the operation assumes serious proportions, and the value of any means that render the safety of the patient greater and her recovery more rapid is proportionately increased. In cases that are favourable for the operation the parts should be very freely removed, all outlying portions of the mammary gland being carefully sought for, and the axillary glands, even when not palpably affected, excised. About this all surgeons are agreed, but it is necessary to insist upon the thoroughness of the removal as shown by the time elapsing before the reappearance of the disease as the one test by which success or failure of an operation is to be judged. The surgeon must decide in each case how the operation is best to be planned, and it is wrong to lay down any rule as to the extent of skin or other tissue to be removed, different cases

requiring quite different treatment in this respect. But this imperative demand for free removal of the disease having been met, and the wound inflicted, the question arises whether there is any reason why one method of healing is to be preferred to another. It is no doubt true that great care and attention are needed to secure healing by first intention, but there is also no doubt that in many cases such care and attention are rewarded with complete success, and that the period of convalescence is rendered considerably shorter than under any other mode of healing. And unless the surgeon neglects making proper provision for drainage, and fails to protect the wound by a thorough use of antiseptics, he does not expose his patient to the danger of erysipelas and other infective wound diseases. Nor is there any *a priori* pathological reason why healing by granulation should be preferred to that by primary adhesion. The resemblance between the cancer cell and the rapidly formed and growing masses of protoplasm found in granulation tissue is an argument in favour of healing by first intention where the amount of lymph effused is reduced to a minimum, and where also the vascular hyperæmia is less and of shorter duration than in healing of a large wound by granulation. The influence of hyperæmia upon the growth of cancer is well known, and should the surgeon leave behind in his wound any cancer "germs," or cells prone to take on the cancerous development, it is in accord with pathological doctrine and clinical experience that prolonged hyperæmia and abundant cell growth of low type might stimulate the germs or disordered cells, and lead to a rapid recurrence of the disease. While, therefore, we cannot but think that the doctrine of M. TRÉLAT is sounder than that of M. VERNEUIL, we fully endorse the latter's caution, that, in attempting to secure rapid healing of his wound, the surgeon may consciously or unconsciously lessen the extent of tissue removal, and so sacrifice the greater to the lesser good. We would state the matter thus. In planning and carrying out his operation the surgeon should think only of the wide and efficient removal of the disease, without regard to the mode of healing of the wound; but having made the wound, if he finds it practicable to obtain healing by first intention, he should certainly direct his efforts to that end.

THE *furore* excited by Dr. FERRAN'S alleged protective inoculation of cholera continues unabated, or rather with increasing ardour. Last week it was reported that he had operated upon 8000 persons in Valencia alone, including two Madrid doctors—MORENO and TOLOSA—who thereby became converts to the new doctrine. It is also stated that four hours after their inoculation they experienced the cramps, diarrhœa, fever, and delirium of cholera, and that after sixteen hours "they were all right again." Further proof of the efficacy of the measure is cited from the Alcira Hospital, where all the inmates were inoculated, with the exception of two, who declined to submit to the operation. Cholera attacked these two recalcitrants, and they succumbed to the disease. In the face of these and other facts, Dr. CAMERON did well to ask the Secretary to the Local Government Board whether he would consider the propriety of nominating a small commission to visit Alcira and report. He stated that Dr. FERRAN was desirous that an English Commission should be appointed to verify his results. Mr. RUSSELL, in his reply, promised to bring the proposal under the notice of the Secretary of State for India; but we venture to think that it would be better to send the Commission from England, as the question is one which directly involves the subject of choleraic micro-organisms that have been so much studied by a few of our scientists. It may be remembered that Dr. FERRAN adheres to the bacillary doctrine of the etiology of cholera, but that he declares that KOCH'S comma bacillus is but one stage in the development of an organism, whose germs he avers to have discovered. Although we are unwilling to condemn on *a priori* grounds a discovery of such moment as this would be if verified, we are yet very reluctant to admit that such vaccination can protect from true cholera, or to see in the results as reported anything more than coincidences. Asiatic cholera is not prevalent in Alcira, nor, so far as we know, has it reappeared anywhere in Europe this year, and therefore the conditions of a crucial test are wanting. We are not surprised at the excitement that has been caused by the announcement of the alleged prophylactic; for the history of epidemics of this disease shows how much the people dread its invasion; and they would willingly submit to any measure that promised them immunity from the plague. It is significant that at the recent conference at Berlin not even Dr. KOCH himself as much as hinted at the possibility of a protective vaccination amongst the measures of meeting the disease; and FERRAN'S work was only cursorily mentioned by one speaker, Professor VIRCHOW, who believed that the various forms described by FERRAN were the results of disintegration of the bacilli, and not stages in their evolution. The matter has, however, reached a stage in which it ought not to be disregarded without a full and sufficient investigation; and although we doubt very much the possibility of arriving at any satisfactory conclusion except in time of epidemic, it is very desirable that Dr. FERRAN'S labours should be submitted to such an examination by competent and trustworthy authorities. We fully approve of the step somewhat tardily taken by the Spanish Government in prohibiting any further inoculations until such inquiry has proved the efficacy of the measure. For if the whole thing be proved fallacious, the task of dispelling the delusion will be the greater the larger the number of the inoculated; and if it be shown to be really efficacious, no harm will be done by deferring it until this is proved. The position of Dr. FERRAN is a difficult one; for, although he has acted in good faith, he must either be a misguided enthusiast who has pushed his conclusions far beyond their legitimate limit, or a great discoverer. Pending such an inquiry it would be unfair to judge him, but we cannot refrain from once more pointing out that to rely upon "protective vaccination" and to suffer the continuance of those insanitary conditions that favour the spread of cholera would inevitably lead to disastrous results. Nor is it possible to view with equanimity the prospect of an application of these inoculation measures to other specific diseases, an extension which would be sure to be attempted if Dr. FERRAN were proved to be in the right.

DR. WILKS has accepted the invitation of the Council of the Midland Medical Society to deliver, in November, the inaugural address of the session 1885-6.

Annotations.

"Ne quid nimis."

THE COLLEGE OF PHYSICIANS AND THE CROONIAN TRUST.

IT is but seldom that a medical corporation is troubled with an *embarras de richesses*. But this is the peculiar good fortune of the Royal College of Physicians at the present time. In 1706 Dame Mary Sadlier founded the "Croonian Lectures," and instead of the amount of the modest fee which has hitherto been paid to the lecturer the College finds itself in possession of the annual sum of £207 net under her bequest. It is obvious that no such sum can be devoted to a course of lectures for which £10 has previously been found a sufficient remuneration. The College therefore recommends that application be made to the Court of Chancery to vary the deed of settlement, and the Council recommends the following scheme for the consideration of the Fellows:—

"That the present 'Croonian Lectures' be continued with a salary of twenty guineas, being double that which it is at present. That the residue of the income from the trust, after payment of the Croonian Lecturer, be invested to form a fund for the establishment of a Professorship of Anatomy and Physiology, the person holding such professorship to be called 'The Croonian Professor of Anatomy and Physiology,' and to hold such professorship for five years. That the appointment of such professor, who shall deliver such lectures as the College shall determine, be made within a period of five years from the decree of the Court."

Several Fellows have proposed amendments which would limit the tenure of the professorship, and would bring before the College any new researches, not only in anatomy and physiology, but also in therapeutics and pathology; and we can have no doubt that, in view of other lectures at the College of Surgeons and the University of London, the Fellows will expect a wider departure than is suggested by the Council, and one that will not compete with the usual lectures now annually given in London. A five years' professorship is absurd, when we consider the rapid increase in our knowledge, and the varying lights in which such knowledge may be put before our profession. In fact, we would ask, Could not the large increase in the trust fund be better used than in endowing another lectureship, if twenty guineas were paid instead of ten for the annual course now given? A more detailed and comprehensive scheme than that which is under consideration would be preferable to a hasty decision in the direction of an increased number of lectures, which would be attended by but comparatively few Fellows or other members of the profession.

THE PENAL ACTION OF THE MEDICAL COUNCIL.

A LARGE part of the time of the Medical Council is taken up with judicial duties. While so occupied reporters are excluded, and only very limited information is afforded as to the grounds and arguments on which the judgment of the Council is founded in any given case. This is to be regretted in some respects. Courts of judgment, like courts of law, should, in general, be open courts, alike in the interest of those judged and of the profession to which they belong. The Council has erased from the Medical Register four names of medical men, as will be seen in our reports, and one name from the Dentists' Register. As far as we can gather, it is impossible to accuse the Council of severity in these cases. There is one great defect in the legal position of the Council as regards cases of misconduct. It has no power to deal with conduct otherwise than "infamous," and it has only one punishment to inflict—viz., the supreme one of removal from the Register. There is much misconduct, to which the word "infamous" could scarcely be applied. And it is in the highest degree to be regretted that the Council has not power to take cognisance of conduct that is unprofessional rather than infamous or against the public interest, and to censure, or apply degrees of punishment less than that of the capital measure of erasure. The medical authorities in Schedule A, indeed, or some of them, have such powers, but they are sorely hampered in using them, so that some who hold their diplomas go from one degree of unprofessional conduct to another with apparent impunity, till at last they outrage public law or morality and incur the one great punishment of disqualification and consequent erasure. One word of kindly warning at an early stage from the Medical Council, or from the body to which they owe their diploma, might have saved them. But it is withheld, and so it comes to pass that half the time of the Medical Council is taken up with examining gross cases of infamous conduct, and no attempt is made to deal with hundreds of instances of unbecoming and unprofessional conduct. It is not so in other professions, as was well pointed out by a correspondent last week.

THE REPRESENTATION OF THE EDINBURGH AND ST. ANDREWS UNIVERSITIES.

SIR LYON PLAYFAIR has rather abruptly intimated his intention of not offering himself at the next election as a candidate for the representation of the University of Edinburgh. We do not forget the part that Sir Lyon Playfair has played in hindering medical legislation and in misleading the House of Commons with erroneous statistics of the profession. In view of this action, we cannot pretend to regard his withdrawal from the post which he fills with unmixed regret. The large medical element in his constituency, and his supposed relation to the profession, gave more serious importance to any such action on his part. We are little concerned with the political bearings of the step taken by Sir Lyon Playfair. But we will take the liberty of hoping that the seat will not be wasted on some aspiring lawyer, who is always ready to profit by such opportunities. Parliament is full of lawyers, and it is conspicuously deficient in representatives of science. We commend to the constituency of the metropolitan University of Scotland the claims of science, and urge them to elect a man who will worthily represent it, and who will magnify the university by recognising in it a national institution, which exists not for Scotland's benefit alone, but that of the empire. The Scotch universities have sometimes acted as if they were parochial institutions with all the jealousy of public criticism and check which such institutions are apt to feel. The election of a great public man, one who by science or by statesmanship has shown himself to be above mere party politics, will be creditable to the University and advantageous to the State.

POSITION OF THE FŒTAL HEAD AT TERM.

As an inaugural thesis in the University of Prague L. Brühl has published some observations on the position of the fœtal head and the extent of its entrance into the pelvic cavity at term. In primiparæ the greatest circumference of the head was found to have passed the brim at the end of pregnancy in half the cases. In multiparæ it only reached the pelvic cavity in a fourth of the cases. The reason for the difference is to be found in the greater elasticity of the abdominal wall and of the uterine ligaments in primiparæ. In contracted pelves, where the conjugata vera measured less than ten centimetres in primiparæ, the head entered

cavity in only a third of the cases, the greatest circumference in scarcely any passing the brim, and in subsequent pregnancies the position of the head became higher more rapidly than was the case in normal pelves. The prognosis of labour depending upon the relation which exists between the fœtal head and the maternal passages, it is the practice in Berne, where these observations were made under the supervision of Professor P. Müller, to grasp the fœtus through the abdominal wall and force the head as far as possible into the pelvic canal at the completion of pregnancy. Generally, when the head has more than half entered the pelvic cavity one can predict that birth will take place naturally. On the other hand, it is by no means necessary to infer that instrumental interference will be required in all cases where the head has entered the canal to only a slight extent.

THE HOMES OF THE POOR.

THE publication of the Report of the Royal Commission on the Dwellings of the Working Classes brings more prominently to public notice the relation of vestrymen in London parishes to insanitary tenement houses. We read of a recent meeting of the Clerkenwell vestry, at which a complaint was received through the Local Government Board of the condition of certain premises in that district belonging to a vestryman, and that complaint had been made to the vestry and no action taken. In the course of the discussion it was stated that "several vestrymen made a good livelihood by being house-farmers." There may be no objection to the owners of tenement houses being represented in due proportion upon the local authority, but where officers hold their appointments entirely at the will of people of this class it becomes obvious that they are likely in some cases to be deterred from carrying out their duty. If tenants could obtain damages against their landlord for injury to health, the result of living in an insanitary dwelling, there would be less need for the interference of the sanitary inspector; but this is not possible except where a previous guarantee has been given that the house is in proper sanitary condition. In a recent action for rent in the Clerkenwell county court the defendant denied his liability to pay on account of the insanitary condition of the house, and gave a melancholy account of its defects. The verdict was necessarily for the plaintiff, but the judge expressed his disapproval of the plaintiff's conduct in letting so faulty a dwelling by declining to award costs. An appeal here to the local authority should have been sufficient; but, as the judge said, "It seems from the inquiries of the Royal Commission that public bodies will not put the law in force." The immediate remedy is obviously in the hands of the public, who have it within their power to return as vestrymen those who are more interested in seeing the law carried into effect than evaded.

DR. BRADLEY'S CASE.

WHY does the Home Secretary maintain such silence after the influential petition presented to him on behalf of the convict a petition signed by "more than one thousand physicians and surgeons"? We have repeatedly drawn attention to the unsatisfactory verdict returned by the jury. In the interests of justice we join in the request—nay, the demand—for an immediate impartial inquiry into the merits of the case. Apart from the fact that many of the alleged acts by Dr. Bradley given in evidence at the trial were physically impossible of accomplishment, there is reasonable ground for declining to accept the theories of the prosecution as regards the main charge. In some cases clemency on the part of the Crown implies a want of belief in the *bona fides* of the witnesses by whose testimony the conviction was obtained; but here no such alternative supposition is necessary. The prosecutrix was shown to have suffered from epilepsy, and to have inherited a tendency to neurotic taint. What more likely, then, that imaginary wrongs were conceived by her during a transient aberration from normal innervation, and afterwards registered in her mind as accomplished facts. From whatever standpoint the merits of this unfortunate case are viewed, the same conclusion is inevitably arrived at—viz., that the conviction was utterly unwarranted by the evidence. We do not plead for mercy, but ask for justice. Here is a man who, previous to this fatal incident, bore professionally a spotless character, and is that character to be destroyed by a mere legal technicality? If the necessary scientific knowledge is not possessed by those who have the issue in their hands, in the name of common sense and public duty let those who understand such matters be left to decide whether Dr. Bradley shall be restored to his friends or finish his fearful sentence of "two years' imprisonment with hard labour." In the event of Sir W. Harcourt still refusing to reply to the appeal long since lodged with him, we pray that he may be moved to action by the general body of the profession.

ANTI-VACCINATIONISTS AND THE GORDON MEMORIAL.

THE Committee of the Gordon Memorial Fund have given evidence of shrewd judgment and sincerity in their reception of an offer lately made to them. The report reaches us from Leicester that a lady expressed her wish to hand over to the committee a house with adjacent grounds, to be used as a home for boys subject only to the proviso that vaccination should not be an essential to admission. The proposal was declined. This lady no doubt meant well, and she naturally feels aggrieved that her principles are not to be accepted along with her gift and its benevolent motive. She is clearly one of those who regard vaccination as a tyranny, fruitful of disease which cannot possibly have arisen otherwise than as stated by anti-vaccinationists, as a useless measure, and a law which it is right and lawful to break. The committee, however, think otherwise, and we venture to say that in their present action they will have the support of all who are in possession of the facts on both sides of this important question. No blame can be assigned to them for the loss of the memorial home, however regrettable that may seem in the interest of the poor. General Gordon's own abundant charity would never have sanctioned even such a gain at the cost of conscience, and the committee, in refusing the responsibility for lives which they could not protect in case of illness, have only followed the example of his enlightened rectitude.

CORPORAL PUNISHMENT AT SCHOOLS.

THE relationship between cause and effect is in many cases notoriously difficult to establish by logical proof, however clear it may be in its *primâ facie* aspect. The tendency with all of us is to seize upon the latest antecedent circumstance, and to assign to it the credit of causation. A case in point is afforded by an inquest held a short time ago at Sittingbourne. A delicate boy, eight years of age, died a few days after having received a whipping at school. The symptoms which preceded death were those of meningitis, with convulsions, and post-mortem examination verified the presence of this disease. Mr. T. Smith, the surgeon who attended the child, could see no clear connexion between the fatal disease and the whipping, but allowed that the shock of the punishment might possibly have had some effect in determining the course of the illness. The jury found a verdict accordingly, but severely censured the schoolmaster for cruelty. We do not approve of severe

bodily chastisement for children at school, but it seems to us nevertheless that a somewhat forced connexion has been established in this case between the punishment inflicted and the disease which was afterwards observed. Inflammation of the brain membranes is one of the most deadly enemies of child-life, and is far more apt to appear as the climax of an undefined constitutional delicacy than as a consequence of injury. Dormant in many children from their inherited feebleness, its chief provocatives are recognised by all practitioners to be want of nutritious food, fresh air, and exercise. It may well be that the weakly child in the present instance owed his death to these commoner evils rather than to his master's harshness. We do not learn that he was beaten about the head, though at the same time it seems clear that the rod was used with more than necessary freedom. The lesson, however, which is most apparent from the facts is that there are young children in school-training for whom their discipline and tasks are equally excessive, and who are, as they stand, unfit to be at school at all. Usually ill-health can be detected by a careful parent before this stage is reached, but it does not necessarily afford such proof as to have allowance made for it under our compulsory educational system. The jury's finding of cruelty, which may have been fair enough in itself, falls short, in our opinion, where it fails to recognise that work as well as punishment should be light in the case of weak children, and that hunger and fatigue may sometimes cause as much injury to health as positive hard usage. Already measures of reform are on foot in many schools. Cheap and good food and recreation hold a definite place in their management; and we may soon be fortunate enough to note a decline in the cramming system, and the adoption of some plan of efficient medical supervision.

VICTOR HUGO.

THE typical Frenchman is dead, and Paris—ay, France; Paris is France—honours his obsequies with bombast and blood. This genius, for Victor Hugo was a genius, and of a very exalted order, played the *rôle* of Chorus to the evolution of intellectual life and power in the people of *la belle France*. He was the poet of the Revolution. Whether he wrote in prose or verse, he was a poet; and no man perhaps ever moved the nation, for whom he lived and thought and wrote, more powerfully. It was not Victor Hugo's fault that his works did not contain more of mind and less of emotion than characterised them. They were the reflex of the mental growth of the period. Had they been of higher calibre, they would have been false to their key-note, out of tune with the spirit of the time. It will be long before France finds as faithful an expositor of the national feeling. Victor Hugo's chamber was the scene of a gallant struggle of life against death. Death vanquished the victor. The man died, but his manly work remains.

DIAGNOSIS OF SMALL-POX.

DR. COLLIER, medical officer of health to the Fulham District Board of Works, in his report for the fourth quarter of 1884, raises a question of some importance to the public. On November 24th he received private information that a girl residing in Westcroft-square had been ill and had had a rash upon her. Visiting the house, he found she was suffering from modified small-pox, and another child was ill with the same disease. The mother had objected to the removal of these patients to hospital, owing to the opinion of the medical attendant that they were suffering from chicken-pox. The first patient had been residing as servant in a house at Richmond, and had returned home with the spots upon her. Her late master had died after a few days' illness. He had been seen by several experienced medical men, and his death had been registered as due to "hæmorrhagic measles." A short time after his death his three children were taken ill; their disease was first thought to be measles, but afterwards chicken-pox. A woman employed to wash the clothes of the father contracted small-pox in a severe form. Nine days after the removal of the cases from Westcroft-square the stepfather of these children was attacked with small-pox. There can be no reasonable doubt that all these persons suffered from small-pox, yet the disease had not been recognised by the medical attendants in the majority of cases. It is very necessary in the public interest that medical men should have an opportunity of making themselves thoroughly acquainted with the different appearances of this disease; medical students in the metropolis are now debarred from doing so owing to the fact that the public institutions receiving these cases are closed to them. We do not desire to dictate to the managers of the Metropolitan Asylums Board in the precautions which they feel it necessary to take to prevent the spread of small-pox from their hospitals, but we believe that it would be quite possible to enable medical men and others to visit these institutions without risk to the public.

HOUSING OF THE WORKING CLASSES IN SCOTLAND.

THE evidence obtained by the Royal Commission on this subject shows that although on the whole the Scotch are better off than the English working classes with regard to dwelling accommodation, there is still the same absence of provision for the very poor. The number of single-roomed tenements, each of which is usually occupied by a family, is very considerable; in Edinburgh there are 14,000 of such tenements, and in Glasgow 5 per cent. of the population live in single rooms. Extensive improvements have been carried out both in Edinburgh and Glasgow with good results. The recommendations of the Commissioners are much the same for Scotland as for England, and among others include that the amount of cubic space demanded for each individual should be increased with a view to discouraging the use of single rooms. There are no special suggestions with reference to the rural population in the Highlands owing to the intention of the Government to legislate on the question of land tenure, but it is recommended that an improved system of local government should be established in the extra-urban parts of Scotland, and that the local authorities should be elected by the ratepayers.

MILK INFECTION.

THE failure of a recent prosecution at Paisley, under the Dairies, Cowsheds, and Milkshops Order, deserves notice, inasmuch as it shows the insufficiency of this Order to protect the public against infectious disease conveyed by milk. We learn from the *Glasgow Medical Journal* that scarlet fever broke out among the drinkers of milk from a dairy at Paisley. A child of the dairyman suffering from scarlet fever had been kept at home, and subsequently two other children of the same family had become infected; the dairyman and his wife at this period milking the cows and serving out the milk. A prosecution was instituted, and it was brought out in evidence that the dairyman and his wife visited the children—a servant stating that her mistress "attended" them; but on behalf of the defendants the children stated that their parents did not "touch" them. The prosecution failed on the point that *contact* was necessary for the purpose of conviction. The order has evidently been drawn by someone who is ignorant of the nature of infection, and its early amendment in this and other respects is urgently needed in the interests of the public health.

THE AMERICAN MEDICAL ASSOCIATION AND THE INTERNATIONAL MEDICAL CONGRESS.

AT its meeting in 1884, the American Medical Association appointed a committee of seven gentlemen to present an invitation to the International Medical Congress at Copenhagen to hold its next meeting in Washington in 1887. As our readers are aware, this invitation was accepted; and the committee, desiring to advance all the arrangements for the meeting, and believing itself to be empowered to do so, proceeded to nominate the chief officers and to conduct the preliminary negotiations. Unfortunately, it seems that in so doing they have excited certain local jealousies; and at the late meeting of the Association in New Orleans their action was discussed and condemned, and a resolution was passed electing a committee, consisting of the seven gentlemen previously appointed and thirty-eight others, "one from each State and territory," who should "proceed at once to review, alter, and amend the action of the present committee as it may deem best." From the reports of the discussion we gather that some members of the Association consider that the appointments in the Congress should be filled up on a geographical basis, each State being considered as a distinct entity to be represented. We trust, however, that the new committee will take a wider and more enlightened view than that, and will make the appointments solely in reference to the merits of the various nominees and the degree to which they possess the confidence of the profession in the United States, as a whole, and in Europe. We may be permitted to assure our American brethren that visitors from Europe will in a large measure judge of the position and character of the profession in the States by the scientific eminence of those whom they choose as their prominent representatives. We trust that all difficulties such as we have hinted at will be wisely and amicably surmounted, and that the meeting of the Congress in Washington will be as signal in its success as a scientific gathering and in its display of true cosmopolitan brotherliness, as any previous one.

MEDICAL MISSION WORK IN CHINA.

FROM the recently issued report for 1884 of the Mission Hospital and Dispensary at Chin-Chew in connexion with the Presbyterian Church in England, it appears that ague, anæmia, dyspepsia, leprosy, and diseases of the eye formed a large proportion of the cases coming for treatment. The whole of the region in which the institution is situated is malarious, but some of the districts markedly so. The quartan variety of intermittent fever was by far the most frequently met with. In the treatment of ague the cinchona febrifuge prepared by the Indian Government has been very largely and successfully used, and only in one or two cases was it known to give rise to irritation of the stomach. The cinchona tree could doubtless be cultivated in many parts of China, and it would be a good thing for the people if the Chinese Government should take steps for its introduction and cultivation in the country. Various circumstances occurred during the year that tended to keep down the number of patients as compared with former years—the principal one being the prevalence of cholera, which broke out in the city in September, 1883, remained in an endemic form during the winter and spring months, and assumed an epidemic form about the beginning of July, 1884. In September the daily death-rate was very high; and the people, becoming much alarmed, left the city in great numbers. In the early part of this month the disease seemed to have taken on a very much more virulent type, and many of the cases were cut off in a few hours after the first symptom of diarrhœa appeared. The Chinese estimated that there were about 3000 deaths from cholera in the city. In October and November the cholera was followed by a form of continued fever, which also in many cases was fatal. This fever had many of the leading features of typhus—the temperature, the eruption, and the constipated condition of the bowels all pointed to typhus. The want of more accommodation for in-patients was very much felt during the year, but, as Dr. Grant observes, in the present unsettled state of the country it would be imprudent to take any active measures towards securing larger premises. The work which is being accomplished by this mission is a great and good one, and in course of time, as the hospital and its advantages become better known, it will be less difficult to get more suitable premises.

COCAINISATION OF THE BLADDER.

DR. P. BRUNS of Tübingen records (*Berl. Klin. Woch.*, No. 21) a case of litholapaxy in which the bladder and urethra had been rendered insensitive by cocaine. The patient had suffered from symptoms of stone for four years, and, on sounding, the stone was found to be hard and rough, and two centimetres and a half in diameter. There was also considerable purulent cystitis. As a preliminary measure the bladder was washed out with boro-salicylate solution; then twenty grammes of a 2 per cent. solution of cocaine were injected into the bladder, and ten grammes into the urethra. By shifting the position of the patient the contact of the injection with all sides of the bladder was ensured. After a few minutes' interval the bladder was filled with the boro-salicylate solution, and the operation proceeded with. Owing to the hardness of the calculus thirty-three crushings were necessary, occupying twenty-two minutes; but during the whole period no pain was felt, although previously the patient had hardly borne the passage of a catheter. During the evacuation pain was experienced each time the bladder was distended, but the anæsthesia had lasted for half an hour. Finally, a small quantity of a 10 per cent. iodoform glycerine solution was injected, with the view of protecting the abraded bladder from purulent absorption. The calculus, which was of the oxalate mulberry variety, weighed four grammes. A speedy recovery ensued.

"THE STRANGE STORY."

IT does not, we confess, strike us as strange that any young woman should out of her disordered or disturbed inner consciousness evolve a story which startles the public. Such stories are certainly not strange in the sense of being rare. They are common-place incidents in the lives of many otherwise estimable females. The most recent specimen of this class is put out of consideration on two sides. First, it is improbable to the extent of being almost impossible that an insensible person could have been publicly moved without the fact being known to somebody who would come forward and bear testimony; and we do not think the narrative is free from contradictions too destructive to be either tolerated or explained.

BARBED WIRES.

SOME time ago our columns contained an annotation, pointing out the dangers likely to arise from the use of barbed wire fencing. What we foretold is fully borne out by the statement in an Inverness contemporary, that much indignation is felt in the Dornoch district at the erection of barbed wire fences close to the public road. Two carriage accidents have recently occurred on a part of the road fenced by this wire. In both cases the horses were seriously cut by the barbs, and one of the animals has since died from the injuries thus sustained. The men in charge were also more or less injured, one of them having the palm of his hand badly torn.

MEDICAL SERVICE IN THE SOUDAN.

WE have read with much satisfaction the account given by the special correspondent of the *Daily Telegraph* of the work done by the medical officers of the late campaign in the Valley of the Nile. He has given an animated and interesting description of the work as he saw it in the advance south of Wady Halfa, and in the severe engagements at Abu Klea and Abu Kru. He bears testimony to the completeness of the provision made by the head of the department for the care of the sick and wounded, and to the ability with which the arrangements were carried out by the officers in charge of the service in the Soudan. He has done a good service to the medical staff by giving a graphic account of the difficulties they experienced and the dangers to which they were exposed in the discharge of their arduous and important duties; of the cool, quiet, and methodical manner in which these were performed, and of the courage displayed in affording aid to the wounded upon the field regardless of risk and danger. "Trying as oftentimes is the situation of a medical man in civilised warfare, it is as nothing compared with the risk, responsibility, and labour devolving upon him when the contest is waged against a ferocious and savage enemy. In such a position he renders services that can scarcely be overrated." The details given of the work done by the medical officers are interesting as "a tale of forethought, diligence, capacity, and courage." The description of the services thus rendered by the medical staff affords important evidence of the value of the present organisation of the department. The correspondent states that "in equipment and supplies no department of the army was more fully provided, and ahead in all details, or better prepared to cope with work than the Medical Department"; the results were so satisfactory that he heard expressions of dissatisfaction only on two occasions, and in both instances from men who got "neither credence nor consolation for certain alleged ailments they had sought to get treated for." We trust that, although from a military and political point of view the campaign has been a failure, the labours of Surgeon-General O'Nial and the medical staff will not be overlooked, but that they may receive some appropriate recognition of the able, energetic, and satisfactory manner in which they have discharged their onerous professional duties.

PUERPERAL FEVER IN BOMBAY.

IT is no exaggeration to say that during 1884 puerperal fever was a household topic among the Parsees in Bombay. The causes of the epidemic are very fully examined and discussed in a paper on the subject read by Dr. Temulji before the Grant College Medical Society. The fever seems to be more prevalent in the hot months of the year, especially before the rain sets in. This may be accounted for by the unsatisfactory state of the drains of the several parts of the city, their stagnation at different points, and the foul emanations therefrom due to extreme solar heat. Puerperal fever is not so prevalent amongst the other sections of the native community as among the Parsees, and the reasons for this are obvious. The Parsees, from false prejudices, get their women delivered on the ground floor, in many cases in a room set apart for the purpose, which as a rule is the worst part of the house, with drains either underneath or passing by the side, and the sewer air freely escaping into every part of the room; and this perhaps is concentrated on account of the doors and windows being closed for fear of the patient catching cold. Another fertile cause of this fever is the bedding which the Parsee ladies use during accouchement. After the forty days are over, they give away all their clothing and bedding to the Bhangees or Halalcores, who, looking upon them as a source of profit, sell the same without the least thought of disinfecting them. From the cotton of the beddings thus given away new ones are made and sold, which are bought by many of the Parsee ladies either for themselves or for their female attendants for use during confinement. The last, though not the least, important cause is, probably, the low vital stamina of the Parsee girl of the present period, the result probably of evils usually accompanying a higher civilisation. Want of exercise is, no doubt, a prime factor in the physical deterioration of the Parsee girls of this generation; they are disposed to lead a more easy life than their mothers and grandmothers did, and consequently they are incapacitated for severe bodily exertion.

THE UNIVERSITY OF LONDON.

WE understand that the Special Committee appointed by the Sub-Committee of Convocation have agreed on a draft report, recommending the gradual abolition of life-senatorships, the direct representation of the colleges and large teaching bodies, and the formation of Boards of Studies for the regulation of examinations. The reforms which we have so often urged will therefore be soon brought authoritatively before the University, and they, to a very great extent, coincide with the bases suggested by the promoters of the Teaching University movement.

THE EXAMINATION IN ELEMENTARY ANATOMY AND PHYSIOLOGY.

ONE of the most interesting features of the English conjoint examination scheme is the examination at the end of the first year in elementary anatomy and physiology. We understand the number of candidates was 363. Of these, 340 passed in anatomy and 23 were rejected. In physiology 320 passed and 43 were rejected. We expect great good from students being required at the end of the first year to give a slight account of their stewardship.

THE LAW AS TO DUSTBINS.

THE owner of a dustbin calls attention in a daily newspaper this week to the unfortunate position in which the householder is placed in having no immediate remedy when the parish officials neglect to remove his house dust and refuse. In point of law his dust does not belong to himself but is the property of the contractor, who alone has the right to remove it. If he were, with his neighbours, to make application to the magistrate for a summons against the contractor as the person by whose act or default a nuisance is committed, it would be easy to plead in defence that the dustbin should receive only dry material ashes, &c., and that the nuisance is really created by the householder himself in putting into the dustbin vegetable and animal matter, which ought to have been burnt upon the kitchen fire. After all has been said there is a remedy in the hands of the owner of the dustbin, and one far more effectual than that of complaining to a magistrate or the public. If he will exercise his powers as a ratepayer to see that proper persons are returned as vestrymen he would soon have no further ground for dissatisfaction.

THE NUDE.

THE protest of "A British Matron" may have been wise and uncalled for. All the same, it is, beyond question and wholly apart from a fastidious taste, perfectly true that no inconsiderable proportion of the Art of the day appeals intentionally—to a passion which, however cultured it may be, is not exclusively intellectual in its conception of the beautiful. It is idle to pretend that a purely Platonic love of the exquisite and refined, in colour and form, attracts the eye

of thousands to the increasing multitude of pictures representing the female form unclothed. The truth is, we in England are too much influenced by the French type of artistic taste and enterprise. Lady Godivas and Surprised Bathers have been becoming increasingly numerous of late. By all means let those who like such pictures employ artists to paint them. This is a free country. It is not, however, necessary, nor, we think, desirable, to crowd the walls of our few public picture galleries with this parade of the beautiful. When, in the cycle of fashionable progress, the time comes for our women to appear in ordinary life as they are portrayed on these equivocal canvases, the latter will cease to be outrageous because they will have become commonplace.

THE PORT SANITARY AUTHORITY AND INFECTIOUS DISEASES.

REGULATIONS made by the Port Sanitary Authority for the Port of London, and approved by the Local Government Board, for the removal to hospital of persons, brought within the port by any ship, who are infected with a dangerous infectious disorder, have just been issued. By their provisions the master of every vessel is bound to report any case of infectious disease to the medical officer at Gravesend, and to remove the patient to hospital there under his supervision. The expression "dangerous infectious disorder" is explained to mean any of the following diseases: cholera, diphtheria, erysipelas, measles, scarlatina, small-pox, typhoid or enteric fever, typhus fever. A penalty is incurred for non-compliance with these regulations.

EPIDEMIC CEREBRO-SPINAL MENINGITIS.

THERE seems every probability of an outbreak of epidemic cerebro-spinal meningitis in Berlin; for within the last few weeks Professor Senator has had under his care at the Charité Hospital three cases in quick succession, and he has seen four other cases in consultation.

FROM the report of the examination made by Colonel Sir Francis Bolton of the water supplied by the several metropolitan water companies during the month of April, it appears that the Thames water distributed by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies, contained in every case less organic matter than in the previous month's samples, the improvement being most marked in the case of the West Middlesex and Chelsea Companies' waters. The water drawn from the Lea and delivered by the New River and East London Companies also exhibited a considerable improvement as regards organic matter, the amount of the latter being less than in any of the Thames waters. All the waters were clear and bright on delivery.

AT a meeting of the Council of the Queen's College, Birmingham, held on the 21st inst., Dr. James Sawyer, F.R.C.P., Senior Physician to the Queen's Hospital, was unanimously elected Co-Professor of Medicine as the colleague of Dr. Foster. Dr. Rickards, Physician to the General Hospital, and Dr. Carter, Physician to the Queen's Hospital, were elected Co-Professors of Materia Medica and Therapeutics in succession to Dr. Sawyer.

THE *Crofter* this week gives a portrait and short sketch of the professional and political career of Roderick Macdonald, M.D., F.R.C.S.E., whose name has become familiar to newspaper readers as a Parliamentary candidate for Rossshire, and as leader in the movement to secure for the crofters representation in Parliament as the only satisfactory means of redressing their wrongs and grievances.

TYPHUS fever is reported to have assumed a serious form at Massowah. Some cases appeared at the end of April, but there were no deaths until the 24th of that month. Since then the temperature has risen rapidly, the heat becoming terrible, and the epidemic has made many fresh victims. In four days the Italian expeditionary force lost four officers, and the deaths of ten soldiers occurred in three days.

IT is understood that Professor Huxley will shortly resign his Inspectorship of Salmon Fisheries. Among those spoken of as his probable successor are Mr. Francis Day, Mr. Cholmondeley Pennell, and Professor Ray Lankester. We have no reason for apprehending that, if his resignation be tendered, it is owing to any serious impairment of his health.

DR. E. VAN ERMENGEN, who was commissioned by the Belgian Government to proceed to Marseilles in order to inquire into the epidemic of cholera there last year, has published an elaborate report containing the results of his investigation. We shall deal with this important document fully next week.

ON the 26th inst. the death occurred at Manchester of Dr. John Thorburn, Professor of Obstetric Medicine at Owens College, at the age of fifty-one. Dr. Thorburn also held the post of Obstetric Physician to the Manchester Royal Infirmary.

THE SANITARY CONFERENCE AT ROME.

AFTER oft-repeated delays the International Sanitary Conference of 1885 has at last been opened at Rome. On the 20th inst. the delegates were introduced by their several ambassadors to Signor Mancini, Minister for Foreign Affairs, and the inaugural address was then delivered by the Minister, who spoke as follows:—

"Gentlemen, I am proud that the choice of offering you a hearty welcome has fallen upon me. His Majesty the King, my august Sovereign, has charged me to convey to you the great satisfaction he feels at the friendly and sympathetic reception with which Italy's proposal for the assembling of this Conference has been received in all parts of the world. His Majesty is rejoiced to see in his capital representatives of all Governments, assembled in order to fulfil the mission of studying and resolving one of the most important problems with which modern civilisation is at present occupied—namely, the preservation of human life. We took the initiative in this matter immediately after the reappearance on the banks of the Nile, in 1883, of that terrible plague which had already so many times ravaged Europe. Your presence here is the best augury for the success of the work you have undertaken. For the first time since sanitary questions commenced to form the subject of international debates, the assembly which will now take up the study once more sees in the midst of the eminent men of which it is composed both men who are learned and specially fitted for their task by reason of their scientific competence and their long experience, and also those who, being accredited to the Government of his Majesty the King, have a claim to speak on behalf of their several countries. It is for you, gentlemen, to arrange the order of your proceedings; but whatever may be your decision in this matter, I think that the Conference, whilst discarding as much as possible mere theoretical discussions, and thus giving to its labours an essentially practical character, may well hold a double object in view. I feel that it is above all things important to establish between the several Governments some agreement which shall form the basis on which they may, in their respective countries, establish such measures of prevention, surveillance, and isolation as are necessary in order to deal with this plague at its source, and, as far as possible, to prevent its development. But since, notwithstanding such precautions as it may be possible to take, the disease may threaten to diffuse

itself, it will be necessary, in view of such a contingency, to endeavour also to come to some understanding as to the adoption in the several countries of some system of defence against the invasion and diffusion of the disease, which, without laying burdens which are excessive and rarely efficacious on the freedom of communication and commerce, shall be rational and at the same time of practical utility. Gentlemen, your duty will be no less difficult than it is important. But if your efforts, as I venture to hope, are not barren of results, and if the conclusions to which you come, being accepted by your respective Governments, should be embodied in an international convention, you will have the right to congratulate yourselves, and will have deserved the gratitude of the whole human family. Far beyond the mere prestige of power and the splendour of victories, it is those services which are rendered to humanity and to civilisation that take the highest rank in the annals of the world. They stand as the purest and most legitimate of all the titles of nobility which occupy a place in the history of peoples. I trust and hope that of such may be the results of this Conference, which I now have the honour to inaugurate, and which I now declare to be open."

The actual labours of the Conference commenced at once by the election of Signor Cadorna, President of the Council, as President of the Conference. Certain preliminaries as to the proceedings and debates were also provisionally agreed upon, and the Conference adjourned until Friday, the 22nd inst., when it was hoped that all the foreign delegates would have arrived. With a view of facilitating the labours of the Conference, the medical delegates were, on the second day of meeting, formed into a technical commission, which will discuss the various decisions arrived at by the Vienna Conference of 1874, and which will then submit the conclusions they arrive at to the Conference as a whole.

As far as can be judged from Signor Mancini's inaugural address, and from the *personnel* of the Conference, it is evident that there will be a determined effort on the part of many to maintain quarantine by sea, although perhaps under somewhat less onerous conditions than heretofore. England, as is well known, will never again impose this antiquated restriction against cholera, and it is to be hoped that the British delegates may succeed in showing their *confrères* that our present system of medical inspection and isolation, coupled with a progressive improvement in the general sanitary circumstances of the kingdom, is the only system which is at the same time rational and capable of efficient execution. We must, however, not be too hopeful in this matter; the realisation of which will be the more improbable if we again find ourselves this summer face to face with an extending cholera epidemic. Panic will then doubtless once more reign supreme.

So far, however, the Technical Commission has done good work, having inaugurated its sittings by a vote which, with the exception of Turkey alone, recorded with unanimity a condemnation of quarantine measures by land. The lesson of 1884 has not therefore been altogether without its results, and is is to be hoped that this decision will be ratified by the Conference as a whole, and that it will lead to the adoption of those measures of sanitary improvement which afford the greatest obstacle against the spread of cholera.

The following are the names of the diplomatic and scientific delegates to the Conference who are now in Rome. One or two minor States whose delegates have not arrived may be represented later on:—

Argentine Republic: M. del Viso (Minister Plenipotentiary). *Austro-Hungary:* Count Ludolf (Austrian Ambassador), Dr. de Hofmann, Dr. Grosz, Count Batthyanyi. *Belgium:* M. Van Loo (Minister Plenipotentiary). *Brazil:* M. Callado (Minister Plenipotentiary), Dr. d'Azambuja. *Chili:* M. Matta (Minister Plenipotentiary). *China:* General Tcheng-Ki-tong. *Denmark:* M. de Hegermann Lindencrone (Minister Plenipotentiary). *France:* M. Decrais (French Ambassador), Dr. Proust. *Germany:* M. de Keudell (German Ambassador), Dr. Koch, Dr. Erhardt. *Great Britain:* Sir J. Savile Lumley (British Ambassador), Sir Guyer Hunter, Dr. Thorne Thorne. *Greece:* M. Rhasis (Minister Plenipotentiary). *Guatemala:* M. Segarini (Consul-General). *India (British):* Sir Joseph Fayrer, Dr. T. Lewis. *Italy:* M. Cadorna, President of the Council of State (President of the Conference), Dr. Baccelli, Dr. Moleschott (President of the Technical Commission of the Conference), Dr. Semmola, Dr. Buonomo, Naval Commander Randaccio, M. Casanova, M. Scibona. *Japan:* M. Tanaka (Minister Plenipotentiary), M. Nagay. *Mexico:* M. Sanchez Azcona (Resident Minister), Dr. Hijar y Haro. *Netherlands:* M. de Westenberg (Minister Plenipotentiary), Dr. Ruysch. *Peru:* M. Brunialti. *Portugal:* M. de Carvalho e Vasconcellos (Minister Plenipotentiary), Dr. Da Silva Amado. *Roumania:* M. Obédénnare (Minister Plenipotentiary). *Russia:* Baron d'Uxkull Gyllenband (Russian Ambassador), Dr. Eck. *Servia:* M. Franassovich, Dr. Danitch. *Sweden and Norway:* M. Linstrand (Minister Plenipotentiary), Professor Bergman, Dr. Dahl. *Switzerland:* M. Bairer (Minister Plenipotentiary), Dr. Reali, Dr. Sonderegger. *Turkey:* Mihrau Effendi (Charge d'Affaires), Dr. Zoéros Pacha. *Uruguay:* M. Antonini y Diez (Minister Plenipotentiary).

THE MEDICAL AND CHIRURGICAL SOCIETY OF JAPAN.

AMONGST the many recent advances made by the Japanese in the adoption of European institutions that which relates to medical science is not the least significant. Two years ago we had the pleasure to notice a promising medical journal, the *I Ji Shimbun*, which still receives the support of those for whom it was intended; and we have now to record the success of an Association, the Sei I Kwai, established on the basis of the London Royal Medical and Chirurgical Society, for the advancement of medical science in Japan.

The Sei I Kwai, which issued its thirty-sixth monthly Fasciculus of Transactions in January last, numbers eighty-six members, including nearly all the leading representatives of the profession in Tokio, and some of the principal foreign practitioners, and is under the presidency of Mr. K. Takaki, F.R.C.S., the Director-General of the Naval Medical Department, formerly a distinguished pupil of St. Thomas's Hospital. Its business is conducted at weekly ordinary meetings, when cases are brought forward and discussed in due form, papers are read, and points of interest in foreign journals are quoted and commented upon; and at special monthly meetings held for the more systematic discussion of subjects previously announced.

The January and February numbers of the Transactions now before us present a courageous innovation, the addition of a supplement in which certain of the contents appear in English form and so become available for use and criticism by the outside world. In the January part the supplement is introduced by a report of Four Cases of Ovariotomy performed under complete Antiseptic Precautions by Mr. Takaki, with the result of three successes against one death, the fatal termination being due to shock and hæmorrhage induced by the removal of an extensively adherent tumour of very large dimensions.

Mr. Furukawa Sakayé follows with an interesting paper on Japanese Cosmetics. We learn from this that the use of the toilet adjunct in question, which is confined to women and actors, commenced as early as 724 A.D. The main ingredient, according to the analysis of Professor Atkinson (Trans. As. Society of Japan, vol. vii.), is carbonate of lead diluted with powdered rice starch. No charge of poisoning has ever been raised against the composition; but, on the other hand, it is supposed to exert a wonderful curative influence upon certain skin diseases, which Mr. Furukawa Sakayé unfortunately omits to name.

A report by the Central Sanitary Bureau of cases of Poisoning collected from the various provinces during the half-year ending June, 1884, is next quoted, and it appears that of a total of 132 instances recorded seventy resulted from eating poisonous fish, forty, with twenty-three deaths, being set to the score of the tetradon. The subject of tetradon poisoning is discussed in a subsequent paper.

A statistical table to show the prevalence of Myopia amongst the students of the Agricultural College at Sapporoni Yezo is contributed by Dr. J. C. Cutler, and states that of the pupils (whose total number is not mentioned) entering the College 29·5 per cent. were already myopic, and that an additional percentage of 23 developed the complaint after admission. As a reading people the Japanese have always suffered from myopia, but there is reason to hope that in the future its frequency may be diminished by improvements in printing, and an increased knowledge of the

bearing of properly constructed desks &c. in schools upon the question of visual defects.

In the February number Dr. Osawa writes an account (translated by Mr. Tsuruda) of Tetradon Poisoning, the frequency and fatality of which have already been referred to. From this it appears that three-fourths of the twenty known varieties of the fish are found to be more or less poisonous; that the intensity of the virus increases in certain seasons, notably during the period of gestation in the month of April; that the poisonous principle is located in the ova, and sometimes in the liver also, the flesh being innocuous; and that it is active during the life of the fish, and does not develop as in the bonito and other members of the tribe as a result of post-mortem changes. The poison is described as a crystalloid, readily diffusible from the tissues into water, slightly soluble in ether, chloroform, and spirit, and susceptible of preservation for a considerable period (two months in the case of the eggs of the T. chrysops). It is said to kill by asphyxia. The writer concludes an able paper with the pithy assurance that "the only prophylactic against poisoning by the fish is to avoid eating it."

A report of the Diseases and Injuries of the Mariners in the Japanese Navy during the year 1883 presents the noteworthy feature that out of a total of 2335 cases registered under the head of general diseases, no less than 1292, with a mortality of 3·75 per cent., were due to "kakké," a disease probably of malarious origin, which appears to be identical with the beriberi of India.

The number closes with a translation of an imperial decree relating to the Licensing of Medical Practitioners in Japan. These regulations having necessarily been constructed with reference to the present stage of transition in medical education, must undergo considerable modification as time and knowledge progress; but they are well adapted for existing circumstances, and framed in a spirit of indulgence that should leave no grounds for complaint from candidates who desire to assume the grave responsibilities of the physician.

THE HEALTH OF IRELAND IN 1884.

THE General Abstract recently issued by the Registrar-General of Ireland affords valuable statistical evidence of the health condition of that portion of the United Kingdom during last year. It appears that, though the excess of births over deaths was 31,631, the population decreased 44,232 during the year, owing to the emigration of 75,863 persons. The population of the country has declined year by year since 1877, when there was a slight reaction from previous decline, and was estimated to be 4,962,570 in the middle of last year. The marriage-rate showed an increase last year, and was higher than in any year since 1878, indicating a tendency to revival of prosperity. The birth-rate, too, was slightly higher than in 1883, and equal to 24·0 per 1000, but was 1·2 below the mean rate in the preceding ten years. The death-rate was 17·6 per 1000, against 17·4 and 19·2 in the preceding two years, and was 0·8 below the mean rate in the ten years 1874-83. The marriage-, birth-, and death-rates in Ireland are all very considerably below those prevailing either in England or Scotland, with which, however, they are not comparable, owing to the abnormal age proportions of the Irish population. The constantly large amount of emigration from Ireland during a long series of years has depleted the population of that country of so large a proportion of its young adults that the marriage- and birth-rates are necessarily reduced. The unduly small proportion of children and young adults necessarily affects the gross death-rate, and destroys its value for comparative purposes, unless due correction be made for exceptional age distribution of the population; but such correction is not made by the Registrar-General for Ireland. The Irish General Abstract now under notice gives, however, much more information than the corresponding General Abstract for England and Wales, which gives only bare facts, without any calculated rates. The deaths referred to the principal zymotic diseases in Ireland last year were equal to 8·2 per cent. of the total deaths, and to a rate of only 1·46 per 1000 of the estimated population, which was 0·49 below the mean annual rate from the same diseases in the preceding ten years. Only one death was referred to small-pox during the year. The zymotic death-rate in Ireland last year was little more than half the rate from the same diseases in England and Wales, but this may to some extent be attributed to the small proportion of children in the Irish population, as children under ten years of age are invariably the greatest sufferers from zymotic diseases. One of the most useful features in this Irish return is one which we should much like also to see in the English return; this is the death-rate in each of the urban sanitary districts. The defect in this table is that the rates in 1884 are calculated upon the enumerated population in 1881; the rates, therefore, for the whole of Ireland in this table differ considerably from those given in other tables. All the rates in this table are more or less understated in consequence of the decline that has taken place in the Irish population since 1881. However, the rates respectively given for the urban and rural sanitary districts are interesting, although they require correction for difference of age distribution, as well as for the want of duly estimated populations. The urban birth-rate is given as 29·4, while in the rural districts it did not exceed 21·4. The death-rate was 24·7 in the urban and only 14·9 in the rural districts; and the zymotic rate, which was 2·8 in the urban districts, did not exceed 1·0 in the remaining or rural districts. Excluding the smallest towns, the highest death-rates in the Irish urban sanitary districts during last year were 26·3 in Limerick, 26·7 in Cork, and 29·8 in Waterford. It is doubtful, however, how these rates would have been affected if they had been calculated upon the estimated population in the middle of 1884, instead of upon the enumerated population in 1881. The statistics of infant mortality in Ireland are exceptionally favourable. The deaths under one year of age last year did not exceed 92·5 per 1000 of the registered births in Ireland, whereas the proportion in England was equal to 147 per 1000. Whether viewed as a test of sanitary condition or of care of infant life, this low rate of infant mortality in Ireland is eminently satisfactory.

WILLS OF MEDICAL MEN.

THE will and two codicils of Mr. John Mann, formerly of 4, Charterhouse-square, surgeon, but late of Warltersville-road, Hornsey-rise, and of Moreton-in-the-Marsh, Gloucestershire, who died on January 11th last, were proved on the 1st ult. by Mrs. Mary Mann, the widow, and Mr. George Loosely, the acting executors, the value of the personal estate amounting to over £18,000. There are gifts to his wife, to each of his four children, and to his executor, Mr. Loosely; and as to the residue of his property, the testator leaves two-fifths to his daughter, Elizabeth Frances, and one-fifth each to his children, Joseph Procter, Mary Rebecca, and Edith Spear.

The will and two codicils of William Bruce Joy, M.D., F.C.P. in Ireland, late of 16, Pembridge-gardens, Bayswater, who died on January 28th last, have been proved by Mr. Albert Bruce Joy and Mr. George William Joy, the sons, the executors, the value of the personal estate exceeding £2400. The testator leaves to his wife, Mrs. Arminella Joy, all his furniture and effects, cash in the house and at his bankers, and an annuity of £500; to his son, Archibald Edward, an annuity of £250; and to Frederick James McDonnell, £100. Subject to the foregoing, he leaves his estate of "Joy's reclaimed Dam," Belfast, and his other estates in Ireland with the residue of his real and personal property as to two-thirds for his son, Albert Bruce, and as to one-third for his son, George William.

The Irish probate granted at Dublin of the will of Samuel Warren, M.D., late of Hoylake, Cheshire, and of 83, Grosvenor-square, Rathmines, Dublin, who died on Feb. 12th last, to Mrs. Frances Elizabeth Warren, the widow and sole executrix, has been resealed in London, the value of the personal estate in England and Ireland exceeding £1500. The testator gives, devises, and bequeaths all the real and personal estate which he shall die seized or possessed of to his wife absolutely.

The following legacies have recently been left to Hospitals and other medical charities:—Mr. Francis Parsons, of Ashford House, Hornsey, £500 each to St. Albans Dispensary and the Hemel Hempstead Infirmary.—Mr. Stephen Cooke, of Bucking-

ham, £300 to the Cancer Hospital, Brompton; £200 to the Horton Infirmary, Banbury; and £100 each to St. Bartholomew's Hospital, Guy's Hospital, the Hospital for Women and Children, Vincent-square, Westminster, the new Hospital for Women, Marylebone-road, the Hospital for Consumption and Diseases of the Chest, Brompton, the Royal Hospital for Diseases of the Chest, City-road, the National Hospital for Paralysis and Epilepsy, Queen-square, Bloomsbury, the Royal London Ophthalmic Hospital, Blomfield-street, Moorfields, St. Peter's Hospital, Henrietta-street, and the Buckingham Nursing Hospital.—Mr. Robert Barbour, formerly of Manchester but late of Bolesworth Castle, Cheshire, £500 to the Chester General Infirmary.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

Registration District of Bedwelty.—Mr. John Spear has recently re-inspected the urban sanitary districts of Ebbw Vale and Abertillery, and the rural sanitary district of Bedwelty, comprising the above area. He reports, with regard to the Ebbw Vale district, that a sewer has been laid at Cwm and another is in course of construction at Wainellwyd. At Chapeltown a plan for sewerage has been approved by the authority, and for Briery Hill plans are in course of preparation. It is proposed to defray the cost of these works out of the current rates, and the work will therefore be proceeded with very slowly. It is also intended that the sewage, unpurified, should be discharged into the Ebbw, a course to be deprecated. There has been considerable improvement since Mr. Spear's previous visit in 1882 in the matter of both privy accommodation and scavenging. New houses are now supplied with a closet of the Manchester pattern, and the pails are regularly emptied; but there are still some 2300 houses either without privy accommodation or with a provision of the worst kind. There is, however, no change in the water-supply, but there is some improvement in house construction. Mr. Spear points out methods by which older cottage property might be improved both as regards ventilation and prevention of dampness. Reporting on the Abertillery district, he refers to the prevalence of typhoid fever in 1882, 1883, and 1884, the result of excremental pollution of earth, air, and water. Little, however, had been done but the provision of a small amount of sewerage, and no proper efforts are made to improve the condition of houses.

In the Bedwelty rural district, Mr. Spear states that the sanitary condition of the villages is deplorable; in a few places attempts have been made to provide sewers, and there is a prospect of an improved water-supply, but the building bye-laws are not enforced, and no attempt is made to isolate infectious disease.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Hanley Urban District.—On an estimated population exceeding 51,000, the birth-rate was 38·8 and the death-rate 21 per 1000, both rates exhibiting a decrease on the mean of preceding years. The infant mortality also last year showed a decline from the higher rates that obtained in 1882 and 1883, but it was still markedly in excess of the rates prevailing amongst other corresponding urban populations. The rate of death from the seven principal zymotic diseases was also high—namely, 3·6 per 1000, and 73 deaths were registered from diarrhœa and dysentery. Unfortunately the report, professedly relating to the "sanitary condition" of the borough, is little else than a record of statistics, and hence we are unable to judge of the conditions leading to preventable death, or of the advice which has been given in order to improve the state of the district. The action taken by the inspector of nuisances, as tabulated in an appendix, points to efficiency on the part of this officer.

Jarrow (Urban).—The medical officer of this borough in his report for 1884 expresses his belief that the lamentable depression of trade, and consequent distress among the working classes, had an appreciable effect upon the mortality statistics of the year. The population of the borough is estimated at 29,000, showing a higher rate of increase than prevailed between 1871 and 1881; that the population, however is not over-estimated appears probable from the fact that the birth-rate calculated upon the medical officer's estimate was equal to 43·9 per 1000. This rapid increase of population at a time of such heavy depression is a noteworthy fact. The death-rate, after the due addition of the deaths belonging to the borough recorded in the Union Workhouse outside the municipal boundaries, was equal to 23·5 per 1000; and, in spite of a considerable reduction in the mortality from zymotic diseases, showed a slight increase upon the rate in the previous year, and exceeded by 2·2 per 1000 the mean rate in the ten years 1873-82. Dr. Munro considers that there is a close relation between this increase in the death-rate and the existing "bad times," a conclusion supported by the fact that zymotic fatality, other than that due to infantile diarrhœa, had declined. Infant mortality, measured by the proportion of deaths under one year to births, was equal to 163 per 1000, and exceeded that which prevailed in any year since 1878, when the summer was hot and the fatality from infantile diarrhœa excessive, as was the case last year. The deaths from the principal zymotic diseases were equal to 3·8 per 1000 of the estimated population, and showed a considerable decline from the rates in the preceding two years, which were 5·0 and 5·1. It is noted that the annual zymotic death-rate in the borough during the five years 1874-78, before the introduction of the system of compulsory notification of infectious diseases, was 5·7 per 1000, whereas it has declined to 3·8 in the six years since notification was introduced. This is important evidence in favour of notification, although it would not be safe to attribute the decline entirely to this cause. In connexion with this subject it is to be regretted that very little progress appears to have been made during the past year in the provision of permanent hospital accommodation for infectious diseases.

Bedford Urban District.—Dr. Prior reports that Bedford continues to exhibit a very low death-rate, it having been 15 per 1000 last year; the zymotic rate was also only 1·5 per 1000. Diphtheria, which some years since prevailed so very widely, is still troublesome, but it is mainly confined to a comparatively small portion of the town lying south of the river. The various conditions, such as dampness, states of sewers and drains, &c., which might account for this localisation of the affection, have been carefully considered, and Dr. Prior is inclined to think that, after all, the circumstance is really due to the propagation of the disease by means of a series of mild and unrecognised cases in this special locality.

Willesden Urban District.—This district has now a population of over 36,000, and last year it achieved, notwithstanding its rapid increase of inhabitants, the end of attaining the smallest death-rate on record—namely, 14·6 per 1000. There was some increase in the amount of zymotic disease, but this was mainly due to a prevalence of whooping-cough, a disease against the spread of which no practical measures of prevention can as yet be regarded as available. Owing to a prevalence of small-pox, and to the failure of the authority to prepare themselves with proper means of isolation, hospital tents were procured, and subject to infectious disease not making its appearance at an unsuitable time of the year, the tents may be regarded as still available. An ambulance is very much needed, there being no proper means for the removal of patients. Dr. Branthwaite also suggests a chair for carrying the sick downstairs, but nowadays every proper ambulance is fitted with a movable stretcher which the patient is laid on in his bedroom, which is then made to slide into the ambulance, and on which he is carried from the ambulance to the hospital bed. If the recumbent position be unnecessary, the stretchers can always be so adapted as to suit other positions.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5443 births and 3594 deaths were registered during the week ending the 23rd inst. The annual death-rate in these towns, which had been equal to 20·2 and 20·4 per 1000 in the preceding two weeks, further rose last week to 21·1. During the first seven

weeks of the current quarter the death-rate in these towns averaged 22·1 per 1000, against 23·0 in the corresponding periods of the nine years 1876-84. The lowest rates in these towns last week were 13·3 in Bolton, 17·3 in Bradford, 17·5 in Halifax, and 18·0 in Leicester. The rates in the other towns ranged upwards to 29·1 in Manchester, 30·0 in Newcastle-upon-Tyne, 30·1 in Preston, and 31·5 in Blackburn. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 481 and 463 in the previous two weeks, rose to 510 last week, and included 182 from measles, 158 from whooping-cough, 42 from diarrhœa, 40 from scarlet fever, 37 from "fever" (principally enteric), 34 from small-pox, and 17 from diphtheria. No death from any of these principal zymotic diseases was returned last week in Derby, whereas they caused the highest death-rates in Birkenhead, Blackburn, and Newcastle-upon-Tyne. The greatest mortality from measles occurred in Liverpool, Birkenhead, and Newcastle-upon-Tyne; from whooping-cough in Oldham, Plymouth, and Blackburn; from scarlet fever in Wolverhampton; and from "fever" in Cardiff and Norwich. The 17 deaths from diphtheria in the twenty-eight towns included 10 in London and 2 in Preston. Small-pox caused 66 deaths in London and its outer ring of suburban districts, exclusive of 22 deaths of London residents recorded in the hospital ships and camp at Darenth; also 2 in Manchester, 2 in Sheffield, 1 in Hull, and 1 in Sunderland. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had been 1282, 1361, and 1364 on the preceding three Saturdays, further rose to 1374 at the end of last week; the admissions, which had been 315 and 211 in the previous two weeks, rose again to 282 last week. The Highgate Small-pox Hospital contained 68 patients on Saturday last, 15 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 287 and 291 in the preceding two weeks, further rose last week to 304, and were 5 below the corrected average. The causes of 62, or 1·7 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Bradford, Preston, and in four smaller towns. The largest proportions of uncertified deaths were registered in Sheffield, Halifax, and Bristol.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 20·6 and 23·4 per 1000 in the preceding two weeks, declined again to 21·2 in the week ending the 23rd inst., and was almost identical with the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 10·6 in Leith and 18·0 in Edinburgh, to 22·0 in Paisley and 24·7 in Glasgow. The 517 deaths in the eight towns showed a decline of 53 from the number in the previous week, and included 22 which were referred to whooping-cough, 16 to diarrhœa, 15 to measles, 8 to "fever" (typhus, enteric, or simple), 3 to scarlet fever, 3 to diphtheria, and not one to small-pox; in all, 67 deaths resulted from these principal zymotic diseases, against 55 and 79 in the preceding two weeks. These 67 deaths were equal to an annual rate of 2·7 per 1000, which was 0·3 below the mean rate from the same diseases in the twenty-eight English towns. The 22 deaths from whooping-cough in the eight towns showed a further decline from the numbers in recent weeks, and included 12 in Glasgow, 4 in Dundee, and 3 in Edinburgh. The 16 deaths attributed to diarrhœa were fewer by 3 than those in the previous week, but exceeded the number in the corresponding week of last year by 5. The fatal cases of measles, which had been 13 and 19 in the previous two weeks, declined again to 15 last week, all of which occurred in Glasgow. The 8 deaths referred to "fever" corresponded with the number in the previous week, and included 5 in Glasgow and 3 in Edinburgh. Two of the 3 deaths from scarlet fever, and 2 of the 3 from diphtheria, were returned in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 117 and 95 in the preceding two weeks, rose again to 107 last week, and were 7 above the number returned in the corresponding week of last year. The causes of 76, or nearly 15 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 28·5 and 35·0 per 1000 in the preceding two weeks, declined again to 31·2 in the week ending the 23rd inst. During the first seven weeks of the current quarter the death-rate in the city averaged no less than 32·6 per 1000, the mean rate during the same period not exceeding 20·8 in London and 18·4 in Edinburgh. The 211 deaths in Dublin last week showed a decline of 26 from the number in the previous week, and included 17 which resulted from measles, 6 from "fever," 6 from scarlet fever, 2 from whooping-cough, 1 from diphtheria, 1 from diarrhœa, and not one from small-pox. Thus, 33 deaths resulted from these principal zymotic diseases, against 22 and 34 in the preceding two weeks; these 33 deaths were equal to an annual rate of 4·9 per 1000, the rate from the same diseases last week being 3·1 in London and 1·7 in Edinburgh. The fatal cases of measles in Dublin, which had been 17, 12, and 14 in the preceding three weeks, rose again to 17 last week. The 6 deaths from scarlet fever, and the 6 from "fever" (typhus, enteric, or simple), also exceeded the numbers in recent weeks. The deaths from diarrhœa and whooping-cough, on the other hand, showed a decline. Three inquest cases and 2 deaths from violence were registered within the city; and 63, or nearly a third of the deaths, were recorded in public institutions. The causes of 22, or more than 10 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

Amongst the officers who left Sawakin on the 22nd inst. in the *Calabria* was Surgeon P. A. Hayes, and amongst those who left in the *Ganges* on the 27th inst. was Surgeon N. Manders.

The following medical officers have arrived at Cairo, sick, from the Nile:—Surgeon-Major R. W. O'Donnell, and Surgeons R. H. Clements, W. S. Pratt, F. H. Treherne, and H. P. Birch, Medical Staff.

ADMIRALTY.—The following appointments have been made:—Staff Surgeon John Wilson, to the *Cormorant;* Arthur Keess, Esq., M.R.C.S., to be Honorary Surgeon to the Royal Naval Artillery Volunteers (London Brigade).

MILITIA MEDICAL STAFF.—Surgeon-Major Charles Wm. Marriott, 4th Battalion, the Royal Warwickshire Regiment, resigns his commission; also is permitted to retain his rank, and to wear the prescribed uniform on his retirement; Surgeon Herbert Goldingham Budd, 3rd and 4th Battalions, the Worcestershire Regiment, to be Surgeon-Major; Surgeon Duncan McFadyen, 2nd Battalion, the Queen's Own Cameron Highlanders, to be Surgeon-Major; Surgeon James Ramsey, M.D., 3rd Battalion, the Prince of Wales's Own (West Yorkshire Regiment), to be Surgeon-Major.

YEOMANRY CAVALRY.—Cheshire: Surgeon William Chas. Watson resigns his commission.

ARTILLERY VOLUNTEERS.—1st Cinque Ports: Captain Alfred Sparkes resigns his commission; Acting Surgeon Thomas Horne, M.D., resigns his appointment.—1st Worcester: William Herbert Packer, Gent., M.D., to be Acting Surgeon.

RIFLE VOLUNTEERS.—2nd Volunteer Battalion, the Lincolnshire Regiment: Thomas Porter Greenwood, Gent., to be Acting Surgeon.—10th Lanarkshire (Glasgow Highland): Quintin Chalmers, Gent., to be Acting Surgeon.—11th Middlesex (Railway): Isaiah George Butters, Gent., to be Surgeon.—3rd Lancashire: William Deans, Gent., to be Acting Surgeon.—1st Cinque Ports: John James Marshall, Gent., to be Acting Surgeon.

HOSPITAL FOR SICK CHILDREN.—At the thirty-third annual meeting of the governors of this institution on the 20th inst. it was stated that the number of in-patients admitted during the past year was 932, and that the out-patients receiving advice and medicine were 15,270. At the Convalescent Hospital, Highgate, 249 children had been received. The available income amounted to £9844, including legacies to the amount of £1650. The expenditure at both establishments amounted to £11,471, which included a portion of the outlay on alterations.

Correspondence.

"Audi alteram partem."

"PNEUMOTHORAX FOR HÆMOPTYSIS."

To the Editor of THE LANCET.

SIR,—My object in trespassing upon your space is not to enter into the important question of the therapeutic value of the mode of treatment advocated by Dr. Cayley in his most interesting communication to the Clinical Society on the above subject, but simply to discuss how far the special method adopted by him is calculated to secure the desired end, the collapse of the lung; and I therefore venture to ask, What reason have we to believe that free incision into the pleural cavity through the chest wall is necessarily followed by collapse of the lung?

Theoretically, the desired result should be attained; when the atmospheric pressure acting through the larynx is neutralised by the pressure of the air upon the outer surface of the lung, the elastic force of the lung should be set at liberty to produce complete collapse of the organ and to restore it to its fœtal condition. "Thus," according to Hermann,[1] "should, through any opening, air pass into the space between the lungs and the thoracic walls, then the lungs by virtue of their elasticity collapse to their natural (atelectic) volume (pneumothorax)."

I venture to submit, however, that collapse of lung by no means necessarily follows the free admission of air into the pleural cavity. This has long been fully recognised. Mr. Erichsen, for instance, says,[2] "Collapse of the lung in wounds of the chest consequent upon the action of the atmospheric pressure upon the outside of the organ, has been more frequently spoken about than seen. The chest may be largely opened, and the full pressure of the atmosphere allowed to act on the outer surface of the lung, and yet no collapse of this organ takes place. The lung in such cases may be seen rising and falling at the bottom of the wound." In my own experience this is just what occurs when the thoracic cavity is freely opened in the treatment of empyema; in such a case the lung, provided that it is not bound down by adhesions, may be plainly seen rising and falling during respiration, just as described by Mr. Erichsen in the case of primary wound of the pleural cavity. When the opening is first made, indeed, the violent expulsion of the pus and the irritative cough dependent upon rapid expansion of the lung plainly indicate that what is taking place is the very opposite of collapse of the organ.

If it were a fact that free incision into the pleural cavity necessarily produced collapse of lung, the operation for the cure of empyema would be an exeeedingly grave undertaking, on account of its inevitable after-effects. For since, on the one hand, the lung could not expand to meet the chest wall, and thus obliterate the pus cavity, unless the external opening were closed, and, on the other, the abscess cavity could not become obliterated unless the aperture were left open to allow of free drainage, it would of necessity follow that in the large proportion of cases the patients would be left with a lung in a condition of complete and permanent collapse and a chronic fistulous opening into the pleural cavity. It is well known, however, that such a result is not met with except in the most unfavourable cases, when the lung is already bound down by adhesions and the chest wall cannot fall in to the requisite extent.

Collapse, or, more correctly, compression, of lung as the result of pneumothorax occurs with certainty only when the air is pent-up in the pleural cavity; when it enters with inspiration and does not escape with equal freedom during expiration; and it is consequently met with by far the most often when perforation of the cavity occurs from the lung, in the absence of any free external opening; and it is well known that the urgent symptoms produced by such a condition may be at once relieved by thoracentesis, by which procedure the pressure of the air in the pleural cavity is reduced to that of the atmosphere.

A careful consideration of the details of the very important case brought forward by Dr. Cayley shows that the collapse of lung which was actually found post mortem may be explained in accordance with the above theory. For it is noted that during the treatment of the case the tube became blocked and pleurisy with effusion set in. The physical conditions for the induction of compression of lung were thus established.

I would therefore submit that if it is desired to produce collapse or compression of lung, air should be injected into the pleural cavity, as proposed by Mr. R. W. Parker and commended in your remarks upon the subject, rather than admitted by a free external opening, in order that a compressing force greater than that of the atmosphere may be secured, and the collapse of the organ may thereby be rendered certain.—I am, Sir, your obedient servant,

E. MARKHAM SKERRITT, M.D.Lond., F.R.C.P.,
Senior Physician to the Bristol General Hospital.

Clifton, May 26th, 1885.

[1] Human Physiology, translated by Gamgee, p. 159.
[2] Science and Art of Surgery, vol. i., p. 494.

THE TITLE OF "DOCTOR" FOR LONDON MEDICAL STUDENTS.

To the Editor of THE LANCET.

SIR,—The proposal of the Royal College of Surgeons to obtain power, in conjunction with the College of Physicians, to grant the title of "Doctor" to their licentiates and members in future must be unitedly opposed by graduates of recognised universities. Granted that there is a commercial value to the title, it would be manifestly unfair to those who have obtained it in a legitimate way to sow it broadcast in this manner. Of course, it is easy to see that it is the unblushing way in which the Licentiates of the Edinburgh and Glasgow Corporations have taken to themselves the title (which it has been proved does not belong to them) which has provoked the above resolution. Surely it is beneath the dignity of our English Colleges to follow in the footsteps of their unworthy compeers! What compensation is to be given to those who have taken the extra trouble and gone to considerable extra expense to gain a university degree in addition to the Membership of the College? Ought not a still higher title to be granted them, or else some distinguishing mark by which the public can gauge the different value of their "Doctorate"? Of course, to the public every medical man, from the lowly L.S.A. to the magnificent F.R.C.P., and consulting physician, is "doctor," in the same way that to the Irish peasantry every military man is "captain." If it be required that all medical men should start with equal degree in rank, baronetcies should be conferred on all, for there is no doubt of the extra commercial value of that title to medical men, and although this distinction has also been gained (by those medical men who hold it) by extra work, zeal, or skill, why should this levelling down process only begin at "doctor"?

Let the Council of the College admit their members to a share in its government, and alter its constitution, if necessary, to allow of this, and they will be doing a great work: but, as a member, I beg to protest against this attempt to destroy the value of university titles gained by those who have taken the extra trouble and work to procure them.

I am, Sir, yours truly,

C. ST. JOHN WRIGHT, M.B.Aberd., &c.

St. Mary Infirmary, Islington, May 26th, 1885.

SMALL-POX RISKS AND REVACCINATION.

To the Editor of THE LANCET.

SIR,—With reference to Mr. Goude's letter in your issue of the 16th inst., on the above subjects, and the paper read before the Society of Arts on the 8th inst., if you will kindly give me a little space in an early issue I shall be very happy to place before the profession, by means of your columns, the reasons which led me, as Mr. Goude puts it, to "publicly state his [my] disbelief in the necessity for revaccination in adults who have been efficiently vaccinated;" and to prohibit the practice of revaccination in the system of voluntary vaccination inaugurated by me in the first circle of the North-West Provinces in India in 1854. The practical experience and personal observation of thirty years' service in India, the home of small-pox, with the last twenty years of that service, I may say, almost entirely devoted to the subject of ascertaining the best prophylactic for small-pox, have satisfied me that no prophylactic can even approach vaccination; and when it is carefully supervised, and skilfully practised, and the system known as arm-to-arm vaccination, or what really amounts to it,

alone carried on, there is no necessity for revaccination. My opportunities for arriving at any conclusion on this most important subject will, I think, be allowed to be extensive and special, when I state that, during the last twenty years of my Indian service, I have been continuously engaged in vaccination in one sanitary circle, with a population of ten millions and an average of 500 to the square mile—with my vaccine work standing the test of small-pox as an annual visitor—with no attempt at isolation even in sporadic cases; on the contrary, with the promiscuous collection of cases of the disease in every stage of the eruption, with children, as yet free from it, at the shrine of the goddess of small-pox, "Sutla." Here, in the midst of all this small-pox contagion and infection, I have never protected (if I may use the term) my work by revaccinating a single native youth or adult, or permitted one of my two hundred subordinates to do it. If, therefore, revaccination is necessary in this country owing to the prevalence of small-pox among the vaccinated, I can point to towns, cities, and districts where small-pox is practically unknown, except in a few isolated unvaccinated cases, and ask, Why this difference? I will not, however, take up more of your space at present. All I ask from the numerous professional and unprofessional readers of your journal is a hearing and an opportunity of showing that Jenner's great discovery has gained by the lapse of time; and that in India it has by its own merit overcome every possible difficulty, and is gratefully accepted in the place of inoculation by a nation who have practised that prophylactic from time immemorial. I am, Sir, yours faithfully,

R. PRINGLE, M.D.,
Late Sanitary Department, H.M.'s Bengal Army.

Blackheath, S.E., May 19th, 1885.

THE NEW LUNACY BILL.

To the Editor of THE LANCET.

SIR,—Without venturing an opinion on any of the points touched upon by the Lord Chancellor's new Bill, I would beg to direct your attention to a matter not therein referred to, and which, I think, calls as loudly as any other for reform. I refer to the power at present vested in the magistracy of sending a pauper lunatic to any other asylum in England than that in his own county should there not be room for him in the home establishment. Under this law hundreds of unfortunates are annually conveyed to far distant parts of the country. Their friends are poor, and have neither the time nor the money necessary for their visitation. So pauper lunatics are left in their affliction to mourn their unhappy lot; to live, and probably to die, in the midst of strangers, and to suffer in their declining years that feeling of desertion and utter loneliness which was until now supposed to be reserved for the criminal. The Commissioners in Lunacy expressed their disapproval of the system some years back, saying that it was the cause of very great hardship to the patients so transferred. Could not a clause be inserted in the Bill at present being considered making it compulsory that pauper lunatics should be kept and treated within the counties in which they are chargeable as paupers?—this to come into force at the expiration of a reasonable time, to allow of extra accommodation being provided when required. It is surprising that this matter has not yet been mentioned in connexion with the new Bill, seeing that it entails more misery and hardship upon the transported lunatic (and his friends) than almost any other provision of the existing lunacy laws.

I am, Sir, yours faithfully,

May 24th, 1885. S. A. K. STRAHAN, M.D.

"PERSONAL EXPERIENCE OF COCAINE AS AN ANÆSTHETIC."

To the Editor of THE LANCET.

SIR,—In last week's issue you publish a letter from Mr. Wm. Copeland, M.R.C.S., of Staindrop, near Darlington, headed as above. In this letter Mr. Copeland states his belief that "he is the first member of the profession who has undergone a serious operation under the influence of the new anæsthetic." Whilst I sincerely congratulate Mr. Copeland upon the success of his case and Dr. Bell Taylor in having such an able advocate, I would point out that, in this neighbourhood at all events, Mr. Copeland is not the first member of the profession who has been operated upon for senile cataract under the influence of cocaine.

In February last I operated upon Dr. Welford, an eminent and much respected member of our profession in Sunderland. Dr. Welford, who perhaps at some future time may be induced to give his experience of the new drug, suffered no pain, and is now in the enjoyment of perfect eyesight.

I am, Sir, yours truly,

CHRISTOPHER S. JEAFFRESON.

Newcastle-on-Tyne, May 26th, 1885.

DEAR DR. JEAFFRESON,—I have just been told THE LANCET of last week publishes a case (Mr. Copeland, of Staindrop) as the *first* operation on a medical man in the north for removal of cataract under the influence of cocaine. Now, if this was done subsequent to Feb. 15th, 1885, it is *not* the first, for on that day you operated on my eye under cocaine, and successfully removed, without the slightest pain whatever, a cataract, "its success manifest in my writing this letter." With many thanks for your great kindness and skilful manipulation,

Believe me, dear Doctor, yours sincerely,

GEORGE WELFORD.

Cotherstone, Darlington, May 25th, 1885.

IRELAND.

(From our own Correspondent.)

HONOURS FOR THE MEDICAL PROFESSION.

THE rumours that several members of the profession in Dublin would receive distinctions from the Government appear to have been without foundation. The visit of the Prince of Wales to this country was a most successful one, and all classes vied with each other to make his stay agreeable. That they succeeded is conceded on all hands, and naturally it was expected by the profession here that the visit would have been marked by distinctions being conferred on some leading members of the medical profession. The honours, however, appear to have been doled out with no liberal hand. Dr. Wycherly, it is true, has been knighted; but this distinction was conferred solely on account of his holding the office of High Sheriff for the city of Cork. It may be argued that these matters rest with the Prime Minister, and not with the Prince of Wales. This may be correct; but, on the other hand, there can be no doubt that the slightest wish of His Royal Highness in these matters would at once have been attended to. At all events, the medical profession here must feel itself slighted at the indifferent manner in which it has been treated by the authorities.

HOUSING OF THE POOR COMMISSION.

On Saturday last the Royal Commission appointed to inquire into the housing of the working classes in Dublin commenced its duties under the presidency of Sir C. Dilke, M.P. The witnesses examined included the officers of the Local Government Board, the chairman of the Public Health Committee, Dr. Cameron, medical officer of health, and others. The proceedings, being private, cannot be published at present; but complaints have been made that the examination of four witnesses was conducted simultaneously, and that sufficient time was not devoted to the hearing of evidence by such an important Commission. It has also been alleged that although important evidence was tendered on the first day, it was declined on the ground of being "too late." Another sitting was held on Tuesday, but if carried out in the same manner, little good can be expected from its labours.

CORK SOUTH INFIRMARY.

The trustees of this infirmary have advertised for two surgeons and a physician, to be appointed on June 12th next, in accordance with a rule of the institution, which states that all officers of the staff appointed after 1876 shall cease to hold office at the end of five years, but shall be eligible for re-election. The objections to such an arrangement are many and manifest, and consequently the medical practitioners in Cork have recently held a meeting to take into consideration the question of these vacancies. The meeting appears to have been undivided in its opinions, as the resolutions were unanimously adopted. These resolutions

stated that the medical profession in Cork considered the system of electing the staffs of the various hospitals for a limited period would tend to lower their status; and that no medical man should oppose the re-election of any member of a hospital unless he had been neglectful of his duties. These resolutions have been brought under the notice of the trustees of the infirmary.

ADELAIDE HOSPITAL.

The late Mrs. Bolton of Bective Abbey, County Meath, has bequeathed to this institution a perpetual rent charge of £400 a year, to be applied to the maintenance of some distinct ward or branch of the hospital, and to be called the "Bolton Donation."

A MORGUE FOR KINGSTOWN.

Kingstown, a seaport town some seven miles distant from Dublin, is greatly in want of a morgue for holding inquests, and as a receptacle for the bodies of persons found in the harbour. The coroner for the district has on several occasions drawn attention to the disgraceful neglect in providing such a building, but up to the present without success. The commissioners of the township are, I understand, the responsible authorities, and it is to be hoped they will take the necessary steps without delay to supply the defect.

The Earl of Rosse has been elected Chancellor of the University of Dublin.

On Monday last the Lord Mayor of Dublin formally opened the new baths and washhouses in Tara-street, which have been erected at a cost of £5000.

Dublin, May 26th.

PARIS.

(From our Paris Correspondent.)

THE LATE PROFESSOR BOUILLAUD.

THE statue that was erected in honour of Professor Bouillaud at Angoulême, his native town, was unveiled on Saturday, the 16th inst., in the presence of the notabilities of the place and of several members of the profession from Paris and elsewhere, most of whom were pupils of the illustrious physician. There were also present delegates from the various learned societies to which Dr. Bouillaud belonged—Professor Vulpian representing the Academy of Sciences, Dr. Henri Roger the Academy of Medicine, and Professor Laboulbène the Faculty of Medicine of Paris. In the most emphatic language the orators retraced the professional life of Dr. Bouillaud, commencing from his doctorate to the day of his death. He had scarcely left the school of medicine when he made an important discovery, showing the parts played by phlebitis, and the obliteration of the veins, in the production of certain forms of dropsy. He was not quite thirty years of age when he published his treatise on Encephalitis, in which he affirmed that the seat of articulate language is in the anterior lobes of the brain; at forty he published his Medical Nosography. His works on Essential Fevers, Medical Philosophy, and Acute Articular Rheumatism (in the latter of which he established the law of coincidence of inflammation of the sero-fibrous membranes of the heart, which opened a new field to pathology), and his treatise on Diseases of the Heart are sufficient to place Bouillaud among the members of the profession of the present century who have contributed by their works to create a new era in the practice of medicine. In 1826 he was promoted to agrégé of the Paris Faculty of Medicine; in 1825 he became member of the Academy of Medicine; in 1831 he was appointed hospital physician, and in the same year to the professorship of Clinical Medicine, which he occupied for nearly half a century with so much credit to himself and advantage to his pupils, who are now scattered over all parts of the civilised world. He was also a member of the Academy of Sciences.

THE ELIMINATION OF ARSENIC.

At the last meeting of the Paris Society of Medical Jurisprudence, Professor Brouardel reported a case illustrating the possibility of an infant at the breast being poisoned through its mother's milk. In his capacity of medical jurist he was consulted about a case which was lately brought before the tribunal, in which a man was accused of having attempted to poison his wife with arsenic, which he gave her in her food, she having at the same time a sucking baby. The infant was seized with symptoms of cholerine a few days after the mother had been affected in a similar way—diarrhœa, vomiting, &c., from which it died. These symptoms having occurred during the hot season, no importance was attached to them; but in the month of November following, the wife and mother-in-law of the accused having been again similarly affected, suspicions were aroused, and Professor Brouardel caused the body of the infant, which had been buried six months, to be exhumed. According to the Professor's report, the body was completely transformed into cadaverous fat, and it was impossible to isolate the viscera from the other parts, so that the body had to be analysed *en masse*. It weighed about two and a half kilogrammes, and contained five milligrammes of arsenic. Means had been taken to make sure that the arsenic did not come from the linen enveloping the corpse, nor from the earth which surrounded the coffin. The question then suggested itself as to whether the arsenic found in the body of the infant might not have been eliminated by the milk of the mother. To ascertain the possibility of such a circumstance, M. Gabriel Pouchet performed some experiments which were very conclusive. He administered to a certain number of wet-nurses, who were in the St. Louis Hospital affected with skin diseases, from two to twelve drops of Fowler's solution, and he ascertained that in these conditions the milk of the nurses always contained a relatively large quantity of arsenic; thus, the milk of one nurse, who had taken eight milligrammes of arsenic in six days, contained one milligramme of the metalloid to 100 grammes. M. Pouchet observed that these doses did not affect the nurses or their nurslings in the least. But upon the suppostion that the result might be otherwise if a large dose of the arsenic were administered at once, and in order to clear up this point, M. Pouchet tried experiments on some females among the lower animals. This series of experiments did not furnish conclusive results, as animals present a variable degree of susceptibility to arsenic, and it was therefore impossible to draw any comparative conclusions. It may, however, be deduced from these researches that the elimination of arsenic takes place principally through the milk, and it is therefore prudent never to administer arsenic to mothers suckling infants.

Paris, May 26th.

EGYPT.

(From a Correspondent.)

THE annual examinations at the Egyptian School of Medicine began on May 16th, and were attended on that day by his Highness the Khedive, all the Ministers, the Cadi, the Sheikh el Islam, and a few other visitors. The lecture theatre, which bears on its walls the names in Arabic of Hippocrates, Galen, Æsculapius, Asclepius, Dupuytren, Nélaton, Morgagni, and other classic names, together with those of some Oriental celebrities unknown to English ears, was luxuriously decorated in honour of the occasion. A fifth year's medical student was orally examined before the Khedive, then followed a fifth year's pharmaceutical student, who very rapidly discovered that three previously unknown solutions contained bichloride of mercury, acetate of lead, and nitrate of silver. Lastly, a Mussulman pupil midwife, closely veiled, was examined *vivâ voce* in her art, and was even made to apply the forceps to the dummy before the august assembly. The Khedive was then conducted over the new museums, which are a valuable nucleus for the future, and show a considerable improvement over their condition twelve months ago. One large room now contains valuable acoustic and other physical instruments, which were recently discovered packed away in an old storehouse, and are probably relics of gifts to the medical school in olden days by Dr. Clot Bey and Napoleon III. A medical tourist who recently visited Cairo has exposed the nakedness of the school of medicine in no sparing terms, but a glance at the accompanying figures will show that it is unfair to blame the professors for not providing efficient laboratories and museums. It will be seen that the whole income for the three combined schools of medicine, pharmacy, and midwifery reaches only £14,914, of which £2175 remain after paying its

salaries and for the food and clothing of the students. Very little reform can be effected with this absurdly small sum.

School of Medicine and Pharmacy.

Director	£900	
23 Professors and Assistants	5730	
35 Servants	866	
Food for Male Students	734	
Various Expenses	148	
	——	8378
School of Midwifery.		
4 Professors	282	
5 Servants	67	
Food for Female Students	167	
Various Expenses	8	
	——	524
Clothes for all Students	3993	
Teaching Materials	1837	
Furniture	90	
Small Expenses	92	
	——	6012
Total		£14,914

The income has been this year summarily reduced by £3000 in consequence of the general financial reform in Egypt, and it is greatly to the credit of the Director of the School that any of the recent improvements have taken place. He has succeeded in obtaining leave to spend £1000 this year on scientific instruments for laboratories, and it is to be hoped that the order which has already gone to Paris will contain elementary instruments of practical value, instead of being spent entirely in costly microscopes for demonstrating bacilli. Plans for building additional museums have also been drawn out, and £2000 of the necessary £10,000 has this year been placed at the disposal of the school authorities. It is satisfactory also to note that out of 150 students at present in the school 75 now pay £14 a year for the privilege of being educated. Formerly the Government bore the expense of all students, as their parents being mostly of the peasant class were unable and unwilling to contribute anything towards their education. Much unostentatious good work is being done at Kasiel Ain Hospital, which adjoins the Medical School. Mussulman women nurses are being trained for the first time, a system of house-surgeons and dressers has been started, and sawdust and corrosive sublimate dressings have taken the place of charpie and commercial carbolic acid. A new women's ward has been opened, and an operating theatre has been commenced, which will prove a great boon to both surgeons and students. During the last week the following interesting cases were admitted into the surgical wards:—

CASE 1. A Soudanese, who stabbed himself in the abdomen after an unsuccessful attempt to shoot an English soldier who passed him in the street. This man, when brought to the hospital, had three coils of large intestine, about two feet and a half in length, outside his abdomen, These were cleaned and returned, and he is recovering without a bad symptom. He probably consumes opium or hasheesh, and it is interesting to note that he required almost a gramme of opium in twenty-four hours to be put under the influence of the drug.

CASE 2. An Egyptian woman was brought in suffering from omental hernia without any covering, which had been exposed for a week, but had given rise to no abdominal symptoms. This patient was found walking about in the yard the day after the operation, and is rapidly recovering.

CASE 3. A fracture of the surgical neck and dislocation of the head of the humerus, not seen until three days after the injury. The dislocation was very easily reduced under chloroform.

At the beginning of this month a weak strumous child was operated on for swollen cervical glands at the earnest wish of its parents. On the seventh day after operation hæmorrhage occurred from a small branch of the external carotid, and this was readily controlled by the thumb of the native "probationer" nurse, who had only been under Dr. Milton's training for four months. The midwife when summoned also applied direct pressure to the wound, and was intelligent enough to refuse offers of perchloride of iron from a house-surgeon. When Dr. Milton arrived in the ward, he found the child pulseless and moribund. Injections of ether and other treatment proving useless, he at once bared his own elbow, drew off a sufficiency of blood, and injected it into the jugular of the patient, unfortunately not saving the child's life. Such a lesson as this is incalculably of more value to student doctors and nurses than any of the prolonged efforts of memory which most school teaching in Egypt requires, and it is by such individual acts of courageous self-sacrifice that the good name of Englishmen in Egypt is sustained, and a counterpoise may perhaps be effected to the unfortunate feebleness of administration of England in this country.

Cairo, May 20th.

ROYAL COLLEGE OF PHYSICIANS.

AN extraordinary Comitia of the College was held on the 28th inst., Sir W. Jenner, Bart., President, in the chair. The gentlemen nominated at the last meeting, and whose names appeared in our impression of the 2nd instant, were duly admitted to the Fellowship. The late Dr. John Thorburn of Manchester was one of the gentlemen elected, and sympathetic reference was made to the fact of his death by Dr. Priestley, on whose motion the College resolved to address a letter of condolence to the widow.

A letter was read from the Secretary of the Royal College of Surgeons with respect to the appointment of seven delegates from each College to confer on the question of granting the title of "Doctor" to persons who shall have obtained the licence of the College of Physicians and the diploma of the College of Surgeons. A memorial was also presented by Dr. W. Hickman, urging the desirability of a complete conjunction between the Colleges. The President nominated Dr. Wilson Fox, Dr. Ord, Dr. Norman Moore, Dr. Moxon, and Sir Andrew Clark, Bart., with the President and Registrar, to act as delegates from the College.

On the motion of Dr. Norman Moore, it was resolved to guarantee the sum of 200 guineas towards the expenses of publication of the manuscript notes (1616) of Harvey's Anatomical Lectures.

The consideration of the Report of the Council upon the Croonian Trust was resumed. It recommended that "the residue of the income from the Trust, after payment of the Croonian Lecturer, be invested, to form a fund for the establishment of a Professor of Anatomy and Physiology, the person holding such professorship to be called the 'Croonian Professor of Anatomy and Physiology,' and to hold such professorship for five years." After some debate the Report was referred to a Special Committee, consisting of the Members of the Council and those Fellows who had given notice of amendments.

A Report was read from a Committee upon the Lunacy Bill, especially in reference to the question of the signing of certificates in lunacy, and a discussion ensued.

MEDICAL NOTES IN PARLIAMENT.

Medical Officers of Irish Prisons.

IN the House of Commons on the 21st inst. Mr. Hibbert, in reply to Mr. Macartney, stated that the medical officers of Her Majesty's prisons in Ireland who gave evidence before the late Royal Commission received the same allowances as those paid to medical officers appearing as witnesses before other commissions and select committees. These allowances were calculated to cover professional losses, and that included the payment of a substitute where necessary.

Medical Act Amendment Bill.

Mr. Mundella, in reply to Mr. A. O'Connor, stated that he was not aware of any intention on the part of the Government to reintroduce the Medical Act Amendment Bill of last session, and was understood to add that he did not think such a step was probable.

Protection against Cholera.

On the 22nd inst., in reply to Dr. Cameron, Mr. G. Russell stated that he was aware that Dr. Ferran was testing at Alcira the efficacy of vaccination as a remedy against cholera, and he had seen a telegram from him containing a statement as to the facts contained in the question, and asking that a commission should be sent out. The Local

Government Board was considering whether it could comply with the request; but the telegram was only placed in his hands on the 21st inst., and there had been no time to come to a decision in the matter. If the Department thought it desirable to send out a commissioner, he would undertake to bring the matter under the notice of the Secretary of State for India, as India was even more interested than England in the prevention of cholera.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the first part of the Professional Examination for the Fellowship at a meeting of the Board of Examiners on the 25th inst.:—

Edmund Vaudrey, St. George's and Edinburgh; James T. James, Middlesex; J. Bowring Lawford, McGill and St. Thomas's; Henry J. Blakesley, Birmingham; A. F. Gambell Codd, St. George's; Robert Heelis, St. Thomas's; Harry Littlewood, University College; Charles S. Blair, Newcastle and London.

(Candidates referred, 12.)

Passed on the 26th inst:—

G. Adlington Syme, Melbourne and King's College; Alfred H. Tubby and A. Sneyd Taylor, Guy's; A. Ward Collins, University College and Liverpool; Robert T. Kent, Edinburgh and Guy's; John W. Smith, Edinburgh; Leonard A. Bidwell, St. Thomas's; A. Hancock Middleton, Dublin; Hugh Smith, London and Guy's.

(Candidates referred, 11.)

Passed on the 27th inst.:—

W. H. Breffit Brook and Wilfred Balgarnie, St. Bartholomew's; Henry P. Dean and Cyril W. Jecks, University College; Walter R. Jordan, Birmingham; Francis S. Hawkins and H. Evelyn Crook, Guy's; Arnold F. Bradbury, Newcastle; William H. Tomlinson, Manchester; William R. Ackland, Charing-cross; Ernest Solly, St. Thomas's.

(Candidates referred, 9.)

The library of the College is closed for the present for the purposes of the Fellowship Examination. The lectures will be resumed on Monday, June 1st, by Professor Edward Lund, F.R.C.S., the subject being "Some of the Injuries and Diseases of the Head and Neck, the Genito-Urinary Organs, and the Rectum."

SOCIETY OF APOTHECARIES.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 21st inst.:—

Jones, Oliver Wentworth, Madras Medical College.
Roberts, Hugh Jones, Guy's Hospital.

The following gentleman passed his examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received a certificate to practise on the same date:—

Mallet, Thomas Charles, St. George's Hospital.

ON the 27th inst. Sir Charles Dilke addressed a crowded meeting of the Ladies' Sanitary Association at Dublin.

THE Queen has appointed John Foreman, Esq., medical officer of the Virgin Islands, to be a member of the Executive Council of those islands.

A MEETING, under the presidency of the Bishop of Bedford, was held on the 20th inst., for the purpose of aiding the East London Nursing Society.

IN the case of Page *v.* Harrison an order was recently made by the Divisional Court for a new trial, on the ground that the verdict for the plaintiff of £150 damages was against the weight of evidence. In the Court of Appeal on the 21st inst. the decision of the Divisional Court was affirmed.

CHARING-CROSS HOSPITAL.—The Queen has contributed a special donation of £50 towards the Triennial Festival Fund now being raised at Charing-cross Hospital for providing accident wards, a children's ward, and other improvements. The triennial festival dinner was held on the 20th inst. During the evening subscriptions amounting to about £6500 were announced.

SOCIETY FOR TRAINING TEACHERS OF THE DEAF.—The annual general meeting of this Society is to be held at the Training College, Elmhurst, Castlebar-hill, Ealing, to-day (Saturday). At 4 P.M. the annual exhibition of the pupils of the school will take place, when an opportunity will be afforded to visitors of witnessing the method of instruction and noting the progress of the pupils.

THE medical superintendent of the hospital ships *Atlas* and *Castalia* has issued a report regarding the work carried out on these ships in the treatment of small-pox patients in the metropolis.

AT the annual court of the governors and subscribers to the Victoria Hospital for Sick Children it was stated that the cost of the additional building decided upon would be about £4500, and of this amount only £3000 has as yet been collected.

PRESENTATION.—On the 15th inst. a marble time-piece with bronze side ornaments, and an illuminated address, subscribed for solely by the working classes of Darlington, were presented to Dr. Hern, late house-surgeon at the Darlington Hospital.

IT is stated on authority, says the *Australian Medical Journal*, that for the year ending December 31st, 1883, out of 11,173 births in South Australia, 9895 were successfully vaccinated, as shown by fees paid for returns. This is equal to 88·5 per cent. of registered births.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 21st inst. the following degrees were conferred:—Doctors of Medicine: William Collier, Jesus; Edward Ground, Downing. Bachelor of Medicine: William Foster, St. John's. Bachelor of Surgery: Alfred Francis Street, Trinity.—Mr. Henry Tempest Dufton has been elected to the Tancred Studentship in Physic at Gonville and Caius College.

NORTH-EASTERN HOSPITAL FOR CHILDREN.—From the report which was read at the seventeenth annual meeting of the supporters of this institution on the 18th inst. it appears that during last year the number of in-patients treated was 620, and the out-patients 14,249, as compared with 637 in-patients and 14,548 out-patients in 1883. The income of the hospital during the year from all sources, except legacies, amounted to £4225 being an increase of £65. The decrease of expenditure was about £70, taking into consideration outstanding accounts on Dec. 31st, 1884. Last year a debt was due to the bankers of £4000, which had been reduced this year by £200.

AT a meeting of the Holbeach Board of Guardians on the 8th inst., Dr. O'Meara, medical officer to the Sutton Bridge district, applied for an increase of salary. The applicant stated that his salary was £20 per annum, or a little more than 7*s.* a week. In his district there were forty paupers entitled to his services, and his patients of this class averaged ten per week and thirty bottles of medicine. The district was a scattered one, and he was compelled to drive hundreds of miles in the year to fulfil his duties. If a case occurred in one portion of the district needing daily attendance, he would be compelled to drive seventy miles a week, and expend 14*s.* a week in bridge tolls. The board declined to grant an increase.

UNIVERSITY COLLEGE.—The distribution of prizes to the successful students in the Faculty of Medicine at this institution took place on the 20th inst. The following are the principal awards:—Herbert Caiger obtained an entrance exhibition of £100, H. M. Fernando one of £60, and S. K. Brock one of £40. The Atchison scholarship was obtained by Raymond Johnson, as was also the Bruce medal. C. Arkle was awarded the Atkinson-Morley scholarship and H. P. Dean the Cluff prize. In Practical Surgery the Erichsen prize was obtained by E. H. Thane. In Physiology, G. E. Rennie, in the senior class, was awarded the gold medal, and C. H. Fernau and J. P. Parkinson silver medals, while in the junior class H. M. Fernando obtained a silver medal. G. E. Rennie obtained the gold medal in Anatomy, and C. H. Fernau and J. P. Parkinson silver medals, and in the junior division G. White was awarded a silver medal. In Medicine, F. W. Burton obtained the gold medal, and H. H. Brown and S. E. Holder silver ones. Raymond Johnson received the gold medal in Surgery, and E. H. Thane a silver one. In Practical Chemistry, H. W. Picton was awarded the gold medal; H. H. Cayley and H. B. Kitchin, silver medals. The Tuke medal in Pathological Anatomy, was awarded to Raymond Johnson. E. H. Thane received the gold medal. Raymond Johnson the silver Fellowes medals in Clinical Medicine; F. W. Gee obtaining a silver medal in the junior class. In Clinical Surgery, J. J. Lister obtained the Liston medal, and in Clinical Dental Surgery Raymond Johnson was awarded a prize.

NORTH-WESTERN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—At the monthly meeting of the members of this Association on the 14th inst. it was resolved, with regard to Mr. Phythian's paper on "Tenure of Office by Medical Officers of Health," that the hon. secretary should communicate with the Metropolitan Society of Medical Officers of Health and the Yorkshire and Midland Association, with a view to some united action being taken to remedy the unsatisfactory position of medical officers in this respect, and to suggest the formation of a joint committee to secure the desired alteration, and to ensure that such alteration should be embodied in any measure of local government reform introduced before Parliament. Mr. Vacher then read a paper on "The Inspection of Meat Markets," and a short discussion followed.

BRISTOL MEDICAL SCHOOL.—The annual exhibition of prizes to the students of this school took place on the 18th inst. The principal awards were as follows:—Summer Session: Practical Chemistry, Mr. Henry Hamilton. Practical Physiology and Histology, Mr. Frederick Lace. Botany, Mr. Theodore Mayo Stiles; Lecturer's Prize, Mr. Herbert John Thomas. Materia Medica and Therapeutics, Mr. John Henry Fardon; Lecturer's Prize, Mr. Henry Hamilton. Obstetric Medicine, Mr. Herbert Alfred Burleigh. Practical Surgery, Mr. Francis Frederick Jones. Medical Jurisprudence, Mr. Alfred John Tomkins. Winter Session: Anatomy and Physiology (junior classes), Mr. Samuel Wolferstan Morgan. Senior Class of Anatomy, Mr. Theodore Mayo Stiles. Senior Class of Physiology, Mr. Theodore Mayo Stiles. Practical Anatomy, Mr. F. Lace. Chemistry, Mr. Chas. Meaden. Medicine, Mr. W. C. Swayne. Surgery, Mr. Harless Frederick Semple and Mr. Walter Carless Swayne (equal).—Bristol Royal Infirmary: Suple Medical Prize, Mr. John Ernest Trask. Suple Surgical Prize, Mr. Charles Edward Stuart Flemming. Crosby Leonard Prize for Proficiency in Surgery, Mr. John Ernest Trask. Tibbits Memorial Prize, Mr. William Connor Lysaght. Clarke Prize, Mr. Henry Frederick Semple. Pathological Prizes, Mr. Charles Edward Stuart Flemming and Mr. John Ernest Trask (equal).—Bristol General Hospital: Martyn Memorial Entrance Scholarship, Mr. Wm. Henry Ware. Clarke Scholarship, Mr. Wilfred Martin Barclay. Sanders Scholarship, Mr. Arthur Nicholas Little and Mr. John Bartlett Webb (equal). Lady Haberfield Prize, Mr. John Bartlett Webb.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BEDDOES, T. P., M.R.C.S., has been appointed Clinical Assistant in the Skin Department, St. Thomas's Hospital.

BURFORD, GEO. HENRY, M.B., C.M.Aber., has been appointed Assistant Medical Officer to the Crumpsall Workhouse and Receiving Wards, New Bridge-street, Township of Manchester.

EDLIN, HOLBERTON, F.R.C.S.Ed., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer of Health for the Compton-Gifford Urban Sanitary District, Devonshire.

ELDER, GEORGE, M.D., C.M.Glas., has been appointed Surgeon to the Samaritan Hospital for Women, Nottingham.

EVANS, ROBERT, M.R.C.S., L.R.C.P.Ed., has been appointed Assistant Medical Superintendent to the Hackney Union Infirmary, vice Dr. Fuller, resigned.

GORDON, T. B., M.B.Dur., has been appointed Resident Surgeon to the Birmingham General Dispensary, vice H. Shillito, M.B.Lond., resigned.

GREEN, C. D., M.B., L.R.C.P., M.R.C.S., has been reappointed House-Surgeon to St. Thomas's Hospital.

GRIFFITH, A. HILL, M.D.Aberd., has been appointed Assistant-Surgeon to the Manchester Royal Eye Hospital.

HARRIES, ARTHUR, M.D., Senior Assistant-Physician to St. John's Hospital for Diseases of the Skin, has been appointed Consulting Physician to the Association for the Supply of Pure Vaccine Lymph.

HOUGHTON, LAMBERT, L.R.C.P., L.R.C.S.Ed., has been appointed Medical Officer of Health for the Amersham Rural Sanitary District, vice Hosegood, whose appointment has expired.

HULL, WALTER, M.B., L.R.C.P., M.R.C.S., has been reappointed House-Surgeon to St. Thomas's Hospital.

JOHNSTON, G. D., L.R.C.P., M.R.C.S., has been appointed Ophthalmic Clinical Assistant to St. Thomas's Hospital.

KIDD, H. CAMERON, L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Ear Department, St. Thomas's Hospital.

LEEMING, ROBERT W., B.A., M.B.Cantab., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Kendal District Union and Workhouse, and Public Vaccinator to the Kendal District.

LOWE, ALEXANDER, M.B., C.M.Glas., has been appointed Medical Officer for the Llanelly District of the Crickhowell Union.

LUCAS, SAMUEL ADAMS, L.R.C.P., L.R.C.S.Ed., has been appointed Medical Officer for the Second District of the Parish of Liverpool, vice Kennedy.

LYON, T. GLOVER, M.A., M.D.Cantab., L.R.C.P., M.R.C.S., has been appointed Non-resident House-Physician to St. Thomas's Hospital.

MACDOUGALL, AYMER R., M.B.Ed., M.R.C.S., has been appointed Surgeon to the Chesterfield and North Derbyshire Hospital.

PETHERICK, WALLACE, L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer for the Hopton and Hepworth District of the Thetford Union, vice Gurdon.

PRIESTLEY, JOSEPH, B.A., M.B., M.R.C.S., has been appointed Resident Medical Officer to the Chelsea Hospital for Women, vice James Harper, M.D.Lond.

PLOWMAN, S., L.R.C.P., M.R.C.S., L.S.A.Lond., has been appointed Clinical Assistant in the Throat Department, St. Thomas's Hospital.

REES, HUGH, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer of Health for the Menai Bridge Urban Sanitary District.

RITCHIE, E. D., B.C.Cantab., M.R.C.S., L.S.A.Lond., has been appointed Assistant House-Surgeon to St. Thomas's Hospital.

ROBERTS, EDWARD, M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon to the Manchester Royal Eye Hospital, vice A. Hill Griffith, M.D.Aberd., resigned.

ROBINSON, H. B., L.R.C.P., M.R.C.S., has been reappointed Resident House-Physician to St. Thomas's Hospital.

ROUSE, ROLLA E., M.B., M.R.C.S., L.S.A.Lond., has been appointed Resident Accoucheur to St. Thomas's Hospital.

SANGYOSHI, Y., L.R.C.P., M.R.C.S., has been appointed Non-resident House-Physician to St. Thomas's Hospital.

STADDON, J. R., L.R.C.P., M.R.C.S., has been appointed Assistant House-Physician to St. Thomas's Hospital.

STEVENS, ARTHUR FREDERICK, M.R.C.S., has been appointed Medical Officer for the Sapistone District of the Thetford Union.

VACHELL, R., M.D., has been appointed Out-patient Medical Officer to the Glamorganshire and Monmouthshire Infirmary and Dispensary, vice T. Wallace, M.D., resigned.

VAN BUREN, ERNEST C. HAWARD, L.R.C.P.Ed., M.R.C.S., has been appointed Assistant Medical Officer to the Workhouse of St. Mary Abbotts, Kensington, vice Atkinson.

WALLACE, T., M.D., has been appointed Surgeon to the Glamorganshire and Monmouthshire Infirmary and Dispensary.

WILLIAMS, R. M., L.R.C.P., M.R.C.S., L.S.A.Lond., has been appointed Resident House-Physician to St. Thomas's Hospital.

WILSON, ARTHUR CORDEN JORDAN, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Penistone District of the Penistone Union, vice Watson.

Births, Marriages, and Deaths.

BIRTHS.

AUSTIN.—On the 25th inst., at West Norwood Lodge, Knight's-hill, Lower Norwood, the wife of J. A. Austin, M.D., prematurely, of a son (stillborn).

COLLENETTE.—On the 6th inst., at Silverdale, Staffs., the wife of F. de Beauchamp Collenette, L.R.C.P.Lond., &c., of a daughter.

LUCY.—On the 20th inst., at The Elms, Enfield, the wife of William C. Lucy, M.D., C.M., of a son.

PRATT.—On the 15th inst., at Gibraltar, the wife of Surgeon W. Simson Pratt, Army Medical Staff, of a daughter.

PRITCHARD.—On the 26th inst., at Heath-rise, Hampstead, the wife of Urban Pritchard, M.D., F.R.C.S., of a son.

WADE.—On the 21st inst., at the County Asylum, Wells, Somerset, the wife of A. Law Wade, M.D., Superintendent, of a son.

WARD.—On the 24th ult., at Neemuch, Central India, the wife of Surgeon-Major E. C. R. Ward, F.R.C.S.I., Medical Staff, of a daughter.

MARRIAGES.

EDWARDS—KEMP.—On the 9th inst., at Tientsin, China, E. Henry Edwards, M.B., C.M., to S. Florence, third daughter of the late G. T. Kemp, of Beechwood, Rochdale.

JONES—COLE.—On the 30th ult., at St. Mary's Church, Brighton, Hermann Johnston Jones, M.D., M.R.C.S.Eng., L.R.C.P.Lond., to Hannah Cole, of Notting-hill, W.

MORGENROOD—REID.—On the 25th ult., at Capetown, Edward Henry Morgenrood, M.D., son of the late Philip Morgenrood, of Wynberg, Cape Colony, to Marian Beatrice (Minnie), youngest daughter of Wm. Wardlaw Reid, of Corra Linn, South Norwood, Surrey.

DEATHS.

BAKER.—On the 19th inst., at his residence, Barham House, Leamington, Robert Large Baker, M.D., F.R.C.S., formerly of Birmingham, aged 65.

BUDD.—On the 21st inst., at Southernhay, Exeter, Samuel Budd, M.D., J.P., in his 79th year.

GREENSILL.—On the 14th inst., at "The Firs," Murtley, Worcester, Joseph Moore Greensill, M.R.C.S., &c., aged 28.

LESLY.—On the 20th inst., at Abu-Fatmeh, on the Lower Nile, of enteric fever, Robert Lesly, M.D., Army Medical Department, the youngest son of the late William Sole, M.D., F.R.C.S., and of Anne, his wife, now of St. Mary's, Southampton, aged 29.

NICHOLLS.—On the 20th inst., at Devizes, J. F. Nicholls, M.D., aged 65.

THORBURN.—On the 26th inst., at his residence, Moss House, Rusholme, John Thorburn, M.D., Professor of Obstetric Medicine in the Owen's College, Victoria University, Manchester, aged 51 years. Friends will please accept this the only intimation.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, June 1.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Edward Lund: On some of the Injuries and Diseases of the Head and Neck, Genito-Urinary Organs, and Rectum.

ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Casual communications by Messrs. W. St. George Elliott, C. W. Dunn, A. Maggs, S. J. Hutchinson, and F. Canton.—Mr. C. S. Tomes: On Experiments on Amalgam Fillings.—Dr. G. Field: Pivot Teeth attached by Cohesive Gold.

Tuesday, June 2.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

ROYAL INSTITUTION.—3 P.M. Prof. Gamgee: Digestion and Nutrition.

Wednesday, June 3.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department: 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Edward Lund: On some of the Injuries and Diseases of the Head and Neck, Genito-Urinary Organs, and Rectum.

OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown. Dr. John Williams: Serous Perimetritis.—Dr. Matthews Duncan: The Hypertrophies of Lupus of the Female Pudendum.—Mr. W. S. A. Griffith: Notes on a Specimen of the Pseudo-Osteo-Malacic Pelvis of Naegele.

Thursday, June 4.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. C. Meymott Tidy: Poisons.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8 P.M. Living Specimens.—8.30. P.M. Adjourned Discussion on the President's paper on Reflex Ophthalmitis.—Mr. Spencer Watson: Intra-ocular Gumma in a Child the subject of Inherited Syphilis.—Mr. J. B. Lawford: Tubercle of Choroid.—Dr. W. A. Brailey: Double Retinal Glioma resulting in the Shrinking of one Eye and the Perforation of the other by a large Growth from within.—Communication by Mr. G. A. Critchett: Case of Extreme Retinal Irritability with Abnormal Visual Phenomena.

Friday, June 5.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Edward Lund: On some of the Injuries and Diseases of the Head and Neck, Genito-Urinary Organs, and Rectum.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—8 P.M. Dr. J. Syer Bristowe: Hysteria and its Counterfeit Presentments (Cavendish Lecture).

ROYAL INSTITUTION.—9 P.M. Prof. Dewar: Liquid Air.

Saturday, June 6.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Rev. C. Taylor: "The Teaching of the Twelve Apostles," an Ancient Document, with Illustrations from the Talmud.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, May 28th, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
May 22	29·21	S.E.	49	48	82	55	47	·37	Raining
,, 23	29·64	W.	51	49	108	59	45	·13	Cloudy
,, 24	29·91	S.W.	56	49	100	61	45	·13	Cloudy
,, 25	30·17	S.W.	55	49	74	57	45	...	Raining
,, 26	29·93	W.	57	54	98	66	49	·10	Overcast
,, 27	30·00	W.	57	54	112	72	54	...	Overcast
,, 28	29·90	W.	66	60	...	...	56	...	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

MEDICAL MEN IN NEW SOUTH WALES.

FROM information published by the Immigration Office, Sydney, New South Wales, it appears that in the cities and larger townships of the Colony there is no lack of competent medical men, but in the newer and more remote districts they are too often conspicuous by their absence, and it is by no means unusual for the inhabitants of such places to advertise their willingness to guarantee a certain amount of income to a resident doctor. An experienced medical man, willing to "rough it" for a few years, will attain a competency much more rapidly than in England, especially if devoted to his profession and skilled in the treatment of complicated cases. Medical specialists possess a wide field in Australia, where institutions for the treatment of eye and ear diseases, &c., are practically unknown.

Mr. E. E. Wadbrook is referred to a general notice at the head of this column.

COCAINE TABLETS.

To the Editor of THE LANCET.

SIR,—I can fully confirm Dr. Dolan's experience of the value and efficacy of the cocaine tablets. I have recently made some observations with them, which I trust may be of interest. I dissolved one of the one-sixth-grain tablets in three minims of water, and introduced it into my left eye. There was no pain or irritation; but in from two to three minutes there was well-marked anæsthesia, so that I could touch the conjunctiva with the point of a sharp penknife without experiencing inconvenience. In five minutes dilatation of the pupil was noticed, and at the expiration of ten minutes it was complete, there being at the same time paralysis of accommodation. The anæsthesia lasted for thirty-five minutes, and the dilatation for four hours. With the one-tenth-grain tablets the symptoms were of the same nature, but less pronounced. I find, with Dr. Dolan, that it is not necessary to dissolve the tablets in water, but that they may be introduced directly into the eye without inconvenience. I have used them frequently in the casualty department with most gratifying results. They are admirably adapted for the removal of foreign bodies from the eye, the pain and photophobia being at once allayed. In one case especially, where the patient's eye was full of unburnt gunpowder, the result of an explosion, the relief was very marked. Injected hypodermically, a ligature having been previously applied to a limb, these tablets induce an amount of local anæsthesia sufficient for the performance of small operations, such as the opening of an abscess. I have never seen any untoward effect from the use of the drug, and have myself taken as much as three grains at a dose hypodermically without inconvenience. In the treatment of neuralgia of the eyeball cocaine is, in my experience, by far the best remedy.—I am, Sir, your obedient servant,

EBER CAUDWELL,
Assistant House-Surgeon to the Westminster Hospital.

May 26th, 1885.

THE CASE OF STRANGULATED HERNIA AT STOCKPORT.

IN an annotation in our issue of the 9th inst. we directed attention to a case of umbilical hernia reported in the daily papers. The observations there made were suggested by the evidence which reached us, and we took occasion to state that we might not have been fully informed of the facts. From information since received, it appears that Mr. Buist succeeded twice in reducing the rupture within a few days of the suddenly fatal issue. Herniotomy for strangulated umbilical rupture is an exceedingly unpromising procedure; and yet we think it preferable to leaving the patient to the chances of spontaneous reduction when taxis has failed. Such cases are indeed difficult to deal with, and for that reason we freely admit that at most Mr. Buist committed an error of judgment in not consulting some senior member of the staff of the Stockport Infirmary, of which institution he is a valued officer. It is matter of regret that a post-mortem examination was not made, and the pathological facts placed beyond surmise.

L.R.C.P.—Our advertising columns often contain announcements of the kind indicated. Otherwise we know of no such institutions save those enumerated in the Medical Directory.

Mr. Arthur T. H. Trevor is thanked for his correction of a quotation.

Dr. Cobbold.—Too late.

"NO DOCTORS AMONG THE PEERS."

To the Editor of THE LANCET.

SIR,—I was greatly struck by an annotation under this heading which appeared in THE LANCET of the 16th inst. It seems to me that unless the leaders of the profession of medicine and surgery make a decided stand for their dignity misconceptions will continue to exist with regard to the true status of the profession. When medicine and surgery were practised by illiterate men, who were barbers as well as bleeders, there was perhaps an excuse for the absence of State recognition. But now there is an impassable barrier to prevent such persons being identified with the "healing art." Our noble profession can only be entered as the result of a thorough course of practical training and of passing a series of searching examinations at universities or colleges. Hence it is that at the present day its members include men of the highest intellectual culture and social position; men who have made their mark in the world of science by their discoveries and research for the alleviation of human suffering and the preservation of human life. I allude to such men as Jenner, Paget, Gull, Lister, Spencer Wells, Clark, Bowman, Playfair, Thompson, and many others. With such illustrious names I fail to see why science should not be represented among the peers as a tribute to science, just as literature is represented, and indeed all the learned professions. Moreover, I fail to see why the profession of medicine should not hold at least as high a place in the public estimation, and therefore in that of the State, as any other profession; as, for instance, the Army, the Navy, the Bar—ay, even the Church itself. But as regards State recognition, the medical profession, in comparison with the others, comes last of all. Again, in the House of Commons, while there are upwards of 120 barristers and 100 military men, there are only four medical men. The public can easily judge what a gain it would be to the community to have the benefit of the experience of medical men in legislating for the prevention of disease and the promotion of the health and comfort of the working-classes. How many important medical subjects are continually being discussed in that legislative council from time to time?—in many instances decided by those whose knowledge must be immeasurably inferior to that of men who have devoted their lives to the subjects in question. Among the many subjects about to be brought before Parliament, and which emphatically demand the best attention of a sound medical opinion, are the following:—The Medical Acts Amendment Bill; the health and management of prisoners; the treatment of habitual drunkards; overcrowding, and the proper housing of the working-classes in cities; the further restriction as to the pollution of rivers; the opposition to compulsory vaccination; and last, not least, the vivisection question.

For the foregoing reasons I repeat that our scientific profession—shall I not say the most scientific and enlightened of the present day—should be properly and fairly represented in both Houses of Parliament, as are the sister professions, to assist in deciding great and momentous questions. It seems to me that nothing but the blindest prejudice—a prejudice unworthy of enlightened statesmen—can have so long stayed the hand of the Sovereign, and prevented the elevation of the representative men of our order to seats in the Upper House, which Lord Salisbury once told the country "was chiefly valuable because it represented success in all lines of public usefulness, from commerce to statesmanship." The late Lord Beaconsfield, too, stated, in a speech delivered on Nov. 9th, 1875, that "a policy that diminishes the death-rate of a great nation is a feat as considerable as any of the decisive battles of the world." The present Prime Minister, Mr. Gladstone, has frequently spoken in strong terms of admiration of the increasing importance of medicine and the medical and surgical professions. "That profession," he said, "presented a future of the highest interest. There was in that future the probability that it would gain increased influence, greater as compared with other professions."

The remarkable incident recently reported, of a peer requiring medical assistance in the House of Lords, when Lord Spencer, with great presence of mind, secured the services of a professional commoner from the Lower House, is certainly not my reason why life medical peerages should be created in the same way as legal life peerages have been; but I take the far higher ground—the rights of the medical profession to equal rank and position with any other. If the rights of the profession are not acknowledged, then we ought to endeavour to induce more of its members who can afford it to enter the House of Commons, and, by well-directed combination, show the State that the profession has a political influence if it chooses to exercise it.—I am, Sir, yours truly,

LAMBERT HEPENSTAL ORMSBY,
Dublin, May 23rd, 1885. M.D.Univ. Dub., F.R.C.S.

To the Editor of THE LANCET.

SIR,—With reference to the annotation in your issue of the 16th inst., under the above heading, I beg to express my full accord with your sentiments. Nor do I suppose that many of our body would dissent. Although the powers that be may think that to give a doctor a baronetcy is an honour to the profession sufficient to its needs, still I venture to submit that we honour the powers by accepting it. And so far from feeling hurt at the Premier's remark that you quote, I think we may well afford to treat it as an ignorant and childish insult. For though in whatever country we may practise we are subject to the laws of that country, still our interests do not cease there. We are all the world over members of the same united body, which has for its aim the consummation of science and art in their relation to humanity, the imitation of the highest attribute of the Deity. And as such we can happily remain unhonoured by those who are unable to conceive our high and noble aims, and *sine honore* we need none of us hesitate in feeling our superiority over any of our patients be they kings or paupers. Earthly honour we seek not, we seek but a clear conscience and a true understanding of the Supreme Being.—I am, Sir, yours obediently,

"MAGNUM ET GLORIOSUM EST PRO PROFESSIONE VIVERE."
May 26th, 1885.

THE UNIVERSITY OF NAPLES.

THE number of students entered at the University of Naples for the current scholastic year is 3627. Of these, 1472 are law students, and 1383 students of medicine, the remainder being distributed through the scientific and classical schools.

J. W. (Stoke-on-Trent).—We do not prescribe. Avoid advertising quacks.

An Old Subscriber.—We regret we have not the information at hand.

Mr. Bellamy.—Yes.

COCAINE IN HAY FEVER.

To the Editor of THE LANCET.

SIR,—In your issue of May 16th one of your correspondents asks whether the application of a weak solution of cocaine to the conjunctivæ and the mucous membrane of the nose would be likely to prove beneficial to sufferers from hay fever. Within the last three weeks I have had two cases which would seem to indicate that the remedy in question might fairly be tried, and with a reasonable prospect of success. The first case was that of a lady who for three weeks had suffered from neuralgia, in which the supra-orbital and infra-orbital nerves were affected. Under treatment she made a good recovery, save that on the right side of the nose, at the junction of the bone and cartilage, there was left a constant aching so severe in character as to prevent rest or sleep. I ordered the affected part to be painted with a 2 per cent. solution of cocaine every twenty minutes; after the fifth application the pain entirely ceased. The cocaine was also applied to the mucous lining of the nostril on the affected side. Five days ago another lady consulted me for a painful affection of the nose on the right side, the pain radiating underneath the eye. It came suddenly, and disappeared suddenly, three or four times in the course of twenty-four hours, and was invariably preceded by severe fits of sneezing. This lady assured me that she sometimes sneezed as many as twenty times consecutively. I ordered the nose and cheek to be painted with a 2 per cent. solution of cocaine, and the mucous membrane of the affected side to be brushed over with the same. After four applications, the sneezing became less violent, and for two days she was free from the annoyance. I think the cocaine solution has been beneficial, and in such cases should be tested. In cases of hay fever it is worthy of a trial; but I should, in the first instance at least, confine its application to the lining membrane of the nose. I am, Sir, yours respectfully,

Strathmore, Harrogate, May 21st, 1885. A. G. RUSSELL.

THE VOLUNTEER MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—"A Volunteer Surgeon" asks, in your issue of the 16th inst., to be recommended the books containing the details necessary to be acquired in order to obtain the pass certificate for Volunteer surgeons. As the requirements have increased considerably during the last few years, I would advise your correspondent to apply direct to the principal medical officer of his district, who will give every assistance in his inquiries. The present requirements necessitate a knowledge of all the details of the bearer company, general hygiene of a camp, medical aid in the field, and the regulations connected with military hospitals as detailed in the Medical Regulations, which unfortunately are out of print. A new edition of the "Stretcher-bearer Drill" now general in the Volunteer force is about to be issued. A knowledge of this drill in all its details would also be required. Many of the minor matters connected with marches, diet, filtration of water, &c., are discussed in Parkes' Hygiene, which work, with the hospital portion of Longmore on Gunshot Wounds, is recommended to be obtained.—Yours truly,

May 25th, 1885. A VOLUNTEER SURGEON-MAJOR.

DOCTORS v. PHYSICIANS.

To the Editor of THE LANCET.

SIR,—In your issue of the 25th ult. appeared two letters on the above topic. As they are written in much the same strain, they may conveniently be considered together. An attempt is made to create, or to encourage, an unfriendly spirit, by advising the use of mean expedients by the holders of one qualification to depreciate and annoy the possessors of another. Let the M.D. of somewhere consider himself vastly superior to his neighbouring L.R.C.P.Lond. if he likes; but he certainly has no right to employ every available opportunity for using either the snub direct or oblique, as recommended by one of your correspondents. With your permission, I will recount a tale and point a moral.

A few years ago I entered one of the largest London hospitals, having previously had two years' training at a public dispensary in the metropolis. I thought that in due course I should be able to get a doctor's degree. I found, however, the London University closed to me, unless I gave up a deal of valuable time to reading for the Preliminary Scientific examination. Deeming that my object in entering the hospital was to render myself a trustworthy practitioner of medicine rather than the temporary possessor of biological minutiæ, I resolved to give up the quest, and to go in for the L.R.C.P.Lond. and M.R.C.S., the only good qualifications open to me without interrupting my studies by leaving London. Some of my fellow-students, with an amount of worldly wisdom, seeing not only that the London degree was impossible for them, but that the London Colleges were beyond their reach, went to Scotland, where they and their fees were welcomed; and in due time these men returned with their M.B., C.M., only to wait a short time, when they would without any effort ripen into the higher degree. Now, only one of these graduates held any clinical appointment at the hospital, and, with that one exception, they would be classed among the non-industrious men of their year. In the meantime, many of us remained in London, steadily working through the clinical appointments and getting our qualifications.

I will now ask, Why are we, who are every whit as well educated and professionally qualified as the majority of M.D.'s, and better than some, to be spoken of as little better than impostors because we elected not only to commence but to pursue our professional education in London rather than elsewhere? It may be remarked in passing that even the M.R.C.P. is closed to us, as the holder of it is precluded from general practice. I trust the time is not far distant when we physicians will be taken out of our present false position and given a title of some real value. It is certain that if something is not done in this direction our London schools will wane with increasing rapidity.

I am, Sir, your obedient servant,

May 20th, 1885. PHYSICIAN AND SURGEON.

SYPHILITIC INDURATION OF A CICATRIX RESEMBLING MORPHŒA.

To the Editor of THE LANCET.

SIR,—The following case is of some interest as indicating a possible close connexion between morphœa—especially those cases which disappear comparatively rapidly—and syphilis.

A. B——, aged forty, had the left arm injured by cogwheels, the skin and cellular tissue on the outer side near the elbow being divided by several parallel cuts. About a month after the wounds had completely and soundly healed the cicatrix became indurated, and instead of being thin and soft, appeared half an inch or more in thickness, and closely resembled morphœa. I found that the patient had had a hard chancre a short time previously, the remains of which were still evident. Under antisyphilitic treatment the induration of the cicatrix on the arm began to disappear, and after some weeks the cicatrix resumed its normal appearance.

In the absence of evidence of recently acquired syphilis, I should have been compelled to diagnose the foregoing case as one of ordinary morphœa following an injury and developing in the cicatrix.

I am, Sir, yours obediently,

Nottingham, May 25th, 1885. H. HANDFORD, M.D.

MAHOMED MEMORIAL FUND.

DR. AUSTIN FLINT of New York has forwarded to us the sum of £1 in aid of the above fund.

Dr. Ferris of Uxbridge is thanked for his letter and enclosure. Our remarks, as he perceived, were written on the ground that the period of incubation in his case was unusually long even for hydrophobia.

W. M. has not enclosed his card.

Dr. J. A. Gray (Atlanta).—We cannot extend our exchange list.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Chaplin, Jerusalem; Dr. E. Crookshank, Dresden; Dr. Russell Reynolds, London; Dr. Cobbold, London; Dr. Ewart, London; Mr. Barwell, London; Dr. Collingridge, London; Mr. Jackman, Coggeshall; Dr. Handford, Nottingham; Dr. Prosser James, London; Dr. Oliver, Harrogate; Mr. De Meric, London; Mr. Twyford, Hanley; Mr. Field, London; Mr. Turner, St. Petersburg; Dr. Thin, London; Mr. C. J. Stocker, Forest Gate; Mr. Chavasse, Birmingham; Mr. St. John Wright, London; Mdlle. V. de Bunsen; Mr. W. Steer; Dr. Savage, London; Mr. B. Pollard, London; Dr. Brailey, London; Mr. Percy Dunn, London; Mr. P. J. Thompson, Brussels; Mr. Somers Vine, London; Mr. W. P. Fox, Liverpool; Mr. B. Squire, London; Dr. J. Tily, Chiswick; Dr. Colquhoun, Dunedin; Dr. H. E. Armstrong, Newcastle-on-Tyne; Mr. P. W. Macdonald, Dorset; Mr. A. C. Munro, South Shields; Dr. Ormsby, Dublin; Mr. C. S. Jeaffreson, Newcastle-on-Tyne; Dr. J. D. Thomas, London; Dr. Irwin; Mr. Brocklehurst, Matlock; Mr. Furland; Mr. Fairman, Bruntsfield; Mr. Prodham, London; Dr. Diver, Keighley; Mr. Green, Derby; Mr. Lonergan, Hythe; Lieut.-Gen. Radcliffe, Leamington; Messrs. Oliver and Co., Manchester; Mrs. Goff, Birkenhead; Messrs. Calvert and Co., Manchester; Mr. Gordon, Devonport; Mr. Evans, Oswestry; Mr. Ulrich, Pullna; Messrs. Oliver and Boyd, Edinburgh; Mr. Lowndes, Newcastle-on-Tyne; Mrs. Martin, Middlesbrough; Messrs. Griffin and Co., London; Messrs. Lee and Martin, Birmingham; Dr. Gledhill, Manchester; Mr. Davies, Bath; Mr. Gallahier; Messrs. Douglas and Mason, Edinburgh; Dr. Hallkin, Inverness; Messrs. Reynolds and Branson, Leeds; Dr. Squire, London; Mr. Anderson, Llandudno; Dr. Mackew, Paris; Mechanic; L.R.C.P.; Oil Immersion; Volunteer Surgeon-Major; G. B. P.; W. M.; D. M. P.; B.; J. A. T., Hampstead.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Kerr, London; Mr. Allen, New Brighton; Dr. Maskew, Romsey; Mr. Wood, Chelsea; Mrs. Woodcock, Ryde; Miss Rimmer, Wigan; Mr. Mason, Highbury; Mrs. Brown, Walthamstow; Mr. Wright; Dr. Eberle, Thirsk; Mrs. Griffith, London; Mr. Denne, Halesowen; Mr. Soper, Dartmouth; Mr. Gallagher, Bishop Auckland; Dr. Robertson, Sheffield; Mr. Ferguson, Cheltenham; Dr. Brockhurst; Mr. Jennings, Port Harlington; Messrs. Maguire and Son, Dublin; Mr. Birchall, Liverpool; Mr. Fidler; Mr. Parry; Mr. Myers, Great Grimsby; Mr. Lawson, London; Miss Rogerson, Newton-le-Willows; Mrs. James, St. John's Wood; Mr. Sutton; Mr. Rahn, Ipswich; Messrs. Austin and Sons, Clifton; Messrs. Mackay and Co., Edinburgh; Mr. May, Great Yarmouth; Messrs. Porteus and Co., Glasgow; Messrs. Byles and Son, Bradford; Albus, Leicester; Theta; Stratton, Birmingham; H. S. R.; L.R.C.P.E.; Matron, St. Helens; F. C., Halifax; M.D., London; G.W.R.; F.R.C.S., Edinburgh; F.S.A., Wye; G. B.; M.D., Draycott; Undergrad., Arbroath; Secretary; Physician, Southwark; Medicus, Wiston; E. D. C., Wednesbury; J. R.; A. B., Whitechapel; Delta, Christchurch; R., St. Helens; Physician; A. B. C., Notting-hill; J. G.; House, Brighton; A. H., Brixton; A. P.; C.

New York City Record, Newcastle Daily Chronicle, Edinburgh Evening Express, Church of England Temperance Chronicle, Auckland Chronicle, Elgin Courant, Florida Times-Union, Gloucestershire Chronicle, News, Devon Journal, Darlington and Stockton Times, Liverpool Evening Express, Croydon Advertiser, Croydon Chronicle, The Crofter, &c., received.

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Address

TO THE

STUDENTS OF THE MEDICAL SCHOOL AND UNIVERSITY COLLEGE, BRISTOL.

Delivered after the Distribution of Prizes, on May 18th, 1885,

BY J. RUSSELL REYNOLDS, M.D., F.R.S.

PROFESSORS OF THE FACULTY OF MEDICINE, LADIES, AND GENTLEMEN,—First of all, let me express, for you and for myself, our heartiest congratulations—and that means "rejoicing with those who do rejoice"—to those who have been successful to-day. This not only because of the prizes that they have gained—although these are good things in themselves, and to be highly prized both now and hereafter,—but because they are marks of good "training" and tests of "strength." There are three things that success in college competitions, or I might say more generally that college competitions put to the test, which it is well to have tried, and that in good time, for they will furnish much guidance for after-life. They may be put thus: (1) *strength* both of body and mind, and upon that depends much of what people regard as "temper"; (2) the *method* of study; and (3) the *capacity* for reproducing, when wanted, the knowledge and the skill that you have acquired. There are two classes of men, especially marked from one another, who compete for prizes; and, as an old examiner in university and in college, you will let me tell you that they are generally quite easily distinguished from each other, and this in both their "written papers" and in their *viva-voce* answers to the questions that may be submitted to them. There are great and numerous varieties in the style of answer, but no practised examiner can fail to recognise the difference between the two classes of men that I have mentioned. In the one, the man has been working for the pass or the honour that he wanted to obtain; in the other, the man has been working to gain the knowledge which makes that pass or that honour well deserved. Men of either class may obtain their reward; but the reward of the one is of far higher value to himself and to others than is that of the second, which may sound the same; but yet be something that neither he, nor others, will care for, when a few months have passed. Before I say a few words of congratulation to the unsuccessful, or rather, to those who have run, but "have not obtained the prize," let me, as a much-tried examinee, as well as examiner, take this occasion to remind you, both prize-takers and prize-losers, that the element of chance is not without its influence in either pass or honours' examination. It is as easy to exaggerate as it is to underrate this factor; but it should always be borne in mind. Let no failure be referred to it alone; let no success lead you to ignore it.

How it may be in this school of medicine I do not know, but in many schools, both metropolitan and provincial, those who enter upon "competitive" examination are in a small minority; and of this I am quite sure, that the majority, composed of those who never try their strength until they face a court of examiners for a simple pass, deprive themselves of one great and highly important element in their education. If all students practised themselves in the art of expressing themselves well in both written and oral examination, a very much smaller number would, when they come before the examining boards, be "referred again to their studies." No man, until he has tried it, knows usefully how to write the answer to a question without note or reference-book at hand, or to answer swiftly and to the point, *viva voce*, a question suddenly put to him, and the character of which he did not in the least expect. To those of you who have not been so successful to-day as you could wish to have been, let me say this, that most likely you have gained for yourselves something better than a "prize." You have learned why you have failed, and such knowledge is of vast importance. You—for men at the same school are very sharp critics and judges of one another—know why others have succeeded and why you have not.

Think back for a moment upon the three elements in successful competition—those I mentioned a few moments since: (*a*) *strength* and tone of feeling with regard to study. Some are what may be called "languid." They do not use all the power they have, sometimes only a small fraction of it, which they may deem quite sufficient for the occasion. This may be from either flaccidity of moral fibre or from overweening self-confidence. On the other hand, there are some who are over-anxious, and their work is done under a dominating feeling of the fear of failure; and their feeling is often the unwilling father to the fact. This often leads to (*b*) an error in the *method* of study, and the greatest of all errors is this: to make the passing of an examination the object of your work, and to substitute it for the "mastery of the matter" you want and ought to obtain. Work done in this frame of mind is invariably and in the main bad work. If it should end in some success, it may lead to "vanity;" if it fails, it carries with it only "vexation of spirit." Again, in referring to (*c*) the *capacity* for reproducing, when wanted, the knowledge that you have already acquired, let me remind you of the presence of two great factors in that which constitutes what is habitually termed "a good memory." There is (1) the *storage* of information and (2) the faculty of *finding* what you have stored. Individuals differ widely in the degree to which they are naturally endowed with these faculties, but each may be increased by education. The first depends mainly upon your power of "attention," the second upon the "orderly" manner in which you arrange the materials in your possession. If you try to add to your stores when your power of "attention" is weakened, you will send one thing out of your head while you are putting another in, and your brain, like an overcharged popgun, will sometimes lose both shots. By no amount of clever manipulation can you put anything more into any created thing than its capacity can hold. If you pack your carpet-bag to the full, and then jam in something else, the probability is that you cannot lock the bag: you have hurt it or torn it somewhere, and have lost something that you much wished to keep, and probably much more valuable than the last trifle of your "cram."

Then think, again, of what it is to pack carefully—i.e., with attention, arranging with foreknowledge of your requirements what you will want first, second, and last, and contrast this with the unordered heaping of things together in a limited space, the impossibility of catching what you want, and the certainty of finally finding that you have, metaphysically, to turn yourself "inside out," and, like a startled parrot, to pour out in unmeaning succession all you know and all that you can say. So, then, if you would have a "good memory," pay attention and be orderly. Practically cultivate these two capacities, and so by concentrating your attention on a sound (it may be stethoscopic), on a something to see (it may be microscopic); but do this with both ears and both eyes open: follow through a symphony in the full rush of sound, a single strain or a single instrument, while hearing all the rest; see all that you can see in a landscape, but single out something that you must look for to see at all, and so raise to its highest degree your attentive power.

And so with "recollection." Put all things in order, and then close your eyes and ears, and recall all that you have stored, where it is, what it is, why you placed it in this or that other place, and how you may most easily find it—and that will be very often—in the dark.

Speaking to all, I would say, generally, that if we have regard to the three points laid down, pay due regard to the element of "chance," and then add that "unknown quantity," the x, y, z, of College life, successful and unsuccessful will find that unknown quantity to be very small, and will be able to explain to one another—as they should always be most glad to do—why the race has not more frequently ended in a "dead heat." A single success or failure, be it ever so great, may be the result of the merest chance, but progressive success or failure, year after year, takes them altogether out of the chapter of accidents, and should be the careful study of all. Regard prizes as milestones not as goals. They may tell you how far you have travelled, how far many are before you, and how far many are behind, and then explain to yourself by careful thought and inquiry why you are where you are. The prize tells you how much you have already attained; but if it does not tell you also how much more you have to do, it has taught you little.

Before I leave this subject, let me say to you in Bristol

what I have often said to my pupils in London, that, so far as my knowledge extends, there is nothing laid down by our great examining bodies which any ordinary student, without either genius or fag, could not pass through with perfect ease if, and it is an important "if," he will only go on steadily and systematically at his work. The strain for "honours" has often broken men down, and they have to rest and lose their time, and not rarely miss the "pass" that they might have readily obtained. Most thoroughly do I admit the differences in degree of capacity for "honour"-taking among "all sorts and conditions of men." No one can doubt the existence of a "genius" any more than he can that of an utter "fool"; but I think that if *in medio tutissimus ibis*, you will find the majority by your side. So let me add a word to some who work too hard—i.e., try to do more than they need to do, and, moreover, trouble themselves about it a thousand times more than they ought to do; and I allude to many scores who have broken down in the very faculties they most sorely needed, and to whom I have had to say, "you must go away and rest," remembering, then, as Shakespeare says,—

> "As surfeit is the father to much fast,
> So every scope in the immoderate use
> Tends to restraint."

And now let me tell you that when you have finished here, and have satisfied college, university, and hall, your real examination begins, and it is one that will last for life. Your examiners will be your patients, and your patients' friends, and you will find them not more lenient than those you have already passed. But the same qualities which have helped you now, and until now, will be your helps hereafter in the daily toil of practice. First, you must hold in due regard your strength and temper. "Never," as Edmund Parkes said, "think of your life, but always of your health, which alone can make life useful." You will find much to try, disappoint, and vex you; but you must be firm and of good courage, and you must show your patience when men, like drowning men clutching at straws in their hour of agony, will when safely on the bank, through your energy and skill, give you nothing but a cold shoulder, or grumble at your fee. There is, always remember, another side to this. To many you will be friends for life. There will be homes which will become homes to you, and no event, from the cradle to the grave, will be left unchronicled in their hearts and yours. This, second, will depend mainly upon yourselves and how your way of work has helped or depressed them. You cannot solve the problems of the sick-room in one quarter of your cases by stethoscope, thermometer, or any such like means. It is by knowledge and sympathy that the help is given. Like good actors, you must so throw yourselves into the mental and moral condition of those with whom you have to deal that you think their thoughts and feel their feelings, and so understand their wants and try to fill them. Again, third, your knowledge and your skill must be always ready, not lying in dust-covered books upon your shelves, but always at your fingers' ends.

Success will mainly depend upon yourselves. If it is true that the poet is born, not made, that dogma is quite as true with regard to the physician. You must be men that your patients and their friends can trust, and do so without knowing it. You must be calm, without indifference; judgmatic, without dogmatism; clear and ready, without rashness; kind, but with both tenderness and firmness. You must always avoid that tenour of mind which I take leave to call "a chronic chorea of ideas." You must go at once and straightly to what you want to say and do, and not let your fancies, your hobbies, and scarcely remembered knowledge come in your way and misdirect the movement that you mean to make, or else you will find that "enterprises of great pith and moment" will often "turn awry, and lose the name of action." And here let me caution you against reading much or contributing anything to the ephemeral literature of the day. Hasty generalisation is as easy as it is bad; and many things are being constantly brought forward in societies and pamphlets as great and surprising novelties which you may find well described in such classic works as Watson's Lectures, the monographs of Williams, of Louis, of Walshe, of Frerichs, of Abercrombie, Rayer, and Andral.

Before you enter your profession you should "count the cost." There is no great prize in it. Nothing that approximates the "prizes" to be gained in either the Church, the Bar the Army, or the Navy. There are no great "honours" that you can gain. You may receive the kind and degree of reward that is given to the conveyer of a "despatch," or to a worthy country mayor who has long voted consistently with his party; but you may not look with hopeful eyes for anything beyond. You may die on the battlefield, or be heavily shotted as you sink into the ocean in the darkness; you may be maimed or killed by a lunatic; or be fever-struck in a workhouse, an asylum, or a gaol, where you are doing work that the country has given you to do. There may, perchance, be two or three lines about you in a local paper, the medical press of London may give a short history of your life. You may leave behind you broken hearts in more than your own one sad home; but that is all. There is no adequate recognition of the services of our noble Profession granted by either State or country; but there is one thing to which, when your work here is done, every one of you may attain, and this without rivalry of any sort or to any degree. You may, in the solemn silence of your own heart, in that court of appeal into which none but God Himself can enter, after giving thanks for all the goodness you have received from Him, say your "Nunc Dimittis"; and although you may not hear the sob or the unspoken word, yet you will be followed by the unuttered prayer that all bereaved and sorrowing souls know so well, "Requiescat in pace." But I will not close in this somewhat sombre strain, although it has its bright as well as its darker tones. One of our greatest poets has said,—

> "The clouds that gather round the setting sun
> Do take a sober colouring, from an eye
> That hath kept watch o'er man's mortality."

But yet, although "the night be dark and dreary," and there may be many "starless nights and cheerless dawns," we must remember that the same great poet said, in another place, when glowing with the enthusiasm of growing life,

> "But for the growing youth
> What soul was his, when, from the naked top
> Of some bold headland, he beheld the sun
> Rise up, and bathe the world in light? He looked"—

And so let us, from our point gained to day. Look at what may be in store for some of you, or for some who follow you. What that may be I cannot tell; but yet we may, and we should, indulge the hope that, in that universal "light"—it may be far, far away in the future,—some one will live to see the future Edward Jenner, who may have saved, as his great predecessor had done, millions of lives from misery and death, placed somewhere in a niche of honour in our own country instead of in Boulogne, and not be relegated here, in England, from Trafalgar-square to an obscure corner at the far end of the Serpentine, where nursemaids are engaged in keeping erratic children from falling into its stagnant water.

Again, that the William Jenner of that far-off day, who may again have so disintegrated the sources of some of our most miserable maladies, and demonstrated, as his illustrious forefather had done, that by deeds of heroic scientific work, such as those now progressing, they are, in the main, "preventable diseases." Further, that the future Edmund Alexander Parkes, who shall have again lightened every soldier's knapsack, arranged his diet, ventilated field tent and hospital ward, and so saved thousands of the lives of England's bravest sons and soldiers; and, yet further, that the John Simon of "the coming race;" if there be, again, in one man combined such science, patience, thought, and self-sacrifice—one who shall, again, have protected our shores from enemies more deadly than any that our battalions or our ironclads can oppose;—then, I say, let us hope that it may be seen that, although these great men of the future may care as little as really great men have ever done for the honours that other and smaller men prize so highly, yet that our country may be the better for having placed them where they ought to be, with all the honour and glory that is their due, and which will, let us hope, be gladly awarded then by the heart, the larger heart, of this great and then greater nation.

> "Let us, then, be up and doing,
> With a heart for any fate,
> Still achieving, still pursuing,
> Learn to labour and to wait."

And not only so, but to work and wait in hope.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on May 27th, the degrees of Bachelor of Medicine and Bachelor of Surgery were conferred on Robert Lawford Knaggs, Gonville and Caius.

Clinical Remarks

ON A

CASE ILLUSTRATING LIABILITY TO ERROR IN DIAGNOSIS,

IN WHICH FREQUENT PAINFUL ATTACKS, PROBABLY OF BILIARY COLIC (REPUTED AS GASTRIC), OCCURRED DURING MORE THAN TWO YEARS IN CONNEXION WITH MITRAL VALVE DISEASE AND DILATED HEART, THE FATAL ISSUE BEING DETERMINED BY A SMALL CALCULUS LODGED IN THE DUODENAL ORIFICE OF THE COMMON DUCT. JAUNDICE PROBABLY ABSENT THROUGHOUT.

BY W. T. GAIRDNER, M.D., LL.D.,

PROFESSOR OF MEDICINE IN THE UNIVERSITY OF GLASGOW.

GENTLEMEN,—I have to-day (May 26th, 1885) to bring under your notice a case interesting in more than one respect, but particularly as illustrating an oversight or omission (if not error) in diagnosis. Errors in diagnosis, if they are not the result of mere carelessness (in which case of course, they have no redeeming quality except as a lesson for the individual), ought always to convey some kind of instruction to good clinical students, and therefore ought to be more insisted on, if possible, than instances of very exact or very lucky guesses at truth. In this particular case the error or omission affects one part of the diagnosis only, and is certainly fraught with instruction, and with what is, to me at least, new and therefore valuable experience. This experience I shall now endeavour to convey to you fresh from its sources, and you shall judge for yourselves of its importance and practical significance. The case, I may mention, was repeatedly the subject of clinical remarks during last winter session, and perhaps some of those here present may have these in their note-books.

In the end of December last[1] we admitted into the Western Infirmary a woman, Mrs. G——, aged forty-six, evidently labouring under dilated and weak heart, with mitral regurgitation, and just possibly also (but not certainly) mitral stenosis. There is nothing more to be said as to this part of the case. The murmurs were so far characteristic—the one certain, the other all along doubtful. The corresponding conditions were found after death; the mitral valve thickened and fringed with lymph, certainly admitting of regurgitation, possibly—but by no means certainly—in a condition to give rise also at times to the direct murmur. In all this there is nothing new, and I shall not occupy your attention with it just now, though the details at the time were interesting enough, and the diagnosis here was exact to the last degree. Nor is there anything particularly novel about most of the sequelæ of the cardiac disease in this case. There was dropsy, varying in degree at different times; there was well-marked cyanosis, and a good deal of dyspnœa; there was enlarged and congested liver; a congested kidney also, yielding a urine mostly albuminous, and extremely variable as to quantity and specific gravity; the pulse was mostly feeble, sometimes irregular and frequent, always very disproportionate in volume and force to the heaving impulse of the dilated heart. With all these phenomena in cardiac cases you must be quite familiar, and as you have them not now under observation I merely thus enumerate them. But what struck me in this case as peculiar, even from the first, was the degree of what the patient thought, and we also thought, to be gastric suffering. The report all through bears this upon the face of it; in the very first note of the case by myself, the day after admission, it is said: "The earliest symptoms, extending back to two years ago, seem to have been referred to the stomach both by herself and her medical attendant—i.e., want of appetite, occasional vomiting, and pain in the epigastrium extending through to the back." Nine months after this she was first told that her heart was affected. Now, no one ought to say that painful disorders of the stomach are very uncommon in heart disease, but the frequency and severity of these apparently gastric sufferings in this case struck me as taking it quite out of the common range in this respect, and I believe I told you so at the time. This peculiarity, too, interfered with the administration of remedies; tincture of digitalis, at first prescribed, had to be stopped on account of sickness, though it acted with great energy upon the kidneys, and we were afterwards able to give Nativelle's granules of digitaline at least without injurious, and probably with good, results. A similar uncertainty seemed to attend the action of the convallaria majalis; it was in this case, therefore, beyond most others of last session, that I had occasion to thank Professor Fraser of Edinburgh for enabling me to employ a sample of the new cardiac tonic, strophanthus, which, after she became accustomed to the bitter taste of it, seemed to do everything that was expected from it, and not to excite the gastric irritation. But the numerous detailed reports show the great amount of difficulty we experienced in treating this case, owing to symptoms which, even when the cardiac and renal conditions were manifestly improving, were "referred more to the stomach than the heart" (February 7th—i.e., six weeks after admission). A week later we have again an allusion to the "ill-defined and gastric character of the symptoms" (then in abeyance). "She speaks of a sense of 'chuggin' (I make no attempt to render this word into scientific language—it must speak for itself) in the epigastrium, which she evidently attributes to the stomach and not to the heart." From this time improvement was, on the whole, progressive; but on February 27th there is a note, even in the midst of this improvement, that "for the past two days she has been troubled with intestinal colic" (here the word "intestinal," I must observe, is not mine, but embodies the theory of the resident physician); "but this symptom has been relieved by the use of assafœtida pills." She was dismissed on March 20th, 1885, after a residence of nearly three months, in a very greatly improved condition as regards the heart, and with the following highly satisfactory note as to the action of strophanthus, which I here place on record, in justice to a new, and probably a valuable, medicine. "Nothing like sickness has been experienced in the course of the treatment by strophanthus; patient only remarking that the medicine was very bitter."

Now, observe carefully all the preceding expressions taken from the hospital report; and further, note with me the sequel of this case, and then judge whether the whole or the greater part of the symptoms assumed to be gastric (or in one case "intestinal") are not rather to be referred to the biliary passages, as the result of the transit of a probably numerous succession of small gall-stones; since the post-mortem examination shows the terminal and severe epigastric sufferings to have been unquestionably so determined. But in order to enable you more fully to apprehend this, and to appreciate the difficulties of the diagnosis during life, I must add one more, though it be a negative, fact; which, however, you will please consider as not resting on direct evidence, and therefore just possibly open to correction—viz., that at no time while this case was under observation, possibly at no time at all during its progress, was there any notable jaundice. Had there been jaundice, and had it been brought into obvious relation with any of those numerous so-called gastric attacks, it would hardly have been possible to miss the true diagnosis; the pain, at least, must have been regarded as probably hepatic, not gastric, in origin, and the variable and colicky character of it at times, the sense of "chuggin," the severe suffering extending from front to back, would probably have brought up the idea of gall-stone, and caused concretions to be looked for in the evacuations. Nothing of this kind took place. But it is not only because we did not observe jaundice that I assume its probable absence. Jaundice from gall-stone, or from any kind of obstruction of the passages, is always accompanied by a very greatly deepened and altered colour of the urine, which it is hardly possible to suppose, with even moderate care, to have been wholly overlooked. Now, we have nearly forty detailed clinical examinations of the urine in this case recorded carefully in a separate book, as having been made between November and March; in every one of these nitric acid was employed, not, indeed, expressly to detect bile, but as a test for albumen; and in not one of these notes (in which, I may mention, the colour of the urine was particularly recorded in a column by itself) is there the slightest hint or suggestion of anything like bile pigment. "Amber" was the prevailing tint, lighter or darker according to circumstances. I affirm, then, with a probability almost

[1] Dec. 27th, 1884, Journal X., p. 201.

amounting to certainty, that there was no jaundice; with absolute certainty, no persistent or considerable jaundice during the whole of this period. Moreover, the patient never mentioned jaundice as a feature of the early attacks, while she herself believed the whole disease to be altogether in the stomach; and jaundice (as you well know) is a symptom which, almost more than any other, arrests the eye and enchains the mind of a non-medical observer, so that it is popularly spoken of as if it were the disease whenever it is recognised as present at all; and I can positively affirm that in her last hours and in the dead body the conjunctivæ and the skin were not jaundiced. It would be too much, perhaps, to maintain on this negative evidence that this woman was never at any time jaundiced; but there is good reason to presume that during a large part of her illness, and during the most marked prevalence of the symptoms above recorded, bile pigment was very little, if at all, abnormally present in the blood. Hence the error or omission in the diagnosis to which I have referred.

Mrs. G—— was admitted to the hospital again on May 18th, 1885, certainly much worse than when she was dismissed in March; but, according to my judgment, not worse than she had been at various periods during her former residence. Three days after her admission (May 21st) I made a most careful examination, keeping in view all the facts previously recorded, and found them *in statu quo*, with the qualifications just made; the cardiac action the same, the murmur the same; "the gastric symptoms formerly described still present, but by no means in an exaggerated form. Legs considerably swollen, and with a tendency to eczematous exudation on the surface, but not very tense. The temperatures absolutely normal. The urine, noted as 19 oz. on the day after admission, rose to 101 oz. on the 20th, and to 148 oz. on the 21st." Similar rapid variations in quantity[2] had been recorded during her former residence as occurring under remedies; this time the increase took place partly under digitalis, partly under convallaria with caffeine. She had been treated locally, on account of the abdominal or gastric suffering and supposed flatulence, with poultices and fomentations to the abdomen; also with turpentine and soap enemata and compound assafœtida pill. The pulse and respiration were both considerably accelerated on the 20th, the maxima being 45 and 128; but, as above indicated, there was absolutely no fever. In the course of the next afternoon (21st) "she complained of a good deal of pain regarded as mainly gastric, but the temperature showed no rise, being 98·8° in the morning and 98·6° in the evening. At 2 A.M. of the succeeding day (the 22nd) a rigor occurred, after which the temperature was noted as 102·4°, for the first time since admission within febrile limits. Dr. Rutherford, the resident physician, was sent for, and found that the rigor had passed away, but the pulse was small and uncountable. At 6.30 A.M. the temperature was 103·6°; the pain was very severe in the upper abdomen, and continued until followed by unconsciousness. At 8 A.M. she was completely unconscious, and at 9 A.M. she died.

If you ask me now what I expected to find at the post-mortem examination as the cause of the fatal crisis in this case, I must frankly confess at once that I cannot tell. I thought it indeed just possible that there might have been some perforation of a viscus—stomach or duodenum,—giving rise to peritonitis, or to inflammation perhaps limited more or less by adhesions. Looking to the long-continued history of gastric suffering, this appeared not an unreasonable expectation, and one of the few causes that would help to explain a death within seven hours from the first rigor and rise of temperature. Beyond this I felt unable to carry speculation as to the precise cause of death, and certainly, in the absence of jaundice, it did not occur to me to attribute the death or the fatal sufferings to gall-stone. Yet here we have a gall-stone caught, as it were, *in flagrante delicto*, actually imprisoned in the common duct at the time of death, and forty-four more of them remaining in the gall-bladder after death. But the very largest of these gall-stones appears, especially in the dilated state of the ducts, to be very inadequate to their complete closure. There is not one of them that measures even half an inch in its extreme diameter; and this one, closely resembling the impacted one in size, weighs only five grains. The smallest weighs only half a grain. All of them are facetted—that is, they have smooth, flat surfaces, separated by straight angular ridges. They must therefore have been at one time packed together pretty closely in the gall-bladder, yet not so closely but that some amount of friction took place, and the opposing surfaces were thus polished and rubbed quite smooth. But although the gall-bladder at death contained all these calculi, it was not even nearly full of them; it was, indeed, considerably dilated, and could easily have held many times the number found without stretching. Is it too much, then, to presume that there were, or may have been at one time or another, scores, or even hundreds,[3] of such gall-stones present, of which a great many were discharged *per vias naturales* into the duodenum, at the cost of much suffering, but without absolute danger to life?

But how did the one actually found in the common duct, being not larger probably than many of the others, and not visibly impacted so as to be inconsistent with its passing the orifice by means of a moderately sustained pressure, determine a fatal crisis? That I cannot tell, even now; all that can be said is that there was no other fact discovered at the post-mortem examination at all adequate to the production of these effects. The mucous membrane of the stomach and that of the duodenum were normal. The pancreas and the left supra-renal capsule presented "extreme hyperæmia." The liver was enlarged and congested (as we, in fact, knew that it must be a long time before death). The kidneys were enlarged and markedly hyperæmic. The heart was in the condition already referred to, and the aortic valve as well as the mitral were slightly incompetent. That is all. It would be more absolutely correct, perhaps, to say that this woman died *with* a gall-stone *in transitu*, than to say that she died simply *of* an impacted gall-stone. But the sufferings connected with the fatal event were unquestionably, I think, chiefly determined by the imprisoned, and as yet undelivered calculus, lying in the very outlet of the common duct. An hour or two more of suffering, a little more strength to bear it, less of congestive complications in the adjoining viscera, and she might have weathered this storm also, like the others before it. But the special instruction which the case conveys is to be found in the evidence it affords that so small a gall-stone, not completely closing the duct to the passage of bile, may nevertheless cause severe, and in this particular instance fatal, suffering; and further, that in all probability an unknown multitude of such calculi may pass in succession, all attended with similar sufferings (except as regards the presence of fever in the fatal crisis) without any jaundice being discoverable from first to last.

There are numerous cases recorded in medical literature, and preparations preserved in museums, illustrating the arrest of gall-stones *in transitu* from the gall-bladder to the duodenum, sometimes in the cystic, sometimes in the common duct. When the stone is a large one, and is therefore long retained in the cystic duct, there is of course during this period no jaundice. Dr. Murchison[4] records a case (cxvii., p. 368) in which "the patient suffered from severe biliary colic daily for four months before jaundice appeared, the stone, from its great size, being all this time detained in the cystic duct; and Trousseau[5] mentions a case in which biliary colic occurred repeatedly during four years, and then for the first time jaundice occurred." In this case Trousseau assumes that the calculus remained in the gall-bladder, occasionally getting into the cystic duct, with the result of producing the attacks of pain, and returning again to its original position. "In the fifth year," he adds, "the attacks became more severe, jaundice appeared, and the disease ceased upon the expulsion of a single calculus, shaped like

[2] Trousseau, in his admirably instructive and interesting lecture on Hepatic Colic and Biliary Calculus (Sydenham Society's Translation, vol. iv., pp. 227, 234), writes as follows on the quantity and physical characters of the urine:—"The icteric tint seldom appears till the day after the attack. . . . . Even during the attack, the urine, which is very copious, is limpid like water from the rock, being, in fact, what is called *nervous* urine. . . . . It is not till twelve, eighteen, or twenty-four hours later that it assumes the reddish-brown-mahogany colour characteristic of jaundice; and if jaundice is to show itself, it is not till then that it will appear." Wickham Legg "On the Bile, Jaundice, &c.," 1870, entirely ignores this curious statement, which is also passed over by other considerable authorities. Dr. Legg is "inclined to put the first appearance of jaundice much earlier after obstruction; perhaps within the first twenty-four or forty-eight hours." Dr. Murchison recognises the *urina nervosa* not only as sometimes preceding, but as, under rare and exceptional circumstances, accompanying jaundice during brief periods. But in the case here recorded the excessive quantities of urine passed at times, and maintained for many days together, apparently under the influence of remedies, were never recognised as having any relation to the particular attacks of pain.

[3] Several cases have been recorded reaching one thousand or more. One such case is to be seen in the Hunterian Museum in Glasgow University.

[4] Clinical Lectures on Diseases of the Liver, &c., 2nd edition, 1877.

[5] Clinical Medicine (Sydenham Society's edition, 1871), vol. iv., p. 27.

an olive, the greatest diameter of which was two centimetres." In Murchison's very interesting case above mentioned there were grave doubts entertained as to the diagnosis, although thirteen years previously regular attacks of biliary colic, followed by jaundice, appear to have existed. Cancerous disease is apt to be suspected in such cases, and was so in this case by some. But the post-mortem examination showed that a large gall-stone, probably long impacted in the cystic duct, had made its way latterly into the common duct, and was there retained, and had been ulcerating through the mucous membrane of the duodenum, so as to cause hæmorrhage and other unusual symptoms, among which was, for a time, "almost constant diarrhœa."

But these cases, illustrating the long-continued absence of jaundice when the calculus is so large as to be detained in the cystic duct, can hardly be considered as throwing any light on the total absence of jaundice in our case, where the stones were so numerous and so small, and the biliary passages so much dilated throughout as to give them comparatively an easy and rapid course to the duodenum.[6] Assuming that the attacks of epigastric pain suffered at intervals for more than two years by our patient are to be regarded as similar in origin to the fatal attack, we can only suppose that the comparatively small size and facetted character of the individual gall-stones passed during this period incapacitated them from completely obstructing the duct, or that their very rapid passage gave no time for jaundice to take place in each separate attack. "If the stone finds its way into the bowels within twenty-four hours," says Murchison, following in the main Trousseau, "or if it does not get beyond the cystic duct, or if its form is so angular as not entirely to block the flow of bile, it is quite possible to have biliary colic without jaundice. ..... There is good authority for the statement that small biliary calculi have been found in the stools of individuals who have never had jaundice, but such cases are certainly exceptional; and I am unable to understand the statement of Wolff,[7] that twenty-five out of forty-five patients observed by him passed through the whole train of symptoms of biliary colic without jaundice, the concretions being found in the evacuations."[8]

In Von Schüppel's elaborate article[9] the following closely corresponding passage is found: "If the stone makes its way into the intestine after having been arrested in the common duct less than from twelve to twenty hours, or if it does not advance beyond the cystic duct, or if it is of angular form and the bile can flow alongside of it, no jaundice will occur, although hepatic colic is present. By bearing this in mind we shall understand those cases in which people suffer repeatedly from attacks of colic, which are regarded as gastric colic, because no jaundice ever appears, and in which the subsequent course of the disease leaves no doubt that the paroxysms of pain were really due to the presence of gall-stones. In such cases the diagnosis is sometimes confirmed by observing that the attack of pain is associated with a very slight yellow colouring of the conjunctivæ at least, or that the urine shows small quantities of biliary colouring matter."

These citations will serve to show that the case now brought before you is not, perhaps, altogether unexampled, although I confess that I had never before either seen or heard of one in which such a succession of attacks, extending over so long a time, and involving in all probability the passage of quite a multitude of gall-stones, had occurred without either yellowness of the skin and conjunctivæ, or the detection of bile pigment in excess in the urine. I have therefore thought it my duty as a clinical teacher to publish the case.

[6] In this fact, too, is probably to be found the reason why the pain, though often no doubt considerable, never assumed under observation the exquisitely agonising character attributed to that of gall-stone; nor had it, I think, the extremely sudden invasion usually observed in the case of a large calculus, or even of a smaller calculus passing for the first time through the bile-duct.

[7] Virchow's Archiv, vol. xx., 1861: Beiträge zur Symptomatologie und Diagnostik der Gallensteine; von W. Carl. Wolff, Pract. Arzte in Bonn. After a careful perusal of this interesting and valuable paper, I am disposed to attach more importance to its conclusions in this respect than Dr. Murchison appears to have done. But, as Dr. Wolff gives no details of his cases, it can only be here stated in general terms that they were mostly uncomplicated—i.e., without organic disease or serious illness of any kind, apart from the symptoms specially described. As only such cases are included as were actually found to have passed gall-stones with the evacuations, it is plain that a more or less considerable number of doubtful cases must have been eliminated. On the other hand, this fact gives to the study of the symptoms of the cases referred to an unusual measure of importance. Among these symptoms, next to pain and jaundice, the author has been led to give the first place to a slowing of the pulse, which takes place usually to the extent of from five to ten beats, and sometimes more, in the minute during the urgency of each paroxysm. This he observed in one case in which the attacks returned almost daily, and were watched for many months, with all precautions against fallacy. In uncomplicated cases, whether with or without jaundice, he found this symptom so constant that in doubtful cases of the latter description he considers this the leading element in the diagnosis.

[8] Murchison, ut supra, pp. 339, 340.

[9] Von Ziemssen's Cyclopædia, English translation, vol. ix., p. 748.

ADDISON'S DISEASE WITHOUT TUBERCULAR DEGENERATION OF THE SUPRARENAL CAPSULES.

BY J. WICKHAM LEGG, F.R.C.P. LOND.

IT would seem that the theory which makes tubercular disease of the suprarenal capsules an invariable accompaniment of the clinical symptoms of Addison's disease will have sooner or later to be abandoned. Eleven years ago there came under my notice the first of a series of cases in which undoubted Addison's disease has existed during life, and yet after death no tubercular disease of the suprarenal capsules has been found. A woman, thirty-seven years of age, about eighteen months before her death noticed a black line on her lips, and two months before this she had begun to be very weak, with shortness of breath; she was also subject to vomiting, which the patient herself called being bilious. On admission the face was noticed to be pigmented, while the sclerotics were a clear white; the buccal mucous membrane was also pigmented, the lips and the gums being marked with bluish-black lines, and the palate spotted with bluish spots. Further, on the arms were the little black pigmented spots which are considered so characteristic of Addison's disease. The legs, arms, and trunk were generally of a brownish colour, which was not more marked around the umbilicus or the mammæ. She died about a month after her admission into St. Bartholomew's Hospital, with symptoms of extreme weakness and vomiting.

The examination showed well-marked pigmentation of the knees, the inside of the thighs, the outer genitals, the abdomen, and the lips. Under the skin there was a fair amount of fat. There was no phthisis, and the only noteworthy appearances found in the body were connected with the suprarenal bodies. A very careful dissection failed to detect any right suprarenal body. First of all, the inferior cava was drawn down and the sympathetic nerves behind it dissected; no naked-eye appearances of disease could be made out; the place of the right suprarenal body was taken by a small lump of fat, not so big as a hazel nut, into which an artery from the junction of the right renal with the aorta could be traced. This little artery was about as thick as a common pin. On the left side there was found a black body in the place of the suprarenal capsule, and of its shape, but not of its thickness. It had vessels like those of the right capsule, but it was a mere shell; when cut into, one wall could at once be raised from the other, and there appeared to be nothing between them. This body under the microscope showed well-marked connective tissue fibres with numerous fat drops in the meshes, but no remains of the ordinary texture of the suprarenal body.

This case was noticed by Dr. Greenhow in the second Croonian lecture read before the College of Physicians in 1875, but he did not admit that it was a case of Addison's disease. And on these grounds—First, that there was a "bilious tendency to explain the vomiting." Now, it is true that the patient did say that she was often bilious; but those who have had much to do with hospital, or indeed other patients, will know that with them an onset of vomiting is usually called being "bilious." Though I thought it right to record the patient's own words, yet one is not bound thereby to an approval of what is said or of the theories of disease which are connoted in such expressions. Secondly, "the patient had lost four stone in weight during her illness." Now, these are again merely the patient's own words, and they possess only the usual worth of such statements. After death there was found a fair amount of fat under the skin. Last of all, it was objected that the temperature was above the normal. It was once 99°. I hardly think much stress can be laid upon a single observation,

only 0·4 or 0·6 of a degree above what is natural. Besides, it will hardly be allowed that the temperature in Addison's disease is never raised. I have myself had under my care a very marked case of Addison's disease in a little girl of twelve, in whom the suprarenal capsules proved after death typical specimens of tubercular degeneration, and yet during her stay in the hospital the temperature was seldom down to 98·4°. This elevation of temperature seems to be now an admitted clinical fact, for I find in the last edition of Dr. Bristowe's "Theory and Practice of Medicine"[1] that the temperature sometimes "rises one, two, or three degrees." So that a temperature of 99° can hardly be considered a point sufficient altogether to exclude the diagnosis of Addison's disease; and this rise of temperature seems to be as little worthy of consideration as the thirst, swollen gums, and red, fissured tongue also pointed out as inimical to the diagnosis. On the other hand, the symptoms declared in the Croonian lectures to be so important were very marked—to wit, the shortness of breath, the weakness, the vomiting, and pigmentation of the skin and mucous membrane. With this last there was an appearance, "one of the most decisive external signs of Addison's disease," the small black patches of pigment on the skin of the arms.

While recording this case in 1874, in the St. Bartholomew's Hospital Reports for that year, I ventured to remark that if the facts were good, as there seemed no reason for doubting, some of the then prevailing theories as to the nature of Addison's disease would have to be greatly modified, or even altogether abandoned. And the progress of events has been somewhat in favour of what was then foretold. On the 7th February, 1882, two cases of atrophy of the suprarenal capsules with Addison's disease were laid before the Pathological Society by Dr. Goodhart (for Mr. George Eastes) and by Dr. Henry Davy; and more lately, on February 3rd last, several other cases were brought forward by such excellent observers as Dr. Coupland and Dr. Thomas Barlow, and Dr. Coupland gives an account of all the cases of atrophy of the suprarenal capsules and of Addison's disease, which have yet been published.

There is thus a considerable and increasing number of cases of Addison's disease in which all the symptoms of this malady have been present during life, but in which after death the tubercular degeneration of the capsules has been absent, and only a wasted and atrophied state of these organs has been discovered. These cases are quite different from those which were formerly brought forward as Addison's disease without tubercular degeneration—cases which were so imperfectly described or so imperfectly examined that the account of many of them need only be looked at to convince the reader of its worthlessness to prove anything. Cases in which only the kidneys have been examined, or cases in which disease of the suprarenal capsule has been found without any symptoms of Addison's disease during life, or cases in which no description is given of the disease found in the suprarenal body, may all be put aside at once. It may be that the ease with which such cases have been hitherto answered has led some of the defenders of the tubercular nature of Addison's disease to fancy that the more modern instances may be as lightly passed over. But these later cases are far more difficult to overthrow. They have been seen for the most part in the practice of experienced hospital physicians familiar with Addison's disease, and the examinations after death have been made by experienced morbid anatomists who were not likely to pass by any important and gross changes in other organs which could cause death. These can hardly be set aside by any amount of special pleading; such carefully worked-out cases would be almost enough in themselves to destroy any theory of disease to which they are opposed.

It may interest some to hear of another case in which the same set of appearances was noticed. My colleague, Dr. Church, drew my attention to the patient soon after her admission as a well-marked case of Addison's disease; yet, after death, hardly any suprarenal capsule on the right side, and only a wasted remnant of the organ on the left, could be discovered by Dr. Norman Moore.

A woman, aged twenty-nine, was quite well up to December, 1883, when she began to be short of breath, to be giddy, and to vomit. A month later the discolouration of skin began. On admission into St. Bartholomew's Hospital, in May, 1884, her skin generally was pigmented of a tawny-brown colour; two deeper patches of pigment were seen over the right eye and the xiphoid cartilage; the axillæ were deeply pigmented, but there was no excess of pigment over the breasts. The lips were slightly pigmented. The whole body was rather wasted, weight 6 st. 11 lb. There were no physical signs in the lungs, but there was a short harsh systolic murmur at the apex of the heart, which was not audible at the base. The glands under the jaw were considerably enlarged, especially on the left side. The urine contained no albumen or sugar. She continued to grow much weaker, and had many attacks of vomiting On May 27th, coinciding with an attack of fever, it was noted that the colour had become much darker. She died on June 11th. This patient had paroxysms of fever. From May 16th to 18th the temperature was above natural, reaching on the evening of the 16th to 101·8°. It was also above natural from May 24th to May 31st, the highest point being 102·6°; and again four days before death, the highest point being 102·8°.

The examination was made by Dr. Norman Moore, about thirty-three hours after death. The body was found wasted, and there was much dark-brown pigment in the skin. This appearance was more marked on the abdomen than on the chest, and was very distinct around the nipples. The whole of the back was much pigmented. Nothing unnatural was discovered in the spinal cord, brain, or ears. The lungs were quite natural; the heart was small, the muscular tissue brownish, the valves natural; weight, 6¾ oz. The contents of the abdomen were natural, with the following exceptions: there were three large gall-stones with facets in the gall-bladder, but the ducts were quite free, and the right suprarenal capsule was represented by a small shred of tissue, quadrangular in shape, about half an inch long by a quarter broad. The left was black, of natural outline, but completely wasted, and as thin as paper. The solar plexus to the naked eye was quite natural.

If, then, as seems likely, we shall be forced to give up the theory of the necessity of tubercular degeneration of the suprarenal capsules to Addison's disease, have we any other theory to put in its place? I think at the present moment we must answer "No;" and in the very great obscurity in which the subject lies it will be rather an advantage if we abstain from generalisations and inductions for awhile, and devote ourselves to the more elementary processes of the gathering and sifting of facts. After all, this latter occupation is really harder than the weaving and spinning of theories, and it was not without some justice that Cullen could say in the introduction to his "First Lines" that "there are more false facts than false opinions in physic."

Green-street, W.

[1] Fifth edition, 1884, p. 577.

ON CERTAIN CASES OF

DISEASE OF THE CENTRAL NERVOUS SYSTEM IN WHICH NO NAKED-EYE CHANGES ARE FOUND AT THE POST-MORTEM EXAMINATION.

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ASSISTANT-PHYSICIAN AND JOINT LECTURER ON PATHOLOGY AT ST. THOMAS'S HOSPITAL.

F. B——, aged six years, was admitted into St. Thomas's Hospital under the care of Dr. Payne on August 25th, and died on August 31st, 1882. The boy was an only child, and his mother was suffering from rheumatism at the time of his birth. His family and personal history was otherwise unimportant. He had never been ill in any way until six weeks before admission to the hospital, when he had a fall and bruised his forehead. His nose bled profusely at the time and at intervals for some days afterwards. The accident appeared, however, to have no effect upon his health. About a week later he was bitten by a dog on the left arm; the wound was cauterised although the animal was not mad. He was said to have been irritable and fretful after this, but otherwise well, and nothing of any importance was noticed until a week before he came to the hospital, when his legs gave way under him, his manner was somewhat foolish, his speech became affected, and he lost control over his evacuations.

On admission he was found to be a well-nourished boy, totally unable to stand or walk, or even to remain sitting

upright when placed in that position, although he moved his legs in bed. He had considerable loss of power in his hands and arms, and although able to move them he could only do so in a clumsy, fumbling manner, which was especially evident when he tried to feed himself. There was no loss of sensation and no tenderness or swelling along the spine. The pupils were equal and acted well to light and to accommodation. There were no tremors. The patellar and plantar reflexes were absent, the cremasteric normal. No ankle clonus. The tongue was protruded straight and was covered with a white fur. The evacuations were occasionally passed in bed. The heart and lungs were normal. Urine 1030, acid, lithates deposited, no albumen. Temperature 98·8° F. The mind was clear, but the boy was somewhat dull.

August 29th.—Patient very restless, and vomiting frequently; deglutition appeared to be difficult, and was followed by gurgling in the throat. He complained of pain in the right knee and of feeling as if a string was tied round his right thigh. Opthalmoscopic examination showed some haze round the discs, but no swelling nor any tortuous vessels.—30th: Patient easier; less restless.—31st: Irritable and fretful; cried when touched, and refused food. Swallowing seemed to be difficult, and the boy was unable to expectorate the mucus which collected in the respiratory passages. He died the same day. The temperature while the patient was in hospital never exceeded 99·2° F. A careful post-mortem examination revealed nothing which could account for death. All the organs appeared perfectly healthy, nor was there the slightest trace of disease of the central nervous system.

While I held the post of resident assistant-physician at St. Thomas's Hospital I had the opportunity of observing all the medical cases which were admitted into that institution for more than three years. I was then struck with the comparatively large number of persons who died with symptoms pointing to disease of the central nervous system, in whom the post-mortem examination disclosed no naked-eye phenomena sufficient to account for the fatal result. I was not then pathologist, and my time was too occupied to allow me to undertake what seemed likely to prove a lengthened investigation. Later, however, the opportunity was afforded me by the case related in this paper of endeavouring to unravel what, to me at any rate, was a mystery. I had followed the case clinically and seen that the prominent symptoms were those of motor paralysis of a very generalised character. I determined to harden and examine microscopically the principal regions of the brain and spinal cord, disease of which usually gives rise to motor troubles. The parts examined were: (1) The lumbar; (2) the dorsal; (3) the cervical regions of the spinal cord; (4) the medulla oblongata; (5) the corpus striatum with the external and internal capsules; (6) the parietal convolutions. The result was as follows:—

1. *Lumbar region of cord.*—The only thing which could be considered pathological in this region was the presence of a slight excess of nuclei.

2. *Dorsal region.*—Here there was some vascular distension, and a slight over-abundance of nuclei.

3. *Cervical region.*—In this region there were again found too many nuclei both in the grey and white matter, and an excess of leucocytes in some of the vessels. The nerve cells in this as in the other regions of the cord were healthy.

4. *Medulla oblongata.*—The changes here were similar to those in the various regions of the cord below, and must be looked upon as unlikely to have given rise to serious results.

5. *Parietal convolutions.*—Vessels were somewhat distended, and there was a general increase of nuclei. Here and there accumulations of leucocytes were seen in the interior of vessels and in their coats; but they were neither frequent nor striking in point of size.

6. *Corpus striatum and internal and external capsules.*—It was on this portion of the central nervous system that the brunt of the disease had fallen, and it presented very marked evidences of inflammation. These were:—(*a*) Distension of vessels and of the perivascular spaces. (*b*) The field of the microscope presented a network of small vessels filled with leucocytes, the white matter of the external and internal capsules being the regions most strikingly altered; and where the external capsule lies upon the corpus striatum a deep border of leucocytes was seen. (*c*) All through the tissues composing the basal ganglia a large number of white corpuscles were observed aggregated in the spaces round the nerve cells and elsewhere.

The results of the microscopic examination of the central nervous system show that the patient died of an acute inflammation, affecting most markedly the basal ganglia, but distributed to a certain extent over a much wider area. A pretty general motor paralysis or paresis was the most prominent symptom in the case, and the position of the principal lesion would well account for this. For in the internal capsule run not only the afferent, but also the efferent strands connecting the convolutions with the whole body. Why a lesion sufficient to impede motor impulses should leave the sensory ones free to pass is not known; but it is a matter of frequent observation that disease of the central nervous system gives rise less easily to anæsthesia than to paralysis, and that the former is more likely to prove a transitory phenomenon than the latter.

Generalisations should not be made from single cases, but nevertheless it is often useful to found hypotheses upon them; for facts subsequently ascertained can be more easily brought to bear upon definitely formulated propositions. Looking, then, at those cases which from the clinical point of view appear to be diseases of the central nervous system, but which yield so-called "negative" post-mortem results, and seeing that, although varying to a certain extent, they present many points of general similarity, the hypotheses I would frame are the following. That wide-spread inflammatory processes may affect the central nervous system, and even prove rapidly fatal, without producing any characteristic naked-eye changes; that in such cases particular portions of the cerebro-spinal system may be more intensely affected than others, and that differences in the clinical phenomena depend upon such localisations; that cases in which the brunt of the disease falls upon parts situated above the pons Varolii are not extremely rare, although they have not received much attention from clinical observers or from pathologists.

The state of opinion on the matter in question will be understood by a perusal of the following quotations:—Reynolds's System of Medicine, vol. ii., article on Cerebritis: "It is probable that general inflammation of the brain never exists alone, but that it is invariably associated with meningitis." "Of uncomplicated cerebritis we have no knowledge." In Quain's Dictionary of Medicine, Mr. Jonathan Hutchinson writes: "It may perhaps be doubted whether the occurrence of diffuse inflammation of the brain substance as an acute disease has as yet been proved, excepting as a result of wounds." "Such a condition of diffuse encephalitis may exist without there being any visible changes in the brain." Wilks' Diseases of the Nervous System: "A general cerebritis, although not so evident in a post-mortem examination, is probably not infrequent; it would be associated, in all probability, with an inflammation of the membranes, and therefore a meningo-cerebritis would be the more appropriate term." In Wilks and Moxon's Pathology, in speaking of diffused inflammation of the brain, the authors say: "This probably happens much more frequently than we recognise after death." In *Brain* for April, 1885, Bristowe writes: "Simple inflammation of the surface, or even of the substance, of the brain no doubt subsides, leaving little or no clinical trace of its pre-existence; and, probably, this is of more common occurrence than most of us suspect." The very interesting article from which these words are quoted is entitled "Cases of Recovery from Symptoms pointing to the Presence of Progressive Organic Cerebral Disease," and the bearing of the present paper on that subject is obvious. In Robert's Handbook of Medicine, sixth edition, p. 899, we read: "Cerebritis is described as diffuse or general, and local. The former does not imply that the whole brain is implicated, which is never the case, but merely that there is extensive inflammation of the superficial grey matter, this condition being only associated with meningitis, and evidenced by redness, softening, and adhesion to the pia mater when this is stripped off."

In my search for literature on this subject, I found a monograph by Dr. Charles Elam on "Cerebria and other Diseases of the Brain," published in 1872. Cerebria he defines as "acute, idiopathic, diffused inflammation of the entire brain substance, uncomplicated with meningitis." He calls it "a disease hitherto unrecognised and undescribed, the very existence of which has been formally denied, and one which presents many very remarkable and instructive phenomena." Dr. Elam quotes many authorities on diseases of the brain to show that cerebria is practically an unrecognised pathological condition. Among those cited are Sir Thomas Watson, Aitken, Abercrombie, Bastian, Russell Reynolds, Virchow, and Hayem. Speaking of the sym-

ptoms of cerebria, he says: "It is uniform in its commencement and its termination. It begins with vomiting and ends with death. The intermediate phenomena are not very striking, and the duration is from thirty-six hours to twelve days." "In cerebria none of those active symptoms present themselves. They only occur when meningitis is present. There is no coma properly so called. The faculties are oppressed and benumbed, but not entirely lost until the patient is almost in articulo."

It is quite clear from these extracts that Dr. Elam recognised that there were cases which presented a peculiar train of symptoms in which the autopsy revealed what he believed to be a simple cerebritis, uncomplicated with meningitis. And he was probably right in his conclusions, although microscopical evidence of inflammation is not given in most of his cases. In the case which I have described the prominent phenomena were motor paralyses, while marked mental disorder was absent. Such a condition corresponds with the comparative freedom of the convolutions from inflammation and the serious implication of the basal ganglia. In other cases in which nothing has been evident on naked-eye examination, delirium, coma, or other signs of derangement of the higher centres have been observed during life. And it is not improbable that such cases, if examined microscopically, might have shown a special localisation of the disease in the cerebral cortex. Some patients who have presented symptoms very like those observed in the fatal cases have recovered even when they appeared almost certain to succumb. If the pathological processes going on in their central nervous systems resembled those found in the case recorded in this paper, the favourable result is far from unintelligible. For the patient died from the effects of inflammation which, though intense, had produced no actual destruction of nerve tissue; and there seems no reason why the abnormal vascular phenomena should not under favourable circumstances recede and leave the brain as healthy as a lung is often left after an attack of acute pneumonia.

It must not be supposed that I pretend to explain all cases which present obscure clinical phenomena, apparently referable to brain disease, by supposing that the central nervous system is the seat of diffuse inflammatory changes, which the naked eye cannot appreciate. No doubt other causes, such as poisons circulating in the blood, or possibly mere molecular alterations in the nerve tissues, may produce similar clinical phenomena and fatal results without the intervention of inflammation. I merely ask the question, to which further observations must supply an answer in the affirmative or negative,—Do a considerable number of these cases depend upon simple inflammation of the substance of the brain, so-called cerebritis?

Portland-place, W.

RECOVERY OF GOOD SIGHT AFTER TWENTY YEARS' BLINDNESS.

BY GEORGE E. WALKER, F.R.C.S. ENG.,

SURGEON TO ST. PAUL'S EYE AND EAR HOSPITAL, AND TO THE SCHOOL FOR THE INDIGENT BLIND.

ACCUSTOMED as I have been, during some dozen years' practice of the operation, to the great benefits resulting from the severance of adhesions of the iris to the cornea, I confess that the case which I now relate has astonished me not a little.

L. N——, a girl aged nineteen years and three months, was admitted to the School for the Indigent Blind on the 22nd of April, 1884. Her right eye showed all the cornea, except a narrow rim round the margin, as one dense leucoma to which the iris was universally adherent. Of course this was hopeless. The left, in the central lower part, showed a dense leucoma, which shaded off rather abruptly into a fainter one just above, the whole leucoma having a diameter about half that of the cornea. The iris was adherent to the central part of the leucoma, except at the inner side, where a little of the pupillary edge had escaped, so that a very small pinhole pupil was left; but as it was behind the leucoma and could only be seen sideways, it was not available for vision, and the girl said that she could see no better with the left than with the right eye, nor could she count fingers with either, but had only perception of light.

Thinking that I might give the left eye enough sight to enable her to move about without knocking against chairs and tables, I suggested to her and her father the propriety of treatment; but when they found out an operation was required, I received a prompt negative. At last the father consented that the girl should please herself, but it was not until November that she asked me to operate on her. On the 22nd I attacked the upper part of the adhesion in the way described in THE LANCET of Jan. 31st, p. 197, gaining a considerable increase of pupil. She suffered somewhat from the chloroform, and consented very reluctantly to the second operation, by which, on Dec. 10th, the severance of the upper limb was completed. On Jan. 6th I divided the lower limb at one sweep, although it was very broad; and on the 13th I cut the little bit remaining on the outer side. She was so averse to this last operation that I had to pretend an anger which I did not feel, and almost compel her to submit. One would have expected that the great benefit which accrued most markedly after each operation would have made her eager to submit, but the contrary was the case. Her first sensation after the admission of light into her eye was one of profound horror. She says now that when she first became conscious of sight, and therefore to some degree of space, her feeling was like that of one who looks over a precipice and fears that he will be impelled to throw himself down, and she at the time bitterly repented her consent to be taken out of the darkness which all her life thus far had enshrouded her. By this time, however, the leucoma had cleared up, especially in the upper part, and we found that she had a good-sized pupil, elongated from side to side, the upper, lower, and outer edge ragged from the cuts, whilst the inner presented the normal curve. I had hitherto thought it most probable that the lens had been destroyed, but now I found it existent and transparent, and on testing the eye (Jan. 28th) discovered that the long tension of the imprisoned iris had produced a myopia requiring a 15 D. glass for its correction. The wearing of this speedily caused a change in her state of mind, and she soon ceased to regret her loss of blindness. Under the affectionate tuition of a fellow patient she learned her letters in a day, and to read in a week. Of course this was all the easier from her ability to read with her fingers by Moon's types. Like as occurred in the little boy whose case is described in THE LANCET of Jan. 31st, 1885, a filament of uveal exudation joins the lower edge of the pupil to the cornea, and I shall divide this if I have reason to believe that it keeps up, in any material degree, the over-nutrition of the leucoma. This, however, now deprived of the large blood-supply given to it by the almost universal adherence of the iris, has cleared up greatly, the upper part being almost transparent, and her vision is now (March 2nd) $\frac{1}{5}$, and she reads pretty easily Jaeger 10, and with some little difficulty Jaeger 8—that is, print about the size of "leading article" type.

The main element of the surprise which I have experienced over this case is the retention of visual acuity by the retina under the twenty years' deprivation of light. I see so many examples to the contrary in the persons who present themselves at the Blind School—as, for example, in cases of neglected cataract, as well as in the more familiar instance of squint, which produces the amblyopia ex inopsia of the older writers,—that I was not prepared to find that in this girl the retina had preserved its sensitiveness so well: for all the want of acuteness now present may safely be debited to the opalescence of the cornea, which still remains. As this, however, is plainly decreasing, I trust that the eye may further improve. Another interesting fact is that the muscular tissue of the iris shows itself to be quite lively, as it responds promptly both to myotics and mydriatics.

I think now that I have said enough to show that this class of case—a more numerous class, probably, than that of cataract—is susceptible, even in the more formidable instances, of beneficial treatment, and that on the whole we may expect results at least as satisfactory as in other grave diseases of the eye.

Liverpool.

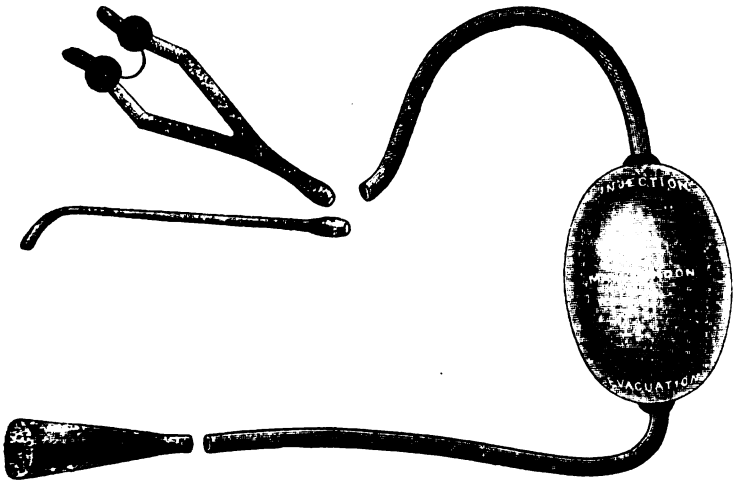
SOUTHPORT INFIRMARY.—The memorial stone of a children's ward to be annexed to this institution was laid on the 30th ult. The new building contains a ward which will accommodate nine cots, allowing each a cubical air space of about 1045 ft., and a "sun-bath," 24 ft. by 7 ft., with glazed sides and roof. The extension when completed will be opened free of debt.

NEW AURAL INFLATOR, EVACUATOR, AND INJECTOR.

WITH REMARKS ON THE TREATMENT OF COMMON AURAL DISEASES.

BY J. WARD COUSINS, M.D. LOND., F.R.C.S.,
SURGEON TO THE ROYAL PORTSMOUTH HOSPITAL, AND TO THE PORTSMOUTH AND SOUTH HANTS EYE AND EAR INFIRMARY.

COMMON aural disorders are now receiving far more attention than at any former period, and the day is approaching when, by early diagnosis and treatment, their disastrous sequelæ will be greatly diminished both in number and severity. Scientific methods are taking the place of the old-fashioned and routine treatment by syringing and counter-irritation; still, notwithstanding the all-round improvement that has fortunately occurred, the risk of neglecting the incipient stages of aural derangement has not yet received the general recognition which it is entitled to obtain. Parents too often regard diseases of the ear as trifling ailments which can be cured by ordinary domestic remedies. They treat very lightly deafness in their children, and flatter themselves with the false assurance that the disorder will pass away in time. A fetid discharge from the ear causes them very little anxiety, believing that "the ruuning" is a natural method of relief which ought not to be checked by remedies. A very brief attendance in the aural department of any hospital will afford convincing evidence of my assertion, that a large number of chronic diseases of this class can be fairly attributed to indifference, and that permanent injury to the organ of hearing is frequently the outcome of ignorance and neglect during the early stages of the disorder.



The new aural inflator represented in the engraving is a contrivance designed to fulfil several important purposes in the practice of every-day aural surgery, and it is, in fact, a combination of several instruments, admitting of many useful applications. 1. It serves for inflating the middle ear as an ordinary Politzer's bag. 2. It can be used as an evacuator for the withdrawal of fluid by the Eustachian tube; or as a pneumatic tractor applied to the external auditory canal. 3. It can be employed also for the injection of medicated air charged with the vapour of deodorisers or other volatile fluids. When the instrument is to be applied for tubal inflation, the nasal piece should be adapted to the orifice of the nostrils by means of the wire loop which unites the vulcanite balls. The Eustachian catheter may be substituted for the nasal piece in those cases in which it is desirable to operate upon one ear only. The hand ball is specially fitted with very small valves and a central recoil spring. The end of one of the tubes attached to it must be fixed on the nasal piece for inflation, the end of the other tube for evacuation. Very gentle compression of the hand ball is sufficient for the withdrawal of fluid from the Eustachian tube and tympanic cavity; but the bag must be forcibly and rapidly manipulated for successful inflation. When medicated air is to be injected, the fluid selected must be dropped upon the pledget of cotton-wool placed in the conical vulcanite receptacle, which should then be adjusted on the end of the injecting tube. By the action of the hand ball the air is drawn through the perforated lid, and thus charged with vapour.

Now, it has been often asserted, and perhaps not without some truth, that aural surgery is both tedious and troublesome in practice; on the other hand, it must be admitted that there is no class of minor surgical operations which yields in the long run more satisfactory results. The success which follows the early treatment of catarrh of the middle ear by inflation is very gratifying to the practitioner, and sometimes astonishing to the patient. Already the timely application of politzerisation has done much to reduce the frequency of permanent deafness, and this simple and invaluable method of tubal inflation is fortunately serviceable in many forms of aural disease, and also in association with other important methods of treatment. Even in cases of long closure of the Eustachian tube and collapse of the tympanic membrane, it sometimes succeeds in restoring the normal communication between the tympanum and the pharynx, and this reopening of the tube is soon followed by great improvement in the hearing power. Sometimes the air-douche produces temporary deafness with a sensation of fulness and singing in the ears, but these symptoms gradually subside as the air confined in the tympanum becomes absorbed. This increased tension is especially liable to occur whenever the inflator is used too frequently, or with too much force; it can, however, be relieved at once by using my instrument, and evacuating the imprisoned air by simply reversing the action of the hand ball.

The gentle action of the evacuator is also useful under many other conditions. In young children suffering from earache the bag may be employed for the withdrawal of pent-up fluid into the pharynx. In acute suppurative inflammation of the middle ear, with bulging of the tympanic membrane, evacuation in this way may sometimes succeed, preventing the spontaneous rupture of the drum and removing the necessity of puncture. In chronic aural catarrh attended with deafness and tinnitus aurium the treatment by inflation may often be combined with evacuation with very excellent results. In many of these cases the Eustachian tube is narrowed and blocked with secretion, at the same time the contents of the tympanum are altered in structure and covered by a layer of thick and tenacious mucus. The air-douche alone is of little service. It aggravates the aural discomfort by increasing the abnormal pressure within the cavity, or else it fails to dislodge the pent-up secretion by the tube, so that the membrana tympani becomes unduly tense, and in this condition a repetition of the operation may cause serious injury.

Now, the treatment by alternate inflation and evacuation of the tympanum is certainly theoretically sound, and in my hands it has proved of great benefit in many chronic cases. It promotes the discharge of the inspissated secretion into the pharynx and aids in maintaining the drainage of the cavity. By the injection of air the mucus is disturbed from its position, and by reversing the action of the hand ball of my instrument, it can then be drawn into the tube, and its passage to the pharynx greatly accelerated. This double action is also capable of exerting a salutary influence over the bony chain. The mobility of the ossicles has long been impaired by the morbid condition of the tympanum, but by gently and repeatedly agitating them in both directions, their adhesions to each other are loosened, and their normal oscillation is re-established by which alone vibrations can be transmitted from the drum to the fluid within the internal ear. But the instrument can be used for many other purposes in aural surgery. The injecting tube can be readily connected with Ker's inhaler for the application of chloride of ammonia vapour, in cases of disorder of the mucous passages attended with profuse secretion. The injection of air charged with volatile vapours, such as carbolic acid, creasote, alcohol, iodine, eucalyptus, and other substances, is suggested as an auxiliary measure in chronic middle ear catarrh, requiring more active treatment than the air-douche, and

also as a substitute for the injection of fluids into the tympanum.

After the failure of milder measures, however, in cases of obstinate tubal obstruction and thickening of the naso-pharynx, the injection of warm solutions into the tympanum has been followed by considerable and even permanent relief. Mr. George Field expresses a decided opinion upon the value of this treatment, and considers "that the injection of appropriately selected warm fluids not only renders the Eustachian tube pervious, but prevents the accumulation of inspissated mucus in the tympanum." When solutions are employed for this purpose, the application of the hand-ball evacuator after the operation will at all times prove of material assistance, for by its action the diffusion of the fluid is secured over the whole mucous lining and its final escape from the cavity promoted, mingled with the elements of secretion. In chronic cases also of collapsed and adherent membrane the indiarubber tube may be introduced into the external auditory canal and the instrument used as an exhauster for the purpose of drawing out the drum, and it thus acts as a substitute for the "pneumatic tractor" recently suggested by Dr. Woakes. The injection of deodorising vapour will be found especially valuable in cases of perforation and chronic otorrhœa—used, of course, in combination with astringent applications and persistent attention to aural cleanliness. By this treatment the patency of the drain tube of the tympanum is maintained, at the same time injected fluids and purulent secretions are blown out through the perforation, which would otherwise be retained in the cavity. It moreover powerfully aids in destroying the fetid odour which is constantly emitted with the discharge, and assists in promoting a cleanly state of the aural surfaces, which, after all, is the essential element of the treatment. All chronic suppurative diseases of the middle ear demand frequent modifications of treatment, and the persevering use of some form of antiseptic for a considerable period. In many cases the otorrhœa is soon checked by the regular employment of astringent solutions; but it often happens that, notwithstanding a marked improvement in the secretion, the distressing fetor continues, kept up by a localised disease of the tympanum, which involves the periosteum, and sometimes the bone itself. It is under these conditions that the vapour treatment is suggested as a valuable auxiliary to other remedies. The injection of medicated air causes no aural irritation, and it can be performed by the patient himself many times during the day as a substitute for other local applications.

In conclusion, I beg to submit my contrivance to the criticism of the profession, trusting that by its convertibility it will prove useful in the treatment of many common aural disorders. The instrument is very neatly made by Messrs. Maw, Son, and Thompson, and it can be obtained from them, together with a second hand ball and extra joint used by me to facilitate the operation of alternate inflation and evacuation of the tympanum. These additions are very convenient, as they obviate the necessity of shifting the tubes, and thus save both time and trouble. Care must be taken to attach one hand ball by the injecting tube and the other by the evacuating tube.

Southsea.

NOTE ON THE

TREATMENT OF URETHRAL GLEET BY MEDICATED METAL BOUGIES.[1]

BY T. J. HUDSON, M.D., L.R.C.P. LOND.,
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CHRONIC inflammation of the urethral mucous membrane or of the glands along its course is rarely benefited by oral medication, usually the reverse, and local applications as commonly carried out often fail us. During the last four years over eighty cases have come under my notice and been treated as follows. The urethral discharge having lasted beyond ten or twelve weeks from the initial gonorrhœal attack, the patient is placed on a hard bed or couch and a No. 4 Brodie's solid bulbous metal bougie, anointed with carbolic oil (1 in 20), is passed into the bladder, which has been previously emptied. Silver instruments should be used, as they are unacted on by chemical substances. If this procedure proves easy and is unaccompanied with much spasm or pain, the instrument is kept in ten minutes and the patient told not to urinate for some hours after. Unless much irritation or scalding result (when a longer interval is to be allowed), in four days' time a No. 6 instrument, anointed with resin ointment and iodoform (2 drachms to the ounce), is passed, and at once changed for a No. 8 or 10, which is kept in some twenty minutes. In another four days a No. 12, and then No. 14, are passed, the latter being the largest size used, and rather heavy, and kept in half an hour. If after a week's interval great improvement does not result, the same size is passed, again covered with iodide of sulphur ointment diluted to one-half with benzoated lard (animal fats penetrating better than the petroleum bases), and kept in from half an hour to two hours. In some of the most chronic and yet successful cases it was thus kept in from four to five hours at a stretch.

Over fifty of the cases were thus entirely cured, many of several years' duration and treated by other methods. The remainder either passed out of sight after one or two instrumentations or had also drugs by the mouth, usually sandal-wood oil and iodide of potash, with cinchona or tincture of cantharides with tincture of iron; while others showing a marked gouty, rheumatic, or strumous diathesis as the principal factor in keeping up the discharge had constitutional treatment as well as local. The ages ranged from seventeen to forty years. No bad results followed beyond a fleeting epididymitis in one case from the iodide of sulphur ointment being fresh and too strong, and at times temporary slight incontinence. A suspensory bandage was enjoined throughout the treatment, but rarely abstinence from stimulants other than spirits. The average duration of treatment was from four to five weeks.

I am aware that the plan of passing medicated instruments down the urethra in these cases is an old one, but usually they are withdrawn at once or almost directly. Such formerly was my practice, and effected little permanent benefit, the cases soon relapsing. The good result obtained, which is lasting, is, I believe, due to the long contact of the bougie and its medicament with the urethral canal. The cause of the long-continued discharge is, apart from stricture (which was present in but five of the above cases), mostly due to the spasmodic contraction of the urethral muscular and elastic fibres, reflex in character, which prevents the scattered patches of ulcerated or abraded mucous membrane from healing. Now, when the urethra is thus brought to the extreme limit of distension, and kept so for a sufficient period, this muscular action is paralysed and ceases to act, irritability being removed; analogous to the condition of the sphincter ani when dilated for fissure, in both cases some tearing of muscular or elastic fibre probably occurring.

The medicament also acts, when kept in contact for some time with the secreting surface or glands, as a stimulant, astringent, and healer, which continues till at least the next micturition. A germicidal effect probably also occurs in the less chronic cases, since Neisser has described a micrococcus in urethritis, rod-shaped, and rather like the bacteria of ulcerative balanitic pus. The medicament should be put thickly on to the bougie, and if slight narrowing of the meatus occurs, a slit in it is useful, or the ointment gets removed and fails to reach the affected parts.

In the form of ointment it is much more beneficial than is a liquid preparation, not excluding balsam copaivæ or dilute iron solutions. That the good results are not alone due to it—i.e., the medicament—is shown by a gum elastic silk bougie of similar size when anointed and passed doing little and often no lasting good, the patient often remarking that the "heavy" instrument did him most benefit. Now, this I take to be due to the fact that the former is somewhat incompressible and compressed with effect by the urethra and yields. Not so the latter; for I found that the elastic one was often held tightly, however long kept in; the metal one, however, paralyses all resistance, and is quite free after a brief interval in the passage. It, moreover, acts with greater efficiency on irregularity, induration and narrowing of the urethral canal and its submucous tissue, on fine granulations or warts, discharging lacunar, follicular, or mucous glandular abscesses, or merely in chronic blennorrhœal inflammation at either the fossa navicularis, beginning of membranous or (most often) bulbous portions of the urethra; also when shreds of glairy matter are secreted due to relaxed and chronically inflamed parts

[1] Abstract of a paper read before the Leeds and West Riding Medical and Chirurgical Society.

tate, and not alone curable by open blisters for some weeks to the perineum. The part affected is often indicated by *fixed* local increased sensibility on instrumentation.

Injections I never use, for it is very problematical if they ever reach the whole, or even a greater part, of the morbid *mucous* lining in these old cases, which is, however, effectually done by the above method. The same applies to the urethral irrigators once in vogue, three cases of their use by patients having been seen, and none being cured thereby. Iodoform and other soluble bougies, up to six inches in length, are often much objected to in private practice, from their objectionable smell, &c. They do not dilate the passage appreciably, and, though often formerly used, have never in my hands *per se* cured a case of long-standing gleet.

COCAINE IN OPERATIONS FOR FISTULOUS CANALS.[1]

BY J. G. BARFORD, L.R.C.P.L., M.R.C.S.

THE following case is interesting from two points of view: (1) as indicating the risk a patient appears to run in moving from a healthy country district to town to have a surgical operation performed, however skilfully done; and (2) the great value of cocaine as a local anæsthetic, even when considerable flesh wounds have to be inflicted, in cases where it is undesirable to administer a general anæsthetic from some idiosyncrasy in the patient.

A country clergyman, whose home is situate in an open, bracing, and exceptionally healthy locality, 600 feet above the sea, was the subject of hæmorrhoids, for which he was advised to place himself under the care of one of the best-known specialists for this affection. He went from the pure air of the country into a private surgical home for the purpose of having the hæmorrhoids removed. No difficulty was experienced in the operation, and the inner surface of the rectum healed readily, and remains sound up to the present time. But a few days after the operation some untoward constitutional symptoms presented themselves. The temperature rose to 104° and general febrile disturbance ensued. In a few days, pain, tenderness, and swelling displayed themselves along the perineum to the scrotum, and in due course a considerable accumulation of pus was apparent. A free incision was made, and with the discharge of pus the general symptoms improved. There was also another small accumulation of pus in the inner surface of the buttock, running up in the direction of the rectum. This, too, was freely opened. At the end of the fifth week from the operation the patient was removed in one of Tidding's invalid carriages into the pure air of the country. His general symptoms had somewhat improved; but the discharge from the wounds was very sanious, and far from healthy-looking; he was not making the progress a patient should do under the circumstances. His condition was one of evident septic infection. Two sinuses remained at the points of suppuration, about the depth of half an ordinary surgical probe, and leading to what appeared to be soft and easily broken-down tissue, threatening to work their way towards the rectum, or it might be into the urethra. The patient's condition at this time did not justify further operative interference. At the end of two months from the operation two other sinuses were formed in the perineum between the anus and the scrotum. One of these called spontaneously, as, indeed, a sinus occasionally does. Two of the other sinuses communicated with each other. At the end of three months from the removal of the hæmorrhoids the patient's constitutional condition had sufficiently improved to justify further surgical interference, and it was decided to lay the sinuses freely open. The patient had, however, on previous occasions proved to be such a bad subject for general anæsthetics, that their administration was thought unjustifiable. I therefore decided to use cocaine to destroy the sensibility of the part. Some small plugs of cotton-wool were saturated with a 20 per cent. solution of cocaine, supplied by Mr. Martindale of Cavendish-street, and these were inserted into the sinuses, one plug in each, and allowed to remain for a quarter of an hour. They were then removed, and each sinus laid freely open with an ordinary bistoury and director. No pain whatever was felt by the patient in laying open two of the sinuses, the patient not knowing even when the incisions were being made. In laying the third sinus freely open a considerable portion of skin had to be cut through, and while the bistoury was passing through the skin the patient displayed some consciousness of it. The skin is evidently not so ready an absorbent of cocaine as either mucous membrane or an abraded surface. If I had again to use cocaine in an operation involving the skin, I should apply a little liquid blister to abrade the surface before the application of the cocaine. Exactly one drachm of the 20 per cent. solution was used. In operation with cocaine there is but little hæmorrhage, thus it is not unlikely to become a valuable remedy to restrain bleeding.

[1] Read before the Pathological Society of Reading.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procœmium.

CHARING-CROSS HOSPITAL.

A CASE OF POPLITEAL ANEURYSM; OPERATION; CURE; REMARKS.

(Under the care of Mr. RICHARD BARWELL.)

As Mr. Barwell says in his remarks, statistics have not yet been accumulated showing whether ligature of the femoral artery for popliteal aneurysm as at present carried out is as safe a method of treatment as compression of the femoral, either digital or by weight. There is no doubt that a large number of cases which are cured by compression are not published, and the experience of some hospital surgeons is that they have seldom been called upon to ligature the femoral artery for aneurysm, having found the former method sufficient. We would refer our readers to the cases of aneurysm published in THE LANCET of May 30th, p. 983, and also to the discussion on a paper read before the Clinical Society on April 24th, and published in THE LANCET, May 2nd, p. 799.

Benjamin S——, aged forty, boatswain, was admitted into Robertson ward on February 17th, 1885. The man is well and strongly built, of healthy family, and is at the present time in good health. He has never had syphilis, and is temperate. Four years ago he noticed a swelling behind the right knee, which caused considerable stiffness of the limb and some pain, but he took little notice of it for two years. He then underwent some treatment; the limb was bandaged, and an instrument (probably a tourniquet) was applied to the thigh for a fortnight, but no benefit resulted. The tumour remained, however, of much the same size until the beginning of the year, when he had a good deal of climbing on ladders to do, since which it rapidly increased. The leg being now very stiff and cumbersome, he obtained leave of absence and entered the hospital.

On examination a tumour with expansile pulsation was found in the left popliteal space; it was ovoid in form, measuring 3 in. in the vertical and 2⅝ in. in the transverse direction; pulsation without tumefaction could be felt beyond these limits. All the characteristics of aneurysm with the exception of bruit were present; the sac lay pretty close to the skin, and had evidently but little clot within it. Flexion of the knee carried as far as seemed safe produced no alteration in the force of the pulsations. Mr. Barwell stated that in consequence of the absence of clot in the sac, and also in view of the fact that pressure had already failed, any good results from such treatment could hardly be expected, but he thought it only right that it should be tried. A conical-shaped bag, filled with four pounds of shot, was suspended by a horizontal support over the bed, so that when placed in position its whole weight would fall on the required part. The man, very intelligent and amenable, was shown how to hold this bag upon the femoral artery at the groin, whose course and position were marked by a narrow strip of plaster, which he

could plainly feel with the finger. The pressure of the bag entirely annihilated pulsation at the aneurysm, and he was enjoined to continue it as long as it could be borne.

Feb. 21st.—Pressure from 8 A.M. to 12; from 1 P.M. to 5 P.M.; from 5.30 to 8.30: 11 hours.

22nd. Pressure from 6 A.M. to 12; from 1.30 P.M. to 6 P.M.; from 6.30 to 10 P.M.: 14 hours.

23rd.—Pressure from 6.30 A.M. to 12; from 1 P.M. to 5.30 P.M.; from 6 to 9.30: 13½ hours.

24th.—Pressure from 6.30 A.M. to 12.

On careful examination of the aneurysm Mr. Barwell could find no sign of improvement; indeed, the tumour appeared a little larger laterally. The groin, although the skin was quite normal, was slightly tender on pressure. The man stated that his leave only lasted up to a certain date, and he begged that an operation might be performed, so that he could get back to his ship, otherwise he would lose his appointment.

26th.—Mr. Barwell tied the superficial femoral with an ox aorta ligature at the apex of Scarpa's space, turning aside the saphenous vein and the inner edge of the sartorius; singularly little blood came from the incision. The tumour became immediately pulseless, harder, and smaller. A drainage-tube and carbolic gauze dressing were used.

27th.—A little venous oozing had come through the bandage; dressings changed; drainage-tube shortened. The man has had no pain. General temperature normal; that of both limbs equal, 98·4°.

March 3rd. Wound healed, with exception of a passage for the drainage-tube, which was removed. The aneurysm has had no pulsation in it since the operation; it is rapidly decreasing in size, and is perfectly hard.

14th.—The patient has been begging for some days to be dismissed; to-day he was discharged. It was thought by some observers, but negatived by others, that there was some slight pulsation in the posterior tibial artery.

Remarks by Mr. BARWELL.—The treatment of aneurysm by pressure was studied and perfected at a period of surgery when the result of all operations, but, perhaps, more especially that of deligation, was singularly unfavourable, or, to say the least, uncertain. Cleanliness and purity in the treatment of wounds were but little studied; the use of silk ligatures establishing a suppurating tract communicating with an artery ulcerating in close proximity to a vein exposed to risks which at this day seem terrible to contemplate. Now, incised, clean, and non-putrefying wounds such as we make to reach the vessel heal at once, and our ligatures no longer cause suppuration. Future statistics, sufficient materials for which have not yet accumulated, will show whether deligation as now practised is or is not as safe or safer than proximal pressure. Of all forms of ligature I hold that which being flat does not divide any vascular coats to be by far the safest. Of those made from the tendon of the kangaroo's tail I have neither personal experience nor the means of collecting numbers. Of those made from the ox aorta I can, I believe, give all the cases—viz.:

Number of cases.		Number of vessels tied.
1	Innominate	1
2	Carotid alone	2
4	Carotid and subclavian	8
2	Iliac[1]	2
1	Common femoral	1
8	Superficial femoral	9
1	Brachial	1
19		24

In none of these cases did any secondary hæmorrhage occur from the place of deligation.[2] Mr. Thomson's patient (deligation of the innominate) died by hæmorrhage from an ulcerated opening in the subclavian; no other patient has succumbed. Thus in nineteen patients twenty-four vessels have been tied with the ox aorta ligature, and with that one exception of innominate deligation (which has never yet proved successful) no death has occurred; no amputation or other infelicitous result. It will be observed that among the deligations of the above table are the largest vessels that can be tied; the results may be contrasted with those of proximal pressure for popliteal aneurysm. I collected two years ago all published cases—viz., 148. Of these 6·8 per cent. either died or submitted to amputation. The cases collected from six hospitals showed even less favourable results—viz., 8·8 per cent. either underwent amputation or died. Moreover, of the whole number, those gathered from journals and those taken from hospital records, 49·5 per cent. failed. If we consider the confinement, the anxiety, the pain that patients thus treated undergo; if we consider the disappointment when failure is announced; and, above all, when we consider the death-rate, we shall probably find it desirable to reconsider an idea which has taken root with us, that proximal pressure is a safer and a milder treatment than a carefully performed and scientifically conducted deligation.

[1] One of these was the external. In one it was doubtful whether the external or the common iliac was tied.

[2] In Mr. Thomson's case of deligation of the innominate, secondary hæmorrhage arose from suppuration of the wound opening into the subclavian a considerable distance from the ligature. During my operation on the common femoral a free gush of blood, probably from an enlarged superficial circumflex, occurred as the outer part of the sheath was opened; it ceased when the ligature was tightened, but recurred in seven days, and again seven days later. It was definitively suppressed by tying the vessel above and below, dividing it between the ligatures.

WEST KENT HOSPITAL, MAIDSTONE.

RAPIDLY-GROWING SARCOMA OF THIGH; DEATH; NECROPSY; REMARKS.

(Under the care of Mr. KNOWLES.)

ALFRED W——, aged twenty-seven, married, came to the out-patient department, on Jan. 7th, with the following history:—The patient is a farrier. A week ago he was kicked by a horse on the outer side of the left leg, a little above the knee-joint. Some swelling of the part took place at once, accompanied by a good deal of pain. He had been able to work since; the swelling, he thought, had gone down a little, but he still complained of aching pain over the site of the injury. On examining the limb, a diffused swelling occupied the lower fourth of the outer side of the left thigh; smooth, immovable, and apparently deeply seated; firm, but pitting slightly on pressure; slight ecchymosis of skin; no inflammatory appearance, and the circulation in the leg below unaffected by it. The patient was unwilling to come into the house; he attended on the 14th, and again on the 21st, when he was persuaded to come in.

On admission, Jan. 22nd, he was a pale strumous-looking man, fairly well nourished; tongue furred; bowels confined. Morning temperature 99°, evening 100°. Lung sounds normal; heart sounds normal; hepatic and splenic dulness normal; axillary and inguinal glands about the size of peas. Urine: specific gravity 1012, acid; excess of phosphates; no albumen.

Family History.—Is one of nine children. One brother had been in Guy's Hospital for pulpy disease of synovial membrane of the knee-joint, and the joint was excised. Amputation of the thigh was subsequently performed; another died in infancy of fits. The rest, with parents, are living and well. The swelling has considerably increased in size and encroaches upon the anterior surface of the thigh; the lower margin is prominent and well defined; the upper is lost in the general thickness of the thigh; distinct veins cross the tumour; skin freely movable over it; over the most prominent part there was a sense of fluctuation. The left inguinal glands enlarged to the size of an olive, but not hardened. The circumference of the left thigh at the lower third measured seventeen inches and a half; right thigh ten inches and a half. There was some œdema of the left foot and slight flexion of the leg on the thigh.

Jan. 26th.—A distinct sense of resistance felt above Poupart's ligament, with tenderness on pressure; slight œdema of the thigh; circumference 18½ in.

Feb. 2nd.—Superficial abdominal veins over the left side distinct. A well-defined mass can now be easily mapped out occupying the left iliac fossa, reaching as high as the anterior superior spine, and encroaching upon the hypogastric region. Dulness and sense of resistance felt over the base of the left lumbar region; and corresponding to the position of the left kidney is an elastic ovoid swelling, 2 in. by 1½, somewhat painful on pressure, and with marked sense of fluctuation. Circumference of thigh 19½ in.

12th.—Patient getting thin; anæmia more marked; complains of some difficulty in swallowing; troublesome cough with scanty glairy expectoration, dulness over the base of the right lung, with coarse râles and bronchophony. Morning temperature 98°, evening 100·5°; pulse 80, small and weak. Some epistaxis.

19th.—Emaciation marked; cough more troublesome

[3] Encyclopædia of Surgery, Art. Aneurysm, vol. ii., p. 85.

coarse râles over both the lungs except apices; night sweats; pulse very feeble, and respiration laboured. Circumference of left thigh 19½ in.; right thigh 10¼ in. The growth now involves the popliteal space, and extends upwards as high as the great trochanter. Some thinning of the integuments over the more prominent part of the tumour, with distinct fluctuation; no pulsation; the superficial veins of the thigh and the left side of the abdomen more engorged and increased œdema of the leg and thigh; no increase of size or hardness of the inguinal glands; in the abdomen the area of dulness and resistance extended as high as the umbilicus, and a little beyond the median line, it being a well-defined, smooth, hard mass; increased resistance felt over back of left lumbar region, and an increase of the swelling occupying the position of the left kidney to three inches and a half by two inches (the long axis parallel to spine); urine gave the same reactions as before.

26th.—Patient extremely emaciated; bedsores over right hip and knee-joint; he takes very little nourishment on account of great difficulty in swallowing; death occurred the following day.

Post-mortem (Feb. 28th).—Rigor mortis present. The left thigh looked about double the size of the right, there being a difference of 9¼ in. in the circumference. An incision from the great trochanter to the external condyle of the femur, and carried down to the bone, revealed the following: The whole of the soft parts of the thigh were infiltrated with a pulpy reddish-brown granular-looking mass, which could be easily scraped away with the finger, not encapsuled and apparently limited below by the attachment of the fascia to the bony prominences around the knee-joint. There was another form of growth which presented a different naked-eye appearance; it was limited in extent, and arranged in lobules of various sizes, greyish-white in colour, and of firm consistence, exactly resembling a section of the brain. Several small blood-cysts permeated the growth. The periosteum was smooth, and as far as the finger could ascertain the bone was not affected. An incision along the anterior surface of the thigh showed the same characters. On opening the abdomen, the peritoneum and sigmoid flexure of the colon were seen to be displaced upwards by a large mass, which occupied the whole of the left iliac fossa; this mass was encapsuled and of varying consistence, it spread over the posterior abdominal wall, and reached as high as the pelvis of the kidney; that portion between the kidney and posterior abdominal wall, and which corresponded to the external swelling, was semi-fluid in consistence. A section through the mass above Poupart's ligament presented the same characters as the primary growth. Two encapsuled tumours, each the size of an orange, were situated on the under surface of the diaphragm, one between the layers of omentum on the greater curvature of the stomach and two others near the crest of the ilium on the right side. Liver: Enlarged (weight sixty ounces), pale, capsule tense, parenchyma soft and easily broke down under the finger, several greyish-white spots about the size of a pin's head scattered throughout the organ. Pancreas: Entirely filled with a firm yellowish-white mass, the gland felt like a piece of indiarubber. Kidneys: Pale, otherwise normal. Spleen: Capsule lax, pulp very soft, of a bluish colour on section, turning a brick-red colour on exposure to air. Lungs: Some pleuritic adhesions over both; a few ounces of fluid in the right pleura; both lungs thickly studded with firm, greyish-white deposits, varying in size from a pea to a bean; both bases œdematous. Anterior and posterior mediastina contained numerous encapsuled masses of the soft pulpy form, and the bronchial glands around the roots of the lungs were involved in a mass similar in appearance to that deposited in the lungs and pancreas. Under the microscope it was seen to be a small round-celled sarcoma. The secondary deposits showed a few elongated spindle-shaped cells, but beyond these all the specimens examined presented great uniformity of appearance.

Remarks by Mr. KNOWLES.—This case offers a good illustration of the high degree of malignancy of round-celled sarcoma. The rapidity and extent of its growth, terminating fatally within two months, show the necessity of making an early diagnosis in cases where surgical interference is contemplated. When first seen it was very difficult to say whether the swelling was due to an extravasation of blood or a new growth. It did not appear to be connected with the bone, although from its position the question of sarcoma was entertained from the first. A fortnight later, when admitted into the house, there could be no doubt as to its malignant nature; and four days after admission, and before permission to amputate the limb had been obtained, the deposit was detected above Poupart's ligament. It would seem that an extravasation of blood took place at the time of the injury, and that this, instead of being followed by resolution or suppuration, as might have been expected in a strumous diathesis, assumed malignant characters. The growth was twice aspirated with a fine needle, and each time a little blood was withdrawn, but no sarcomatous cells were detected under the microscope.

LIVERPOOL ROYAL INFIRMARY.

CASES OF ABDOMINAL SECTION; CONVALESCENT; REMARKS.

(Under the care of Dr. WALLACE.)

FOR the notes of these cases, to which reference was made in our last issue, we are indebted to Mr. Laimbeer.

CASE 1. *Salpingitis.*—J. S——, aged twenty-eight, has been ill four years. She was admitted to hospital in July, 1884, and has been under treatment since. She suffers from pains in the pelvis, and is unable to work, lately even to move in bed. Operated on, March 4th, 1885. Both tubes were removed, but both ovaries left; the right tube was enlarged and thickened; both were congested. The patient made an uninterrupted recovery, and is now able to walk well.

CASE 2. *Hysterectomy, &c.; Multiple Fibroids.*—C. C. A——, aged forty, a widow, has been under treatment since July, 1882, for fibroids of the uterus; she is getting worse, and cannot work on account of pain. Operated on, March 10th, 1885. Abdominal section and removal of pedunculated fibroid; also of the uterus, with a mass of intramural fibroids. The cervix formed the stump, and was brought to the abdominal wall in the median line. The serre-nœud was used. The wire of the serre-nœud cut through on April 11th, the patient doing well.

CASE 3. *Adherent Dermoid Cyst.*—L. McR——, aged twenty-two, noticed a swelling of the abdomen at Christmas last. Operated on, March 25th; abdominal section. The cyst was universally adherent. It was cleared of its contents (hair and cheesy matter resembling pus), and a drainage-tube left in. The cyst has now contracted to a small sinus, about two inches and a half long. The patient's general health is good.

CASE 4. *Ovarian Cystoma.*—E. McK——, aged twenty-eight, noticed an abdominal swelling six months ago. Operated on, March 26th. A multilocular ovarian cyst of the right side was removed. The patient's recovery was slightly retarded by the formation of an abscess in the abdominal wall. Is now quite well.

CASE 5. *Disease of Oviducts and Ovaries (?).*—M. J. B——, aged thirty-one, has been under treatment for more than twelve months with very severe pain and reflex ovarian symptoms, the patient occasionally losing all self-control, and threatening to commit suicide; profuse menorrhagia.—Nov. 14th, 1884: Abdominal section. The ovaries contained small cysts. The cysts were pricked; the Fallopian tubes were stilettoed. Uninterrupted recovery. No improvement after this operation.—April 2nd, 1885: Abdominal section done again. Both ovaries and tubes taken away. The patient made an uninterrupted recovery. She feels quite well. She menstruated for forty-eight hours three days after the operation.

Remarks by Dr. WALLACE.—Cases 1 and 5 were both subjects of intense neuroses, the former being able to grow a phantom tumour under inspection of abdomen, for which there was nothing to account except salpingitis; while the latter was twice operated upon by abdominal section, for such intense pain in lower abdomen as drove her frantic and made her threaten suicide. Both tubes were dilated and filled with serous fluid; the ovaries were apparently healthy. On the first operation a piece was cut out of the right oviduct; the left burst on attempting to detach it from adhesion to the left pelvic wall. No relief followed. Ovaries and tubes were next removed. Her neuroses have vanished. Why excision of the oviducts in the first case gave complete relief, the ovaries being left behind, while in the latter case opening the oviducts, taking off pressure of distension and draining—all true surgical procedures—gave no relief, I am not prepared to venture an opinion. The mental impression in neurosed patients is sometimes so great that opening the abdomen and doing nothing except

draining cures them. Spaying women must always be a repulsive proceeding, and it is one very apt to be abused. The cases of hysterectomy and dermoid cyst cured by drainage are interesting in their way.

Medical Societies.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

AT a meeting of the Society on the 13th ult.,

Dr. E. F. WILLOUGHBY read a paper on Variola and the Varioloid Diseases of Animals. He said that a number of animals—as the sheep, goat, camel, swine, and according to some the dog—are subject to diseases resembling in all their phenomena that known as small-pox in man, and which may therefore be called variola humana, ovina, caprina, camelina, &c. They are all highly infectious to animals of the particular species to which they belong, attended by high fever, a general vesicular or pustular eruption, and great danger to life; not communicable to animals of other species except by direct inoculation, and then producing a local affection only, with little constitutional disturbance and no danger to life. One attack, however induced, confers immunity against the particular disease, but they are not mutually protective. Horse-pox and cow-pox differ in several essential features from the foregoing; they are purely local affections, unattended by much fever or any danger, are not infectious, but, though said to appear spontaneously in rare instances, are communicable only by inoculation, when they confer immunity not only against subsequent inoculations, but also against the infection or inoculation of human small-pox. Though experiment shows that they can be inoculated on any part of the body of horses and cattle of either sex and of any age, the so-called spontaneous cases are always seen to occur on the heels of horses, the udders of milk-cows, and the lips of sucking calves. On these facts two opposed theories have been built: one, which may be called the French doctrine, though accepted by Böllinger in Germany and Fleming in this country, is that there are two orders of variolæ, in one of which the virus is, as Fleming expresses it, "volatile," and in the other "fixed." In other words, while inoculation with small-pox protects man against small-pox, and inoculation with sheep-pox protects the sheep against sheep-pox, though small-pox does not protect against sheep-pox, nor sheep-pox against small-pox, yet cow-pox and horse-pox confer immunity not only against one another, but against a totally unlike disease—namely, small-pox. The other, and certainly the correct view, held by the best authorities in England and Germany, except those above mentioned and by Dr. Warlomont, is that while the variolæ proper are so many distinct specific diseases, peculiar to the respective animals, though capable of being communicated in a modified form to others by direct inoculation, cow-pox and horse-pox are not independent diseases, but merely instances of the cultivation of human small-pox in the organism of another animal. Since "vaccination" has been proposed as a prophylactic measure against sheep-pox, and other suggestions of a like kind have been made from ignorance of the true relations of these diseases, it is of the highest importance that the law of immunity should be clearly understood. It may be expressed in four theses: 1. One attack of variola of the kind proper to any animal protects the individual against subsequent infection or inoculation with the same. 2. Inoculation of any animal with the virus of its own variola produces a milder form of the same disease, but affords a protection similar to that conferred by an attack acquired by ordinary infection. 3. Any variola inoculated in an animal other than that whose variola it is, gives rise to a peculiarly modified form of the disease, attended by little constitutional disturbance, merely local congestion, and no danger to life; such modified disease being no longer communicable to any other animal of the same or of different species except by direct inoculation. 4. This modified disease affords a considerable degree of immunity against infection by any means whatever with the variola whence it was derived, either to the animal whose variola was the original source of it, or to others capable of being infected in any way thereby.—In the discussion which followed, the President, Drs. Renner, Pringle, Gordon, C.B., Murray, and Mr. Shirley Murphy took part.

ACADEMY OF MEDICINE IN IRELAND.

Sloughing of the Rectum.—Acute Pneumonia.

AT a meeting of the Medical Section on Feb. 27th,

DR. W. M. A. WRIGHT read a paper on a case of Sloughing of the Rectum. The patient, a lady aged sixty-five, who had had piles for the last twenty years, but who was in other respects quite healthy, who led an active out-door life, and whose bowels were stated to have always acted most regularly, became ill on Jan. 22nd, 1884. When visited on the following day she said her piles had become inflamed, and on examination a ring of them was found external to the anus, nipped by the sphincter, much congested, very tender, and irreducible. Anodyne treatment was adopted locally and generally. On the 25th profuse leucorrhœa set in, and on the 27th complete retention of urine, which lasted for eight days. On the 28th diarrhœa came on, and the skin over the gluteus maximus on both sides of the anus, but especially the right, became very tense, red, glazed, and erysipelatous looking. On Feb. 1st an external opening formed on the right side, about an inch from the anus, and almost all the fæces began to pass through it; by the 4th power over the bladder was regained, and the inflammation had sufficiently subsided to allow of a rectal examination, when an enormous mass of fæces was found, broken up by the finger, and partially removed by an enema; daily enemata removed the entire mass by the 10th. When the fæcal tumour was partially got rid of, the internal opening was made out clearly, about one inch and an half up the gut on the right side, and as large as a half-crown piece. On the 14th a secondary abscess, with odourless pus, opened into the fistula, after which recovery was uninterrupted. Dr. Wright remarked that the inflammation of the piles and the sloughing of the rectum were undoubtedly caused by the pressure of the fæcal mass (just as a fœtal head may cause sloughing of the vagina in the second stage of a tedious labour); the periproctitis and erysipeloid condition of the skin over the buttock were caused by the escape of the fæces into the cellular tissue of the ischio-rectal fossa. No cases quite analogous were found recorded. The retention of urine was probably after. A vaginal examination would have revealed the cause sooner, but could not have altered the treatment. The patient, when last seen, nine months after the attack, had quite recovered; the fistula was completely closed, the bowels regular, and no symptoms of stricture present. Operative interference was refused when it became practicable.—DR. FINNY referred to a case under his care in which a vaginal examination revealed the true cause of the symptoms to be a mass of impacted fæces in the rectum.—The PRESIDENT mentioned that the late Sir Dominic Corrigan used to lay down that when a diarrhœa obstinately continued, the rectum should always be examined, and it would often be found that there was either fæcal accumulation or cancerous ulceration.—DR. WRIGHT briefly replied.

DR. WALTER SMITH read notes of four cases of Acute Pneumonia occurring in members of the same family at or about the same time. Case 1. Boy, aged sixteen years, first seen on third day of illness. A very severe case, terminating fatally on the morning of the ninth day. The respiration was rarely below 60, and there was constant delirium. Right lung first affected; then the left lung involved. Case 2. Boy, aged thirteen years, seen on the second day of illness. Pneumonia of base of right lung spreading on fourth day to base of left lung. Crisis on the ninth day, and good recovery. Case 3. The youngest boy, aged seven years, seen on first day of illness. Pneumonia of right base. A mild case terminating by crisis on fourth day. Case 4. An adult sister of these boys had been ailing for some time with a severe cough, but struggled on until obliged to give up. Pneumonia of the left base ending favourably by crisis. The four cases developed within a few days of each other. The chief point of interest, suggested by examples of multiple cases, is their etiology—that is, are they instances (*a*) of epidemic pneumonia; (*b*) of infectious pneumonia imported into a house and spreading from person to person; or (*c*) of pythogenic pneumonia? The sanitary condition of the house in which these patients lived was very indifferent, but the author observed that the report on Acute Pneumonia of the Collective Investigation Record, vol. ii., furnished no ground for asserting that multiple pneumonia is associated with exceptionally bad

sanitation.—Surgeon-General DE RENZY called attention to the frequency of epidemics of pneumonia in the Punjaub, and believed the disease was of an infectious character.—Dr. W. WRIGHT mentioned two cases parallel to those noted by Dr. Smith.—Dr. J. W. MOORE espoused the view that pneumonia should rather be styled pneumonic fever, and thought that a correlation existed between pneumonia and enteric fever as regards prevalence.—Drs. C. F. MOORE and DOYLE also joined in the discussion, and Dr. WALTER SMITH replied.

Multiple Exostoses.—Cutaneous Epithelioma.

At a meeting of the Pathological Section on March 13th, Professor THORNLEY STOKER read a paper on the Pathology of Multiple Exostoses, and exhibited the bones of a skeleton affected by them to a remarkable degree. Most of the bones were engaged, and a great degree of symmetry existed between the outgrowths of opposite sides. The lower extremities presented the most pronounced deformities, and showed the two forms of exostoses which Professor Stoker stated to be more common than is generally supposed, and which he discovered in a great number of persons in whom no previous exciting cause could be traced—that is to say, a growth projecting upwards from the lower part of the internal condyloid ridge of the femur, and one projecting downwards from the internal tuberosity of the tibia. Although these deformities and kindred ones are often begotten of some inflammatory process, the result of injury, syphilis, rheumatism, or such like, he expressed his view that they frequently arise as a result of some hyperactivity in the bone-forming tissues, and without any inflammatory cause. He referred to the objection to any classification of bony growths which divided them into hyperplastic and heteroplastic, as they belong to the connective-tissue group of structures, and are always truly hyperplastic, originating in the connective tissues, even when found in situations and organs the most remote from normal bone. Attention was also drawn to the similarity which exostotic growths show to some of the conditions found in the healthy bones of lower animals, and, when occurring in tendons, to the osseous tendons of birds, and a suggestion was thrown out that such conditions give evidence that disease in many ways resembles a retrograde metamorphosis, and as such is interesting to the morphologist.—The PRESIDENT asked Professor Stoker in what condition did he find the cartilages. Were the larynx and bronchial and tracheal cartilages affected, and did the membranes of the interior of the skull show any tendency to bone deposit?—Professor BENNETT said in the cases before the Section there was not a shadow of evidence in favour of any inflammatory process having been the cause of the ossification. Again, the ossification was not in the muscles, but in their sheaths. On the other hand, ossifying myositis rather began by destroying the muscles and then producing ossification of the sheaths. He therefore objected to the term myositis ossificans as descriptive of such a skeleton, because it tacked on a theory not justified by the facts. These went to show that the disease was congenital and started in early life, and that the ossification proceeded in a manner the reverse of that which prevailed in true ossifying myositis, and was not inflammatory. In the skeleton described by Bookey, and preserved in the College Museum, and also in cases recorded by himself (Professor Bennett) and one or two others, the disease commenced in early life, and proceeded slowly along the muscles first, and implicated the bone afterwards. In the present case the disease began in the bone, and grew into the tendons afterwards.—Professor CUNNINGHAM observed that an interesting point was the connexion between these pathological changes in bones and morphological changes. Professor Stoker seemed to assume that the changes were always of a degenerative kind. That might be the case in the majority of instances, but frequently they had instances of pathological changes helping the morphological alterations. A change in the habits of an animal sometimes rendered a ligament necessary in the place of a muscle, and then the latter underwent changes which converted it into a ligament. Such changes were distinctly pathological. During the present session in the dissecting-room of Trinity College a young male subject was met with who exhibited these changes on both sides of the body, and to a much greater extent than the specimen handed round, and both Professor Bennett and himself were inclined to think that it was due to some peculiar occupation which had been followed by the individual.—Dr. FOY observed that morphological changes produced by pathological conditions could not always be considered as disadvantageous. The so-called degradation of tissue produced by pathological processes might serve a useful purpose, as was shown in some of the lower animals—a fact first clearly shown by Herbert Spencer in the second part of his work on Biology, published in 1865 and 1867. It was established in the well-known case of the turkey, where the muscle corresponding to one of the human adductors was usually found ossified. That those changes commenced early in life could not, he (Dr. Foy) thought, be questioned, as the period of selection in the protoplasm for minerals must have preceded its differentiation.—Professor STOKER, in reply, said the bronchial and tracheal cartilages were not affected in his specimen, nor were there any signs of ossification in the brain, and the membranes of the latter were not particularly adherent. The cartilages of the joints were singularly perfect, notwithstanding that there were so many changes in the neighbourhood of the joints. The os innominata presented a good deal of bony change, like that which was seen in chronic rheumatic arthritis, but the acetabulum was very little changed. He agreed with Professor Bennett that there was no evidence that the condition in question was the result of inflammation; and he had only used the name to which exception had been taken until a better one was found. He believed that the ossifying process began in the connective tissue of the muscle, and proceeded from the muscle towards the bone, forming a secondary connexion with it. He did not think there was proof of the statement that myositis ossificans was usually congenital. In Dr. Bookey's case, the girl, who died at the age of twenty-six, was known to have been healthy up to the age of five, at which period the changes in her muscles began.

Dr. BALL read a paper on cases of Cutaneous Epithelioma occurring amongst the operatives at a tar distillery. The first case came under notice four years ago, when Dr. Ball removed the front of the scrotum for an epithelioma, which had been preceded by a hard, horny wart. A recurrence took place at the side of the scrotum, not involving the operation cicatrix; this was extirpated two years ago, and since then the patient has remained well. The second case was that of an old man, about eighty years of age, who had an extensive epitheliomatous ulcer on the back of the left hand, which had originated in a wart five or six years previously. On the dorsum of the right hand, and for a distance of about two inches above the wrist, there were numerous hard, horny warts, and similar growths were present on the forehead and nose, although none existed on the parts of the body covered by clothing. The forearm was amputated, but recurrence took place within a few months afterwards, the lymphatic vessels of the extremity being more obviously implicated than the glands. In addition to these two cases, Mr. Story had brought forward a case of epithelioma of the eyelid in a man who had been engaged at the same occupation. From inquiries made at the works, Dr. Ball learned that two others of the operatives had recently been somewhat similarly affected. One had an ulcerated wart on his nose, which had been destroyed by caustic, the cicatrix being still present, and another was stated to have had a large sore cut out of his face; but it was found impossible to trace this case, as none of his fellow-workmen knew what had become of him. The close resemblance between these cases and the soot cancer of Pott indicate that, like it, they owed their origin to long-continued irritation; in fact, it is quite possible that the active chemical agent is identical in both instances. As there are but seventeen men employed in this industry in Dublin, it would appear that the proportion of cases of epithelioma occurring amongst them is very considerable; the numbers are, however, much too small upon which to base statistics. There are but three principal products manufactured at the works in question. First, a light liquid, which is called "naphtha oil," comes over from the stills; then a heavier fluid, called "creasote oil," which the manager kindly informed Dr. Ball contains on an average about 8 per cent. of phenol, and pitch is the residue of the process. The "creasote oil" is the most irritating of these products, and, although, as stated, containing 8 per cent. of carbolic acid, the men wash their hands in it without hesitation. Dr. Ball had recently an opportunity of questioning a man who had been for a number of years engaged in one of the large carbolic acid manufactories in England. On this man's hands there were numerous warts, and he stated

that such warts were not uncommon amongst the operatives, even those who only had to deal with the purest and most refined carbolic acid; but he had never known of any cases of cancer occurring amongst the workpeople.—The PRESIDENT observed that the last case showed that irritation of the skin was produced by the new industrial product mentioned. It would be worth inquiring into whether any difference was made by the use of wood or coal tar, and also whether the internal use of carbolic acid was dangerous. It was given in large quantities for many diseases; and they knew that the stomach was an organ which required very little provocation to generate epithelioma.—On the motion of Mr. STORY both specimens were sent to the Committee of Reference.

Professor BENNETT read a paper on Complete Dislocation of the Elbow Outwards.

The Section then adjourned.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

AT a meeting of this Society, held on March 26th,

Mr. GARRARD exhibited the Knee-joint of a patient whose thigh he had amputated the previous week. The cartilages were almost gone from extension of articular ostitis, the joint was disorganised, and the stump had healed by primary union. The disease was of twenty years' standing.

Mr. THORPE related particulars of an interesting case of Hermaphrodism.

Mr. S. MORTON related the case of a man, aged twenty-four, who had Pneumothorax on the left side, jumping from a dray having caused rupture of the air cells into the pleural cavity. He had been up to that moment in good health—no cough, no wasting, no history of phthisis. Next day the heart was found pushed over to the right side; its apex felt two inches below and one inch to the left of the right nipple. Amphoric resonance was general on the left side, with diaphragm pushed downwards. The patient suffered acute pain with dyspnœa for five days, after which he always said he felt well. In seven weeks the heart had returned to its normal position, after which he had general pleurisy on the same side, followed by effusion. After seventeen weeks he was quite well.

Dr. PORTER showed two cases of Enlarged Spleen. In one case the child, a year and ten months old, had a large hydrocephalic head, with wide fontanelles and all the symptoms of rickets. The spleen was of enormous size, occupying the greater part of the abdominal cavity, but placed obliquely so that the lower end extended to the right iliac region. In the other case the diagnosis was less obvious. The history was one of rapid enlargement since last Christmas, the spleen extending downwards as low as the level of the anterior superior iliac spine, and forwards as far as the middle line, the free anterior border and hilus being felt close to the umbilicus.

Mr. SNELL read a paper on the Implication of the Mastoid Process in Ear Disease. After remarking on the rarity of affection of the process without accompanying ear disease, he alluded to the frequency of discharges from the ear, and of the little heed that patients too frequently bestowed upon them in many cases. Attention was called to the value of incising the drum as a prevention of perforation in some cases. The importance in all cases of providing a free escape of pus by the Eustachian tube and meatus was urged, and the value of cleansing the ear with boracic acid lotion. Referring to the dangerous class of cases in which the interior of the mastoid suppurated and it became necessary to perforate the bone, the steps to be taken were mentioned, and allusion was made to the anatomical structure of the mastoid, and the frequency with which the process is composed of sclerosed, or at all events less pneumatic, tissue.

At a meeting of this Society on April 9th,

Mr. BARBER showed a Testicle which he had removed from a man aged fifty-two, who had been admitted into the infirmary suffering from phlebitis of the right femoral and saphena veins. On examination the right testicle was found to be enlarged and heavy, but quite painless. The man deemed it hardly worth mentioning as it had caused him no uneasiness for four years. Mr. Barber commented on the chronicity of the case, as microscopical examination showed the growth to be of a cancerous nature. The cord was only slightly thickened, and fluid was present in the tunica vaginalis.

Mr. ATKIN exhibited a large Vaginal Tumour for Mr. FAVELL. The woman from whom the tumour had been removed had had symptoms for twenty-four years, three years after her first and only confinement. On section the growth proved to be very succulent, and gangrenous changes were commencing; but on microscopical examination it was seen to be of fibro-cellular nature undergoing mucoid degeneration.

Mr. BALDWIN showed a case of Atheroma of the Heart, in which the right coronary artery was surrounded by an osseous plate, rendering the artery nearly impervious. The specimen was from a man, aged forty-seven, a heavy drinker when young, and who suffered from vague anginal pains over the chest, with a systolic bruit. Death occurred suddenly during an attack. Aortic valves thickened, and very atheromatous.

Dr. HARDWICK read a paper on Hæmoglobinuria, giving particulars of a case under his own care, and showing that a chill was the immediate cause of the occurrence of each attack in this instance, and afterwards remarked upon the accounts of the disease given by Drs. Elliotson, Prout, Watson, G. Harley, G. Johnson, Dickinson, Gull, Murchison, Pavy, Greenhow, Hassall, Habershon, and Stephen Mackenzie; and called attention to the cases of the latter as compared with his own case, which occurred in a lady of fifty-eight, in contradistinction to what is generally the case in adult males.—Dr. Dyson, Dr. Law, Mr. Browning, Mr. Baldwin, and the President joined in the discussion which followed.

At the annual meeting on April 30th the following officers were elected:—President: Mr. R. J. Pye-Smith. Vice-president: Mr. W. A. Garrard. Treasurer: Mr. G. S. Taylor. Secretary: Mr. Simeon Snell. Members to complete Committee: Dr. Law, Dr. Keeling, Dr. Dyson, Dr. Porter, Dr. Martin. Pathological Committee: Mr. C. Atkin, Dr. Gwynne, Dr. S. White, Mr. Baldwin.

On May 13th the annual dinner took place, and was well attended.

MIDLAND MEDICAL SOCIETY.

AN ordinary meeting of the above Society was held on April 23rd, the President, Mr. T. H. Bartleet, F.R.C.S., in the chair.

Mr. SPOFFORTH showed a case of Locomotor Ataxy with Joint Disease. The patient, a man aged forty-nine, had exhibited the usual symptoms of locomotor ataxy for two years before he met with an accident seven months ago. A reaping machine passed up the right leg, over the hip, across the back, and over the left shoulder. He went about for nearly a month after the accident, and was then laid up from swelling in the right knee, attended with great pain. About five weeks after the accident he was admitted into Kidderminster Infirmary. At the present time the right patella is much enlarged and dislocated outwards, and there is considerable effusion in the joint. The circumference of the right knee is eighteen inches, and of the left fourteen inches. The ends of the bones forming the joint are enlarged, and crackling is produced on movement. There is absence of the patellar reflexes, with swaying movements and the Argyll-Robertson pupil.

Mr. BENNETT MAY showed a boy, aged three years and a half, on whom he had successfully performed Thyrotomy for Papilloma of the Larynx. The thyroid cartilage being laid open by vertical incision for the purpose, a mass of soft vascular warty tumours was removed, some by scissors, and others by twisting, nitrate of silver being freely used to the surfaces. Tracheotomy had been performed by Mr. May, a fortnight previously, through an independent incision, and nearly three months elapsed before the tube could be finally discontinued, all attempts being attended by rapid closure of the outer wound and impending suffocation. The difficulty appeared to arise from the trachea becoming choked up with granulation tissue around and above the tube, though at one time relapse of fresh growths or stenosis from cicatricial webbing was feared. The boy had perfectly recovered, being quite free from dyspnœa or cough, and having a good voice. He had steadily improved up to the present time, five months after the operation.

Dr. SUCKLING showed a case of Ideal Paralysis. The patient, a boy aged sixteen, two years previously, after a trivial injury to the left knee, suffered from complete paralysis of the left lower leg. The paralysis supervened

suddenly a few days after the injury, and had remained unchanged till within a few weeks ago. When Dr. Suckling saw him the left lower extremity was flaccid and completely paralysed. There was considerable atrophy of the muscles, but general and due to disuse. There were no qualitative electrical changes, and sensation was perfect. The reflexes were slightly excessive. The boy was not hysterical, but was emotional and nervous, of the neurotic type so well described lately by Dr. Allbutt. After being told that he would quickly recover, and after faradisation, he was able to move the limb, and at the present time can walk four miles, to and from the Queen's Hospital, without any support, only being a little awkward in his gait.

Mr. BENNETT MAY exhibited a collection of Calculi from recent operations, two removed by nephro-lithotomy, one by supra-pubic lithotomy, six by litholapaxy, and a number by perineal lithotomy, mostly lateral. Mr. May expressed himself a warm advocate of litholapaxy for the majority of adult patients. He found a No. 15 evacuating tube, if made of thin metal, large enough for fragments of moderate size. The débris of the largest of the six calculi shown weighed thirteen drachms, representing a stone an inch in length. It is of uric acid, and was taken from a gentleman aged sixty-three. After removal of the other calculi, recovery was complete and rapid. Mr. May also showed, on behalf of Mr. Crompton a splendid collection of Calculi, sixty in number, which the latter gentleman had formed during his life, and representing the majority of his operations. Many of the specimens were of great beauty and of large size. They were nearly all removed by lateral lithotomy, and a large proportion from adult and aged patients, with the exception of one which weighed six ounces and a half. The removal of only one of the number had been followed by a fatal result.

Mr. CROMPTON made the following observation on the subject of lithotomy:—"If I were asked what in my opinion was the chief cause of mortality after lithotomy, I should certainly say it was the want of certainty as to the real and free entrance of the knife into the bladder; sometimes, perhaps most frequently, from the knife not being pushed far enough along the grooved staff; sometimes from the staff having receded from, or not having been fairly and fully passed into, the bladder, and the forceps being attempted to be passed into such an unopened bladder, the consequences being too frequently fatal from urinary infiltration."

Reviews and Notices of Books.

The Elements of Pathology. By EDWARD RINDFLEISCH, M.D., Professor of Pathological Anatomy in the University of Würzburg. Translated from the First German Edition by W. H. MERCUR, M.D. Revised by JAMES TYSON, M.D. London: Henry Kimpton. 1885.

THE task of presenting a concise analytical summary of the widely extended field of modern pathological knowledge is no slight one. It could only be undertaken by one who has himself as thorough an acquaintance with the subject with which he has been so long identified as the author of this little book. Professor Rindfleisch has done good service in collating and generalising upon pathological facts and theories. For although in many particulars the incompleteness of knowledge does not at present warrant the formation of general deductions, yet it is good to have, if only for their suggestiveness, the well-considered conclusions at which a leading pathologist feels himself justified in arriving. The book is not, as its author remarks, intended as a text-book, but we venture to think that it may well form the basis of much instruction. The regret is that it is so brief; that where we should have liked detailed argument we have to be content with a few aphorisms. The tone is therefore necessarily dogmatic, for the reader is not in all cases led through the processes of reasoning which the writer has followed. Nevertheless, we have read the book with a pleasure which is sure to be felt by all who do the same. Some idea of the line of treatment pursued may be gathered by a reference to the chief sections into which the subject is divided. Under the general part is included in the first place the "symptoms" which characterise the local outbreak of disease—that is, inflammation and tumour formation, which practically include all the processes concerned in the initial lesions. Then follow sections on the anatomical extension of disease — namely, by metastasis and nervous irritation, with a discussion on fever and cachexia, as the leading "deuteropathic" symptoms. The physiological extension of disease, or "sympathetic" symptoms, comprises, under the head of Vegetative Disturbances, disorders of nutrition, circulation, blood formation, and blood purification, which include the major part of morbid derangements; and under that of Animal Disturbances the various disorders of the nervous system, each and all treated from the physiological standpoint. In the special part Professor Rindfleisch groups all diseases etiologically—the only true ultimate classification; and thus he arrives at five great divisions—viz., (1) traumatic diseases; (2) parasitic and infectious diseases; (3) diseases of evolution—i.e., of defective development and growth; (4) diseases due to overwork; and (5) diseases of involution. Of course, under traumatism is included every variety of injury and irritation, whether operating internally or externally, directly upon the tissues or indirectly through the nervous system.

The result of this mode of treatment, this comprehensive bird's-eye view of the whole domain of morbid processes and their manner of production, is a monograph which possesses the charm of originality combined with lucidity. We may think it premature and too theoretical, but it is at any rate fertile in suggestion; it may be often more dogmatic than is warrantable, but it is at least based on clear and well-defined principles; and, lastly, although we may fail to meet with many new facts, it presents us with the old in a novel light. Hence we welcome the book as one worthy of attention and thought, it being, as the author tells us in the introduction, which concisely sums up its whole purport, based on the attempt "to study the nature of disease in itself, and thereby to separate that which pertains to the cause of disease from that which is due to peculiarities of the diseased organism." The task of translation has been creditably performed.

Surgical Delusions and Follies. A Revision of the Address in Surgery for 1884 of the Medical Society of the State of Pennsylvania. By JOHN B. ROBERTS, A.M., M.D., Professor of Anatomy and Surgery in the Philadelphia Polyclinic. Philadelphia: P. Blakiston, Son, and Co. 1884.

THIS is a vigorous and interesting address, which is well worth reading. Dr. Roberts strongly advocates the use of ether in preference to chloroform, decries styptics for arrest of hæmorrhage, shows the exaggerated importance often attached to a slight or moderate loss of blood, advocates a much freer use of the trephine, early operation for strangulated hernia phlegmonous inflammation, and malignant tumours, proclaims the curability of acute traumatic tetanus, and draws attention to various other "delusions" and "follies." He has not attempted to say anything new, nor have we found anything taught in this address that is novel to any thoughtful surgeon who is abreast of the times. Superstitious and false notions live long, however, and it is well that attention should be prominently directed to them from time to time. Anyone who ventures to address his brethren upon their "delusions" and "follies" should, however, be beyond reproach; and we fear that some of the value of Dr. Roberts' excellent address will be lost from a certain looseness, we had almost said carelessness, of style. Thus, on page 20, while writing of the pathology of compression of the brain, he states, "I cannot believe it to be due to compression or displacement of the brain itself. It is more probable that compression symptoms are the results of encephalitis, due to injury from spicules of the inner

table, or to the irritation of intracranial bleeding..... 'Compression of the brain,' as seen after injury, should be translated 'inflammation of the brain.'" This is a view quite at variance with every-day experience. The typical symptoms of "brain compression" are produced immediately upon the receipt of a depressed fracture of the skull and before inflammation can possibly have arisen, while undoubted encephalitis occurs without any of the special signs of "compression." On page 28 we read, "That simple puncture or aspiration of the heart itself is not accompanied by the expected risk to life has also been indicated, though I am not yet prepared to recommend its general adoption for trivial cardiac conditions." We should think not! Because asymmetry of limbs is "of common occurrence," Dr. Roberts would "place no reliance whatever upon measurements of the length of legs to determine the existence or the degree of shortening after fractures of the femur," and yet a little care will enable the surgeon to escape from the error existing asymmetry might lead him into. Long-established and, on the whole, most valuable usages are not to be set aside in this unreasonable fashion. One of the "follies" Dr. Roberts disclaims is the "sponge folly" for absorbing blood from wounds, because of the risk of introducing septic particles into the wound on the sponge; in place of sponges, towels or napkins are recommended. "Perfectly clean surgical sponges are the exception, but clean household towels are the rule." Dr. Roberts, we are sure, knows perfectly well that a so-called clean towel is loaded with septic dust, and is by no means surgically pure or fit to be introduced into a wound, and by the exercise of no uncommon care sponges can be made and kept quite free from dirt in either the general or surgical sense. On page 46 we read, "Adhesive plaster has little or no value in surgery, except for making extension and preventing motion in cases of fracture." This shows quite an inadequate appreciation of the use of well-adjusted plaster. It can accomplish what sutures never can —the uniform firm adaptation of surfaces without traction or tension upon any particular point; in the treatment of the wound after amputation of the breast, for example, it is most valuable, and there are many similar instances where a surgeon skilled in the use of strapping finds it a most useful adjunct to his treatment of a case. We can only refer to similar looseness in recommending full doses of the alkaloids in all cases in which they are given. Dr. Roberts' task, however, was a worthy one; his execution of it, on the whole, is good; but the expenditure of more pains in the preparation of this address would have rendered it more useful in putting an end to surgical "delusions" and "follies" than we dare hope it can be in its present form.

Health Lectures for the People. Illustrated. Fifth Series. Pp. 185. Edinburgh: Macniven and Wallace. 1885.

THIS is the fifth annual series of lectures delivered under the auspices of the Edinburgh Health Society. The lectures appear, as a rule, to be well calculated to further the objects of the Society, which are: "To promote by all means in its power attention to personal and domestic cleanliness, to comfort, self-denial, temperance, and the laws of health generally." Probably the most practically useful paper in this series is one on marketing and cookery, by teachers from the Edinburgh School of Cookery and Domestic Economy. It gives much useful information on the important subjects of how to market, and how to make the best use of the food when bought. These are points on which, unfortunately, sound advice is very much required, not only among the very poor, but among the well-to-do classes, and it is given clearly and intelligibly. It is followed by a lecture, by Mr. Falconer King, on "Food Adulteration," in which some of the more common forms in which sophistication is practised are brought to notice, and the injury to health and iniquitous robbery involved in it are pointed out. Mr. Falconer King appeals to the public to second, in their own interests, the efforts of the public analysts. "If people remain, as they are at present, profoundly apathetic, apparently, as to the purity of the food they consume, all the public analysts that ever were will be insufficient to stamp out the evil; but if these officials be assisted in the discharge of their duties as they ought to be by the public generally, so that transgressors may be detected and punished in such way that adulteration may cease to be profitable, then these worst of rogues will disappear, honest men will come in their place, and we shall soon have what everyone must admit is of the very greatest importance, so far as health and happiness are concerned—an abundant supply of really pure food." "The Bath: How and When to Use it," is also a lecture which, we trust, will be taken to heart by those to whom it is addressed. It brings out the unpleasant fact that public baths and wash-houses have not as yet been self-supporting institutions. In Bradford, Birmingham, Liverpool, and Glasgow they all show a deficit in the receipts. Edinburgh has not yet established public baths, but is about to do so. The Edinburgh Health Society has adopted the very useful plan of printing and distributing leaflets on the more important practical points connected with the improvement of the sanitary condition of the people, and thus bringing these matters to the notice of those for whose benefit they are intended, and who probably would not otherwise have an opportunity of knowing anything about them.

Brain. A Journal of Neurology. Part XXIX. April, 1885. London: Macmillan and Co.

THE opening article of this number is by Dr. Bristowe, and consists of a relation of some interesting cases of Intracranial Disease, with recovery from symptoms pointing to the presence of progressive organic brain affection. Two were cases strongly suggestive of tubercular meningitis, and the third one of symptoms of progressive disease in the neighbourhood of the fourth ventricle, possibly due to a syphilitic lesion, although there was no collateral evidence at all of syphilis. Dr. David Drummond describes the Spinal Lesion in Infantile Paralysis from a case fatal within six or seven hours of the onset; there were very marked inflammatory changes found in the anterior cornua. Dr. W. J. Dodds contributes the first part of a very exhaustive essay upon some Central Affections of Vision; and Dr. Allen Sturge a most elaborate study of the Nerve Phenomena in a case of Anæsthetic Leprosy, in which he suggests several points for further investigation. Dr. W. C. Bentley writes upon the Deep Reflexes in General Paralysis of the Insane, as indicative of implication of the spinal cord. A contribution to cerebral localisation is made in the record of a case of Brachial Monoplegia, due to a limited lesion of the internal capsule; the case is confirmatory of views recently enunciated in these columns by Mr. Victor Horsley. Other cases of interest are contributed by Dr. Sharkey, Mr. Walter Edmunds, and Dr. Suckling. The "critical digest" in this number deals with the Combination of Lateral and Posterior Sclerosis, and is supplied by Dr. Ormerod; and Dr. James Anderson contributes a report on Recent Advances in the Anatomy of the Nervous System.

HOSPITAL FOR SICK CHILDREN, GLASGOW.—Dr. Finlayson has just completed a short course of demonstrations at this hospital of cases of Nervous Disease; there were illustrations of tumour of the brain and cerebellum, and a remarkable case of paralysis of the sixth and seventh nerves on *both* sides, with loss of sensibility of the palate, dribbling of saliva, affection of speech, &c., apparently due to a bulbar paralysis. These demonstrations were open to all medical students, and were arranged for the afternoon, as the ordinary visit hour did not seem very suitable for the summer arrangements of the students.

New Inventions.

A NEW OBSTETRIC BAG.

THE accompanying drawing represents a new obstetric bag which Messrs. Arnold and Sons, of West Smithfield, have kindly executed in accordance with my suggestions. Its general construction is as follows.

It is made of a light wooden case covered with morocco. It opens half-way down the centre, each upper half or wing falling outwards on a strong hinge, and having its fall limited to a right angle by two strong quadrants. To prevent the drawing from giving an impression to the contrary, I should mention that the wings will open outwards simultaneously, and not only one at a time as represented. The cavities of the wings are closed by strong leather lids, which are fastened with turn-buttons, and marked respectively A and B. Wing A contains long forceps, catheter, porcupine quill, hypodermic syringe in wooden case with ergotine, pilocarpine and morphia discs. Wing B contains perforator,

craniotomy forceps, blunt hook, crotchet, and vectis. The main cavity of the bag, or well, is divided by a vertical partition into two compartments: the one being occupied by two cases of bottles (two four-ounce and four two-ounce); the other by a Higginson's syringe with long tube, a set of Barnes's bags, and a pocket-case in which are blunt and sharp bistouries, dressing forceps, needle-holder, needles, silk, and wire. This latter part of the well is covered in by a flat leather case containing an Aveling's transfusion apparatus, with special forceps and scalpel.

The advantages that this bag, in my opinion, possesses over others now before the profession are—1. Greater durability, owing to its general construction. 2. Avoidance of unnecessary exposure of instruments. On opening the bag no apparatus is visible. 3. Greater convenience, since the different sets of instruments are as far as possible packed together in separate cases or departments according to their functions. 4. Greater safety of the instruments themselves, because (*a*) the indiarubber is carefully separated from the steel; and (*b*), owing to the separate packing of the instruments, some of them need never be disturbed for years, thus escaping the daily dangers of injury to which they are usually exposed.

T. W. THOMPSON, M.R.C.S.,
Late Surgeon, 1st Life Guards.

SANITATION IN CALCUTTA.

AN important outcome of the recent differences between the Lieutenant-Governor of Bengal and the Municipal Corporation of Calcutta has been the formation of a Health Society for Calcutta and its suburbs. The inquiries instituted by the corporation and by the committee appointed by Sir Rivers Thompson brought prominently to public notice the very unsatisfactory state of certain portions of the city and its suburbs, and the resulting high rate of mortality. While in some of the wards in which the water-supply is good and the conservancy efficient, the death-rate has been as low as 12 and 14 per 1000; in other parts, where these conditions have been neglected, it has been 35, and in the still more unfavourably circumstanced suburbs has ranged from 50 to 60, per 1000. With a view to instruct public opinion upon subjects connected with health, the causes of the high rates of sickness and mortality due to preventable disease, and the most efficient measures for their removal, the Public Health Society has been formed. It is proposed to effect this very desirable object by means of lectures on subjects connected with hygiene, by public meetings for the discussion of sanitary questions, by the publication of a journal of health in which the most recent information on all matters bearing upon the subject may be given, and by the formation of a library of works on sanitation. It is the earnest desire of the founders of the Society to bring together by means of it "a body of influential persons representing every class in the community, European and native, who may by sustained effort and combined action, both form and strengthen an intelligent public opinion, and give expression to that opinion in a manner calculated to command attention, and who may thus co-operate with and aid Government and the Municipality in initiating and carrying out sanitary improvements." But the Society propose to introduce a further very important practical measure. The Council "have made arrangements for enabling such householders as desire it to have their premises inspected and a report drawn up, by a capable and properly trained officer, on any sanitary improvements necessary to render them healthy and safe. A competent overseer has been engaged for this purpose, and the charge for inspection and report have been fixed so low as to bring this valuable safeguard within the reach of all classes." The first public meeting of the Society was held on Jan. 29th, in the Imperial Museum, when the chair was taken by Sir Rivers Thompson, the Lieutenant-Governor. A paper was read by Surgeon-Major R. Harvey, of the India Medical Service, on "The Plague, a History and a Lesson," in which he gave an interesting account of the disease from the earliest periods to the present times. He concluded by a warning of the possibility of the plague again finding its way to Calcutta, and of the "congenial soil" which it would there find in the filthiness and unwholesomeness of parts of the city and its suburbs. "Even if we had no fear of plague—and I do not think there is much,—we have our own pet pestilence, cholera, which, though not contagious like plague, is fostered by the same conditions; and we must remember that all zymotic diseases obey in various ways the same laws." We regret that Surgeon-Major Harvey did not take up the subject of the prevention of these existing causes of mortality rather than the history of bygone pestilences, but we have no doubt they will form the subject of future lectures. We look upon the formation of this Society and the manner in which it has begun its work with great satisfaction, and we trust that it may do good and efficient work in the promotion of such measures as will improve the health and diminish the death-rate not only of Calcutta and its suburbs, but of the population of the towns and villages throughout the Presidency.

BIRMINGHAM MEDICAL BENEVOLENT SOCIETY.—The sixty-third annual general meeting of this Society was held on May 29th. Mr. Sampson Gamgee, President, was in the chair, and there was a large attendance of members. The annual report stated that the work of the past year had been satisfactory in regard to the activity, prosperity, and usefulness of the Society. The invested funds at the end of 1884 amounted to £10,705, as compared with £10,515 at the end of the previous year. During the year fifteen annuitants had received grants, varying in annual value from £10 to £40. The number of benefit members is 264. The financial statement showed that the total receipts during the year amounted to £636 3*s.* 11*d.* The following elections were made:—President: Mr. C. A. Newnham of Wolverhampton. President elect: Dr. James Johnston of Birmingham. Vice-Presidents: Mr. Henry May and Mr. R. W. Smith. Drs. Foster and Wade of Birmingham, and Dr. Tibbitts of Warwick, were elected on the Directorate. Treasurers: Mr. Bartleet and Dr. Sawyer. Hon. Secretary: Dr. Thomas Savage. The members afterwards dined together at the Grand Hotel, under the chairmanship of Mr. Newnham.

THE LANCET.

LONDON: SATURDAY, JUNE 6, 1885.

SIR HENRY ACLAND, in his opening address at the recent meeting of the Medical Council, intimated that Inspectors appointed to visit the Final Examinations of the Universities have begun their labours, and would be supplied with all the information necessary for them to undertake their task. There ought to be a great deal of mutual respect between the universities and the Medical Council. The latter body contains eight representatives of universities. All the English universities but one have a separate representative in the Medical Council. The two Irish universities have each a representative; and the Scottish universities are represented, though only imperfectly—that is to say, the universities are grouped for the purpose of representation in the Medical Council; Edinburgh and Aberdeen alternately elect the representative, and Glasgow and St. Andrews. The Scottish universities might reasonably complain of this inequality of treatment; but the English and the Irish universities must admit that they have an amount of representation on the Medical Council fully equivalent to anything they do for the profession of medicine, or can reasonably claim from it or from a body regulating it. Not only is each of the universities of England, with one exception, represented by a separate member, but the President of the Medical Council is Sir HENRY ACLAND, who is identified conspicuously and worthily with the oldest of England's universities. Under these circumstances, in matters of medical education the universities might fairly be expected to defer greatly to the Medical Council, and the latter might fairly be expected to regard the medical regulations and the examinations of the universities with much attention and, if necessary, with a little candid criticism. We are not here defending the constant interference of the Council in regard to matters of general and preliminary education, which it has been trying for years to throw upon the universities and other bodies responsible for national education. We are referring to the strictly medical functions of the universities, and we maintain that in regard to these the Medical Council has its duties of supervision and even of criticism, which the universities ought to recognise and respect. That this is so is apparent from the Medical Act. The eighteenth clause of this Act provides that the Council may require of the bodies mentioned in Schedule A information as to the courses of study and other requisites for obtaining their qualifications. It also provides that members of the Council, or persons deputed by the Council, may attend the examinations of the bodies in Schedule A, making no distinction between universities and medical colleges or corporations. Clause 20 entitles the Council to make representations of defects in the requirements of the bodies to the Privy Council. Of course in a general sense, the right, and indeed the duty, of the Medical Council to take notice of the medical work of the universities is admitted. But it has not been thought to extend further than to see that the universities did not give their qualifications to persons not possessed of the requisite skill and knowledge for the efficient practice of their profession. This is surely not enough; and one of our principal purposes in referring to the commencing work of the Inspectors of the medical examinations of universities is to express the hope that we shall have from these gentlemen a critical and impartial estimate of the value of these examinations—not only as qualifying examinations, but as university examinations. The profession and the public look to universities to carry their examinations and tests decidedly higher than the standard of the mere pass examinations. It is the interest of the universities that this expectation of the public and the profession shall not be disappointed. Medical degrees are given very freely nowadays by certain universities. The University of Oxford even proposes to relieve itself of the duty of examining in Surgery by accepting the examinations for the diploma of the College of Surgeons. These things may be all right; but we want the Medical Council to assure us that they are all right, and that the higher titles of universities really mean higher examinations. The universities that are conscious of higher work will not object to have it testified by the inspectors of the Medical Council. Universities which give those "higher titles," of which Sir HENRY ACLAND lately spoke, which "are of no value at all"—if there are such universities—should be exposed. The sanctity of medical degrees must be recognised: but only so long as they represent what they profess to represent. We shall look for the record of the work of the inspectors of universities with much interest.

THE Committee appointed by the Clinical Society about two years ago for the investigation of the results of Dr. MORTON'S Treatment of Spina Bifida by Injection of a Solution of Iodine in Glycerine, has at last made its report. Owing to its length, it has been read and published only in abstract, and we shall have to wait till the autumn for the full text, which will appear in the next volume of the Society's Transactions. The Committee wisely took a broad view of their task, and set themselves first of all to inquire into the pathological conditions grouped under the term "spina bifida." They have been able to divide them into three classes—meningoceles, myelo-meningoceles, and syringo-meningoceles. Judging from specimens preserved in the museums of London, Glasgow, and Cambridge, myelo-meningocele is the most common condition, and syringo-meningocele the rarest. But in view of the known great frequency of this deformity, and the comparatively small number of specimens in museums, it is open to question how far these collections fairly represent the actual proportionate frequency of these three varieties.

In the pathology of the affection the Committee have been able to settle definitely one or two points which are of considerable importance. First, they have proved by microscopical preparations that the vertical fissure does not involve the spinal cord, for the central canal of the cord can be demonstrated intact in the expanded nervous tissue. Secondly, they have shown that in myelo-meningoceles the spinal cord is flattened out and blended with the sac of the tumour in its median vertical portion, and that the nerves crossing the cavity of the tumour come off from the

expanded cord in the usual way, and are not distributed to the sac, as has been erroneously stated. Thirdly, they have found that there is an absence of mesoblastic tissue in the walls of the tumours, in some cases partial, in others entire, and they regard the deformity as due to a want of development of this embryonic layer.

On the clinical side, the inquiry has extended beyond the investigation of cases submitted to Dr. MORTON'S treatment. A large number of cases of all kinds have been collected and tabulated, and these afford means for comparing the results of different kinds of treatment. The most surprising outcome of this part of the inquiry is the success that has often attended severe operations such as ligature or excision of the tumour, measures which have been adopted without an adequate estimate of the nature of the deformity and of the risk of the procedure. The Committee believe that the published records of these measures may be misleading, owing to the cases of failure not being recorded. To some extent no doubt this is true, but it is of course open to question to what extent this applies to such operations as excision more than to injection into the sac. But a still more important consideration is that in the cases thus treated paralysis has not been caused, as would be the result were the spinal cord removed, and in many cases it is expressly stated that the cord or nerves were not in the sac. This not only proves that these cases were examples of meningocele, but their number shows that meningocele is more common than museum specimens indicate. It is another demonstration of the fact that pathology must be studied in a wider field than our existing museums afford. The Committee, however, lay stress upon the fact that it is impossible in any given case to predicate the freedom of a tumour from spinal cord and nerves; in other words, they say that it is *impossible* to diagnose meningocele from myelo-meningocele. In many cases the surgeon may be certain the cord is in the *sac; in* other cases, where the tumour is pedunculated, covered by a thick healthy skin, and there are no concomitant nervous phenomena, it may be suspected that the cord is not in the sac, but it is impossible to be sure of this. If this statement be accepted, it follows of course that the surgeon must always act as if the cord were in the sac, as if he were dealing with a myelo-meningocele; and an instant's consideration will show that for this reason ligature or excision of the tumour, or indeed any operation which threatens the integrity of the median vertical portion of the tumour, must be entirely abandoned, and this in spite of the success that has often followed these measures. No doubt those who have practised excision successfully will be inclined to contest this point, and to doubt the impossibility of diagnosing meningocele; in view of the careful investigation and report of this Committee however, we doubt whether such operations can be justified. Turning now to the other side of this part of the report, we learn that the Committee have found that Dr. MORTON'S treatment has been attended with a large measure of success, and it is recommended as the best treatment at present known for this condition. The Committee advise that a careful selection of cases suitable for it should be made, and they urge that it is foolish to practise it where from the presence of grave marasmus or a marked condition of hydrocephalus, even the cure of the spina bifida would not offer a chance of materially benefiting the patient. The treatment is so simple, and, when properly conducted, so free from dangers of its own, that there is a risk of its adoption in cases quite unsuitable for any kind of treatment, with a view, perhaps, of giving the child a chance. Such a course, however, can only bring a valuable measure into unmerited ill repute, and it is to be distinctly deprecated. As to the mode of action of the iodo-glycerine, the abstract report furnishes no information; it contains, however, a clause to the effect that, with one exception, there is no evidence of the cure of spina bifida by this method ever having caused paralysis, and a doubt is expressed whether the subsequent occurrence of hydrocephalus can be fairly attributed to the previous cure of the spinal deformity. Congenital deformities are all extremely important, and no aid that surgery can afford is more welcomed than in their removal or cure. Spina bifida affords no exception; it is common, and is generally attended with early death, and up to the present its treatment has been to a large degree empirical and unsatisfactory. We anxiously await the publication of the full report of this Committee of the Clinical Society, because we think the abstract of it justifies the hope that it does much both to clear up doubts as to the nature of the deformity, and to put its treatment upon a more satisfactory, because scientific, basis.

WHATEVER opinions may be held as to the value of the Report of the Royal Commission on the Housing of the Working Classes, there is no doubt that the printed minutes of evidence will be read by all with the deepest feelings of interest. There has been no lack of effort to obtain information on every point bearing upon the subject of house accommodation for the poor, and upon the relation of this accommodation to their social and moral welfare. Philanthropists, statesmen, clergymen, lawyers, architects, and officers to local authorities and building societies, have been examined, and each has added to the general stock of information which the issue of the volume now makes available for public use. When witnesses have been so numerous, it is not surprising to find that opinions widely apart have been expressed. Thus we find, on the one hand, a demand for fuller legal powers and better rights of inspection; and on the other, the strongest objection taken to State interference of any kind whatever. Again, while some witnesses demand the use of public moneys for the erection of suitable dwellings, others protest against this course as demoralising and dangerous. It is, however, easy to reconcile these apparently different opinions when the experience of the individual witnesses is taken into account. We can sympathise with those landlords upon whose tenants the sanitary inspector may be an unnecessary intruder, but we cannot yield to the opinion that he is not the less urgently required when house owners neglect their duty to their tenants and fail to keep dwelling-houses in habitable condition. The evidence, indeed, points more clearly than the report to the one conclusion that the enforcement of sanitary law and the efforts of the philanthropist must go hand in hand if the condition of the working classes in our large towns is to be benefited. Perhaps no evidence will

be read with greater interest than that of Lord SHAFTESBURY, who, speaking with the experience of two generations, is able to bear witness to the enormous improvement which has taken place during this period. Lord SHAFTESBURY has seen a far worse condition of things than that which is now the cause of so much condemnation, and we are at liberty to assume that this has resulted in no small degree from the operation of the Sanitary Acts. The chief problem to be solved, however, is whether suitable dwelling-house accommodation can be provided in sufficient quantity and at a rental which will not unduly tax the weekly earnings of working people, and the evidence of those who have been engaged in making such provision as they could, forms one of the most valuable portions of the volume. London is already learning how this may be done, and it is now being found that it is possible to erect, as a mere pecuniary speculation, tenemented houses of the model kind for artisans; whereas, a few years ago it was thought that such dwellings could only exist as the result of individual benevolence. The formation of companies is doing much, not only in providing dwellings, but in setting an example which builders are slowly following. A few years ago it would have been thought very difficult to find tenants for buildings of the model type, but the rapidity with which those that have been erected have been occupied has proved the contrary. At the present time it is urged that the labouring classes would be unwilling to live under any other conditions than those to which they have been accustomed; but this, too, will be found to be fallacious as soon as suitable accommodation of this class shall have been provided. It will not be long before such buildings have been erected by a company which has been formed for this purpose, and as soon as its success has been proved, it may be anticipated that builders and others will again follow the example that has been set them. But the very moment the State steps in, and at the cost of the community erects dwellings for a class, individual effort will be retarded and great injury done.

Much evidence has been taken on the subject of one-room tenements. It cannot be denied that single rooms will be required by some, and there can be no objection to their use on the score of morality so long as due regard is had for the age and sex of the occupants. The action of local authorities in providing isolation hospitals, baths, and washhouses, as well as mortuary accommodation, is intimately associated with this question. Hope is raised by a perusal of the evidence that such rooms may be supplied at a cost which the labourer will be able to bear. The problem is not altogether solved, but certainly more nearly approaches solution than in past times. A continuance of the improvement in the dwellings of the working classes cannot be accomplished by any one person or any one body, but will be the result of all the forces which have been steadily working for years, and which will doubtless gather fresh strength as the result of the recent inquiry.

AN active correspondence in the Birmingham *Daily Post* amply proves that the management of the local Medical School is just now exposed to much adverse criticism. The evidence at hand is not sufficient to form the basis of an impartial judgment on the questions raised; but it establishes a strong *primâ facie* case for inquiry into the causes of the existing dissatisfaction, and the best manner of remedying it. It is only just to recall that the traditions of the Birmingham Medical School are most honourable and encouraging. Even before the days when Sir WILLIAM BOWMAN was a dresser in the Birmingham General Hospital, under Mr. JOSEPH HODGSON, the local physicians and surgeons had done excellent work. From their ranks have since sprung leaders in almost all departments of medicine and surgery. When the medical examining bodies published their statistical results, the Birmingham School took an honourable place, and held it. The present class of students is a numerous, enthusiastic, and well-conducted body of gentlemen, fully entitled to all that can be done for their higher education. But, unfortunately, the School is so split up into sections that it is not easy to determine who is responsible for any deficiencies that may exist, or to whom to appeal to remedy them. The General and Queen's Hospitals, forming jointly one of the richest clinical fields in the kingdom, are amalgamated for purposes of clinical instruction, their acting honorary officers constituting a clinical board, which appropriates the whole of the clinical fees for its members, and is virtually autocratic. The lectures on botany, chemistry, physics and physiology are given at the Mason's Science College. This is a new institution of very high promise, just now presided over by a distinguished physician, who has munificently presented it with a library of twelve thousand volumes, but not otherwise under the influence of the medical profession. At the Queen's College, which is the parent medical school, the other lectures are given; and there the professors are practically the governing body. It has been their custom, for some years, to reconcile rival claims by appointing two professors to several of the chairs; while some subjects, notably pathology and a few of the leading specialties, appear to have received scant attention. It can scarcely be doubted, that if the Councils of the Queen's and Mason's Colleges and the Clinical Board of the amalgamated hospitals, recognising the solidarity of their own and the students' interests, appointed a representative committee of inquiry, the first step would be taken towards solving the existing difficulties. The authorities of the town and the governors of its hospitals, the medical practitioners and students, have obviously a strong and common interest in the honour and prosperity of the Birmingham Medical School. The materials for organising it are at their doors. Vested and personal interests may fairly claim equitable consideration; but, if they block the way, they will have to yield to the common and major good.

WE yield to none in sympathy with our brethren of the Poor-law medical service, or in desire to assert their right to a measure of justice which has for many years past been denied to them. At the same time it is necessary to be strictly accurate and politic in the statement of their grievances. We sometimes fear that the avowed champions of their cause are not so careful in these respects as it were well they should be. For example, in reference to the burning question of medical relief and disqualification, which has just now been fanned into a flame by factitious processes, it is abundantly evident that there is much to be said on both sides of an issue hastily raised, and made by *ad captandum*

processes of reasoning to appear in a light wholly unnatural to it. The facts are simply these. All are agreed that medical officers appointed for the relief of the poor ought not to be expected to attend persons who are not absolutely indigent. It is a scandal that the most over-worked and worst-paid class of public officials should be taxed in time and strength for the convenience of men who, with their wives and families, are able to earn a fair wage; and it is only just that those who take advantage of the public rates by availing themselves of the services of the Poor-law medical officer should in virtue of a recourse to such relief be deemed to be pauperised, and consequently lose their citizen privilege of the franchise. If some such check as this were not imposed on the unthrifty classes, there would be an indiscriminate abuse of the gratuitous medical advice and assistance provided at the public expense. There can be no sort of question on the score of right and expediency thus far. The point at which difficulty arises is that at which it becomes necessary to define "medical relief" in such a way that, while abuses are prevented, no obstruction shall be thrown in the way of prompt assistance in all cases of severe illness, particularly of the class which it is especially important to the community at large to stamp out. We must not encourage concealment of disease or delay in seeking assistance on the score of a wish to retain electoral privileges. It ought not to be forgotten that the extension of the household franchise to the counties involves the inclusion of an immense class of agricultural labourers in the number of those who vote. These persons are barely able to keep body and soul together on the pittance they earn. Unless an entirely new and well organised system of provident societies can be established, there is not the slightest chance of the majority of these electors avoiding the parish doctor. They form the bulk of his poor patients now; they must do so in the future. If their number can be reduced by the fear of losing the privilege about to be conferred on them, we shall be heartily glad; but it must be distinctly understood that the question is not one of keeping a new *class* away from the doors of the medical officer, but of getting rid of some at least of his present *clientèle*. There will be no increase of the heavy burden of work that presses on the district medical officer; the only question is whether by any manœuvre his toil can be lessened. This seems to be forgotten or put out of sight by too many of the disputants in this controversy. Moreover, as the Poor-law authority is the sanitary authority in many rural districts, unless the hospitals for infectious diseases are put on a separate footing, the labourer will be disfranchised for allowing his child to be isolated. This must be avoided. The shortest way out of the difficulty would probably be to pass a short Act of Parliament defining "medical relief" on a fair and equitable basis. With this arrangement everybody would be satisfied, and both the public and the profession would be content.

THE death is announced of Dr. W. L. Crowther, of Hobart. He became a Member of the Royal College of Surgeons of England in 1841, and was elected a Fellow in 1874. He was one of the few recipients of the Gold Medal of the College, given for special services to the Museum. For many years he was Surgeon to the Hobart Hospital, but has lately devoted himself chiefly to politics. He was sixty-eight years of age, and the cause of death was peritonitis, from which he had been suffering for about a fortnight.

Annotations.

"Ne quid nimis."

THE GORDON MEMORIAL.

THE scheme originally proposed by Sir E. Inglefield, and provisionally accepted by H.R.H. the Prince of Wales and the members of the Gordon Memorial Committee, to found and endow a hospital at Port Said, with the object of perpetuating the memory of the "dauntless Christian hero of Khartoum," has been given up in consequence of the unfavourable reports which have been received concerning it. Two Royal Engineer officers and an officer of the medical staff reported that the site proposed for the hospital at Port Said was in every respect unsuitable, and that its sanitary conditions were as bad as could possibly be imagined. The Committee, after a careful consideration of these reports, resolved that the proposal to erect a great hospital at Port Said as a national memorial to General Gordon must be abandoned. They do not appear to have been prepared to recommend anything else instead of their abandoned scheme but, on the motion of Cardinal Manning, seconded by Lord Napier of Magdala, it was resolved: "That the members of this Committee be invited to submit in writing any suggestions they may desire to make for the appropriation of the fund for the consideration of the subcommittee, together with the applications and suggestions already in the hands of the secretary, and that the subcommittee be requested to bring up their recommendations on the subject to this committee at their next meeting." The task thus devolved on the subcommittee is an important but difficult one, for we have no doubt they will have plenty of suggestions, possible and impossible. One advantage of the delay will be that time will be afforded to ascertain how far any scheme which may appear advisable to them is likely to be capable of practical application. Of the many proposals which have already been made, and will doubtless be brought before the subcommittee, there is none which strikes us as more in accordance with Gordon's character than that of an institution for the redemption of some of our waifs and strays by affording them a chance of being trained to means of earning an honest livelihood. The success which has attended some of those institutions which already exist for the homeless and destitute is certainly encouraging, but they are far too few in comparison with the numbers for whom they are required. The interest which Gordon took in this class may be accepted as an indication of the work which he would have been anxious to promote and which therefore would form an appropriate memorial of him. Some steps have been already taken in this direction, independently of the committee, with a view to establish what it is proposed to call the Gordon Boys' Camp. The amount at the disposal of the committee appears to be only about £17,000, but if some such scheme were taken up by the Prince of Wales and the committee of the fund, and were brought before the public in a practical and business-like manner, we have no doubt that money would be forthcoming to carry it out in a manner in every way worthy of the great and good man whose name it is proposed in this manner to perpetuate.

DEATHS FROM CHLOROFORM.

AN inquest was held at Guy's Hospital on May 27th, on the body of a man, aged twenty-four, who died from the effects of chloroform, which was being administered for the purpose of aiding in the reduction of a dislocated humerus. The post-mortem examination revealed nothing more than "slight disease of the large vessels of the heart." In fact, the medical evidence was to the effect that there was no organic disease sufficient to account for death. There seems

no reason to doubt that the deceased succumbed to the toxic action of chloroform, promoted, it may be, by a certain amount of shock incidental to the operation. On the 31st ult. Dr. Danford Thomas conducted an inquiry into the circumstances connected with the death of Rebecca Townsend, aged fifty-three, which happened at the Middlesex Hospital whilst the deceased was being anæsthetised, with a view to abdominal section. The heart was examined previously, and found to be "quite sound," but the autopsy revealed "enlargement of the heart and liver, and disease of the other organs." Such cases illustrate well the dangers to be apprehended from chloroform narcosis. In the former of the two it may be said, however, that there was nothing to lead to the supposition that the danger would not in all probability be escaped, for the patient was young and free from visceral complications. The latter case was instructive, inasmuch as it showed that, in spite of careful examination immediately before the induction of anæsthesia, grave structural alteration of the cardiac tissue may pass undetected. It may be fairly assumed that when a patient has reached the age of fifty years the integrity of the vascular system is more or less undermined, and experience teaches that the extent of the lesion may be out of all proportion to the physical signs. Age, then, is always an important factor in estimating the propriety of chloroformisation. The rule generally laid down is that if the operation is severe and likely to be followed by dangerous shock, it is proper to give an anæsthetic if the operation is justifiable. The latter question fortunately does not come within the province of a coroner's jury, who could never be allowed to discuss and adjudicate upon a purely technical matter. For that reason it behoves every surgeon to weigh carefully the evidence in favour of and against the patient being anæsthetised, and also to select the anæsthetic least dangerous to life, which is sufficient for the purpose of his operative procedure. It is a noteworthy fact that death from chloroform has occurred with somewhat unusual frequency when the drug has been inhaled prior to the reduction of a dislocation. There being as a rule no external wound complicating this accident, one is apt to under-estimate the amount of shock produced by the violence, which must really be considerable, and continued so long as the dislocated bone keeps the trunk nerves on the stretch. Again, there is always an uncertain quantity in the "personal equation," which experience alone can give a clue to; and unfortunately this is not always available. In the former case, related above, there is sufficient evidence to show that the "personal equation" was highly developed; or, in other words, that the deceased was peculiarly susceptible to the action of the poison on the cardiac nervo-muscular dynamism.

VACCINATION AND SMALL-POX.

IT is not a little remarkable that while anti-vaccinationists are constantly accusing the supporters of vaccination of disingenuousness in dealing with vaccination statistics, it is scarcely possible to find any contribution from the opponents of vaccination that is not obviously open to similar charges. Fallacious statements are made in the interest of anti-vaccination which, even if met by the most unanswerable rejoinders, are never withdrawn or even modified. Mr. Charles H. Hopwood, Q.C., who is at any rate a consistent opponent of vaccination, recently published a letter in the *Standard* which contained, among other assertions, the following paragraph:—"May I add that the figures from the Registrar-General's returns show that, taking all ages above two years, the death-rate of the vaccinated is 13·76, and of the unvaccinated 13·15?" Here is a statement made by an M.P., on the asserted authority of the Registrar-General's returns, showing that the mortality of the unvaccinated from small-pox is rather less than that of the vaccinated! This statement, with its authority, will doubtless be printed and disseminated widely by the agents of the Anti-vaccination Society. It is needless in these columns to dwell upon the fact that such a statement is not only false in substance, but that it has no shadow of support in any returns of the Registrar-General, which tell a very different tale. A correspondent in the *Standard* has since pointed out that the Registrar-General's returns show that the mortality among the unvaccinated in England and Wales from small-pox is twenty-nine times greater than that among the vaccinated. Another correspondent points out that the statement quoted by Mr. Hopwood, and said to be based upon the Registrar-General's returns, was taken from the translation of a passage from a German report, purporting to be based upon the experiences derived from a population of 60,000 officials and workmen employed on the Imperial Austrian State Railways. The translation from the German was by Mr. Hume-Rothery, the late President of the Anti-vaccination Society. Mr. Hopwood, it is true, has since acknowledged his error in giving the Registrar-General's returns as his authority for the statement that the mortality from small-pox is greater among the unvaccinated than among the vaccinated. He does not, however, even allude to the fact that the returns of the Registrar-General give results diametrically at variance with those quoted by him on the authority (as he says, preferred by him) of an unofficial German report containing the observations of one observer, who purports to have discovered that vaccinated persons suffer more severely than the unvaccinated, and revaccinated persons more than the vaccinated. The Registrar-General's figures, on the other hand, are based upon the combined observations of more than twenty thousand observers, and are thus comparatively free from the defect of possible individual partiality. Mr. Hopwood's claim of silent admission of other statements in his letter, many of which are mere assertions, is not worth discussing.

PHYSIOLOGY OF LACTIC ACID, CREATINE, UREA AND GLUCOSE.

IDIOPATHIC diseases probably owe their obscure nature largely to our want of knowledge of the intimate chemistry of the body. A complete knowledge of physiological chemistry would imply a perfect understanding of life in so far as we are capable of understanding anything. Hence the importance of all studies tending to elucidate this subject. In a pamphlet on the origin and formation of lactic acid, creatine, urea, and glucose in muscular tissue, Dr. Latham has attempted in an ingenious manner to throw some light on processes of metabolism. He attempts to show that albumen is a compound of cyan-alcohols united to a benzine nucleus—the cyan-alcohols are supposed by him to be derived from the various aldehydes, glycols, and ketones; that lactic acid may be obtained in two ways, either from $C_2H_4\begin{cases}OH\\ON\end{cases}$ or from changes and condensation in $CH_2\begin{cases}OH\\CN\end{cases}$ from which latter molecule creatine and creatinine may also be derived; that urea may be obtained from one series of cyan-alcohols with the production of a cyan-alcohol higher in the series. We have not the space to follow Dr. Latham through the various formulæ by which he is led to the above conclusions. Whilst we feel strongly that his attempts are deserving of careful consideration, they can, however, only be regarded as tentative. A few years ago Dr. Latham showed how, by a combination of cyan-alcohols, bodies might be obtained having the same composition as that given by Schutzenberger for albumen. The chief objection to the formula which he then suggested was "that it con-

sists of a large number of molecules in *molecular*, as distinguished from *atomic*, combination; and, on the whole, organic molecules seem to have extremely little tendency to enter into this kind of combination." Dr. Latham now submits a formula which, by combining the cyan-alcohols with a benzine nucleus, gives rise to a body having the same composition as albumen.

THE GRESHAM COLLEGE: AN ARREST OF DEVELOPMENT.

A LETTER published in a daily contemporary on the Gresham Lectures has directed timely attention to a public trust, the present usefulness of which its firmest supporters will hardly venture to extol. Gresham College was designed by its enlightened founder to be an "epitome of a university in London." It is not perhaps his fault that it has remained an epitome of the barest kind. He laid the foundation of a university by forming and endowing a nucleus or nuclei of instruction in each of the recognised departments of learning, and he left it to posterity to develop the structure. Had the bequest been made in our own time, it would probably have shared in the general advance in organisation which has aided the efforts of other teaching bodies. As events have proved, the Gresham lectureships, locked up and isolated by restrictions, and devoid of scholastic method, have been of little service either in training pupils or encouraging research. Like mummy wheat, they contain the germs of successful growth, but they have not sprung up for want of the needed contact with soil and moisture. Of late years various plans have been suggested by which their dormant life might be awakened to activity. Mr. Goschen's suggestion, that their endowments should be transferred to the University Extension Society, is one of these. Metropolitan teaching bodies have in their turn been proposed as the natural heirs of the same property. Should any one of these amendments be carried out, it is evident that alterations will have to be made in executing the expressed intentions of the founder. No injurious change need, we think, be introduced; and the original idea would be consistently maintained if the "epitome" of Sir Thomas Gresham could be developed into an efficient teaching university for the whole of London. The gratis attendance provided for by the terms of the bequest might be modified, in the case of the lectures specially mentioned in it, by the imposition of a nominal fee sufficient to ensure that only *bonâ-fide* students should attend them. The methods of instruction could be assimilated to those of other universities. Understanding the public spirit of our time and country and the zeal for education of the merchant companies, we do not despair that they will find means of moulding to full shape and use the too long embryonic form of this large and wise intention.

BELLADONNA POISONING.

ON Friday, May 29th, six boys, aged from six to nine years, were taken to St. Thomas's Hospital suffering from symptoms of poisoning by belladonna. Between 12 and 1 o'clock they were playing together with others, when a boy about fourteen accosted them and asked if they would like some "Spanish"; on their replying in the affirmative, he gave them some black fluid out of a bottle. All those who took any of it became ill, and when seen by Mr. Robinson' the house-physician, two hours later, presented very similar symptoms. Two were able to return home, their symptoms being of slight character; but four were admitted. One aged nine, who suffered most, presented a flushed excited appearance, his eyes being bright and pupils widely dilated; he refused to take anything; there appeared to be some loss of power in the legs; he had attacks of rigidity of the limbs, between which he tossed about. In the evening he complained of dry throat, double vision, had hallucinations, and frequent micturition. He was delirious up to 4 o'clock the next morning, when there was still dryness of the throat, dilatation of the pupils, and an erythematous rash on the arms and legs. He gradually recovered, without intestinal symptoms. Each boy was given an emetic of sulphate of zinc, after the action of which the stomach was washed out with warm water. A quarter of a grain of morphia was injected subcutaneously, and the sleepy condition induced was counteracted by forced exercise. In the two most severe cases coffee was given per rectum. It was not possible to ascertain the exact character of the fluid taken, but a piece of broken bottle was found which was stated to have been part of that from which the fluid had been given, and to this some sticky sweet-smelling material was adhering. It was not, however, taken to the hospital for examination. The boy who "treated" the others was not again seen, and there was no clue as to the possession of the poison; but from the frequency with which belladonna is prescribed for inflammatory conditions in our out-patient departments, it is not improbable that it was obtained from one of the large hospitals.

SMALL-POX AT THE EAST-END.

AT the meeting of the West Ham Board of Guardians on the 28th ult., the report by Dr. Moir, medical officer of the Small-pox Hospital, on the second series of 1000 cases of small-pox treated in the Board's Hospital at Plaistow was read. His previous report was made in February, 1882. The epidemic had been more severe and protracted than that of 1881, but the house-to-house visitation instituted by the guardians had already been of the greatest service in increasing the number of vaccinations and revaccinations, and would, in his opinion, prevent the spread of the disease in the future to such an alarming extent as it had assumed in the past through the neglect of those simple and efficient precautions. In all the 2112 cases treated in the hospital, no death from small-pox had occurred after revaccination. At the same meeting, Dr. Kennedy submitted a report on the house-to-house visitation which had been carried on under his supervision in the parishes of West Ham, East Ham, and Little Ilford. The visitation extended from March 30th until May 14th, and during that time 25,267 houses were visited, and the statistics of 142,220 persons were obtained. Of the above persons, 140,186 were found to have been vaccinated, or 98·6 per cent. of the whole; 25,102, or 17·6 per cent., were found to have been revaccinated; 2034, or 1·4 per cent., were found to be unvaccinated. Out of 140,186 who had been vaccinated, 6232, or 4·4 per cent., had had small-pox at some time during their lifetime: and out of 25,102 who had been revaccinated, only 25, or ·09 per cent., had had small-pox at some time during their lifetime.

GASTRIC DILATATION.

A CASE of excessive dilatation of the stomach is mentioned in the *Vrach*, which occurred in the clinic of Professor Koshlakov of St. Petersburg. The patient was a peasant aged forty, and had been ill for three years. It was found that six litres of water could be introduced into the stomach without occasioning the man any inconvenience. The same journal records the case, by L. Scheffer, of a peasant, aged forty-nine, with intestinal obstruction, who, after the stomach had been twice washed out, passed a stool containing ascarides. Two grains of santonin were then given, with jalap, and about twenty round worms, which had been the cause of the obstruction, were passed.

OBLITERATION OF ONE LUNG, WITH DISPLACEMENT OF THE HEART.

AT the closing meeting of the Islington Medical Society, on the 26th ult., Dr. Glover gave the particulars and showed the specimens of two very striking lesions in the case of a man aged sixty-three, whom he had known for several years as a dispensary patient and otherwise. The most noticeable peculiarity was the complete displacement of the heart. It occupied the right side, and beat between the fourth and fifth ribs. This fact had been observed thirty-five years ago by Mr. Jackson, one of the oldest members of the Society, and the patient had been examined by many physicians, amongst others by Dr. Austin Flint, who came to the conclusion that there was no transposition of organs a conclusion verified by the post-mortem. But the autopsy revealed another lesion, which was as remarkable as the malposition of the heart. This was the almost complete absence of the right lung. It had to be long sought for ere it could be found, and was then discovered as a very hard shrivelled substance, in shape something like a sausage. On being cut into, it was found to consist almost entirely of thickened pleura, the pleura being at points half an inch thick. The lung substance was nearly destroyed, not with intersecting bands of fibrous tissue, but by this envelope of thick pleura. The left lung was correspondingly large. No history of pleurisy could be traced in the patient's life, and no history of consumption in that of his family. He had always been weak and slight. His mother always had noticed "a beating on the wrong side." He used to have severe bleedings at the nose. His chief troubles had been cough and rheumatism. He died in the Islington workhouse of broncho-pneumonia. It is common to say that a person has lost a lung, but here the statement was a literal expression of the fact, though the patient contrived to live without it, and with his heart on the wrong side, for sixty-three years.

DEATH CERTIFICATES.

MR. J. C. MALCOLM, Borough Coroner of Chapel Allerton, during the holding of an inquest recently, is reported to have delivered himself as follows: "It was not an uncommon thing in Leeds for some medical men to certify that deaths had arisen from natural causes where they had actually resulted from violence or accident." This may or may not be the case; but before we can join the coroner in his sweeping denunciation, we should like to know whether he believes that the certificates of the Leeds doctors are given with the knowledge that they are false, or even carelessly, without their taking the trouble to ascertain the truth of the facts "certified." The whole question turns on this. We yield to no one in advocating the advisability and insisting on the necessity of all death certificates being rendered in unambiguous language and with the strictest accuracy. Nothing is more detrimental to the cause of pathology and scientific medicine than that the proximate causes of death should be treated lightly, as though they were of no practical use.

THE TUBERCLE BACILLUS.

DR. FÜTTERER gives the result of some examinations he has made of tuberculous organs with respect to the distribution of bacilli in them (Virchow's *Archiv*, Bd. 100, Hft. 2). In caseous broncho-pneumonia, several colonies of bacilli were met with in each of 200 specimens examined, and disposed mostly in an arborescent manner like the smallest bronchial divisions. The colonies covered areas as large as from three to five alveoli, and were most abundant where softening was in progress. In miliary tuberculosis with desquamative pneumonia, bacilli were found in thirteen out of sixty sections examined, in masses within the tubercles, and in one specimen within a thrombus in an artery. In miliary tubercle of the liver, they occurred around vessels, but not within them. In tubercle of the kidney, bacilli were found around and within bloodvessels, in a glomerulus, and once within fibrinous exudation in a convoluted tube. In no instance did he see bacilli within giant cells. He believes that the bacillus stains variously according to its stage of development, which may account for its being overlooked occasionally. Its preponderance in softening masses indicates that it is the cause of the softening process, which he compares with putrefaction, and this also explains the abundance of bacilli to be detected in the sputum.

THE PARKES MUSEUM.

THE Council of the Museum have determined to hold during the summer months, when lectures are impracticable and unattractive, a series of annual exhibitions devoted to some limited subject having reference to hygiene. The first of these exhibitions is to be opened on Monday next, when will be displayed a complete series of the inventions of Mr. Fletcher of Warrington, for the domestic use of gas. Many of Mr. Fletcher's inventions are well and favourably known to the public, but at the forthcoming exhibitions several novelties will be on view, and all the typical exhibits will be shown in action. The articles will include gas cooking and heating stoves, instantaneous water heaters, washing and drying machines, grillers, hot plates, ranges, confectioners' ovens, coffee roasters, workshop tools, &c.; and a professed cook, Miss Young, will be in attendance to explain the apparatus, and to give, in addition, a formal lecture daily on the art of cooking by gas. There can be no doubt that the use of gas for domestic purposes has a very great future, and with regard to much of his apparatus, Mr. Fletcher is, we believe, able to demonstrate that it is economical, expeditious, and cleanly. The Council of the Parkes Museum, in inviting an individual inventor to display his inventions in their building may seem to be taking no little responsibility upon themselves; but it must be remembered that the space at their disposal is far too limited for anything like a complete gas exhibition, and they have, we think, judged rightly in furthering as a first experiment an adequate exposition of the inventions of one gentleman of acknowledged repute, rather than the inadequate display of the apparatus of many inventors. The exhibition will remain open for three weeks.

SOUTHBOROUGH WATERWORKS.

WE are glad to learn that Southborough has at last obtained the priceless boon of a good supply of excellent drinking-water. The report of Dr. Frankland declares it to be of excellent quality for drinking, and being also very soft it is well adapted for washing. The local board of the town have had to overcome considerable difficulties, including opposition from a section of the ratepayers who dreaded the effects of costly works on the rates. Seeing, however, that Southborough, like its neighbour Tunbridge Wells, is growing more of a residential place and less of a seasonal resort year by year, it is certain that the local board have acted for the best interests in securing a pure water-supply. Owing to the nature of the geological formation, and the fact that many of the springs are ferruginous and therefore unsuitable for dietetic purposes, the quantity of water of a suitable nature in the neighbourhood is limited. The spring which the local board have secured diminished very considerably during the exceptional drought of last year, as was to be expected; but at its lowest would have supplied ten gallons a head per diem for all who are likely to use it for some few years to come, without the assistance of any stored

water. As, however, the population of Southborough has trebled almost within the space of a single generation, the question of storing the surplus of the rainy season for the wants of the dry season must soon arise. The opening ceremony was performed by Mr. Deacon, who, as lord of the manor, had granted a portion of the common on which to erect the pumping station. The day was observed as a general holiday, the tradesmen closing their shops at midday and a treat being given to the school children, while the local board and several of the gentry and tradespeople of the town met at a public luncheon.

XANTHELASMA.

THE histogeny and histology of xanthoma or xanthelasma have received fresh consideration at the hands of Dr. Karl Touton of Wiesbaden, who has published a long essay in the *Vierteljahresschrift für Dermatologie und Syphilis*. He regards xanthoma as a tumour in the narrow sense of the word. It is a sharply defined, independent new growth, composed of elements which do not normally exist in the part in which it grows—that is, the cutis vera. Xanthomata may be mixed tumours. Touton would speak of fibro-xanthoma, sarco-xanthoma, cystadeno-xanthoma, and myo-xanthoma. The cells of which the xanthoma is composed are described as having a sharply-defined membrane, with finely granular or faintly fibrillated contents and large round or oval nuclei. These characters are obscured by the presence of large globules of fat. The fatty infiltration is believed to commence as soon as the development of the cells themselves—a belief which is said to be strengthened by an observation of Cohn, to the effect that in the majority of cases the small flecks of xanthelasma have a citron-yellow colour, even when they first appear. The article to which we refer contains an excellent account of the literature of the subject.

CORONERS' INQUESTS AND MEDICAL EVIDENCE

ON May 27th an inquest was held at the Royal Hotel, Worksop, before Dr. Housley, district coroner, touching the death of a man aged sixty-four years, who died without having had recent medical assistance. The case is of interest on account of the extraordinary course taken by the coroner, who is stated to have refused to allow the medical man who was called in to see the body a fee for his evidence on the grounds that he (the coroner) "only requested the evidence of the doctor as a common witness." We earnestly hope that our informant—the *Retford News*—has misreported the actual occurrence, for we can scarcely believe that a medical coroner would take such high-handed proceedings. On the assumption that the report before us is a true one, we should like to ask Dr. Housley whether he considers it such an easy matter in all cases to say whether life has actually ceased or not. If it has not, the body is not within the jurisdiction of the coroner. When scientific men have laboured, without success, for centuries to discover an infallible sign of death which shall at all periods be within reach of the observer, surely the question requires someone other than "a common witness" to determine it.

THE BRITISH MEDICAL ASSOCIATION.

THE fifty-third annual meeting of the British Medical Association will be held at Cardiff on Tuesday, July 28th, and following three days. An address on Therapeutics will be delivered by Dr. W. Roberts, Consulting Physician to the Manchester Royal Infirmary; an address in Surgery by Mr. John Marshall, Professor of Surgery in University College; and an address in Public Medicine by Mr. T. Jones Dyke, Medical Officer of Health for Merthyr Tydvil rural and urban sanitary districts.

THE TREATMENT OF FEVER AS A SYMPTOM.

WHILE the chief object of all medical treatment is necessarily to eradicate disease by attacking its very beginnings, there are times in which the relief of a pressing symptom may constitute the first important step towards recovery. Fever is such a symptom. How often does one find that, even in the presence of an active morbid cause, the mere remission of temperature for a certain period assists the physician, by obtaining rest for his patient, by gaining time, by quieting irritability in the neighbourhood of a source of mischief, and so converting an acute into a sub-acute or chronic process. These effects appear in many diseases which are said to run an unvarying course—in typhoid fever and early tuberculosis, for example; and there are good physiological reasons why the abatement of fever in itself should materially aid and tide over other efforts of nature or of art which are designed to cut the root of unhealthy action. It becomes, therefore, a matter of interest to inquire in what way a fall of temperature can thus react upon the local processes which determine the course of fever, and that fever does depend on local causes may probably be accepted as an axiom. All its features tend to show that it is a nervous disorder which acts along the lines of the vaso-motor system, that its method is reflex, and its result a destructive metabolism, which reveals itself in general emaciation, and is most intense at the original seats of morbid irritation. The aim of antipyretic measures must therefore be to allay this nervous overwork by opposing a buffer to the repeated shocks of peripheral stimuli, and this may clearly be accomplished in more ways than one. Thus it is frequently possible, by using narcotics, to lull the excited cerebro-spinal centres generally, and so to weaken their response to provocation. By another agency the constricting influence of the vaso-motor centre may be specially and directly inhibited and the circulatory system proportionally eased, as would seem to be the case when salicylates are employed. In this case, also, the harassed nervous centres share the general rest. The heat-regulating mechanism, too, if it exist as a separate factor, may be restrained by similar means, when its disordered forces would otherwise result in riotous excess of tissue change. In any case, the reduction of fever, besides preventing general loss of power and substance by wasteful molecular action, is directly beneficial in another way. By depleting areas which border on the causal irritant or its habitat, and the intense congestion of which magnifies the force of stimulation, it must react as a sedative at the very source of disease. These observations suffice to show why antipyretics possess a real value even in such diseases as continuous fevers. Apart from the aid they render to the further resources of medical skill, and apart from their action on septic germs, they often appear, by the rest which they procure alone, to constitute the chief element in the cure of febrile disease.

COUNTY COURT MEDICAL ACTION AT BATH.

THE *Bath Herald* of May 23rd gives a full report of an action by Mr. Algernon Sudlow of Castle Combe for the recovery of a small bill for medical and surgical services to the family of Mr. Henry Taylor. The chief services were setting a collar-bone and attending the case, for which 30*s.* was charged, and eight visits to a case of diphtheria, for which the sum of £1 16*s.* 6*d.* was charged. In the latter case Mr. Sudlow was summoned at night and found the child *in extremis*. He tried to detach some membrane from the throat with a brush dipped in a lotion, when the child convulsively closed the jaws and the brush was detached from the handle. It was soon removed from the mouth, but the child was found to be dead. The objection to pay the moderate medical bill was founded on this latter incident,

which was of course to be regretted, but was in no way the fault of the medical attendant. We are sorry to see that Mr. Hooper of Ford, surgeon, gave evidence for the defence and questioned the diagnosis and treatment. He would not have used the brush because he thought the case hopeless. The judge made short work of this medical argument, and entirely vindicated the doctor's treatment and charges in what he properly called a battle between skill and death. It is always a pity when patients in an ungenerous spirit seek to evade payment of medical bills. We notice the case with satisfaction as one more instance of the usefulness of the county court in upholding the just claims of an underpaid profession.

CHOLERA IN SPAIN.

THE Spanish Government, which last week interdicted Dr. Ferrán from continuing his "cholera vaccination" pending further inquiry, has lost no time in appointing a Royal Commission for the latter purpose. The Commission commenced proceedings at Valencia on the 29th ult., and obtained evidence concerning the existence of suspicious cases of cholera in the district since the end of March, the number having greatly increased during the past fortnight. Dr. Ferrán was authorised to repeat his inoculations in places visited by the Commission; but it may be doubted if the members are sufficiently acquainted with microbiology to be competent to pronounce an authoritative opinion. Later advices state that the Commission has already reported that cholera prevails, and that the authorities are taking measures to limit the spread of the malady.

TOLERANCE OF MORPHIA IN PERITONITIS.

AT a meeting of the Cincinnati Medical Society in April Dr. Eichberg reported a case of perityphlitis and peritonitis in which during six weeks 340 grains of sulphate of morphia were given and for twelve days of this time as much as half a grain every hour or twelve grains per diem. The patient recovered. Another feature worthy of notice was that after the failure of soap-and-water enemata two ounces of castor oil mixed with four of olive oil proved effective. During the discussion of the paper Dr. Taylor said that the value of morphia in peritonitis depended on the inflammation not being of septic origin, in which class of cases it was useless. He had himself given thirteen grains in seven hours.

REMANDING LUNATICS TO WORKHOUSES.

MR. BARSTOW, the sitting magistrate at Clerkenwell, thinks he has solved the difficulty about remanding lunatics to workhouses by making a *deferred* order for the admission of a lunatic to an asylum and meanwhile ordering the lunatic to be detained in the workhouse. The question arises whether the effect of this form of order is to *compel* the master of a workhouse to admit the lunatic, or whether it simply removes the hesitation to admit because there is a guarantee that the lunatic will not remain long.

"SINGULAR MEDICAL EVIDENCE."

SUCH is the heading of the description of an inquest recently held by Sir J. Humphreys on the body of a man who succumbed to injuries received in "the fatal fight at Poplar," given by our contemporary, the *Echo*. If one or two of the facts recorded were really deposed to by the surgeon who made the post-mortem examination, we should be inclined to subscribe to the opinion that they were, to say the least, somewhat unusual. Mr. Leslie is reported to have said that about *one pint and a half* of thick fluid blood was found beneath the skull cap. His evidence we think has been either misrepresented, or he used the expression as a figure of speech. At the same time we entirely agree with Mr. Leslie that shock produced directly by a blow, and indirectly by mental excitement, must be admitted as a possible factor in causing extensive effusion of blood within the skull. But, apart from this consideration, there is strong circumstantial evidence that the meningeal hæmorrhage was of traumatic origin, for the scalp was markedly ecchymosed, and there was much sanguineous effusion between it and the bone.

THE COMING ELECTION AT THE COLLEGE OF SURGEONS.

IN addition to Mr. Savory, who offers himself for re-election, there are at present only three candidates for election to the Council of the College—Messrs. F. J. Gant, G. Cowell, and Oliver Pemberton. We understand that it is not the intention of Mr. T. Holmes to seek re-election. Applications must reach the secretary on Monday next.

PROPOSAL TO RATE HOSPITALS IN LIVERPOOL.

IT is devoutly to be hoped that the proposal to rate hospitals in Liverpool will be abandoned. How can such a proposal be justified? The medical institutions relieve the rates. By saving the health and life of breadwinners, or by receiving those cases which otherwise would have to be treated in Poor-law infirmaries, they indirectly and directly save the rates. It is alleged that sixty-four charities in Liverpool do so to the amount of £144,000. To tax them would be to discourage all the amenities of hospital charity, which would be a grievous misfortune in any town, but especially in such a town as Liverpool.

DEATH OF J. MONCRIEFF ARNOTT, F.R.S.

THE death is announced, at the age of ninety-one, of James Moncrieff Arnott, F.R.S., F.R.C.S., Surgeon Extraordinary to the Queen. The deceased gentleman occupied a seat at the General Medical Council Board from 1860 to 1865, and was for many years a member of the Council and of the Board of Examiners of the Royal College of Surgeons.

HEALTH MATTERS IN PERU.

THE authorities of Trujillo, an important city in Peru, have, we are glad to learn, been bestirring themselves to improve the sanitary condition of the locality; the refuse heaps which used to be allowed to poison the suburbs have now disappeared, and a healthy promenade is to be laid out with rich and fragrant plants on what was formerly little better than a great cesspit. A new hospital, too, is being built, and will be a marked improvement upon the old one. A complaint is made in the local medical journal that the investigation of such circumstances as the death of a woman in labour, where an irregular practitioner had violently manipulated a shoulder presentation, is extremely difficult in Peru.

HÆMOPTYSIS IN SYPHILIS.

DR. A. W. REYES, in the *Eco Cientifico*, a Cuban medical journal, mentions some cases of hæmoptysis occurring in the second stage of syphilis during treatment by the green iodide of mercury. In one case the hæmoptysis disappeared when the iodide was stopped, and recurred each time this drug was recommenced, so that Dr. Reyes suggests that in some persons the plasticity of the blood is so diminished by this preparation that either by its independent action or by its augmentation of that of the disease it produces a fatty degeneration of the capillaries of the respiratory passages so giving rise to rupture and hæmorrhage.

DEATH OF SIR WILLIAM MUIR, K.C.B.

WE regret to have to announce the death of Sir Wm. Muir, M.D.Ed., K.C.B., late Director-General of the Army Medical Department, which took place, after a long illness, on the 2nd inst.

RABBETH MEMORIAL FUND.

THE final meeting of the committee of this fund was held at King's College on June 2nd, and the treasurers were empowered to divide the balance of £800 between the Royal Free and King's College Hospitals.

IT is rumoured that his Excellency Earl Spencer will shortly appoint a commissioner to inquire into the management of the House of Industry Hospitals in Dublin.

Pharmacology and Therapeutics.

EXPERIMENTAL RESEARCHES ON ANTIPYRIN.

PROFESSOR GIUSEPPE CESARI has published the results of some important researches on antipyrin made in the laboratory of experimental pharmacology in the University of Modena. In frogs, a single dose of from three to four centigrammes injected under the skin produced in about a quarter of an hour dilatation of the pupil. Reflex irritability was at first diminished, then gradually increased; the respirations became slower and then irregular, being finally arrested. At last mydriasis appeared, together with some exaggeration of reflex irritability, persisting for several days. With doses of from five to ten centigrammes the mydriasis set in rapidly and was more complete; there were paralysis, spasmodic contractions, mostly of a tonic type in the anterior and of a clonic in the posterior extremities, exaggeration of reflex, suspension of respiration, and insensibility of the cornea; finally, death, with arrest of the heart in diastole, occurred in from two to twenty-four hours. In rabbits, as much as sixty centigrammes in one dose, or in two doses at an interval, did not occasion much disturbance to the animal; generally the antithermic action showed itself in about half an hour. Injected in doses of a gramme, in an hour the temperature was decidedly diminished, and in from one to two hours it was greatly reduced; there was muscular twitching, general tremor, wagging of the head, suspension of reflex, and slight paralysis of the limbs, especially of the anterior extremity; these phenomena disappearing one after another in six or seven hours after the injection. When two or more grammes were injected in a single dose the antithermic action was more rapid and more powerful, reducing the temperature nearly 4° C.; there was complete dilatation of the pupil and marked hyperæmia of the ear; collapse occurred quickly, and in one or two hours after the introduction of the drug the animal was seized with convulsions, increasing in severity and duration, mostly of a tonic character in the anterior and of a clonic in the posterior extremities, which convulsions were repeated with still greater intensity on the application of the interrupted galvanic current, with marked retraction of the head on the back. In these doses antipyrin generally caused death in rabbits in about five hours. In dogs, antipyrin, injected in doses of from two to three grammes, caused in an hour or rather more a copious white salivary secretion, accompanied by attempts at vomiting, and then by vomiting of alimentary substances, with more or less prostration, general trembling, especially of the posterior limbs, whining, and fits of restlessness; then dilatation of the pupil was observed, extreme and persistent with a three-gramme dose, in which case the reduction of temperature was somewhat greater than if a dose of from a few decimals to two grammes was given, between which limits the reduction varied but little. The respirations and cardiac beats gradually increased, and sometimes returned simultaneously almost to normal. In the human subject, antipyrin administered by the mouth in doses of from one to two grammes, repeated till four grammes had been taken during the space of at least three or four hours, always reduced the temperature from a few decimals to 2°. There was often produced almost immediately a sense of heat in the face, sometimes a slight moisture of the skin, and more rarely sweating. In exceptional cases it produced a kind of coryza of short duration, and vomiting. The pulse and respirations rose and fell with the temperature. The drug could be detected in the urine.

VERBASCUM.

From time immemorial verbascum has enjoyed considerable reputation as a remedy for phthisis. The Irish peasants employ by preference the leaves of the large Verbascum thapsus. They use 100 grammes of the fresh leaves or thirty of the dried in a litre of fresh goat's milk; this mixture, allowed to macerate for ten minutes, is then filtered, sweetened, and drunk warm. Two or three litres are consumed every day. Dr. Quinlan has tried this treatment for a period of two years in 127 patients. He believes that in the premonitory and "pretubercular" stage of consumption the remedy possesses curative and nutritive properties more marked than those of cod-liver oil, and nearly equal to those of koumiss. The increase of body weight is certainly due to the verbascum, since the milk alone does not yield the same results. The remedy effectually relieves cough, checks diarrhœa, and alleviates all the symptoms of consumption except the sweatings. The leaves smoked like tobacco relieve the symptoms of irritation of the respiratory passages.

MYOCTONINE.

Myoctonine and lyaconitine are the names given to two substances separated from the yellow-flowered Aconitum lycoctonum by Messrs. Dragendorff and Spon (*Pharmaceutical Journal*). Myoctonine has been physiologically investigated by Herr Salmonowitz. It is a yellowish, bitter, amorphous powder, which dissolves easily in chloroform, absolute alcohol, and benzene. It is a powerful poison, resembling curare in its action, and acts mostly energetically when introduced directly into the circulation.

WALNUT-TREE BARK.

J. C. Ugaz, writing in the *Cronica Médica* of Lima, calls attention to the vesicating property of the inner bark of the walnut-tree. He cut a square of about two inches each way, stripped off the outer bark, macerated it in vinegar for a quarter of an hour, and applied it to his arm on going to bed. He was disturbed in his sleep by the discomfort produced, but, wishing to carry out the experiment, controlled himself. After about an hour he awoke in severe pain, and tore off the bandage and piece of bark. In the morning there was no pain, but three large blisters filled with serum and covered with a blackened skin had appeared. The writer also applied the bark to the lip of a boy suffering from hypertrophic lupus, and dusted the blister with calomel. He did not see the boy for eighteen days, and when the latter returned he was completely cured. Señor Ugaz asks, "Can walnut and calomel be specifics for lupus?"

EUODIA LONGIFOLIA.

The *Pharmaceutical Journal* states that the leaves of a rutaceous plant, Euodia longifolia, a native of Fiji, have been successfully employed by native women as a preventive of miscarriage. The infusion of the leaves is used for several months previous to parturition. It is made in a most effectual manner by rubbing the leaves into a pulp with cocoa-nut milk, adding more liquid and then straining, the resulting greenish mixture forming the medicine.

PURGATIVES.

The plant Leonotis leonurus, a native of Turkey and the Cape, possesses purgative properties, and is used in the form of decoction as an emmenagogue. The leaves of Ipomœa pandurata also contain a purgative resin.

CORNUTINE AND ERGOTININE.

In a recent memoir M. Kobert announced the discovery of three new principles in ergot of rye—ergotinic acid, sphacelinic acid, and cornutine. Kobert did not state that he had prepared these three bodies in a state of chemical purity, but maintained that each had a special physiological action. M. Tanret has reinvestigated the question. According to him, cornutine is but ergotinine somewhat altered by exposure to the air. If an acidulated solution of ergotinine be exposed for a longer or shorter time to the air, it becomes more and more coloured, and acquires all the characters of cornutine. The transformation takes place more rapidly under the influence of heat. The experiments of M. Dujardin-

Beaumetz, M. Budin, and Chahbazian prove that ergotinine is a powerful medicinal agent, the administration of which may be attended by severe toxic effects.

COCAINE AS AN ANODYNE.

If a saturated solution of hydrochlorate of cocaine in strong nitric acid be applied to the skin, instead of the painful smarting of the acid alone, a slight pricking sensation is the only sensory effect produced. An eschar is formed, but takes a longer time to appear than if the nitric acid be used alone. These results have been obtained by Messrs. Randolph and Dixon (*Pharmaceutical Journal*).

AGARICIN IN THE SWEATING OF PHTHISIS.

Professor Masius of Liège, in a clinical lecture recently delivered, mentions the favourable results he had obtained by the use of agaricin in the excessive sweating of phthisis. He began with a single dose of five milligrammes, and followed this up with increased doses of ten and eleven milligrammes. In some cases the five-milligramme dose was ordered morning and evening.

THE BACILLUS OF CHOLERA.

DR. E. VAN ERMENGEN, who was despatched by the Belgian Government last year to investigate the cholera at Marseilles, has published his report,[1] with many additions and illustrations, forming a monograph of some 350 pages. We have previously had occasion to mention Dr. van Ermengen's researches, which entirely corroborated the conclusions arrived at by Dr. Koch; and the volume before us practically consists of a thorough and extensive survey of all the facts which bear upon the famous "comma bacillus," including detailed analysis and criticism of the numerous observations made by others upon the subject during the past year. The first part of the report consists of an account of the manner in which the author fulfilled his mission. His first business was to proceed to Paris, where he visited M. Pasteur's laboratory, and was shown many preparations by Dr. Roux, who had recently come from Toulon, where he had been studying cholera with M. Strauss. Their specimens exhibited the comma-shaped bacillus of Koch, but they declared that such organisms were not invariably present in the choleraic intestine and evacuations. Arrived at Marseilles on the 10th of August, Dr. van Ermengen was enabled to pursue his researches in the laboratory that had been placed at the disposal of MM. Nicati and Rietsch. He thus arrived at the conviction that the "microbe of Koch possesses specific characters, as shown on cultivation," and on his return to Belgium he proceeded to Berlin, where he completed his knowledge of the subject under the guidance of Dr. Koch. He then devoted his whole time to the task of verifying and extending his researches, the result of which is to be found in the pages of the report, which we may briefly summarise.

The morphological characters of the bacillus are fully described, and the variations in them according to the nature of the media in which the organism is cultivated and the stage of its development. The author expresses a preference for methyl-blue staining, and appends numerous photograms of the actual preparations. The microbe, in his opinion, is more allied to spirillum than to other bacteria; and he points out that it is endowed with very active motility, which is much influenced by temperature. For the movements, mostly undulatory and best seen in broth or serum cultures, are arrested by a temperature of about 16° C., whilst they are very active at the temperature of the blood. The characteristic appearances shown in the gelatine cultures are of course dwelt upon, and also the behaviour of the microbe when cultivated in other media, as agar-agar, coagulated serum, and fluid media, as broth and fluid serum. Although the appearance of these fluid cultures is not distinctive, they are useful for showing the rapidity with which the comma bacilli may develop. He also succeeded in cultivating the microbe in milk, potato, and slightly acid fruits, but found that it did not grow in wines and beers rich in alcohol, or containing a certain amount of acetic acid. The biological characters of the micro-organism are next discussed; its remarkable power of multiplication, and its vitality under favourable conditions of temperature and moisture. A limit is, however, soon placed to this fecundity by the absence of oxygen or the noxious influence of putrefactive changes. The influence of chemical agents, of especial importance in estimating the value of disinfectants, is also described. The author has not been able to ascertain that the organism produces spores, for he shows that the bodies simulating such spores are infertile and probably degenerate fragments. Nor does he think it necessary that they should possess this mode of generation in view of the conditions under which they exist; and he regards the absence of sporulation as a further mark of distinction from the class of bacilli, and of alliance with that of the spirilla. A long note at the end of the volume again discusses this point, to which greater prominence has been given by the statements of Ferran. Dr. van Ermengen has taken the pains to investigate Ferran's work, and is enabled to confirm some of his statements, which go beyond those of Koch in a demonstration of a complete developmental cycle of the comma bacillus when cultivated in a special manner. The inferences drawn by Ferran from observing the presence of globular bodies in connexion with the spiral filaments—viz., that there is evidence of spore formation and a mode of reproduction which entitles the microbe to a higher place in the class of fungi than the schizomycetes—are not admitted by van Ermengen, who cautiously says that the matter is open for further investigation. As to Ferran's alleged discovery of an attenuated virus that is capable of conferring immunity on inoculated subjects, we are told that a commission of inquiry has been appointed by the Brussels Academy of Medicine. "And if," writes van Ermengen, "these discoveries be proved to be true, then the pathogenic power of Koch's comma bacillus will henceforth rest on demonstrations which will be beyond cavil, for it will have been proved upon man himself. As to the discovery of a preservative cholera vaccine, which to some may seem too good to be true, may it one day be established with all needful experimental rigour, and shed eternal honour on the microbiologist who was the first to foresee its probability!" Returning to the body of the work, we find a discussion of the proofs upon which the cholerigenic powers of the bacillus are based, with the remark that if such proofs solely rested upon the inoculability of animals, the microbic nature of many diseases would still be doubtful. The first place in such testimony must, however, be accorded to the invariable and exclusive occurrence of the bacilli in relation to cholera. Inoculation experiments have, however, advanced the subject beyond this stage, for, setting aside Ferran's assertions as being yet unconfirmed, there has been accumulated abundant evidence of successful inoculations in guinea-pigs. Many of these are quoted by van Ermengen, who has contributed much to the question himself. He then proceeds to discuss the arguments and facts advanced against Koch's doctrine, especially those of Lewis, and of Finckler and Prior. He demonstrates what is now generally accepted, that the curved organisms described in other conditions and diseases than Asiatic cholera, by these and other observers, differ notably in their biological characters from the bacillus of Koch. In a supplementary note Emmerich's discovery of a bacterium in the blood and tissues of choleraic subjects is subjected to detailed criticism; but the observations of Drs. Klein and Gibbes are held to be sufficiently refuted on the same grounds as those on which the statements of Finckler and Prior are met.

Dr. van Ermengen in the third part of his work proceeds to show how the adoption of the comma bacillus as the cause of cholera harmonises with known facts of the disease; and he employs for this purpose a sort of running commentary upon an address of the epidemiologist, Dr. Lefebvre, before the Brussels Academy, which embodied the accepted teachings on the pathogeny of the disease. This most interesting chapter, which space will not allow us to abstract, is followed by another on the practical deductions from the adoption of Koch's teaching. First, there is the need for the institution of bacteriological laboratories and the instruction of medical officers in the methods of detection and verification of micro-organisms, on the view that Koch's discovery has

[1] Recherches sur le Microbe du Choléra Asiatique. Rapport présenté à M. le Ministre du l'Intérieur. Par le Dr. E. van Ermengen. Paris: G. Carré. Bruxelles: A. Manceaux. 1885.

furnished the means of making a certain diagnosis of the disease and of enabling the authorities to be warned of the occurrence of cholera in time to take measures for preventing its spread. Such measures would include a strict supervision of the frontier, compulsory notification of suspected cases, the formation of sanitary committees, the appointment of public disinfectors, institution of hospitals, prohibition of imports of fruits, vegetables, &c., from infected countries, and the rigorous supervision of laundries, dairies, &c. The various modes of disinfection are discussed in detail: physical agencies—as desiccation, dry and moist heat; chemical agents, including gaseous disinfectants—as bromine and chlorine, and fumigations with sulphur, &c.; fluid disinfectants, restricting the term only to those agents which within half an hour destroy all choleraic microbes under all circumstances—as corrosive sublimate and carbolic acid, sulphate of copper, chloride of lime and sulphate of iron, salicylic, boric and thymic acids, laudanum (1 per cent. kills the bacilli), and chloroform (1 in 30 or 40), alcohol (1 in 10). Observations follow confirmatory of Koch's statement as to the destructive action of putrefaction upon the comma bacilli; and the less need for vain attempts at disinfecting latrines with the view of destroying the cholera virus. The importance of disinfecting the excreta, for which a 5 per cent. solution of carbolic acid is advised, and the need for obtaining pure supplies of water and food, are insisted on. The whole argument is summed up in conclusions which we regret not to be able to reproduce in detail. Suffice it to quote the following:—

"17. The discovery of the comma bacillus is of the greatest importance for diagnosing choleriform attacks of doubtful nature which are produced at the commencement of epidemics, and for the institution of prophylactic measures, the more efficacious because such early diagnosis enables them to be undertaken in time.

"18. The application of bacterioscopic processes for the diagnosis of true cholera does not present any serious practical difficulties, and it would be extremely desirable, in view of the serious threats of an invasion of Belgium by cholera, that a sufficient number of medical men appointed to the sanitary service should be initiated therein with as brief delay as possible.

"19. The knowledge of the biological properties of the choleraic microbe, of its feeble resistance to desiccation, and of the absence of a stage of spore-formation, affords valuable facts for prophylaxis. It places a limit on the excessive use of disinfection, and puts us in possession of the simplest and surest means of combating its effects."

The monograph is furnished with several appendices, and it is further admirably illustrated. Whatever be the final outcome of the question, this work of Dr. van Ermengen's will rank as one of the most important contributions to the history of the scientific investigation of the pathogeny of cholera.

THE SANITARY CONFERENCE AT ROME.

SINCE our last notice of the proceedings of the International Sanitary Conference at Rome some substantial work has been done by the Technical Commission, which is preparing a series of resolutions for submission to the entire Conference, when this body, which includes the diplomatic representatives, meets again. After voting that quarantine measures by land were impracticable and hence useless, the Commission proceeded to discuss the question of maritime quarantine. The discussion on this point was maintained at considerable length, the actual proposition before the Commission being one by Dr. Sternberg (United States of America), to the effect that an arbitrary time quarantine for vessels arriving from infected or suspected countries was not justifiable. During the course of the discussion, which took place on Monday, May 25th, Dr. Koch (Germany) suggested that a difference should be made between ordinary passenger ships and vessels conveying either troops or emigrants in large masses. Later on, the English and Indian delegates, who were evidently in sympathy with the proposition of Dr. Sternberg, were requested to explain the system which in England had superseded quarantine; and the system of medical inspection coupled with the immediate isolation of the sick was then fully set out by Dr. Thorne Thorne (Great Britain), who contended that his country was the only one that had loyally carried out the full intentions of the Vienna Conference of 1874 in this respect. Sir Joseph Fayrer (India) maintained that there was no proof that a vessel sailing from India had ever conveyed cholera into any European country. Dr. Rochard (France) held a different opinion, but on being asked by the Indian delegates to name the circumstances justifying this view, no answer was apparently forthcoming. Several delegates, such as the Brazilian, felt that the subject required further elucidation and study.

At the sitting of Wednesday, May 27th, Dr. Proust (France), with a view of defining more precisely the points to be debated, submitted a scheme dealing first with the measures of prevention at the ports of departure, then with the sea passage, and lastly with the ports of arrival. This being unanimously accepted as the basis of discussion, Dr. Sternberg (United States) proposed that in all ports medical officers appointed by the consuls should have power to inquire into the sanitary state of the port and shipping. Owing to the abstentions this was lost. Dr. da Silva di Amado (Portugal) proposed that, since the consuls had to endorse the documents relating to the freedom from disease in ports, they ought to be allowed to take part in the inspection of the sanitary state of vessels leaving for the ports of countries they severally represented. The abstentions were again numerous, but a small majority carried the proposition. Dr. Proust's proposals were next considered. The first related to measures of sanitation to be adopted at ports of departure whenever cholera was prevalent. The lading of vessels was only to be effected after cleansing, and, if need be, disinfection of the holds, &c.; and the medical officer of the ship, who in the case of all infected ports was to be approved and maintained by the Government, was, together with the captain, to certify as to the proper sanitary state of the vessel. Passengers were always to be examined before embarking, and all sick of cholera or suspected persons were to be refused. Luggage, linen, &c., was to be carefully looked after, and, if need be, disinfected, the clothing of persons having suffered from cholera being always disinfected. Any case of cholera occurring on board during the stay in the port was to be immediately removed to hospital, cleansing and disinfection of the ship, &c., to follow.

On Friday, the 29th, a number of resolutions were passed with reference to the action to be taken as to suspected ships during the sea passage. They related mainly to measures of cleanliness, disinfection, and ventilation, and received an all but unanimous assent. These resolutions were followed by others relating to ships actually suffering from cholera during the passage, and they were in the main such as have long been adopted in this country.

At the sitting on Saturday, the 30th, a series of proposals, formulated by a subcommittee with reference to the passage of vessels from the East to the Mediterranean by the Red Sea and the Suez Canal, were submitted for discussion. They were taken *seriatim*. The first related to a compulsory medical inspection at Suez by an officer to be appointed by some International Commission, and who would have authority to decide if the vessel was to be regarded as "suspect" or not. If not, it would at once pass the canal freely. The British and Indian delegates opposed this. Sir Joseph Fayrer explained that he and his colleagues were in no way opposed to inspection for the mere purpose of ascertaining the state of health on board; but he refused to allow that any locally appointed medical officer should supersede a British medical officer in deciding whether anyone on board an English ship was suspected of having some choleraic affection or not. Sir G. Hunter demanded that British ships should, under all circumstances, have free passage through the Suez Canal, provided they did not touch the shore. This was refused. Dr. Thorne maintained that the proposal of the subcommittee was not one of inspection only, but that it was the first step towards the imposition of quarantine, which England had opposed, and which had been proved to be useless. The proposal was, however, carried by a large majority of delegates. Later on it was proposed that if the visiting medical officer suspected any case of cholera on board any ship, all passengers and crew should be landed, and that the ship should be detained for five days to see if any further cases occurred. Dr. Lewis at some length contended that the danger did not lie in shipping, and that although cholera always prevailed in India, a country with which Australia was in constant communication, yet that the disease had never been conveyed to Australia. Other delegates demanded a much longer

period than five days, the Spanish delegate insisting on at least ten days after the last case had occurred amongst those landed. Sir Joseph Fayrer once more offered all information at Suez, so that local officials could report to their respective Governments, and Dr. Thorne maintained that if vast masses of passengers and crews were landed in the horrible lazarets of the Red Sea shore, disease would not be stayed, but spread; also that we had no right to deposit in the midst of Egyptian populations that which we feared to receive on our own shores. The Conference had, however, decided in favour of the quarantine system, and the detention of all passengers with suspected cases on board was carried by a large majority. Some abstained from voting.

Several subcommittees are at work daily, as well as the Technical Commission. The subcommittees are dealing with disinfectants, regulations as to small vessels, pilgrimages, &c.

On Wednesday, the 27th, his Majesty the King of Italy gave a State banquet to the members of the Conference. Before the banquet the presentations were made, and the king then conversed for some time with each of his guests. The diplomatic corps and the officers of the king's household attended the dinner.

POOR-LAW MANAGEMENT IN ST. PANCRAS.

MR. T. ECCLESTON GIBB, who has just resigned the office of clerk to the guardians of St. Pancras, has issued an interesting statement on Poor-law management in that parish during the last five years. In this period much effort has been made to prevent out-door relief becoming the means of pauperising those who are in necessitous circumstances. In the form of medical out-door relief State aid presents the first opportunity for the poor to become dependent; it is, as Mr. Gibb says, the first downward step in the career of pauperism, and the need for intelligent relieving officers is therefore urgent. During the last five years the amount expended upon out-door relief has been gradually reduced by more than one-third. This reduction has been brought about by a rearrangement of the duties of relieving officers, giving better opportunity for a more thorough investigation into the condition of those applying for assistance, by a recognition of the principle that destitution and not simply poverty is the only claim to relief that the law recognises, and further, by offering to applicants admission into the workhouse, instead of granting a dole which is in practice insufficient for their maintenance. The effect has naturally been to increase the expense of in-door relief, but Mr. Gibb tells us that scarcely one-fifth of the applicants for relief who were offered an order for the workhouse accepted it, the remainder, with few exceptions, having gone on without any relief at all. The extra cost has not therefore been excessive, and in its effect upon the parish has been distinctly beneficial, for while the cost of out-door relief falls upon the parish, that of in-door relief is partially chargeable to the common poor fund. The same principle has been adopted in the case of widows with children; it has often been found sufficient to remove one or two of the children to the schools at Leave-den to enable the mother to maintain the rest of her family; and this is obviously a far better course than the administration of out-door relief, which would educate all the children in the knowledge that they could always rely upon the same agency for assistance whenever it was required. Here, again, the operation of the common poor fund is beneficial in encouraging the guardians to maintain children in suitable schools, for while the cost of maintenance under these circumstances, together with a share in the salaries and other expenses, is chargeable upon the common fund, every child maintained in the workhouse deprives the guardians not only of fivepence per day in respect of each child, but also the amount which might have been recovered had the place of the child in the workhouse been occupied by an adult.

After referring to the savings thus effected, Mr. Gibb points out how they have been lost by an increase of expenditure over which the guardians have no control; thus, the sum paid to the Metropolitan Asylums Board has during the last four years been at the rate of more than £10,000 a year more than in the previous four years; and the whole of this has arisen through that Board receiving into its hospitals for infectious disease persons who were not paupers. Again, the care of lunatics has during the latter period entailed an increased cost of over £2000 a year.

Mr. Gibb leaves his readers to draw their own conclusions from his story. Upon the judicious administration of poor relief depends whether the assistance given to necessitous persons shall be beneficial or responsible for considerable harm. It is within the power of the ratepayers to elect representatives who will properly appreciate their duties in this respect, or, as often in past times, to leave the control of poor relief in the hands of those who will receive in payment of rent the sums which have been given to the poor.

IRISH MEDICAL ASSOCIATION.

THE annual meeting of this Association was held on the 1st inst., the chair being occupied by the President, Dr. Hemphill. The Council in their report referred to the Medical Act Amendment Bill, and to a revision of the law relating to superannuation of Poor-law medical officers, neither of which do they expect will come before Parliament this session. The question as to whether medical officers of health are entitled to special remuneration for inspecting labourers' dwellings and reporting on their condition has, after a prolonged struggle and considerable expense, been finally settled in a satisfactory manner by the Court of Appeal. The report also referred to several cases in which prison surgeons were summoned from country districts to give evidence before the Prisons Commission in Dublin, and were compelled to pay the substitutes appointed to discharge their duties during their absence, and this though in one instance the judge of assizes ruled that the authorities, and not the surgeon were liable. The report was adopted, also the following resolutions:—

"That the council be instructed afresh to continue to urge the Government to adopt the amendments of the Medical Act Amendment Bill approved of by this Association, including one securing uniformity of final examination fee, and that, in the event of such amendments as seem to them necessary not being introduced into the future Bill, the support of this Association shall not be given to that measure. That this Association, having observed with great regret that, in consequence of the persistently continued opposition given to it by certain members for Irish constituencies, the Union Officers' Superannuation Bill has not been pressed upon the attention of Parliament, again asserts its opinion that the Poor-law medical officer is entitled, in equity, to receive a pension, as a matter of right, whenever he shall be incapacitated from the discharge of his duty. This Association therefore earnestly urges the Government to exercise its influence to pass a measure so generally approved and admittedly so just in its principle; and furthermore desires that the council will continue to use its best endeavours to have such a measure promoted on every opportune occasion. That this Association desires to express its great gratification at the success of the measures taken by the council in establishing in the law courts the right of medical officers of health to payment for their services under the Labourers (Ireland) Act, as well as in vindicating many other principles important to the profession in Ireland."

The members and several guests dined together in the Albert Hall of the Royal College of Surgeons in Ireland, presided over by the President for the ensuing year, Dr. Edward Hamilton.

CHOLERA IN JAPAN.

THE report of the director of the Central Sanitary Bureau of Japan upon the epidemic of cholera which occurred in that country in 1879 has just been published. It contains a short history of the disease in Japan in that year, an account of the operations then carried out by the Home Department in connexion therewith, and the imperial decrees and Government notifications bearing on the same subject. The disease first showed itself on March 14th, and the last case occurred on December 27th; the first appearance of cholera in Japan having been in 1877. The total number of persons attacked was 162,637; the deaths

amounted to 105,786. The original returns from each of the prefectures are so diffuse that their compilation would form a bulky volume, consequently only certain items have been selected from them and published in this report. All the original returns, however, are kept in the Sanitary Bureau for reference. The decrees published by the Government with the view of checking the spread of the disorder contain precise directions as to the immediate notification of the existence of a case of cholera to the local authorities of the place in which it has occurred, rules as to quarantine, the removal and disposal of the dead, and the disinfection of all polluted articles, for which latter purpose the inspecting officers in a locality infected with cholera were directed at any time to furnish to an applicant any of the various kinds of disinfectants at a certain fixed price; the poor, however, were to be supplied gratuitously. At the close of the epidemic rewards were granted to the officials who had had the management of affairs connected with the precautionary measures, and compensation to those who had been attacked by the disease, and the expenses incurred in the burial of officials who had been carried off by it were refunded to their families. The reason for the adoption of these rules was that it had been found that a large number of such officials had either died of the disease or had undergone great sufferings from it. Substantial recognition of their services was also awarded to all medical men who had been attacked with cholera while devoting themselves to their duties of attending upon and treating patients suffering from the disease.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Bedford Union Rural Sanitary Authority.—The annual report states that the estimated population of this district is 23,670, and the death-rate for 1884 is a fraction over 16 per 1000, the deaths of children under one year being as low as 18 per cent. of the total deaths; the birth-rate was 31 per 1000. Under the heading of diseases of the year, Dr. Prior gives a brief account of the mortality from the principal zymotic diseases. Small-pox and measles have been comparatively absent; scarlet fever has prevailed in several parishes, but only two deaths have been registered from this cause; diphtheria caused fifteen deaths, Dr. Prior stating that some of these might have been prevented had parents been willing to allow their children to be moved to hospital. Four outbreaks of enteric fever occurred during the year; in each case it is believed that the disease arose as the result of impure drinking water. The report of the sanitary condition of the district is somewhat meagre.

Northampton.—The death-rate of this borough in 1884 was 17·8 per 1000 calculated upon an estimated population of 55,930; the birth-rate was 34·36 per 1000. Diarrhœa caused an increased death-rate among children under one year of age, the proportion of deaths at this period of life to deaths at all ages being 35·8 to the 100. Small-pox caused no death, but one case was imported from Homerton, giving rise to two others. With the exception of diarrhœa, already mentioned, the deaths from zymotic diseases were few, typhoid fever and diphtheria, however, prevailed somewhat more extensively than in previous years. Reference is made to the failure of the water-supply to the town during the summer months; for days together in some parts the inhabitants could not procure any water at all; the control of the town water-supply having passed into the hands of the Corporation, Dr. Cogan urges upon the Council the necessity for making further provision. The sewers in several streets have been reconstructed, evidently not before this was required. Improvements and alterations have been made in a number of houses, and in many others the drains have been connected with the sewers. Dr. Cogan calls attention to the need for controlling the drainage in newly built houses on account of the frequent nuisances therein arising from drainage defects, and he recommends the Council to adopt building regulations similar to those published by the Local Government Board. During the year a considerable number of nuisances have been abated, relating chiefly to defective drains, dirty houses, and the improper keeping of animals. Various kinds of diseased meat were destroyed as being unfit for human food, and two persons were convicted for exposing for sale meat in this condition.

Hexham (Rural).—The Hexham Union comprises a population of 34,086, of which all but 5919 inhabitants of the town of Hexham are under the jurisdiction of the rural sanitary authority. In consequence of the appearance of cholera in Europe, attention has been given in this district to the water-supplies, and during the summer in some villages work was carried out with the object of increasing the amount. Small-pox and typhus fever were almost absent, only one case of each being reported during the year. Enteric fever, scarlet fever, and diphtheria were, however, more prevalent, although not appearing in epidemic form. The death-rate during the year was 16·1 per 1000, deaths from diseases of the zymotic class being 8·4 per cent. of the total deaths and 1·3 per 1000 of population; the deaths of children under one year of age being 20·4 per cent. of total deaths.

Llanelly (Rural).—Dr. Thomas gives a brief account of the procedure adopted in this district for dealing with infectious diseases, and regrets the absence of any hospital in which cases can be satisfactorily isolated. Disinfection is, however, carried out, and infected bedding and clothes burnt when necessary. Referring to the bye-laws which provide for the removal of all privy accumulation once a week, and of house refuse twice a week, he urges the strict enforcement of these regulations. Several cottages in which typhoid fever appeared were found in so unsatisfactory a condition that they had to be closed and demolished. An outbreak of diphtheria occurred among children attending a school which was found in a bad sanitary condition, especially as regards the privies and the ventilation; these were remedied, and no subsequent cases occurred. Dysentery also broke out among the children of a farmhouse, which was attributed to the drinking of drainage-water from some marshy land. Phthisis was prevalent, the result, Dr. Thomas believes, of living in "damp, dark, ill-ventilated cottages." An interesting story is told of the pollution of drinking water by its passage through galvanised iron pipes, the carbonic acid of the water dissolving the zinc; analysis showed that in each gallon of this water there were 6·4 grains of carbonate of zinc in solution. The death-rate for the whole district, which has a population of 26,800, was 15·66 per 1000 during the year; that of children under one year being 12·36 per 100 births, and 26·92 per 100 deaths.

Kingston-on-Thames (Urban).—The report on the sanitary condition of the borough of Kingston-on-Thames during 1884 shows that, based upon an estimated population of 21,912, the birth-rate was 32·4, and the death-rate, after excluding those deaths in the union workhouse not belonging to the borough, 16·3 per 1000. This death-rate showed a slight decline from the rates recorded in the borough in the preceding three years, which were 17·0, 16·7, and 16·9 respectively. The mean rate in the six years 1879-84 was 17·2, which is a comparatively low rate for an urban district, but cannot be estimated at its true value without due consideration of the age distribution of the population and the calculation of death-rates at groups of ages. The rate of infant mortality, measured by the proportion of deaths under one year to registered births, was equal to 122 per 1000, which is disproportionally high compared with the death-rate at all ages. This comparatively high rate of infant mortality appears to have been due partly to the epidemic prevalence of measles in the spring and to excessive diarrhœa fatality in the summer. The death-rate from zymotic diseases was also higher than it should be in a population having a rate from all causes not exceeding 16·3, and was equal to 2·37 per 1000; the zymotic rate, however, was somewhat lower than the rate from the same causes in the outer ring of metropolitan suburban districts, or in England and Wales generally. The 52 deaths from zymotic diseases in Kingston last year included 16 from measles, 17 from diarrhœa, and 9 from diphtheria. The mortality from measles and diphtheria exceeded the average for all England, while that from all the other zymotic diseases was below the average. The medical officer of health (Mr. E. M. Shirtliff) again points out the disadvantages under which the sanitary organisation of the district labours through the want of hospital accommodation for infectious diseases and of a disinfecting oven. Apart from the constant risk of the importation of small-pox from London, hospital accommodation affords the only

really efficient means for controlling an outbreak of scarlet fever. The high rate of mortality from diphtheria is attributed to the escape of sewer gas into the houses, through inefficient ventilation of sewers, and of soil-pipes in the house.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 4893 births and 3590 deaths were registered during the week ending May 30th. The annual death-rate in these towns, which had been equal to 20·4 and 21·1 per 1000 in the preceding two weeks, declined again last week to 21·0. During the first eight weeks of the current quarter the death-rate in these towns averaged 21·9 per 1000, against 22·7, the mean rate in the corresponding periods of the nine years 1876-84. The lowest rates in these towns last week were 14·6 in Brighton, 15·5 in Halifax, 15·7 in Derby, and 17·8 in Nottingham. The rates in the other towns ranged upwards to 28·5 in Cardiff, 28·7 in Blackburn, 29·6 in Newcastle-upon-Tyne, and 34·3 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 463 and 510 in the previous two weeks, declined again to 487 last week; they included 174 from measles, 125 from whooping-cough, 56 from diarrhœa, 43 from small-pox, 32 from "fever" (principally enteric), 31 from diphtheria, and 26 from scarlet fever. These zymotic diseases caused the lowest death-rates last week in Brighton and Bolton, and the highest in Blackburn, Preston, and Cardiff. The greatest mortality from measles occurred in Manchester, Birkenhead, and Newcastle-upon-Tyne; and from whooping-cough in Oldham, Preston, Cardiff, and Blackburn. The death-rates from "fever" and scarlet fever were exceptionally low. The 31 deaths from diphtheria in the twenty-eight towns included 17 in London, 4 in Cardiff, and 3 in Portsmouth. Small-pox caused 69 deaths in London and its outer ring (inclusive of 17 in the metropolitan asylum hospital ships and camp at Darenth), 1 in Bristol, 1 in Manchester, 1 in Sheffield, 1 in Hull, and 1 in Sunderland. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had steadily increased in the preceding nine weeks from 830 to 1374, further rose to 1389 at the end of last week; the admissions, which had ranged between 354 and 211 in the previous four weeks, were 272 last week. The Highgate Small-pox Hospital contained 72 patients on Saturday last, 23 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 291 and 305 in the preceding two weeks, were 302 last week, and exceeded the corrected weekly average by 15. The causes of 86, or 2·4 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bradford, Nottingham, Brighton, and in five other smaller towns. The largest proportions of uncertified deaths were registered in Halifax, Hull, Oldham, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 23·4 and 21·2 per 1000 in the preceding two weeks, further declined to 20·5 in the week ending the 30th ult., and was 0·5 below the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 14·3 and 16·1 in Dundee and Aberdeen, to 22·9 in Paisley and 24·9 in Glasgow. The 500 deaths in the eight towns showed a further decline of 17 from the number returned in the previous two weeks, and included 27 which were referred to whooping-cough, 11 to measles, 10 to diarrhœa, 6 to "fever" (typhus, enteric, or simple), 4 to scarlet fever, 1 to diphtheria, and not one to small-pox; in all, 59 deaths resulted from these principal zymotic diseases, against 55, 79, and 67 in the preceding three weeks. These 59 deaths were equal to an annual rate of 2·4 per 1000, which was 0·5 below the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had declined in the previous five weeks from 30 to 22, rose again to 27 last week, of which 14 occurred in Glasgow, 5 in Edinburgh, and 3 in Dundee. The 11 deaths from measles also showed a further decline from recent weekly numbers, and included 9 in Glasgow. The deaths referred to "fever" and diarrhœa were not only fewer than those in recent weeks, but were below the average for the season; the 6 from "fever" included 3 in Edinburgh and 2 in Leith. All the 4 deaths from scarlet fever occurred in Glasgow, and the 1 fatal case of diphtheria in Dundee. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 95 and 107 in the preceding two weeks, declined to 87 last week, and were 11 below the number returned in the corresponding week of last year. The causes of 68, or nearly 14 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 35·0 and 31·2 per 1000 in the preceding two weeks, further declined to 25·7 in the week ending May 30th, and was lower than in any previous week of this year. During the first eight weeks of the current quarter the death-rate in the city averaged, however, no less than 31·7 per 1000, the mean rate during the same period not exceeding 20·6 in London and 18·3 in Edinburgh. The 171 deaths in Dublin last week showed a further decline of 37 from the high numbers in recent weeks, and included 13 which were referred to measles, 3 to "fever" (typhus, enteric, or simple), 3 to scarlet fever, 2 to whooping-cough, and not one either to small-pox, diphtheria, or diarrhœa. Thus, 21 deaths resulted from these principal zymotic diseases, against 34 and 33 in the preceding two weeks; these 21 deaths were equal to an annual rate of 3·1 per 1000, the rate from the same diseases last week being 3·1 in London and 2·3 in Edinburgh. The fatal cases of measles in Dublin, which had been 14 and 17 in the previous two weeks, declined to 13 last week. The deaths from "fever" and scarlet fever also showed a considerable decline from the numbers in the previous week. Five inquest cases and 6 deaths from violence were registered within the city; and 55, or nearly a third, of the deaths were recorded in public institutions. The deaths both of infants and of elderly persons showed a considerable decline last week. The causes of 21, or nearly 14 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

AMONGST the officers invalided from the Nile who embarked at Sawakin on the 30th ult. in the *Jumna* were Surgeons H. P. Birch and F. H. Treherne, of the Medical Staff.

WAR OFFICE.—Army Medical Staff: Brigade Surgeon Jas. Henry Jeffcoat is granted retired pay, with the honorary rank of Deputy Surgeon-General; Surgeon-Major John Wallace is granted retired pay, with the honorary rank of Brigade Surgeon; Surgeon John Mulrenan, M.D., has been placed upon temporary half-pay on account of ill-health; Surgeon-Major Edward Hopkins is granted retired pay, with the honorary rank of Brigade Surgeon; Surgeon-Major Alexander Allan, M.D., to be Brigade Surgeon, vice William Gerard Don, M.D., granted retired pay; Surgeon-Major James Ferguson is granted retired pay, with the honorary rank of Brigade Surgeon.

ADMIRALTY.—The following appointments have been made:—Fleet Surgeon Thomas H. Knott, to the *Orontes*; Staff Surgeon Francis R. M. Loftie, to the *Leander*: Surgeons Leonard H. Kellett and James M'C. C. Martin, additional, to the *Duke of Wellington*; Surgeon Joseph W. Whelan, to the *Indus*.

INDIA OFFICE.—The Queen has approved of the following promotions among the Officers of the Staff Corps and Indian Military Services made by the Governments in India:—Surgeons David Wilkie, William Edward Bonsall Moynan, M.D., Denis Peter Macdonald, M.D., Oswald Baker, Frederick William Wright, of the Bengal Medical Establishment; Surgeons William Richard Browne, M.D., Mark Robinson, Arthur Henry Leapingwell, of the Madras Medical Establishment; and Surgeon Septimus Jesse Goldsmith, of the Bombay Medical Establishment—to be Surgeons-Major; Surgeon-Major Thomas Beaumont, M.D., of the Madras Medical Establishment, to be Brigade Surgeon.

Correspondence.

"Audi alteram partem."

THE LECTURES OF WILLIAM HARVEY.

To the Editor of THE LANCET.

SIR,—Early in February of the present year you were good enough to publish an appeal from me to the medical profession to assist in the reproduction of the original MS. notes of William Harvey's lectures, delivered in the Royal College of Physicians in and after 1616. The response to the appeal shows that the subject excites considerable interest, not only on both sides of the Atlantic, but at the Antipodes. The College of Physicians at its last comitia appointed a committee, consisting of Dr. Johnson, Dr. Payne, Dr. Norman Moore, Dr. Stone, and myself, to superintend the reproduction of the lectures in autotype facsimile, and has guaranteed the cost of 100 copies. A printed transcript will be furnished with each page of the autotype; the bad handwriting, the curious phraseology, and the abbreviations used by the great physiologist rendering some interpretation necessary. The lectures contain the first suggestions of Harvey's discovery of the circulation, so that this MS. may be regarded as the most interesting monument of natural science. The number of copies to be produced will be limited to 500. Messrs. Churchill have liberally undertaken to publish the work, without the usual commission, as soon as 350 copies are subscribed for. At least 200 more subscribers are required before the work can be put in hand. Dr. Weir Mitchell of Philadelphia, who already sends the names of ten subscribers and promises more, says, energetically, that "the thing must be done." We now hope, as the College of Physicians has extended its ægis over the undertaking, that with your further kind aid we may soon be enabled to say that "it will be done."

I beg to remain, Sir, faithfully yours,

Manchester-square, May 10th, 1885. EDWARD H. SIEVEKING.

P.S.—Any communications on the subject may be addressed to me, or to Messrs. Churchill, 11, New Burlington-street, London, W. I may add that the cost of each copy, including the transcript, and bound, will be £2 2*s.* to subscribers and £2 11*s.* 6*d.* after publication.

DEATH BY HANGING.

To the Editor of THE LANCET.

SIR,—Will you allow me to say, with reference to Dr. Kinkhead's interesting paper on this subject in your issues of April 11th and 18th, that I have seen four cases of death by hanging in soldiers, two of which were suicidal and two by sentence of a general court-martial, and that, so far as I can remember, the appearances of all these were very similar. There was the same pallor or lividity of the face, the same composed expression of the countenance, and the same absence of any trace of suffering or struggle on the part of all of them. The vertebræ were neither broken nor dislocated in either of the two suicides, and I believe they were not disturbed or injured in the case that was disposed of after his fashion under my own immediate observation. I was not near enough to the other to satisfy myself on this point one way or the other; and in neither was there, so far as my memory serves, any inquiry as to whether there had been any escape of fæces or semen. I have an impression, however, that discharges of this kind are neither invariable nor uniform after death from suspension of this kind, and a good deal will depend, I think, in this, as in other conditions of the subject, on the length of the rope and the age and weight of the body.

I have seen several natives of India despatched in his way, but have kept no notes of any of them; and the younger or the lighter the victim was, the lesser proportionately was the disfiguration produced in his remains afterwards. A more composed or less disfigured corpse than that of one of those here referred to (he was a small wiry man) I have never seen. In the other body, that of a larger, heavier, and older man, the face was somewhat bloated and puffy, while the conjunctivæ were slightly bloodshot; there was no post-mortem in either case. The bodies were, indeed, carried off for interment in a neighbouring cemetery as soon as the medical officer in charge had certified as to their identity and extinction of life. I do not know if the vertebræ were broken or not, but the rope used in both these cases was not, I think, nearly so long as that mentioned by Dr. Kinkead, and it is well known that those mild-mannered oily gentlemen, the Thugs of India,[1] who had "polished off" their thousands ere they were themselves "wiped out" by Colonel Sleeman and his followers, rarely if ever injured the vertebræ of their victims. Their *modus operandi* and simple implement—a Roumalor handkerchief—are described in Sleeman's "Rambles and Recollections of a Bengal Officer," as well as in the more accessible pages of the late Colonel Meadows Taylor, and I saw it myself *en apparence* at the hands of one of the initiated in the gaol at Lahore several years ago. It was nothing more than a species of *garrot*, but the old practitioner has acquired an aptitude for throwing or adjusting the "cloth" such as a Roman Retiarius might envy, and the rapidity with which he twisted the fatal knot more resembled a flash of lightning than anything else I can now remember.

As to the best, speediest, or most effectual method of taking away human life now known to science or civilisation, a word only must here suffice. The methods at present in use are—for we need say nothing about the old Jewish, Roman, or even mediæval practices—hanging, as above, and decapitations, as in France, &c.; and the methods suggested instead of these are narcosis, poison, and electricity. Of the first, which includes Richardson's lethal chamber, we need say nothing, for the process is neither certain, uniform, nor always expeditious, and its general enforcement would require such an amount of cultured intelligence, apparatus, and preparation as might not be always obtainable. Moreover, the process is too dramatic for this our sober atmosphere. As to the poison cup, it would appear to be as repellant to our notions of right as it undoubtedly is to our conceptions of religion and reality. The idea of forcing arsenic or opium, henbane or mandragora, *nolens volens*, down the throat of a murderer, is too odious, as well as too theatrical, to be even entertained; and the hari-kari of Japan savours too much of suicide to be compatible with the requirements of Christianity. We are therefore, or so long as we retain the penalty of capital punishment, reduced to a choice of evils—to, in a word, a choice between the rope of the common hangman of the period and the great discovery of him who was called, in derision, by his contemporaries, "the dancing-master of the frogs."

We are unfortunately but too familiar with the former, while our knowledge of the latter is even now very imperfect. So far, however, as it has been tried, accidentally or otherwise, it has proved itself by far the faster as well as the "certainer" slayer of the two. It slew its man at Manchester, as well as on board the *Livadia*, in a few minutes, while its victims at Hatfield and in the Health Exhibition succumbed at once, and it has thus proved itself as painless as it is undoubtedly instantaneous. All that is wanted is to get the victim to touch the conductors with both his hands, or, failing this, so to place him as that, by a simple mechanical arrangement, these latter may enclose or impinge on two exposed parts of his person. The rest follows quick as thought, as a matter of course, and the apparatus required for the generation of this fluid or force might be packed away in an ordinary travelling trunk. It is a pity the thing is not tried, if only by way of experiment, on some of our lower congeners, whence it might be transported in time to the higher regions of Newgate and the provinces. Had such an arrangement or apparatus been available a few months ago at Galway, we should not have

[1] Sleeman says of these in a now utterly forgotten tract called "Ramaseeana, or the Vocabulary of the Thugs" (Calcutta, 1836, p. 27), that "no men cultivated with more care the esteem of their neighbours, or courted with more assiduity the good-will of all the constituted local authorities" than they did, and yet were they murderers on a scale such as the world has never yet witnessed in connexion with any other organisation, secret or otherwise. They were kind fathers, blameless husbands, and it is well known that they performed religious ablutions and other rites before the shrine of the Goddess Deviéré before they embarked upon any expedition. They scanned the face of the heavens in search of an approving or discouraging omen, and turned back in alarm from even the most promising adventure on sight of a jackal or other unpropitious object. But the Thugs did, or rather do not, stand alone in these respects; other religionists have not hesitated to supplicate the Deity to sanction wrong or consecrate a crime; and, as Sleeman says elsewhere ("A Journey Through the Kingdom of Oude," vol. ii., p. 250), "the facility with which men and women persuade themselves of a religious sanction for what they wish to do is not, unhappily, confined to any class or any creed."

had to deplore the horrid fate of poor Myles Joyce, neither would we have been subsequently shocked by the tragedies that were enacted at Liverpool and Exeter; and all the other dreadful paraphernalia and accessories of the hangman's craft might be dispensed with, or, at worst, so minimised by this process as to be imperceptible to all but the inevitable officials.

I am, Sir, yours obediently,

Auriol-road, West Kensington, April 20th, 1885. WM. CURRAN.

THE COMMERCIAL ASPECT OF THE TITLE OF "DOCTOR."

To the Editor of THE LANCET.

SIR,—"The battle of the shops," as Sir Dominic Corrigan called the competition of the medical examining bodies, has had many serious consequences, but none more so than the proposal on behalf of the two Royal Colleges of England to ask for legal powers to give the title of "Doctor" to all who pass their lowest examinations. I cannot yet believe that the two Colleges will really take this step. No doubt, as you say, the title of "Doctor" has a certain commercial value. You might have added that there is a certain and very conspicuous commercial value in the power of selling this title, which has led other Corporations into temptation to use it commercially with the most disastrous consequences to their reputation. It is said that one Royal College made in one year £10,000 by this merchandise. The Royal Colleges of England have hitherto refused to have anything to do with a questionable title, whatever its commercial advantage. But now even such men as Mr. Durham and Mr. Savory are gravely proposing to try to acquire the *legal* right to grant a title, the value of which to the possessor will be in the proportion in which it conveys a false impression to the public. It is scarcely likely that Parliament will grant a title hitherto reserved for graduates of Universities, and the divorce of which from medical degrees would be a most serious discouragement to higher medical education as well a great injustice to medical graduates who to get their degrees have gone through the curriculum of a university, and through the examinations of the university, generally *in addition to* going through the examinations of the corporations. The statement that the ordeal for getting a Scotch degree is not more severe than that for gaining the qualifications of the English colleges is not relevant. To repeat it after the refutations it has received is scarcely polite. But even if it were true, it points, as so many other facts do, to another conclusion—viz., the necessity for creating a strong Medical Council that can and will enforce distinctions between examinations for mere qualifications and examinations for degrees. It is surely desirable that the English Colleges should pause before going to Parliament with a prayer so unworthy of their position and record. "Brummagem" titles are beginning to die out, and their possessors to be ashamed of them. But if they are to have a fresh lease, it surely ought not to be at the instance and prayer of the English Colleges. These Colleges never needed less the "commercial" advantage of such a trade as is understood to have been so lucrative elsewhere. I see by the latest returns that the membership of the Royal College of Surgeons of England last year, with all its legal defectiveness as a diploma, was acquired by no less than 562 persons, a number far above the reach of any other body, corporation, or university in the kingdom. The Royal College of Physicians of London exceeded itself and all other fairly comparable bodies. And now, forsooth, these honest and high-minded bodies are asked to come down to a false title business, and to go whining to Parliament representing the impending ruin of London schools. The London Schools will be very badly advised if they encourage this inadequate and undignified proposal. I admit, as a Scotch graduate, the London schools have a grievance which wants immediate redress. The London teachers want consolidation of London schools and association with a Teaching University. Let them take a leaf out of the book of Scotch professors. Let them besiege Parliament—as the Scotch professors do with so much effect, when need so requires—till the crying defect of this metropolis (a practical working university) is supplied. Then the medical schools of London will be filled, the Degrees of London will exceed those of other portions of the Empire at once in number and in value, and the high example of the London corporations, everywhere felt if not everywhere followed, will continue to preserve the profession from low purposes and false pretensions and sham titles.

I am, Sir, your obedient servant,

June 1st, 1885. M.D.

To the Editor of THE LANCET.

SIR,—I do not see that your correspondent, Mr. Wright, has much legitimate cause for complaint. Doubtless, a certain commercial value generally appertains to the title of "Doctor" in Medicine. And what should qualify a man for this distinction? Not so much, I should say, two or three additional subjects in his Preliminary Arts Examination, as a sound and efficient course of medical and surgical teaching, with due opportunities for practical work and clinical observation, such course being terminated and the quality of the work done guaranteed, as far as possible, by correspondingly efficient examinations. Now, I have no doubt that Mr. Wright and his fellow graduates have had the advantages of this kind of curriculum; but I am at a loss to see how the successful candidate for the double qualification of L.R.C.P., M.R.C.S. Lond., differs from them in this respect. The medical course in each case embraces the same period of four years; with very trifling exceptions the subjects of study are equally ample, and the student at the great London schools has the advantage of the most brilliant teaching—that of men who are the *crème de la crème* of their profession—combined with the unrivalled opportunities for clinical and surgical work which a great metropolis alone affords. Respecting the "considerable extra expense" necessary to obtain a Scotch degree, I need say little. I think that all who have sought information on this point will consider that the extra cost exists only in the imagination of your correspondent. In my opinion, and probably many will agree with me, the objection to the proposed action of the Colleges has sprung from quite the wrong quarter. The injustice done, if any, by conferring the degree as suggested would be done to men who have gone through the severer strain, the long course, and the greatly increased expense necessary to obtain a degree like that of London University. These would have real ground for objecting to the new scheme; but I think that they would have almost as much cause to complain that men like Mr. Wright and his compeers, who have experienced so comparatively easy a curriculum, should have the right with them to the title of M.D. According to Mr. Wright's argument, "ought not a still higher title to be granted" to those who have in reality obtained a so much higher qualification? It is, however, a very difficult matter to be entirely just to all; the most crying evils should first obtain a remedy, and it is certainly time that something should be done to protect the London students from being in any way overshadowed by those licentiates of the Scotch corporations who, with much inferior qualifications, arrogate to themselves the title of "Doctor." If some change of the kind proposed is now brought about, probably the tendency, already marked, of students to go to those universities where a degree may be obtained at no toil and expense in excess of that required in obtaining the double London qualification, will be very greatly increased in the future.

I am, Sir, yours faithfully,

Westminster Hospital, June 1st, 1885. WM. THEODORE RAYNE.

ON THE CONTAGIOUS DISEASES ACTS.

To the Editor of THE LANCET.

SIR,—It seems to be admitted by all writers of the history of syphilis that at times the disease has taken quite an epidemic character, and really in England we seem as if endeavouring to revive these periods by the gross neglect of the most simple means of at least trying to arrest somewhat the triumphant course of the malady. There seems a tendency to mix up morality with science. Would it not be advantageous to separate them and speak of each in its proper place?—for it is difficult to treat of the prevention of venereal disease if at the same time one has to assume a high moral standard. Taking a broad view of the matter, would it not be better for those in authority to be practical and try to mitigate by prudent measures as much as possible the ills that so often accompany immorality? To begin

with, one of the most simple and most easily applied means of checking their spread is the enforcement of the Contagious Diseases Acts in garrison towns and large seaports. Why this is no longer done is a mystery to most sensible and thinking men. While visiting the Royal naval sick quarters at Portland some time ago, my cousin, Mr. E. V. de Méric, Staff-Surgeon R.N., who was then in charge, kindly took me round, and on my expressing surprise that four-fifths of the beds were occupied by venereal cases, he assured me that it had been so ever since the Contagious Diseases Acts no longer gave some sort of protection to the men. If this be so in a small place like the Royal naval sick quarters at Portland, what must it be in large seaports such as Portsmouth or Plymouth? I have heard, too, that at some of our seaports, when a transport is expected, many women in hospital affected with venereal disease leave the institution in order to go and meet the ship; and what can the surgeons do? Of course, nothing. The law has decided that these women should be free from the hospital surveillance to infect these poor fellows, only just arrived in their native land, with diseases which they would take to their wives and to the towns or villages which contain their homes. With regard to the argument that is often brought forward against the compulsory detention of prostitutes, that it would be interfering with the "liberty of the subject," it seems to me the same law which deals with maniacs or small-pox patients might come into force to prevent a woman with a venereal complaint carrying devastation freely in her path without let or hindrance; excepting, of course, if the law take the high moral instead of the practical and scientific ground.

A most able and straightforward annotation in THE LANCET of Feb. 17th, 1883, after discussing the decision of the Select Committee of the House of Commons on the Contagious Diseases Act, August, 1882, not to recommend its extension, contains the following words:—"Having established the great physical and moral gain effected by these Acts, the logical outcome of the recent inquiry would be to recommend their immediate extension; but this the committee have hesitated to do in deference to the position and character of some of those who have opposed them." Now, there seems to me scarcely a doubt that if the entire question were explained simply and without any artificial varnish to those who so strenuously oppose the Contagious Diseases Acts, were it shown to them more particularly from a *medical* point of view, they would at once cease their opposition, and be the first to advocate not only the feeble way these Acts have been applied in this country, but also their extension.

The compulsory examination of prostitutes in our garrison towns and large seaports seems to me a subject that so palpably carries its own weight as only to require the energetic support of the naval and military surgeons to come again into full force. The great difficulty arises when we ask the question: Can nothing be done for London? Can anyone answer satisfactorily such a query? One feels a vague sense of helplessness in approaching it, and yet something ought to be done; the prostitution which is so rife in this vast metropolis is absolutely under no control whatever, particularly in a sanitary point of view, and it is perfectly certain that were better sanitary measures employed there would be a marked amelioration, both morally and socially, and our streets would no longer be made hideous by the scenes which now take place every night in some of the principal thoroughfares. Therefore the very first thing required in London is more hospital accommodation for venereal disease in women. Of course we have the female Lock, for which I believe funds are much needed, and all praise is naturally due to those general hospitals that have a venereal ward, although, considering the population of London, these means of receiving as in-patients women affected with syphilis bring to mind a drop in the ocean. Now, there is no use whatever to humanity in general for a prostitute to attend a hospital as an out-patient; because, as she must procure money to live, she continues her calling during the whole time of her treatment, and not only retards her own recovery, but sows the disease broadcast every night. No! What is wanted in our metropolis is a large hospital where these women would be received as in-patients and kept till at least all external signs of the disease had disappeared. Such an institution could not be supported entirely by voluntary contributions, but would have to be subsidised by the Government. For those who regard the whole question from only its moral side, it may be pointed out how many women might be reclaimed altogether from a vitiated life through the influence of the quiet and good surroundings of this institution, which might be in direct communication with the reformatories and homes for fallen women of which we hear so much. Perhaps many will say that the very women for whose treatment such a hospital would be intended would not voluntarily present themselves as patients, but I am sure every surgeon who sees out-patients in a London hospital will bear witness that the large percentage of women affected with venereal disease would only be too glad to become in-patients in a properly organised institution, and to go there on the first suspicion of the affection; so we could replace the words "compulsory examination" by those of "voluntary examination." What a boon too for medical science, as the profession would then be enabled to study more completely venereal disease in the female; at the present time there are very few chances in England of making any researches on the subject, and the opportunities for students to see a woman properly examined and the case scientifically explained are indeed few and far between. The good effects of this scheme would only be a question of time, and the benefits derived hereafter by a whole nation would, I should imagine, fully justify the expenditure of public money for its trial. But the first and most important thing is to bring the Contagious Diseases Acts into full force at our garrison towns and large seaports, which would after a time diminish by *contre-coup* the amount of venereal disease in London, being materially assisted by the palliative means of a large venereal hospital in the metropolis itself, but without which the good effects of the London institution would in a great degree be minimised.

I am, Sir, your obedient servant,

H. DE MÉRIC, M.R.C.S.,
Surgeon to the French Hospital, London.

Duke-street, S.W., May, 1885.

AURAL EXOSTOSES.

To the Editor of THE LANCET.

SIR,—In an article on "Aural Exostoses" in THE LANCET of the 30th ult., by Mr. Field, he mentions his first case as having been operated upon in 1877, and that the instrument used was a dentist's drill. May I be allowed to say that in a paper on this matter in THE LANCET of Jan. 22nd, 1876 (in which the local origin of these growths was strongly insisted on), I stated that since 1874 the method I had employed was as follows:—"It consists in grinding the bone away; and the most satisfactory appliance for this purpose I find to be the drill which is in common use among dentists. The variety of steel instruments which can be fixed to this, and the perfect command with which they can be directed, render this an especially convenient instrument."

I am, Sir, yours faithfully,

Savile-row, June, 1885. W. B. DALBY.

LIVERPOOL.

THE INFECTIOUS DISEASES HOSPITAL QUESTION.

AT an adjourned meeting of the City Council on the 20th ult., the report of the special committee appointed to consider the question of the proposed hospital for infectious diseases was read. It embodied the following recommendations:—"1. That the Council be recommended to obtain a plot of land of sufficient extent to afford hospital accommodation if required for 650 patients suffering from dangerous infectious diseases. 2. That in the opinion of this committee the requisite accommodation can be provided upon either the Green-lane site or the Edge-lane site. 3. That the Council be recommended to take the requisite steps to obtain a loan of £100,000 for the purpose of defraying the cost of such hospital accommodation and site, and that the Local Government Board be requested to cause an inquiry to be instituted as to the proposed sites, and to inform the Council which of the two is, in their opinion, the preferable one." Mr. Robert Hamilton, F.R.C.S., who had been the chairman of the special committee, regretted that he felt compelled to oppose these recommendations, and moved the following amendment:—"That the report be approved except paragraphs 1, 2, and 3; that two sites be secured at the north and south ends of the town respectively for two

small district hospitals of eighty beds each; that a plot of land be secured within easy distance of the city on which to erect a convalescent home for 180 patients, thus making provision for 340 cases; and that the requisite steps be taken for obtaining a loan of £100,000 for the purpose of defraying the cost of such hospital accommodation." This amendment was carried by thirty-two to nine. The great difficulty will be to find sites sufficiently accessible to be suitable for their purpose, and also sufficiently far off from inhabited houses to avoid incurring the opposition of their owners or occupiers.

A RIDICULOUS SUPPOSITION.

The county coroner for South-west Lancashire and his deputy have recently held numerous inquests on the bodies of suicides, hanging being the mode most frequently adopted. An absurd idea prevails in and about the neighbourhood of St. Helens, where some of these cases have occurred, that it is improper to cut down the body until the police have arrived. Some months ago the deputy coroner was informed by a police inspector that in more than one case life might have probably been saved, but for the fact that the bodies had not been cut down until the police arrived, a proceeding which involved much delay, as the cases were at a considerable distance from the police station. On this occasion the deputy coroner asked the deceased's brother why he did not at once cut his brother down, and was informed that he thought it would be wrong to do it except in the presence of a police officer. When asked if he would wait for the police before rescuing any one from drowning he was silent. The deputy coroner expressed himself very strongly, and his remarks would appear to have done good; since at a recent inquest it appeared that one of the witnesses had promptly cut down the deceased in spite of the remonstrances of others present, who wished him to wait for the police.

THE NORTHERN HOSPITAL AMBULANCE.

The horse ambulance instituted in connexion with the Northern Hospital has proved so valuable as to have become a generally acknowledged necessity. The hospital is in telegraphic and telephonic communication with the central police office and district bridewells, and by arrangement ambulance messages have precedence over all others. It is greatly to be desired that all the local hospitals should each have its own ambulance, and arrangements could be easily made by means of which each hospital could have its own district. By this means accidents and urgent cases could be safely taken immediately to the nearest hospital.

THE STANLEY HOSPITAL.

When the Northern Hospital was erected, about forty years ago, it stood not far from what was then the extreme northern boundary of Liverpool, and was therefore appropriately named. Since then the borough has extended so enormously that the present northern hospital occupies a position which would be more appropriately described as central, while the Stanley Hospital, established in 1867, is, geographically speaking, the northern hospital. This hospital has recently been enlarged, a proceeding which had become necessary in consequence of the great and daily increasing number of accidents and other cases demanding admission. But before the new wings can be utilised a sum of £3000 must be raised; and to aid this very laudable object the Mayor (Mr. David Radcliffe) has opened a subscription list at the Town Hall. The hospital is doing a most excellent work; the number of patients both in and out is daily increasing; and though the times are not very favourable for such appeals, it is hoped that the sum required, which will only free the hospital from debt, will be shortly raised.

THE HOSPITAL SATURDAY FUND.

Upwards of £2500 has been raised this year by means of the Hospital Saturday boxes, cages, &c. This is a decided improvement both actually and comparatively, though scarcely such as might be expected considering the great and perfectly voluntary labours of the honorary treasurer and secretaries, aided this year by the Working Men's Committee. It is also in painful contrast to the sum of £6000 raised by the Birmingham working men for their hospitals.

A BOON TO TRAVELLERS.

Passengers to Liverpool by the London and North-Western Railway had, until recently, to undergo a terrible ordeal before reaching the terminus, in the tunnel which ran under the city from Edge-hill to Lime-street. The atmosphere was so impregnated with smoke, steam, gas, and other impurities, as to try severely the strongest chests at times, and to make it impossible for those with delicate chests to incur so serious a risk. This has now been removed by the gradual conversion of the tunnel into a cutting at an enormous cost, only a very small portion of it being left. This will conduce greatly to the comfort of the thousands of persons who are compelled to use this line, as well as to the improved health of the railway *employés*.

Liverpool, June 1st.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

THE SANITARY STATE OF NEWCASTLE.

THE twelfth annual report of our medical officer of health, Mr. H. E. Armstrong, has just been issued, and it is a searching analysis of the facts presenting themselves in every section of the important department over which Mr. Armstrong presides. The twelve months' sanitary work in this city, of which the report is a record, has been an important one. During the period in question a sanitary house-to-house inspection has been carried out. A serious epidemic of scarlet fever rose and declined; the small-pox, which attained its height in 1883, gradually faded away. The first premonitory symptoms of the pest of measles, which is now scourging our city so violently, became visible. Unfortunately the disease of measles does not figure in the schedule of the local Act by which notification to the sanitary authority is prescribed. The experience of the epidemic at present prevailing in the north of England shows that the complaint may assume a malignant form, fairly entitling it to come within the scope of municipal notification. Mr. Armstrong, as the result of a summary of an immense amount of statistics, says that 70 per cent. of the infectious diseases occurred in tenemented property, of which infected premises nearly three-fourths consisted of houses of one or two rooms each; that in upwards of 70 per cent. of the infected households the sick-rooms were not at all isolated from the rest of the house; that in 50 per cent. of such households no precautions to prevent the spread of infection were being taken at the time of the inquiry; that in only a small proportion of the cases (in scarlet fever barely 2 per cent.) was removal to hospital consented to by the patient or his friends; that a large amount of trade and processes of trade are carried on in and in immediate connexion with infected premises, and at other places attended by persons residing upon infected premises, by all of which means infection is liable to be communicated to the public. Mr. Armstrong holds that this state of things affords proof of the necessity of ample hospital accommodation for infectious diseases; compulsory power to remove to hospital all cases of infectious diseases in tenemented dwellings, and special provision to deal with infected business premises, and to prohibit the attendance at business of *employés* residing in infected houses where means of isolation are insufficient. Amongst the curiosities of the report may be mentioned the discovery in a body, taken for dissection to the Medical College here, of the disease trichinosis, and it is believed to be the first observed in this city. Means were taken to trace the source of infection in this case, but without effect; numerous samples of pork, ham, and bacon were carefully collected from the neighbourhood in which the subject had lived, and subjected to close microscopical examination, but no trichina spiralis was found.

WHITLEY CONVALESCENT HOME.

At the late annual meeting held at the Home at Whitley, Dr. Philipson, in presenting the medical report, stated that 1336 cases had been treated; of these 1063 were medical and 273 surgical cases, and taking the whole, 1298 received benefit, or over 97 per cent. The subject of providing a children's ward had come under consideration by the committee, and overtures had been made to the Newcastle Children's Hospital, and to the trustees of the Sunderland Victoria Hall fund; nothing of a practical form had resulted.

THE LATE MR. ROUTLEDGE.

I should mention the death on May 18th of a gentleman who, although not a member of our profession, yet was well known to a large medical circle. I allude to Mr. William Routledge, dentist, of this city; he was for many years assistant to the late Mr. Sheffield of Exeter, and while at Exeter he was one of the most active members of the Exeter Literary and Philosophical Society, and held the office of treasurer for many years. So careful was he of the Society's funds, that he was named by his colleagues "Joe Hume." When he left Exeter for Newcastle the profession and the Society entertained him at a banquet and presented him with a substantial testimonial. While in Newcastle his practice as a dentist was very successful, and he enjoyed in a very great degree the confidence of our profession. Mr. Routledge, who was in his fifty-fourth year at the time of his death, was of a very kindly nature, and possessed of refined tastes. His knowledge of botany was extensive, and he has left here a very large number of scientific and general friends to regret their loss.

THE VOLUNTEER REVIEW AT GOSFORTH.

A new feature in the Volunteer review and sham fight to-day was the formation of complete bearer companies in the ambulance department, and their march past. This created much interest in the field, and the arrangements were considered very complete and satisfactory, Surgeon-Major R. F. Cook being the principal medical officer in charge.

HARROGATE BATHS AND SPAS.

Dr. Myrtle of Harrogate, who has been visiting continental spas having close affinities in composition and curative properties to those of Harrogate, writes to a local paper to say that he finds Harrogate no way behind in springs and baths to the towns he had visited, but that Harrogate possesses immense advantages in having so many spas so dissimilar in properties within a narrow circle, while some of the continental spas are separated by hundreds of miles. He points out, however, that Harrogate lacks in skilled attendants, and that at many of the continental places the patient has merely to put his dressing-gown and slippers on and walk directly to his bath already prepared for him; after it, a few steps replace him in bed. This arrangement is of immense advantage to a certain class of patients. But upon the whole, he is prepared to show that Harrogate offers to the great majority of invalids advantages not to be obtained elsewhere.

Newcastle-on-Tyne, May 26th.

IRELAND.

(From our own Correspondent.)

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE annual election of office-bearers was held last Monday, when Dr. Cameron, Vice-President, was promoted to the Presidency, and Mr. William Stokes, Professor of Surgery in the College, was elected Vice-President without opposition. For Council, twenty-one candidates competed for nineteen places, with the result that all the outgoing members were re-elected; and Mr. William Colles was re-elected Secretary to the College, a post he has now occupied for many years. This was the first time the election of office-bearers took place by means of voting-papers forwarded through the post or otherwise, so as to permit provincial Fellows to vote *in absentia*. The result, however, did not come up to general expectation, as only 143 votes were recorded out of a large constituency. The election of Dr. Cameron as President of the College requires a few words. A non-practising surgeon, in the person of Dr. Cameron, has been selected for the first time on record by the Fellows to the highest position the College can confer. It was, however, for other reasons that the selection was made. Dr. Cameron is the efficient medical officer of health for Dublin, and is one of the highest authorities on sanitary science. Independently of this, he is an excellent microscopist, a good pathologist, and by his position and talents is well qualified to hold the honourable position to which he has been unanimously elected. I may add that there is not in the city of Dublin a more general favourite among his professional brethren, or one more highly esteemed by the public, than Dr. Cameron. The election of examiners took place last week, when, consequent on the newly acquired Charter, several additional vacancies occurred. In view of the well-known conservative tendencies of the Council, it was not a matter of much surprise to learn that all the outgoing examiners, with the solitary exception of one in midwifery, had been re-elected. The election of Dr. Mapother as examiner in physiology and histology will no doubt give general satisfaction. The rule has been rigorously carried out that not more than two examiners belonging to any medical school or hospital shall be elected. There were vacancies for two examiners in the department of physics, chemistry, and medical jurisprudence, but only one was elected. At a recent meeting of the Council certain arrangements were adopted for the oral examinations, and as a result no teacher will be permitted to put questions to a candidate from his own school, nor will examiners who are teachers in the same school be allowed to examine at the same table; while in practical examinations, such as dissections, operative surgery, and clinical examinations, the same rules will be observed as in the oral. The following is the complete list of the newly elected examiners:—Anatomy and Comparative Anatomy: B. G. MacDowel, L. H. Ormsby, E. Stoker, R. L. Swan. Surgery and Surgical Pathology: C. B. Ball, H. G. Croly, E. S. O'Grady, W. Thomson. Medicine and Therapeutics: M. Boyd, R. Hayes. Materia Medica, Pharmacy, and Botany: W. Frazer, H. Minchin. Physiology and Histology: P. S. Abraham, E. D. Mapother. Physics, Chemistry, and Medical Jurisprudence: J. D. Pratt. Midwifery: J. J. Cranny, S. Mason. Ophthalmology: A. Benson, H. Swanzy. Diploma in Midwifery: Henry Croly, S. Mason, W. Roe. General Education: F. Davys, R. Morton, H. J. Tweedy.

ROYAL UNIVERSITY OF IRELAND.

At a recent meeting of the Senate, Marcus Hartog, D.Sc., Professor of Natural History, Queen's College, Cork, was elected a Fellow in the Department of the Natural Sciences, subject to the usual conditions. The Senate, at the same meeting, also resolved that credit shall not be allowed at the Second Examination in Medicine for Chemistry to any candidate who shall have passed in that subject at any examination in the Faculty of Arts after 1885. A meeting of Convocation was summoned to be held last week for the election of a representative on the Senate, and for the consideration of various notices of motion dealing with the constitution of the University. The meeting, however, fell through, one additional member being necessary to form a quorum; but it is understood that a requisition will be presented to the Senate to call another meeting. A similar misfortune occurred, if I mistake not, last year; and the circumstance is to be deplored, as on this occasion motions of considerable importance were to have been moved by Dr. Knight, Mr. Farrelly, Mr. Maguire, F.T.C.D., and Mr. Johnstone Stoney.

BELFAST ROYAL HOSPITAL.

For the past quarter there has been a falling-off in the income as compared with last year, and a decrease from Sunday collections amounting to £160. It is scarcely credible that the total amount obtained in a wealthy place like Belfast from Hospital Sunday only reached £360. There must be some reason for such apparent apathy and want of sympathy towards so valuable an institution as the Belfast Royal Hospital. The working classes, it is gratifying to state, show their appreciation of the work done by the hospital in the constantly increasing amount of their contributions; but their employers and the wealthy members of the community do not subscribe as they should. Certainly on April 30th there was a balance in favour of the hospital, but it is not improbable that before the termination of the present quarter the institution may find itself largely in debt.

Dr. O'Farrell, J.P., of Boyle, who was lately appointed a Local Government Board inspector, has been presented by his numerous friends with an address, a valuable service of plate, and a gold watch, on his departure from that town.

Dublin, June 2nd.

THE HOSPITALS ASSOCIATION.—Mr. J. L. Clifford-Smith has resigned the office of Honorary Secretary of the above Association.

PARIS.

(From our Paris Correspondent.)

DEATH OF DR. N. GUÉNEAU DE MUSSY.

I REGRET to have to report the death of Dr. Noël Guéneau de Mussy, which took place yesterday morning at his residence in Paris. He had been ailing for some time, and spent the winter in the south of France, whence he returned only on Thursday last, somewhat improved in health. He intended to resume his practice, which was very extensive, but his condition became aggravated and he expired rather unexpectedly. Dr. Guéneau de Mussy was a well-known and much-esteemed physician, and his death will be a great loss not only to the French, but also to the English and American residents of Paris. He was seventy-two years of age. He took his degree in 1839, was an Agrégé of the Faculty of Paris, Member of the Academy of Medicine, and for many years Physician to the Hôtel Dieu.

THE FUNERAL OF VICTOR HUGO.

That accidents should occur in such a great concourse of people as that brought together to witness the funeral procession of Victor Hugo was inevitable; but the number was few in proportion to the densely packed multitude that thronged the thoroughfares. There were several broken arms and legs caused by falling from trees and platforms, &c., which were erected for the occasion. There were also some cases of fainting and insolation, principally among the soldiers; this is not to be wondered at, as the weather was rather sultry, which added considerably to the fatigue of having to stand so many hours without food or drink.

The Cardinal Archbishop of Paris, whose health had much improved, has had a relapse of his bronchial affection, and his condition, which is rather critical owing to his advanced age, is causing great anxiety to his friends.

Paris, June 3rd.

VIENNA.

(From our own Correspondent.)

SMALL-POX IN VIENNA.

THE epidemic of small-pox has been severe. In Vienna proper, strict prophylactic measures have been taken to prevent its introduction. During the month of March 414 persons were attacked by the disease in the suburbs and 282 in the city. In one week 82 persons fell ill in Vienna, of whom 20 died, 124 cases occurring in the suburbs. In the week following 76 cases of small-pox were recorded in the city, 14 ending fatally; in the suburbs 120 cases were registered. The population of Vienna amounts to 748,889; that of the suburbs to 321,564.

AMAUROSIS AFTER PARTURITION.

The following interesting case was observed by Dr. L. Königstein, in the clinique of Professor Spaeth. A woman, aged twenty-eight, was delivered of a seven-months' child on Aug. 29th, 1884. The course of the pregnancy and delivery was normal. Shortly after the expulsion of the placenta the patient fell asleep, and when she awoke, after the lapse of three hours, she was totally blind. Dr. Königstein, on examining her next day, found outwardly nothing abnormal. The pupils were enlarged almost *ad maximum*, their reaction on light and shade was very weak, and the patient could scarcely distinguish light from darkness. The ophthalmoscope showed striking paleness of the papilla and narrowing of the arteries. No medication was employed. By Aug. 31st the patient's vision had improved considerably. She could perceive movements of the hand at a distance of one metre. The field of vision was limited. No ophthalmoscopic change was observed. On Sept. 1st distinct reaction of the pupils was present. The field of vision was free. The next day the acuity of perception was normal, the arteries being somewhat distended. After the lapse of another week all was normal. The blindness consequently was caused by retinal ischæmia, which occurs but rarely in childbed, as in general uræmic amaurosis after eclampsia, or amaurosis after severe hæmorrhage occurs; but in this case the urine contained no albumen, and free hæmorrhage did not take place. Only one case similar to the above is known—namely, that observed by Weber in St. Petersburg, and published in the *Berlin. Klinische Wochenschrift* in 1873.

THE SYPHILIS BACILLUS.

Dr. S. Lustgarten recently lectured in the I. a. R. Society of Physicians on his researches on the syphilis bacillus; his statement being corroborated and somewhat widened by the experiences of Dr. Julius Fürsh and Dr. Julius Mannaberg, from the Vienna Dermatological Clinique, in connexion with a recent case of sclerosis. The sclerosis contained a large number of bacilli as it were in the form of nids.

THE APPLICATION OF PHOSPHORUS IN CASES OF RACHITIS.

Some years ago Wegner described the changes of the bones of animals caused by the ingestion of phosphorus, and hinted that this drug may perhaps play a *rôle* in the therapeutics of rachitis. Kassowitz, in Vienna, took up Wegner's idea, and not only repeated the experiments with animals, but also applied this remedy to rachitic children. As he stated at the meeting of Natural Philosophers in Freiburg, in 1883, he obtained excellent results with this remedy. Last year in Magdeburg he was already able to announce with greater certainty that phosphorus, if taken in doses of half a milligramme per diem, removed all the symptoms of rachitis. Many physicians experienced in children's diseases agreed with Kassowitz; but opponents of the treatment also arose. Baginsky, in Berlin, applying phosphorus for rachitis, observed only in 8 cases out of 72 a slight improvement; in 4 cases even a deterioration. Lorey, in Frankfort-on-Main, had 25 cases, in 7 of which the application of phosphorus produced a good effect, and in 18 the success was doubtful or altogether wanting. Professor Weiss, in Prague, had in 7 cases a negative result, and in only a single instance a positive one. Schwechten, in Berlin, observed out of 41 cases 4 recoveries and 21 improvements; 11 times phosphorus produced no effect, and 5 times it caused deterioration. Professor Monti, in Vienna, is of the same opinion.

EXPERIMENTS WITH RHODANE POTASSIUM.

The saliva contains, as is well known, rhodane potassium, and the urine combinations of it. As only little is known about its physiological and toxic qualities, Dr. Paschkis, from Professor Stricker's laboratory, made experiments with it on animals. An application of rhodane natrium or rhodane hydracid increases the reflex irritability; if applied in small quantities it causes tetanus, which is more lasting than that caused by strychnine. Rhodane potassium increases the blood pressure and irritates the terminal prolongations of the vagus in the heart. A solution of it, if dropped on the heart of the frog, produces stasis of the organ, lasting up to fifteen seconds. Paschkis employed the soda, and not the potassium salt, to exclude the effect of the potassium on the heart.

THE VIENNA UNIVERSITY.

For the forthcoming summer term 195 theoretical lectures and practical demonstrations are announced in the Faculty of Medicine, to be delivered by 121 professors, "docenten," and assistants. In the past winter term 2291 ordinary (of whom 873 were from Hungary) and 164 extraordinary students matriculated in the Faculty of Medicine. In the whole of the Faculties the number of ordinary students amounted to 5076, that of extraordinary students to 765.

Obituary.

JOHN MORE YOUNG, M.A., M.B., C.M. GLAS., &c.

WE have just received notice from India of the sudden death of Surgeon John More Young, I.M.D., from hydrophobia. It seems that about two months and a half before the melancholy event, while caressing a little sick dog (belonging to a brother officer), it licked his hand, on which, unfortunately, there was an open suppurating sore. The hand swelled and was painful for a day or two, but no more was thought about the matter, although the pet dog died from rabies, the result of a bite from a mad dog. Mr. Young, however, was not left long in forgetfulness, for in

about two months he began to complain of great lassitude, weakness, and prostration, with dysenteric diarrhœa. About April 25th—i.e., three days before death (for up to this time he had continued his hospital duties)—intense neuralgic pains came on in his neck, which on the 26th gave place to spasms of a terrible character, and then the truth was forced upon him and all his friends and attendants that he was the victim of hydrophobia. He had all the well-known symptoms of that dreadful and incurable disease, and died on the 28th in the arms of Captain Reid, one of his brother officers.

Mr. Young was the most distinguished student of his year, and passed into Netley at the head of the list. In passing out of Netley, he still further distinguished himself by taking all the first prizes. He joined the I.M.D. only two years ago, and was stationed at Gorakhpore, and as a testimony to his genial, brilliant, and lovable character it may be mentioned that his brother officers are about to place a memorial tombstone over his grave.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the first part of the Professional Examination (Anatomy and Physiology) for the Fellowship at a meeting of the Board of Examiners on the 28th ult.:—

Henry W. Drew, Guy's; Felix C. Vinrace, London and Birmingham; Sydney E. Holden, University College; Henry G. Lys, London; Frederic W. E. Green and Frederick W. Andrewes, St. Bartholomew's; William F. Brook, St. Thomas's.

(Candidates referred, 13.)

Passed on the 29th ult.:—

John O. Tunstall, University College; James J. Clarke, St. Mary's; Harold K. Roper, Guy's; Jasper J. Garmany, Bellevue Medical College, New York.

(Candidates referred, 8.)

The following gentlemen, having passed all the necessary examinations for the diploma, were admitted Members of the College on the 1st inst.:—

Dearden, William Francis, L.S.A., Portland House, Bolton.
Howe, Joseph Duncan, L.S.A., Stockport-road, Manchester.
Stericker, Frederick Walter, M.B. Cantab., Goodlands, Jersey.
Kidd, Hugh Cameron, L.R.C.P. Lond., Leamington-road Villas.
Carpenter, George Alfred, L.S.A., Fentiman-road, Clapham-road.

Professor John Wood, F.R.S., will commence a course of three lectures on "Hernia and its Radical Cure" on Monday, the 8th inst., at 4 o'clock precisely.

ROYAL UNIVERSITY OF IRELAND.—The following degrees were conferred at a meeting held on May 27th:—

DEGREE OF M.D.

Alexander, S.	Queen's Coll.,	Belfast.
Barron, J.	,,	,,
Burrows, J. R.	,,	,,
Corry, Alex.	,,	,,
Crawford, G. B.	,,	,,
Curtin, M. H.	,,	Cork.
Dwyer, T. W.	,,	,,
English, Robert.	,,	Belfast.
Foott, G. H.	,,	Cork.
Foott, R. E.	,,	,,
Hannigan, M. H.	Catholic Univ. Sch. of Medicine.	
Hawkins, W. R.	Queen's Coll.,	Cork.
Hennessy, Daniel.	,,	,,
Loughrey, W. J.	,,	Belfast.
McAleer, J.	Queen's Coll., Galway, and Catholic Univ. Sch. of Med.	
McCarthy, M.	Queen's Coll.,	Cork.
McWha, W. R.	Queen's Coll.,	Belfast.
Marks, G. F. H.	Queen's Coll.,	Cork.
Meenan, J.	Carmichael Coll. Med.	
Musgrave, J.	Queen's Coll.,	Cork.
Nagle, James J.	,,	,,
O'Brien, J. J.	,,	,,
Petticrew, R.	,,	Belfast.
Pooler, Edward L.	,,	,,
Ryan, J.	Queen's Coll., Galway, and Catholic Univ. Sch. Med.	
Savage, J. M.	Queen's Coll.,	Belfast.
Sexton, W.	,,	Galway.
Sharpe, J. H.	Carmichael Sch. Med.	
Smyth, N.	Queen's Coll.,	Belfast.
Thomson, Robert.	,,	,,
Tresilian, F. J.	,,	Cork.
Whitty, M. J.	Queen's Coll., Cork, and Catholic Univ. Sch. Med.	
Wilson, S.	Queen's Coll.,	Belfast.

DEGREE OF M.B.

Griffin, R. M.	Ledwich Sch. Med.
O'Byrne, James P.	Catholic Univ. Sch. Med.
Walsh, James J.	Royal College of Surgeons and Ledwich Sch. Med.

DEGREE OF M.CH.

Barron, J.	Queen's Coll.,	Belfast.
Cowden, W. J., M.D.	,,	,,
Crawford, G. B.	,,	,,
Curtin, M. H.	,,	Cork.
Dwyer, T. W.	,,	,,
Foott, R. E.	,,	,,
Hawkins, W. R.	,,	,,
McAleer, J.	Queen's Coll., Galway, and Catholic Univ. Sch. Med.	
McCarthy, M.	Queen's Coll.	Cork.
McWha, W. B. R.	,,	Belfast.
Marks, G. F. H.	,,	Cork.
Meenan, J.	Carmichael Coll.	Med.
Moore, J., M.D.	Queen's College,	Cork.
Musgrave, J.	Queen's Coll.,	Cork.
O'Byrne, James P.	Catholic Univ. Sch. Med.	
Petticrew, R.	Queen's Coll.	Belfast.
Pooler, E. L.	,,	,,
Ryan, John	Queen's Coll., Galway, and Catholic Univ. Sch. Med.	
Sexton, W.	Queen's Coll.,	Galway.
Smyth, N.	,,	Belfast.
Thomson, R.	,,	,,
Tresilian, F. J.	,,	Cork.
Walsh, James J.	Royal College of Surgeons and Ledwich Sch. Med	
Whitty, M. J.	Queen's Coll., Cork, and Catholic Univ. Sch. Med.	

DEGREE OF MASTER OF OBSTETRICS.

Connery, M.	Queen's Coll.,	Cork.
Corny, A.	Queen's Coll.,	Belfast.
Hannigan, M. H.	Catholic Univ. Sch. of Medicine.	
Hennessy, D.	Queen's Coll.,	Cork.
McCarthy, M.	,,	,,
McSwiney, M.	,,	,,
McWha, W. B. R.	Queen's Coll.,	Belfast.
Petticrew, R.	Queen's Coll.,	Belfast.
Ryan J.	Queen's Coll., Galway, and Catholic Univ. Sch. of Medicine.	
Sexton, W.	Queen's Coll.,	Galway.
Tresilian, F. J.	Queen's Coll.,	Cork.

This degree was also conferred upon the following gentlemen in lieu of the diploma in Obstetrics which they had heretofore obtained:

Barter, William.	McMurray, John
Blackall, Patrick.	McVicker, Matthew.
Bullen John W.	Mangan, Bartholomew.
Craig, James.	Matthews, Robert Huey.
Cromie, Thomas.	Prendergast, Joseph M.
Hosford, Benjamin.	Roulston, William.
Johnston, G. J. W.	Rutherford, William.
Le Grand, William J.	Sheedy, John.
Lewers, Hugh.	Strahan John.
McKee, Samuel.	White, Patrick Bernard.

Honours, Exhibitions, and Prizes were awarded as follows:—

SECOND EXAMINATION IN MEDICINE.—First Class Honours: Ambrose E. J. Birmingham, Catholic University School of Medicine.—Second Class Honours: John William Wilson, Queen's College, Belfast.—Exhibition (First Class, £10): Ambrose E. J. Birmingham, Catholic University School of Medicine.

DEGREE OF M.CH.—First Class Honours and Prize of £20: William J. Cowden, M.D., Queen's College, Belfast.

DEGREE OF M.A.O.—First Class Honours and Prize of £20: Frederic J. Tresilian, Queen's College, Cork.

SOCIETY OF APOTHECARIES.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 28th ult.:—

Beddoes, Thomas Pugh, M.R.C.S., St. Thomas's Hospital.
Carpenter, George Alfred, M.R.C.S., St. Thomas's Hospital.
Howe, Joseph Duncan, M.R.C.S., Guy's Hospital.
Jones, George Selkirk, Charing-cross Hospital.
Winckler, Wm. Joseph, M.R.C.S., University College.

The following gentleman passed his examination in Surgery and Midwifery, and received a certificate to practise:

Oliver, Charles Rye, Charing-cross Hospital.

IT is stated that the late Mr. Richards of Wednesbury bequeathed £1000 to Walsall Hospital, and a similar sum to the West Bromwich District Hospital.

MEASLES AT CHESTER.—Measles is still very prevalent at Chester; twelve deaths were, we understand, registered last week from the disease.

THE Nottingham Corporation has, it is reported, decided, at a cost of £141,000, to purchase a number of small unhealthy tenements in the centre of the town, and to erect upon the spot a hospital, at a further expenditure of £26,000.

BROMPTON HOSPITAL FOR CONSUMPTION.—During 1884 the number of in-patients treated at this institution was 1901, against 1763 in the previous year. The number of out-patients was 13,461, against 13,314 in 1883; and the number of attendances was 72,464. The total receipts amounted to £23,852, and the expenses to £24,467.

INTERNATIONAL INVENTIONS EXHIBITION.—We have pleasure in announcing that Mr. Trendell, superintendent of the Literary Department of the Exhibition, has consulted the convenience of the representatives of the press by causing writing tables with a supply of stationery to be placed in the rooms set apart by the Executive Council.

BRITISH MEDICAL TEMPERANCE ASSOCIATION.—The annual general meeting of the above Association was held on Tuesday, the 26th ult., in the rooms of the Medical Society of London, Chandos-street. Dr. Richardson, F.R.S., presided. The annual report stated that there were now 309 members and 42 associates, the former being medical practitioners and the latter medical students, all personal abstainers. An Irish branch had been successfully established (the first annual meeting of which was held on Tuesday last), and a branch for Scotland was just being inaugurated. For the 100 guinea prize offered by the Council for the best essay on the "Physical and Moral Advantages of Total Abstinence from Intoxicating Liquors" thirty-nine essays had been received, and were now in the hands of the judges. It is intended to declare the result and present the prize at a meeting of the medical students in October next. After the usual business, Dr. Richardson made a communication on "Recoveries from Alcoholic Paralysis under Total Abstinence," and Dr. C. R. Drysdale read a paper entitled "A Medical Reply to Lord Bramwell," which was followed by a discussion.

LONDON HOSPITAL. — A general court of the governors of this institution was held on the 3rd inst., when it was reported that during the past three months 1967 in-patients had been attended, of whom 649 had been discharged cured, 1097 relieved, and 201 had died while under treatment. There were now 616 patients in the wards, the daily average being 620. The out-patients had numbered 7800, and 9745 minor casualties had been treated.

TRAINING THE DEAF.—The annual meeting of the subscribers to the Society for Training Teachers of the Deaf was held last week at the College, Elmhurst, Ealing, under the presidency of Major-General F. C. Cotton. The seventh annual report stated that much good had been effected in making the Society's work more widely known. The Society had occupied a room at the Technical Institution during the Health Exhibition, and the actual teaching of deaf pupils in class was exhibited day after day for over five months.

THE DARWIN MEMORIAL.—The marble statue of Charles Darwin, executed by Mr. Boehm, R.A., will be unveiled in the great hall of the Natural History Museum, Cromwell-road, on Tuesday next, at 12 o'clock, when Professor Huxley, P.R.S., chairman of the Memorial Committee, will formally transfer it to the trustees of the British Museum in trust for the nation. The Prince of Wales has consented, at the request of the trustees, to act as their representative to receive the custody of the statue.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The annual general meeting of this Society was held on May 20th, Sir James Paget, President, in the chair. Mr. Lee and Mr. Cooper Forster were elected Vice-Presidents; Mr. Hogg, Dr. Barker, Dr. Roberts, Dr. Broadbent, Dr. Stokes, Mr. Latham, Dr. Ogle, Dr. Duka, Mr. Bennett, and Mr. Smith Turner, Directors. From the report for 1884 it appeared that the number of members of the Society was only 366, 4 less than in 1883; 13 new members had been elected, 12 had died, and 5 had resigned. The number of widows on the books was 61, showing an increase of 4; 5 fresh cases had been assisted, and 1 widow had died. The number of orphans had been increased from 5 to 8. A sum of £2853 had been given in relief during the year, and the expenses had been £215. A sum of £220 had been invested in the Metropolitan Consolidated Stock. The usual Christmas present had been made last year to the widows and orphans receiving grants. A discussion ensued on the best means of extending the operations of the Society by increasing the number of members; of over 4000 medical men residing within the limits of the Society, only 366 at the present time availed themselves of the opportunity to make a provision for their widows and orphans. The numerous appeals in the medical journals on behalf of the widows and children of medical men who had died young and left them totally unprovided for should lead many to join the Society, by which means they could at least secure a small annual sum for those whom they would otherwise leave destitute. A vote of thanks to the editors of the medical journals for their kindness in assisting in every way in their power in making known the benefits conferred by the Society was carried unanimously, and the proceedings were closed by a vote of thanks to the chairman.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

ATKINSON, WILLIAM, M.D.Q.U.I., M.R.C.S., has been appointed Medical Officer for the Clapham District of the Wandsworth and Clapham Union, vice M'Donogh, resigned.

BAMBER, HARRY, M.B., C.M.Glas., has been appointed Assistant Medical Superintendent to the Fulham Union Infirmary, vice F. G. Ingoldby, M.R.C.S., L.R.C.P., resigned.

BENNETT, STORER, F.R.C.S.Eng., F.R.C.P.Lond., L.D.S.Eng., has been appointed Dental Surgeon to the Dental Hospital of London, vice S. J. Hutchinson, M.R.C.S., L.D.S., resigned.

BENTHALL, ALFRED ELLIOTT, F.R.C.P.Ed., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Southern District of the Sherborne Union, vice Turner, resigned.

BROWN, MARTIN LUTHER, M.B., C.M.Ed., has been appointed Medical Officer for the Brampford Speke District of the St. Thomas Union, vice Hunt.

CRABB, JAMES, M.A., M.D., C.M., has been appointed District Medical Officer for St. Mary, Islington.

CUMING, CHARLES HENRY, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Southern District of the Plymouth Incorporation, vice Prynne, resigned.

JACKSON, ARTHUR, M.B., B.A.Oxon., M.R.C.S., has been appointed Assistant Medical Officer to the Surrey County Lunatic Asylum.

JERAM, JAS. WILLIAM, L.R.C.P., L.R.C.S.Ed., L.S.A.Lond., has been appointed Medical Officer for the Hambledon District of the Droxford Union, vice M'Dougall, resigned.

LEWERS, A. H. N., M.B.Lond., M.R.C.P.Lond., has been appointed Assistant Obstetric Physician to the London Hospital.

MILL, WILLIAM, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Halford District of the Shipston-on-Stour Union, vice Palmer, resigned.

OSBORNE, C. ANTHONY PERRIER, L.R.C.P.Ed., has been appointed Medical Officer of Health for the Huntingdon Urban Sanitary District, vice Oldman, deceased.

PHILLIPS, SIDNEY, M.D.Lond., M.R.C.P., has been appointed Physician to Out-patients to the Children's Hospital, Paddington-green.

SMITH, CHAS. JAS. HARDY, M.B.Lond., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Hawkhouse District of the Cranbrook Union, vice Hayes, resigned.

WALKER, HUNTER URQUHART, L.R.C.S.Ed., L.R.C.P.Ed., has been appointed Medical Officer of Health for Worksop, Nottinghamshire.

WELD, CHAS. HUMPHREY, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Bodiham District of the Ticehurst Union, vice Hayes, resigned.

WHEELER, DANIEL, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Workhouse, Chelmsford Union, vice D. M. B. Wheeler, deceased.

WOOD, T. OUTTERSON, F.R.C.P.Ed., F.R.C.S.Ed., M.R.C.S., has been appointed Resident Medical Superintendent of Sussex House and Brandenburgh House Asylums, vice Dr. L. S. Forbes Winslow, resigned.

Births, Marriages, and Deaths.

BIRTHS.

BARNES.—On the 30th ult., at Boreham, near Hastings, the wife of Arthur Richard Barnes, M.B., of a daughter.

BOWMAN.—On the 26th ult., at Cricklewood, N.W., the wife of Richard Bowman, L.R.C.P., of a daughter.

DREW.—On the 20th ult., at Saville House, Buntingford, Hertfordshire, the wife of J. J. Bowerman Drew, L.R.C.P.S. & L.M., of a daughter.

GRAHAM.—On the 30th ult., at Storrington, Sussex, the wife of G. H. Graham, L.R.C.P.Lond., M.R.C.S., of a daughter.

JOHNSON.—On the 1st inst., at Fern Lea, Upper Norwood, S.E., the wife of G. Lindsay Johnson, M.A., F.R.C.S., of a son.

KIBBLER.—On the 23rd ult., at Mordaunt House, Hackney, the wife of W. Ambrose Kibbler, M.B., of a son.

RIGDEN.—On the 29th ult., at Burgate, Canterbury, the wife of Brian Rigden, M.R.C.S., of a daughter.

MARRIAGES.

DICKSON—CARSON.—On the 2nd inst., at St. Oswald's, Kilmalcolm, Renfrewshire, John Dunbar Dickson, M.D., of Marlow, Bucks, son of Henry H. Dickson, of Lansdowne-road, Dublin, to Emily Margaret, elder daughter of the late David Carson, of Glasgow.

LONGMAN—ANDREWS.—On the 27th ult., at St. Michael and All Angels', North Kensington, George Philip Longman, M.R.C.S., L.R.C.P., of Donhead St. Andrew, Wilts, to Anna Louisa, widow of E. Andrews, and youngest daughter of the Rev. F. Elwes, Vicar of Gestingthorpe, Halstead, Essex.

DEATHS.

ARNOTT.—On the 27th ult., at his residence, Sussex-gardens, Hyde-park, James Monerieff Arnott, F.R.S., of Chapel, Fifeshire, aged 91.

BLAKENEY.—On the 27th ult., at Dorking, at the residence of his youngest son, Edward Hugh Blakeney, M.D., F.R.C.S., Deputy Inspector-General, Army Medical Department, aged 76.

BUNNY.—On the 2nd inst., at Newbury, Joseph Bunny, M.D., aged 86.

COCHRANE.—On the 31st ult., suddenly, at Wickham Market, Suffolk, George Cochrane, M.R.C.S., L.S.A.Lond., &c., in his 77th year.

DICKSON.—On the 26th ult., at South View, St. Heliers, Jersey, John Edward Dickson, M.B., C.M., in his 38th year.

DUKE.—On the 30th ult., at Sevenoaks, Kent, Allen Duke, M.D., formerly of Chichester, Sussex, aged 75.

FLUKER.—On the 25th ult., at Berwick-on-Tweed, Robert Carr Fluker, M.D., in his 69th year.

HOLDSWORTH.—On the 1st inst., at Thames Ditton, Surrey, Dr. William Holdsworth, son of M. Holdsworth, Esq., of Grimsby.

LIDDLE.—On the 30th ult., at his residence, Bow-road, London, John Liddle, M.R.C.S., L.S.A.Lond., late Medical Officer of Health to the Board of Works for Whitechapel, aged 79.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

BOOKS ETC. RECEIVED.

CARRÉ, GEORGES, Paris; MANCEAUX, A., Bruxelles.

Recherches sur le Microbe du Choléra Asiatique: Rapport présenté à M. le Ministre de l'Intérieur par le Dr. E. Van Ermengen. pp. 300, avec 13 Planches.

CHURCHILL, J. & A., London.

The Pathology and Treatment of Stricture of the Urethra and Urinary Fistulæ. By Sir Henry Thompson, F.R.C.S., M.B.Lond. Fourth Edition. pp. 254, with Illustrations.

Face and Foot Deformities. By Frederick Churchill, C.M. pp. 195, with Chromos and Woodcuts.

The Regimen to be adopted in Cases of Gout. By Dr. Wilhelm Ebstein. Translated by John Scott, M.A., M.B. pp. 68.

DAVIS, F. A., Philadelphia.

The Oleates: an Investigation into their Nature and Action. By John V. Shoemaker, A.M., M.D. pp. 117.

GRIFFIN, CHARLES, & Co., London.

A Practical Treatise on the Diseases of Women. By John Thorburn, M.D., F.R.C.P. pp. 573, with Chromo and over 200 Illustrations.

A Text-book of Human Physiology. By Dr. L. Landois. Translated from the Fourth German Edition, with Additions, by William Stirling, M.D., Sc.D. Vol. II. pp. 1184, with very numerous Illustrations.

KEGAN PAUL, TRENCH, & Co., London.

Physical Expression, its Modes and Principles. By Francis Warner, M.D. Lond., F.R.C.P. pp. 372, with 51 Illustrations. 5s.

LEWIS, H. K., London.

Ambulance Lectures on Home Nursing and Hygiene. By Sam. Osborn, F.R.C.S. pp. 95, with Illustrations.

Illustrated Lectures on Ambulance Work. By R. Lawton Roberts, M.D. pp. 171.

LONGMANS, GREEN, & Co., London.

A Manual of Health Science. By Andrew Wilson, F.R.S.E., F.L.S. pp. 231, Illustrated.

The Essentials of Histology, Descriptive and Practical. By E. A. Schäfer, F.R.S. pp. 245, with numerous Illustrations.

MACMILLAN & Co., London.

Dickens's Dictionary of London for 1885. pp. 270. 1s.

Dickens's Dictionary of the Thames for 1885. pp. 310. 1s.

NEW SYDENHAM SOCIETY, London.

Handbook of Geographical and Historical Pathology. By Dr. August Hirsch. Vol. II.: Chronic Infective, Toxic, Parasitic, Septic, and Constitutional Diseases. Translated from the Second German Edition by Chas. Creighton, M.D. pp. 681.

NUTT, DAVID, London.

A Brief and Practical German Grammar and Reader for the Use of Science Students. By Emil Beyer. pp. 90.

SMITH, ELDER, & Co., London.

Von Ziemssen's Handbook of General Therapeutics. In 7 vols. Vol. I.: Introduction by Prof. v. Ziemssen; On the Dietary of the Sick and Dietetic Methods of Treatment, by Prof. J. Bauer; On the Koumiss Cure, by Dr. Stange. Translated from the German by E. F. Willoughby, M.B.Lond. pp. 408.

The Young Doctor's Future. By E. Diver, M.D. Second Edition. pp. 142.

SWAN SONNENSCHEIN & Co., London.

Elementary Text-book of Entomology. By W. F. Kirby. pp. 240, with 87 Plates, containing over 650 figures.

Eastward-Ho. May.—Chips from a Surgeon's Workshop.—Enamelogenous Cysts; by A. C. Bernays, M.D. (St. Louis, Mo.)—The Tricycle in relation to Health and Recreation; by B. W. Richardson, M.D., F.R.S. (Isbister.)—Index Medicus, Vol. VII., Nos. 1, 2, 3. (Davis, Boston.)—South Hayling, a Health Resort; by Percy Pope, M.R.C.S. &c.—L'Erythroxylum Coca; par le Dr. Feigneaux.—The District Railway Guide to the International Inventions Exhibition.—Summer Tours in Scotland: Glasgow to the Highlands. (MacBrayne, Glasgow.)—Pleas for the Establishment of a Royal College of Medicine by the Amalgamation of the Royal Colleges of Physicians and Surgeons of England; by Wm. Hickman, M.B.Lond., F.R.C.S.Eng.—A Lecture on a Healthy Skin; by James Startin. (Harrison and Sons.)—Mémoire sur la Marche et l'Extension du Choléra Asiatique des Indes Orientales vers l'Occident (1875–1884); par le Dr. Mahé.—Think! a Reply to Lord Bramwell's Plea for "Drink"; by Dawson Burns, D.D.—Die spastische Spinalparalyse im Kindersalter; von Johannes Naef.—La Mortalidad de Madrid; por el Dr. D. G. G. Lozano.—Observation d'un Cas de Bec-de-liévre compliqué de Fissure alvéolaire; par le Dr. J. M. Petit de Cette.—Good Words. Sunday Magazine, for June.—Leisure Hour. Boy's Own Paper. Girl's Own Paper, Sunday at Home, June.—Walks in Epping Forest (Illustrated); edited by Percy Lindley; 6d.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, June 4th, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
May 29	29·94	S.W.	58	54	112	68	54	·38	Cloudy
,, 30	30·08	W.	59	52	110	65	49	...	Cloudy
,, 31	30·19	S.W.	63	54	113	68	51	...	Cloudy
June 1	30·23	N.W.	58	52	109	68	51	...	Cloudy
,, 2	30·30	W.	63	56	115	79	51	...	Bright
,, 3	30·12	S.W.	66	56	116	77	54	...	Bright
,, 4	29·90	W.	74	63	126	87	59	...	Fine

Medical Diary for the ensuing Week.

Monday, June 8.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. John Wood: Hernia and its Radical Cure.

Tuesday, June 9.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. Prof. A. H. Keane, B.A.: On the Lapps (A family of Lapps will be exhibited, by the kind permission of the authorities of the Alexandra Palace).—Dr. J. G. Garson: The Physical Characteristics of the Lapps.—Dr. H. Rink: The Language of the Eskimo.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Mr. J. Bland Sutton: Fatty Tumours.—Mr. Jonathan Hutchinson: Large Lympho-Sarcomatous Tumour of the Tongue; Excision; return two years afterwards.

Wednesday, June 10.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department: 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. John Wood: Hernia and its Radical Cure.

BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens will be shown. Dr. Alexander (Liverpool): On the Shortening of the Round Ligaments.—Dr. Granville Bantock: On Inversion of the Uterus.

Thursday, June 11.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Friday, June 12.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. John Wood: Hernia and its Radical Cure.

Saturday, June 13.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

THE CHURCH MISSIONARY SOCIETY AND VIVISECTION.

AT a meeting of the Committee of the Church Missionary Society a letter was read from Miss A. Marston, dated 95, Onslow-square, on the subject of vivisection in its possible bearings on medical missions, strongly deprecating the practice, and appealing to the Committee to prohibit any experimentation on living animals in all schools and by all persons under their auspices and superintendence. It was resolved: "That the question of vivisection not having come practically before the Committee, they do not feel themselves called upon to give any opinion on the subject of Miss Marston's letter; but they have the most perfect confidence in all their medical missionaries, and feel sure that they will never permit, either directly or indirectly, any proceeding of an inhumane character to be carried on." The secretaries were directed to send a copy of this resolution to every medical missionary connected with the Society.

Gynecologist.—We believe the last American edition of Professor Lusk's work on Obstetrics and Diseases of Women and Children has been translated into French by Dr. Doléris, with a preface by Professor Pajot.

Dr. Thursfield (Shrewsbury).—Next week, if possible.

FATAL INJURY WITHOUT EXTERNAL MARKS.

To the Editor of THE LANCET.

SIR,—The following case is perhaps sufficiently interesting to merit a place in the columns of your journal.

On March 10th last I was requested by the authorities to examine the body of a boy aged fifteen. The body presented no ecchymosis or external sign of injury. Upon opening the abdomen, a quantity of slightly sero-purulent liquid escaped. The peritoneum was everywhere highly inflamed, and thin patches of purulent lymph could easily be scraped off the bowel. On the front of the small intestine (jejunum), situated under the lower border of the last portion of the transverse part of the colon, was seen a bruise, the direction of which was longitudinal as to the bowel and transverse as to the body. This bruise was about an inch and a half in length and half an inch in breadth. Upon examining this bruised surface more particularly, a small opening was found communicating with the interior of the bowel, and, in fact, upon laying hold of the intestine a small amount of liquid fæces escaped. The other organs were all healthy.

The following is the previous history. A gentleman on horseback was passing along a road on March 8th, at 8 A.M., when this boy jumped off a wall into the road. The horse, being startled, kicked, striking the boy under the left false ribs. He immediately complained of great pain, which continued all day. No medical man saw him, but a prescription for a liniment was given, which was applied with little or no relief. He died at 11 P.M. on the Sunday night. The boy had always enjoyed excellent health. The interesting point in the case is the absence of any external mark of violence. This was specially searched for, as the history of the case was known to me before making the post-mortem examination. I am, Sir, yours obediently,

Arequipa, Peru, April, 1885. J. DICKSON HUNTER, M.D.Edin.

THE TIBBITS FUND.

To the Editor of THE LANCET.

SIR,—Kindly allow me to acknowledge with many thanks the receipt of the following donations to the above fund.

Dr. Rayner	£5	5	0	Dr. Saul	£2	2	0
W. E. Rawstorne, Esq. ...	5	0	0	Dr. Wm. Collier ...	1	1	0
J. Palmer Gannon, Esq. ..	3	3	0	From "K."	1	1	0

Further donations will be thankfully received and acknowledged by Mr. Wm. Maw, Secretary to the Bradford Infirmary.

I am, Sir, yours truly,

Bradford, June 2nd, 1885. JOHN APPLEYARD, F.R.C.S. & M.B.Lond.

MR. R. DE CORDOVA.

THIS gentleman, whose recitation of Gilbert's "Broken Hearts" met with well-merited appreciation before a crowded audience at Steinway Hall last week, is, we hear, a medical student who has thrown over medicine and taken to the theatrical profession. Mr. de Cordova, who is quite young, has a good flexible voice and finely cut mobile features, and he kept up the attention of his audience in a way which was most creditable in the absence of any of the ordinary stage accessories—costume, scenery, music. Mr. de Cordova has the accent of an educated gentleman, and has evidently much subtle appreciation of character.

Oil Immersion.—Frey's treatise on the Microscope is one of the best. Another, which is probably better adapted to our correspondent's requirements, is "Fol Lehrbuch der Vergleichenden Mikroskopischen Anatomie, Histologie, und Histogenie" (Leipzig, Engelmann, 1880); but the first part only is published.

THE MEDICAL COUNCIL AND GENERAL PRACTITIONERS.

To the Editor of THE LANCET.

SIR,—A great deal of amusement seems to have been created at the expense of the general practitioner at the recent meetings of the General Medical Council. Surely, if for no other reason, the time is fast approaching, if it has not already arrived, when the general practitioner should be accommodated with a seat at the board of that facetious body; for if he were totally incapable of advising as to the education of the future medical student, he would at least be able to defend himself from the attacks which are now being made against him when he is not present, and therefore incapable of self-defence. If the stories of dead general practitioners are to be repeated, whether they are proven to be true or false, we may even hear of some more wonderful tales than those told at the last meeting of the General Medical Council. There is an old proverb that "people who live in glass houses should not throw stones," and it is just possible that general practitioners could tell as many amusing stories of those who frequently, from no abilities of their own, happen to occupy a position which is looked upon as being superior to that of their more lowly brethren. There is very little doubt that the general and scientific attainments and education of the general practitioner of the present day are far superior to those of even the physician of the past. I could, if I chose, relate many facts concerning the blunders of those who are at present engaged in consulting practice; but there is another proverb which hath it that "it is a foul bird, &c." If it be true that "Scotch graduates are not fitted to be good assistants," this may be one explanation why so many of them come over to this country and work for the miserable pittance which they so frequently do. From general practitioners I learnt how to diagnose small-pox, scarlet fever, measles, apply forceps, extract teeth, open an abscess, reduce a dislocation, set a fracture, pass a catheter, and a host of other things; also to show kindness and attention to the sick and dying when no physician could save them; and last, but not least, I have learnt to be kind and lenient to the weak, and to those who happen to be placed in a lower station of life than is the case of

Yours truly,

ALBERT S. MORTON, M.R.C.S., &c.

Kennington-park, S.E., June 1st, 1885.

THE TITLE OF "DOCTOR."

To the Editor of THE LANCET.

SIR,—In these days, when the bogey "red tape" is gradually vanishing before science and a clearer conception of justice, the question not unnaturally arises, so far as the medical man is concerned, What are the essentials of a Doctor of Medicine? The answer has always been: A man who has gone through a certain curriculum and passed certain examinations at a university, and attained a stated age. These, with a few exceptions, are the conditions considered necessary to become a M.D. But what for a man who has gone through a similar curriculum and passed similar examinations, perhaps even harder, but not at a university? Is he not equally learned in medicine? Then why should he be deprived of the right of using its Latin equivalent after his name? When the M.D. is supposed to be a criterion of ability of such importance, especially to a layman, surely it is a severe handicap and a moral injustice to deny this right. In the M.R.C.S.Eng. and L.R.C.P.Lond. we have a case in point. But, as you rightly observe in your leading article of the 23rd inst., many who have obtained these have passed a most insignificant preliminary in Arts. Why not, then, compromise? Let those whose preliminary has been a degree in Arts, the London University matriculation, the preliminary required for the F.R.C.S., or an equally difficult one, have the privilege granted at once; but let those whose preliminary has not been up to that standard complement it afterwards. They will then be Doctors of Medicine in fact—why not in name? If other claims to the title be needed, I think that the consideration of the better clinical teaching obtainable in London, which is one great inducement to the English student of medicine to come to the metropolis, the high fees required, and the making London to the English medical man what Edinburgh is to the Scotch, are very strong, and should at once counterbalance any prejudice that might arise from the absence of the name "university." Let all be equally dealt with, then none can complain.

I remain, Sir, yours obediently,

May 26th, 1885. JUSTUS SIS, NEW TIMES.

"DOCTORS *v.* PHYSICIANS."

To the Editor of THE LANCET.

SIR,—The letter of "Physician and Surgeon" in your last impression is of a somewhat aggressive character, or I should not have noticed it. In mine, under the signature of "M.D.," I had not intended to assume, nor do I think I did assume, any superiority of knowledge, leaving that to be judged of by my patients and others. I am quite ready to acknowledge that many surgeons and physicians, from experience and other causes, are the superiors in skill of some who hold the degree of M.D. in both branches of their profession, but in social status they certainly are not. A University degree is anywhere and everywhere acknowledged to give pre-eminence, and it was that feeling which induced me to take mine, residing, as I did, in a town where two others had recently done so, each prompted by a similar motive. We had all three passed our examinations long ago as surgeons and apothecaries, and were either consulting or acting officers in a provincial hospital, appointments which we all three held for many years with credit and respect. With regard to my own education, which is sneered at by "Physician and Surgeon," it consisted in the usual apprenticeship, one year of which was spent in a large county hospital, together with a clerkship and dresserships at University Hospital, London. With regard to the education of the others I cannot speak, but I can as to the excellent use they made of it. Thus our degrees were certainly not taken because we had failed to reach the standard of your correspondent elsewhere. Mine was taken at the University of St. Andrews, one of the oldest in the three kingdoms, and almost the only one open to me, and my examination was a *viva voce* one, superior certainly to that of Apothecaries' Hall or the College of Surgeons, being conducted by four sets of Examiners and lasting altogether about an hour and twenty minutes, besides a series of papers to be written, occupying five hours on each of three successive days. There was also a separate *viva voce* examination in Materia Medica. So that the examination, if properly passed—and I had no reason to suppose it was not—was not quite such a farce as your correspondent would portray; and I conceived that the social standing it would give me would be higher than that I possessed before; and I should have the satisfaction of knowing that the title of "Doctor," by which I was so frequently addressed, and which is so frequently assumed without sufficient reason, would of right belong to me.

Now that I am writing on the subject, I will once and for all say what I think, and what I know many others think, of the movement which is going on to allow all medical practitioners to call themselves Doctors. The College of Surgeons bestows two titles—that of "Fellow" to those who have passed the qualifying examination, or to those who, like myself, have honourably earned it by length of service and experience, and that of "Member" to others. The College of Physicians bestows two similar titles—Fellow and Member—and, as far as I know, these are only granted to University graduates. The latter of these would justly be physicians, as in the other case of surgeons. But there is a third grade bestowed by the College of Physicians—viz., that of Licentiate, which has worried the College into granting to it what it was never entitled to, namely, the title of Physician also. Not content with this, it is now urging and persecuting the College into allowing it to assume the academical title of Doctor, which all those who have a just right to it are justly and properly opposed to. Why should it be allowed when, as I said before, it has cost those who possess it time, money, and inconvenience to obtain, all of which are to be trodden under foot and pass for nothing? "Physician and Surgeon" says there were other reasons why he did not obtain the title. Then why should it be conferred? In no other profession is a title conceded higher than that which is legally attained. As well might all barristers style themselves Queen's Counsel, or Masters of Arts style themselves Doctors. Let the College of Physicians maintain its own dignity, and do not let it give way to the clamour of those who would endeavour to assume its honours without earning them, and thus for ever depreciate them in the eyes of the world.

I am, Sir, yours faithfully,

June 3rd, 1885. M.D.

Mr. E. Jones.—According to the statistics of M. Bertillon, the death-rates from both diphtheria and enteric fever in Paris have about doubled during the last decade.

C. J. S.—We would recommend that the matter be laid before the Local Government Board. The local authorities have behaved very shabbily, but we fear that legally they are within their rights.

VARICOCELE.

To the Editor of THE LANCET.

SIR,—It would be very interesting to know the opinion of experienced surgeons on the following points. Is varicocele usually the result of masturbation? Does it occur principally in connexion with sexual excess and involuntary emissions? Does it ever occur in a man who remains continent till twenty-five years of age? If a boy has varicocele, can any operation make him really fit for naval or medical service? I fancy that if anyone who has had varicocele be sent to India or West Africa he will break down just when most needed, though he may do for ordinary routine work. Are alcohol and sexual excess the main elements in causing varicose veins and general deficiency in elasticity of body and mind? What is the experience of army surgeons with regard to varicose veins in men reared in poverty in remote country districts, as compared with those reared in manufacturing districts and presumably more addicted to vice?—Yours truly,

June 2nd, 1885. QUESTIONER.

COCAINE AS AN ANÆSTHETIC.

To the Editor of THE LANCET.

SIR,—I am loth to add to the numerous letters which have appeared in your valuable journal on the above subject; but, feeling that the very interesting communication by Mr. Copeland might prove misleading, I am emboldened to send you my experience of the action of cocaine upon the sensibility of the iris. In my opinion, the anæsthetic action of cocaine does not always penetrate as deeply as the iris, and I instance the following case in support thereof.

On Feb 26th, M. S——, a female aged forty-two, of calm demeanour and by no means nervous, was treated for the removal of a cataract from the right eye. A 4 per cent. solution of cocaine was applied to the eye at intervals of five minutes, and the operation commenced twenty minutes after the first application. The sclero-corneal incision was made without causing any pain; but directly the iris was seized by the iris forceps the patient started and complained of excessive pain. It was therefore deemed advisable to remove the cataract without performing iridectomy, and as the pupil was well dilated by the cocaine this was easily accomplished. By keeping the iris under the influence of atropine for a few days, and dressing the eye with cold-water compresses, the patient made an excellent recovery, and her sight was fully restored.

This case led me to decide not to use cocaine for iridectomy, unless under exceptional circumstances. The pupil generally dilates so well under the influence of cocaine that extraction without iridectomy is very easy, and, as far as I know, has not been followed by any untoward result.

Mr. Copeland's letter is incomplete in that neither the strength of the solution used nor the interval between the first application and the operation is given; it is therefore as much for the purpose of eliciting evidence on the effect of cocaine on the iris as to check the conclusion naturally drawn from Mr. Copeland's letter—viz., that when the conjunctiva is well under the influence of cocaine the deeper structures of the eye are also—that I have ventured to address to you the above remarks. I am, Sir, your obedient servant,

Coggeshall, Essex, June 1st, 1885. WM. THOS. JACKMAN, M.R.C.S.

Bacillus.—Yes; Dr. Koch has been officially gazetted as Professor of Hygiene in the Medical Faculty of the University of Berlin.

A SUMMER ALPINE HEALTH RESORT.

To the Editor of THE LANCET.

SIR,—As there are many people by whom a salubrious and agreeable summer residence on the south side of the Alps is much desired, I am anxious to bring a very lovely and healthy locality under the notice of your readers—viz., the Hôtel Belvedere, Lanzo d'Intelvi, Como. The situation of the hotel is one of the most beautiful to be found anywhere. It stands at an elevation of fully 3000 feet above the level of the sea, with a magnificent view of Monte Rosa and its adjacent range, while at a depth of 2100 feet lies the Lake of Lugano, winding away in the distance. Behind the hotel stretches a fine old forest of chestnut trees, containing some of the grandest specimens of that tree to be found in Europe. In the forest, in addition to the chestnuts and interspersed among them, are to be seen many other kinds of trees, such as oak, elm, beech, birch, sycamore, hazel, lime, ash, tamarind, maple, walnut, and thorn. There are many delightful walks on the level, and donkeys are to be hired at the hotel. Monte Generoso, or Calvagione, is within easy reach for a day's excursion. Near Lanzo, and within a short distance of the hotel, are sulphur and iron springs. The climate is equable, with a soft yet bracing air, the temperature ranging from 61° to 73°. The subsoil is sandy and the atmosphere dry. The Hôtel Belvedere can be reached by carriage in three hours and a half from the following points:—Argegno on Lake Como, Osteno and Maroggia on Lake Lugano, the latter being a station on the St. Gothard Railway. The hotel, which is large and roomy, has been recently fitted up with every comfort, and has a billiard room and library, with a good lawn-tennis ground near the house. In the immediate neighbourhood are two dairies, by means of which the milk cure can be carried out. An English Church (S.P.G.) has been built, and there is a resident chaplain during the months of July and August, as also a resident physician. The hotel is a telegraph station. Being a comparatively new health resort, it is not yet mentioned in Baedeker, but this is to be rectified in the next edition.—I am, Sir, yours faithfully,

Rome, May, 1885. CHARLES SPURWAY, M.R.C.S.Eng., &c.

Mr. A. J. Harvey's paper on the "Discovery of Self-Mesmerism" is declined.

THE DEGREE OF B.Sc. OF THE LONDON UNIVERSITY.

To the Editor of THE LANCET.

SIR,—Will you allow me to suggest, after reading the article in THE LANCET of this week on the Preliminary Scientific (M.B.) Examination, that, having regard to the amount of scientific knowledge men who have passed the Intermediate (M.B.) Examination possess, it would, to use the words of the article, be "both politic and fair" if the University of London awarded them the degree of B.Sc. Why should medical students have to pass four examinations before obtaining the honour of a degree when in all the other faculties only three are required, and when, after having passed their third examination, they are quite on a par with the inferior degree men in those other faculties? Simple justice demands that this honour should be extended to Intermediate (M.B.) men. I remain, Sir, your obedient servant,

May 22nd, 1885. C. L

A CASE OF CATALEPSY.

To the Editor of THE LANCET.

SIR,—Judging by the text-books, cases of catalepsy are sufficiently rare to warrant my publishing this one.

Daniel L——, aged fifteen years, was admitted into the Mallow Union Hospital on March 27th, 1885. His pulse, temperature, and urine were normal; pupils equal; no paralysis; eyes staring. He would not answer any question or make any attempt to feed himself. He continued in the same state till April 1st, when, on taking up his wrist to feel the pulse, I noticed that it remained in the same position in which I left it. I then tested the arms and legs, and found them perfectly cataleptic. On April 2nd I again tested the limbs; they were still cataleptic. Next day he was not so rigid, and had some voluntary power. I was informed that he had spoken, but not coherently, to his grandmother on the previous evening. With Dr. Berry's assistance, I applied galvanism from the spine to the arm and the leg. After a short time he shrank away, and dropped the limbs which we had elevated. On April 4th his mother came to see him. She stated that on the night of March 22nd he awoke in a fright. He was not living with her, but was at service with a farmer at the time. She saw him on the 24th, when he spoke to her, but seemed "queer." There is no history of anything odd in the family. On this date (April 4th) I raised both arms and one leg at the same time and left the patient in that position for fifteen minutes. The arms remained up, but the leg dropped partially after some time. I again applied galvanism to the spine and the leg. He at once tried to roll away from me. From April 4th to the 8th he remained in the same condition, but on the latter day, on my raising his arms, he dropped them at once; he had, however, some voluntary power of movement. On the 11th he ate bread out of his own hand for the first time. On the following day he got up without help to the night-chair, ate all his own bread, and stole and consumed that of the patient next to him. He talked to the ward attendant, but would not answer when I spoke to him. From this date to April 17th he remained in an idiotic state, when he was sent to the idiot ward. His intellect, however, subsequently improved, and on May 21st he answered questions rationally, and will, I think, soon be able to return home.—I am, Sir, yours obediently,

FRANCIS W. GREENE, M.B. Univ. Dub.,
May 25th, 1885. Medical Officer, Mallow Union Hospital, co. Cork.

Mr. Holderness.—Such a consultation, though theoretically simple, is practically unsatisfactory, and to be avoided. Our correspondent would be justified in declining it; but we see no objection to his undertaking the charge of the case if the patient wishes it.

MINCING MACHINES.

To the Editor of THE LANCET.

SIR,—A few days ago I bought a mincing machine for use in the kitchen, and on looking into its construction I found that the working parts were made of lead. The machine consists essentially of a hollow cylinder of enamelled iron, in which there revolves a horizontal axle provided with a series of teeth which force the meat against the edges of a row of knife-blades set in a casting of lead. The axle and its teeth are all of lead. Is there any danger of lead-poisoning from the use of such a machine? The makers state in their advertisement that 80,000 of them have been sold; therefore the danger, if there is any, is a matter of some public importance. I am, Sir, yours truly,

Hatfield, May 18th, 1885. R. HUGHES.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Russell Reynolds, London; Dr. Sieveking, London; Mr. J. C. Richardson, Wandsworth; Mr. Van Stow, London; Dr. Finlay, London; Dr. Ward Cousins, Southsea; Mr. G. E. Walker, Liverpool; Dr. Duncan Main, Hang Chow; Dr. Gairdner, Glasgow; Dr. More, Rothwell; Mr. W. T. Rayne, London; Mr. Ormsby, London; Dr. Gramshaw, Gravesend; Mr. Apperly, London; Mr. Tomlinson; Mr. J. D. Farquharson, Newcastle-on-Tyne; Dr. Hudson, Leeds; Mr. H. E. Richardson, Birkenhead; Mrs. M. E. Bache, London; Dr. Sinclair Thomson, London; Messrs. Burroughs and Wellcome; Messrs. Herren, Kahnemann, and Krause, Vienna; Mr. McGregor Robertson, Glasgow; Dr. Campbell, Garlands; Dr. Dolan, Halifax; Mr. Cosburn, Newbury; Dr. Swete, Droitwich; Messrs. Griffin and Co., London; Dr. P. W. Macdonald, Dorset; Mr. Blackett, London; Dr. Cruise, Dublin; Dr. Savage, Birmingham; Mr. W. Bull, London; Messrs. Manlove and Co., Notts; Mr. J. G. Elliott, London; Mr. S. Knight, London; Mr. Dalby, London; Mr. Ridgway, Bristol; Mr. White, Manchester; Mr. A. S. Morton, London; Mr. Simeon Snell, Sheffield; Mr. Grinlynn, Burton-on-Trent; Dr. Hannay, Shrewsbury; Mr. Myers, Hull; Dr. Corfield, London; Messrs. Robertson and Scott, Edinburgh; Messrs. B. Smith and Co., London; Dr. Macnamara; Mr. Canall, London; Mr. Blore, Leeds; Mr. Bigmore, Avrill; Messrs. Kirby and Co.; Messrs. Mackay, Edinburgh; Mr. Tillyeld, Notts; Dr. Spender, Bath; Messrs. Foster and Co., Clapham; Mr. Gurner, London; Mr. Owen, Lepton; Mr. Smith, Liverpool; Mrs. Pratt, Cardiff; Dr. Gledhill, Manchester; Mr. Baker, York; Mr. Kershaw, London; Messrs. Oppenheimer and Co., London; Mr. Berry, Wrexham; Messrs. Richardson and Co., Leicester; Mr. Shand, Peterboro'; Messrs. Lee and Martin, Birmingham; Mr. Barrow, Birmingham; Miss Yeatman, Haslemere; Mr. J. Startin, London; Mr. Coates; Mr. Tomlinson; Questioner; M.D., St. And.; An Old Schoolmaster; Vindex; A.B.Dub.; Medicus, Edinburgh; P.; W. A. W.; Doctor, Plymouth; M.B., Liverpool; F.; H. E., New-cross; G. A. C., Clerkenwell; M.D.Lond.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Crewe; Messrs. Oliver and Co., Manchester; Mr. Heap, Swanage; Mr. Wells, London; Mr. Davenport, London; Mr. Davies, Bath; Mr. Anderson, Llandudno; Mr. Irving, Stanmore; Messrs. Goddard and Massey, Notts; Mr. Emmenson, Rotherham; Mrs. Abbs, Dewsbury; Dr. B. Squire, London; Rev. A. T. Sole, Southampton; Mr. Thompson, Wolston; Mr. Fasken, Isle of Skye; Mrs. Lockwood, Bournemouth; Messrs. Gale and Co., London; Dr. Royle, Jersey; Mr. Hulme, Birmingham; Mr. Trent, Fulham; Mr. Symons, Dumfries; Mr. Fidler, St. Helens; Dr. Dodsworth, Chiswick; Mr. Longman, Sherborne; Mr. Pollock, Wallingford; Mr. Pace, Newcastle-on-Tyne; Mr. Parson, Godalming; Mr. Tweddles, West Hartlepool; Mr. Wade, Kingston-on-Thames; Mr. Townsend, Exeter; Messrs. MacLehose and Son, Glasgow; Mr. Burcombe, Lincoln; Dr. Duckworth; Messrs. Mason and Co., Chelsea; Mr. Grisewood, Liverpool; Mr. Robson, South Shields; Dr. Dowe, Fife; Mr. Bodage; Dr. Heelas, Bonchurch; Mr. Keswick, Sutley Ashfield; Mr. Meadows, Leicester; Mr. White, Manchester; Mr. Robinson, Bury St. Edmunds; Mr. Eccles, Newcastle-on-Tyne; Mr. Bullock, London; Mr. Gabriel, Notting-hill; Mrs. Griffith, London; Mrs. Montague, London; Messrs. Beal and Co., Brighton; Mr. McDowell, Tipperary; H. O. M., Edinburgh; M. C.; J. C., Liverpool; C. T. K.; B.D., Llanfachreth; E. C. F.; J. G. W. B., Folkestone; F.S.A., Wye; Speranza; Medico; V. J. R.; Medicus, Southport; G. R.; Medicus, Muxton; A. G.; X.; C. P. T.; J. H., Liverpool; L.R.C.P., Manchester; G., Balham; Medicus, Stow-on-the-Wold; J. M.; Alpha Omega, Durham; W. R., Festiniog; Omega; M.R.C.S.; Alpha, Croydon; M.R.C.S., Barthingboro'; M.R.C.S., York; Locum Tenens, Manchester; J. B.; M.R.C.P.; A. P.; J. M., Hereford; Alpha, Carnforth; L. J.; C. S.

Church of England Temperance Chronicle, Newmarket Journal, Oxford University Gazette, Bath Herald, Galloway Advertiser, Retford News, Stratford Express, Nottingham Daily Express, St. James's Gazette, Christian Million, Animal World, Good Company, Morningside Mirror, Christian World, Musical Times, &c., have been received.

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The Cavendish Lecture

ON

HYSTERIA AND ITS COUNTERFEIT PRESENTMENTS.

Delivered before the West London Medico-Chirurgical Society, on Friday, June 5th, 1885,

BY J. S. BRISTOWE, M.D., LL.D., F.R.S.

MR. PRESIDENT AND GENTLEMEN,—It has often happened to me, when I have determined to speak or write on some special subject with which I had thought I was familiar, that, as I have pondered upon it with the object of bringing my facts and fancies into due mutual relation so that I might place them in the form of a compact and intelligible picture before my auditors or my readers, I have found my task grow more and more difficult with thinking upon it; I have found matters which I had perhaps hastily clothed with importance dwindle into insignificance; I have found what had seemed incidental and subsidiary questions assuming fundamental importance and pressing for solution; and I have discovered that, if I wanted to deal with my subject intelligently and adequately, I should have to bestow much more contemplation upon it than I had originally intended, and to treat it on different principles from those which suggested themselves to my mind in the first instance.

So it proved on the present occasion. It would be an easy matter, I thought, when I decided on the title of my lecture, to collect out of my experience a series of cases of hysteria and a parallel series which were not hysterical, to compare them, and to consider the lessons which such a comparison might teach. But as I proceeded with my self-imposed task, and began to bring into mental juxtaposition cases which I had regarded as hysterical and cases which I had regarded as not hysterical, I was compelled to ask myself more definitely than I had ever done before what were my grounds for applying the epithet "hysterical" to certain cases and for withholding it from certain other cases. I pondered over the matter; I puzzled myself; I came to conclusions that did not satisfy me; and at length, having wasted much time over it, I decided, after all, to treat my subject from the superficial point of view from which I had at first regarded it, and to reserve what little I had to say upon its more abstruse aspects for the close of my lecture.

I shall not attempt, then, at the present moment to define hysteria, or to consider in what respects hysterical disorders of the nervous system differ from other functional nervous derangements, or how they may be distinguished clinically from these and other groups of symptoms due to structural disease of the nervous centres, or of the nerves. But I shall assume, as is generally admitted, that hysteria represents an unstable condition of the nervous functions, arising independently of organic changes in the nervous system; in which at one time or another one or other part, or several parts, of the nervous organism may be temporarily affected in various ways; but in regard to which, partly from the conditions under which the symptoms of the disease arise, partly from the emotional state which is generally present, and partly from peculiarities in the symptoms themselves, in their mutual relations and in their course, there is, as a general rule, little difficulty in diagnosis. And I proceed to describe a selection of cases which, on the grounds above-stated, I have reasons to regard as hysterical, and to compare them generally, or in some of their most striking symptoms, with cases which, so far as I know, would not generally be placed in that category.

1. Mary D——, an emotional girl, nineteen years of age, was under my care for two or three months in the latter part of 1882. She was suffering from hysterical aphonia; besides which she presented a slight external squint of the left eye, and a narrowing of the left palpebral fissure and of the left side of the mouth, associated with a little twitching in the facial muscles of the same side. The aphonia was of recent origin, but no history could be obtained with regard to the affection of the face and eye. No material improvement took place. She came under my care a second time towards the end of 1883. She was still aphonic, and still presented her old facial peculiarities, but she was suffering from vomiting and emaciation, and from hysterical fits attended with much violence of convulsions. She was subjected to the Weir-Mitchell method of treatment, and at the end of three months left the hospital much improved, excepting in the symptoms for which she was originally admitted. On November 21st, 1884, she became my patient for the third time. She had remained aphonic, but suddenly, some three weeks before admission, had lost the power of articulation as well. She was still a very emotional young lady, with slight external squint of the left eye, a little narrowing of the left palpebral fissure (which Mr. Nettleship considered to be due to partial ptosis), some narrowing of the left side of the mouth associated with constant twitching of the angle, and a fidgety manner. She could not phonate, excepting a little when she laughed or coughed, neither could she articulate; indeed, when asked to speak, she merely moved her lips vaguely, as though not comprehending how to adapt them to the utterance of articulate language, but there was no paralysis of the larynx or of the mouth or tongue. Dr. Semon found that the vocal cords moved with the utmost freedom, that they often came into close juxtaposition, and that sometimes when apparently efforts were being made to phonate the rima glottidis became obliterated. The lips and tongue and soft palate, for all purposes but speech, were completely under her control. But though she could not speak, she understood what was said, and she could answer readily in writing. In addition to the above symptoms, it was discovered that she had anæsthesia throughout the left side (head, neck, arm, trunk, and leg), that she could neither taste nor feel with the left side of the tongue, that she could not smell with the left nostril, and that the perception of colours with the left eye was imperfect. There was complete absence of sensation and of reflex excitability in the soft palate and pharynx. The left ovarian region was tender. No very marked change occurred for some time. There was a little variation in the degree and distribution of the hemianæsthesia; and on one occasion, under the influence of a powerful magnet, there was temporary partial transference. I showed her and taught her how by smacking her lips, by similar action of her tongue, and by breathing through her upper row of teeth when resting on her lower lip, she could utter the essential consonantal sounds of *p*, *t*, and *f* respectively, but she made no further advance towards speech. She suffered much and constantly from headache, and occasionally from sickness; and early in January had a severe hysterical fit, in which she was violently convulsed and very rigid, but remained sensible. It ended in a fit of crying. After this she complained very much of headache and sickness, seemed ill, and ultimately took to her bed. She appeared still to be suffering thus when suddenly, late in the evening of March 10th, she called out "Sister," and at once the floodgates of her speech were opened, and she talked so volubly and incessantly that she had to be removed to a small ward for the night. From this time she improved rapidly, in nearly all respects. Her headache and vomiting gradually ceased. She became bright and cheerful, and useful in the ward, and looked and conducted herself like a sensible girl. But the paralytic phenomena on the left side of the face remained unchanged; and she was still anæsthetic, void of taste and smell, and partially colour-blind when, early in April, she was sent to a convalescent hospital.

Unfortunately, the history of the case does not end here; for, three or four weeks afterwards, she was brought back to the hospital with recurrence of aphonia and aphemia and, additionally, with somewhat severe general chorea. It will be recollected that on former occasions her manner had been fidgety, but her movements were not then characteristic, they were rather sudden and impulsive. But now they were typically choreic, and involved not merely the limbs, but the trunk, the head and neck, the face, the eyes, and the tongue. It was stated that the return of symptoms was due to her having been suddenly roused from sleep by one of her fellow-convalescents. She had never, so far as I know, had chorea previously; she had never had rheumatism; and no evidence of cardiac disease was ever detected. Within the last few weeks she has again suddenly regained speech and voice; but she is still under treatment for the chorea, which is improving, and for the anæsthesia and paralysis.

Now, that the above is essentially a case of hysteria will

be generally allowed. The emotional character of the girl; the aphonia corresponding accurately with the aphonia, so often observed in hysteria; the hemianæsthesia, with involvement of the senses of smell, taste, and sight on the same side; the ovarian tenderness; the characteristic fits; and the rapid and unexpected variations in the symptoms—all furnish evidence of the correctness of that view. But was the aphemia also hysterical? Is the chorea hysterical? Are the persistent paralytic or spasmodic phenomena on the left side of the face hysterical?

That the aphemia was functional, and presumably therefore hysterical, cannot, I think, be doubted. The history of the case shows it. But aphemia is rare as an item of hysteria. At any rate, I have only once before met with it in a definite form; while aphonia is common. And yet when one considers the nature of the nervous disturbances by which aphonia and aphemia are respectively caused, and the close functional relationship there is between these two factors of speech, it seems odd that aphemia should not be a more common outcome of hysteria, and more often associated with hysterical aphonia than it is. It has been shown in this case, as I believe it has been shown in many other such cases, that there was no paralysis of the vocal cords, which could be brought into the most complete apposition, and into the position therefore in which phonation could not have been helped had the patient managed to breathe forcibly at the suitable moment. The defect was a hinderance to the proper transmission of the mental impulses to phonate to the ministerial centre by means of which the complex group of actions which subserve phonation are automatically coördinated, or a failure of this centre to act, or an impediment to the passage of the duly coördinated impulses along its efferent nerves. It has been shown also that there was no real paralysis of the organs of articulation. She understood speech, she could write, she could read, she was at no loss for words; but her organs of articulation, though free to move, did not respond to her mental impulses to speak. In fact in this case, as in the last, the defect depended not on any default of the supreme centre, but on some incompetence in a subordinate coördinating centre, or on some impediment to the transmission of impulses either between the supreme centre of speech and this coördinating centre, or between the last and the muscles it should control. That the nervous defect was in both cases independent of any structural change in the parts concerned, and involved simply what may be termed a hitch in the mechanism by which articulation and phonation are effected, is proved by the sudden temporary cures of the aphonia under the influence of galvanism, and the suddenness of onset and the suddenness of disappearance of both affections. The only other case of hysterical aphemia which I can recall is as follows:—A gentleman, about fifty-five years of age, with whom I was well acquainted, had been liable for many years to occasional fits, determined by mental excitement, which every doctor who had seen him in them regarded as hysterical, and which, from the description given to me, I thought were undoubtedly hysterical. On the occasion to which I refer there had been a serious panic on the Stock Exchange, and for some time it had been doubtful whether, through defaulting debtors, he would not lose a very large portion of his fortune. The excitement induced one of his so-called "hysterical" attacks, and this was followed for the first and only time by a total loss of the power of uttering articulate language, which lasted for several hours, and was then suddenly recovered from. He had no paralysis at the time, was quite sensible, could understand well all that was said to him, and could express himself accurately in writing.

But the same affection of speech may result from organic disease, implicating the centre or tracts of nerve tissue, presumably disturbed functionally in the cases just quoted. In 1870 I brought before the Clinical Society a very interesting case of the kind. The steward of a steam-packet was attacked suddenly while passing through the Straits of Banca, with a series of severe epileptic fits; on his emergence from which his limbs were powerless, he was stone deaf, and he could not speak. He was taken shortly afterwards to the hospital at Singapore, and was then still deaf and unable to speak, and paralysed on the left side. There was also slight right hemiplegia. He remained in hospital for some months, improved in many respects, and then came to England. He was received into St. Thomas's immediately on his arrival in this country, and just nine months after the onset of his illness. At this time he had manifest weakness in the left leg, complained of pain at the back of the head, and was unable to utter any articulate sound. But he had no paralysis of the organs of speech, he could understand perfectly, and he could keep up a conversation in writing. He had recovered his hearing and was also fairly well in all other respects. It was obvious that his inability to speak depended neither upon paralysis of the organs of speech nor on affection of the supreme centre of speech; but was due to some interference with the transmission of the impulses to speak from the supreme centre either towards or through the centre which regulates the mechanical details of speech. He had been speechless for nine months, and was no nearer speaking now than he was at the beginning of his illness. But he was a sensible man and (as I before mentioned) had complete control over the organs of speech for all other purposes than those of speech; and I determined therefore to endeavour to teach him to speak. I pointed out to my class and to him that the utterance of articulate sounds is a mere mechanical art; that for each letter-sound the organs of speech have to be arranged in a particular manner, and that if thus arranged, and their owner breathes or phonates, or suddenly opens or closes the oral passage, as the case may be, he cannot help uttering the articulate sound due to the particular arrangement of the parts at the time. And I illustrated my meaning by showing him, as I showed Mary D——, how, by certain simple manœuvres, certain simple consonantal sounds—such as those of *p*, *t*, and *f*—could be uttered; and how, by accompanying these several acts with phonation, *p*, *t*, and *f* become converted respectively into *b*, *d*, and *v*. I will not occupy your time by detailing how I, by repeated and progressive lessons, and he, by persistent and determined efforts, succeeded at the end of some weeks in restoring to him the use of articulate language. It is sufficient for me to say, that I first showed him how to utter the simplest articulate sounds; that, then, I taught him how to combine sounds; and that, after he had laboriously made some progress in these accomplishments, and especially after he had acquired some facility in combining two or three letters, his further progress was marvellous in its rapidity. I have quoted this as a case of aphemia dependent on organic cerebral disease; and judging from the patient's history and from the accompanying symptoms, I believe it was. But I admit that the complete recovery which took place is to some extent an argument in favour of the functional nature of his disorder.

Is the chorea which has latterly appeared in my patient to be regarded as hysterical? I do not think it has yet been proved that chorea is due to organic disease of the brain; and we know that (although it presents remarkable relations with heart disease, rheumatism, and scarlet fever) it is largely characterised by emotional disturbance often not unlike that met with in hysteria, and that hemianæsthesia and other symptoms not uncommon in hysteria occasionally become developed during its course. Considering how often rhythmical and convulsive movements of various kinds (some of which would certainly in former times have been called chorea) attend hysteria, it would seem not unlikely that symptoms identical with those of chorea should occasionally supervene as a part of the hysterical programme. A case bearing on this subject that was under my care three years ago has recently been published by my friend Dr. Hadden in *Brain*. In substance it is as follows:—A boy fifteen years of age was on December 20th attacked with a kind of fit, attended, it was said, with faintness, sickness, and convulsions. Similar fits recurred several times during the day, and from that time choreic symptoms showed themselves. On January 16th he was brought to the hospital, and in the casualty-room he was attacked with another fit, in which he became rigid, with convulsive movements of the arms and legs; but he was conscious, emotional, and cried when questions were put to him. His mother said that before the fit came on he complained of tightness at the throat and inability to swallow. When he came to, he was received into the hospital, and was found to present characteristic general choreic symptoms with difficulty of speech. There was no cardiac disease. On Jan. 22nd he complained of a lump in the throat, jumped up, and would have fallen out of bed if he had not been caught. He rolled over on his face, sobbing. When turned over again his back became rigid and his limbs convulsed. He did not lose consciousness; he had no recurrence of fits; his chorea gradually subsided, and he was discharged well on Jan. 31st. The fits were in this case, I

think, clearly hysterical; they seem to have ushered in the choreic symptoms, and they recurred from time to time during the progress of the disease. I cannot venture to assert that the chorea was in this case a phase of hysteria; but I think that this case, in association with that first narrated, and the fact of the emotional affinities between the two affections, render this view at any rate a probable one.

I now come to the paralytic state of the left internal rectus, and the peculiar condition of the muscles supplied by the left portio dura. The paralysis of the rectus was incomplete, but it was obvious, and she saw double. The left palpebral fissure was narrower than the right. The left oral angle was the more pointed, and that half of the mouth opened less widely than the other. Moreover, as I have pointed out, there was always a little twitching of this angle of the mouth, and of the muscles on the same side of the face. The condition of things was not unlike what results from an old attack of facial paralysis, in which recovery only short of perfection has taken place; the muscles regaining their voluntary power but becoming somewhat contracted and liable to flickering spasms. Mr. Nettleship was inclined to regard the narrowing of the palpebral fissure as due to slight ptosis. At any rate it is clear that the facial phenomena were due to affection in the domain of the third nerve and that of the portio dura.

We never got a very complete history of the case. But in the history we obtained there was nothing to show that she had ever had any acute affection of the portio dura, or that the squint and double vision were of old date. One argument against the functional origin of the phenomena is that since they were first observed they have presented no variation whatever; such as they were when she was first seen, so they remain. That hysterical patients may suffer from functional squinting I suppose there is no doubt. Within the last few days I have seen a young widow lady of twenty-five, who during the last month has for the first time in her life been suffering from the ordinary form of hysteria. But she informed me that during the previous ten years she had suffered from paralysis, at one time of one limb, at one time of another, and from loss of feeling, and that several years ago she suffered for some months from a squint and double vision for which she was treated by an oculist. She had no headache or sickness at the time. In relation to this question, I will also refer very briefly to two interesting cases admitted under my care within a few days of one another in the winter of 1882-83.

Eliza H——, a girl of nineteen, was attacked suddenly fourteen weeks before with right facial palsy, and six weeks later with weakness and numbness of the left arm and leg, the leg being affected later and less severely than the arm. She had no fit, headache, giddiness, or sickness. She had never had any serious illness before, nor had she been hysterical. On admission she was a plump and remarkably healthy-looking girl. The paralysis of the right side of the face involved mainly its lower part. She could wrinkle her forehead slightly, and could close her eye, but not firmly. The mouth was drawn over in the most remarkable way to the left side. It was almost wholly to the left of the mesial line, and the left angle was tucked up under her fat cheek so as to be scarcely visible. When she laughed the zygomatici on the right side acted slightly. There was very slight weakness remaining in the left leg. The arm, however, was decidedly weak. There was no anæsthesia. The optic discs were normal, and there was no evidence of disease in any other organ of the body.

Gertrude H——, a girl aged fifteen, after suffering for about a week with headache and giddiness, suddenly, a month before admission, began to squint, and three weeks later began to complain of weakness, numbness, and tingling in the right arm. She, like the other, was a plump healthy-looking girl. She had paralysis of both external recti, mainly of the left, with double vision, and impairment of sensation with marked loss of power in the right arm. She complained also of left-sided headache and some giddiness. The optic discs were healthy, and there was no sign of disease elsewhere. I may add that she, like her contemporary, presented a clean bill of health, and there was no evidence of her ever having displayed the usual symptoms of hysteria.

I need scarcely say that these two girls coming into hospital at the same time, and presenting a striking resemblance to one another in their histories and in their symptoms, attracted a good deal of clinical interest. And naturally, amongst others, the question arose whether their symptoms could be hysterical. I did not take this view of the cases; but you shall judge how far their future histories justify it. The former of these patients gradually but slowly improved. The paralysis of the arm and leg disappeared absolutely in the course of two or three months. The facial palsy made less rapid progress. It had improved by the end of three months, at which time the affected muscles presented the reactions of degeneration. She has called upon me from time to time since; and when I saw her a month or two ago, she was perfectly well, but for a trace of asymmetry in the lower part of the face. The latter patient has been under my care off and on down to the present time, and her symptoms have slowly progressed. She has suffered from variable headache, giddiness, and sickness ever since; the paralysis of the right arm and leg have become almost absolute, and hemianæsthesia of the same side has supervened; paralysis has spread to all her external ocular muscles, and complete ophthalmoplegia externa has resulted; and she has become liable to periodic epileptic seizures, always ushered in by two or three days of increasing high temperature. She has never had any trace of optic neuritis, and remains mentally in perfect health. I do not give the full details of this case partly because for my present purpose it is needless, and partly because I intend before long to publish it together with some other cases of the same kind. Now, were these cases hysterical? I am much more inclined than I was at first to think that this view furnishes the explanation of the former case, but I confess that I am by no means clear on the point. With respect to the latter case, I may state that I recently transferred it to another hospital, and the sister of the ward and the house-physician there settled between them to their own satisfaction that the case was hysterical, and that the girl was malingering. That she is not a malingerer I am absolutely certain. Whether the case can be regarded as hysterical depends on the limits one assigns to hysteria. I have reasons for believing that no organic changes will be found in the nervous centres after death. But the continuous progress of the case from worse to worse, and many of the special symptoms that are present, are not characteristic or even suggestive of hysteria. I do not think that these two cases are, in any sense, conclusive with respect to the question they have been adduced to illustrate; but I submit that my cases collectively point to the possibility of local paralysis being at times of functional origin, and, if of functional origin, occasionally, at any rate, hysterical.

To return to the subject of hysterical defects of speech. It is not only aphonia and aphemia which are met with in hysteria. The following case shows that we may have both stammering and aphasia. Two or three years since a lady, thirty-two years of age, consulted me. Many things, needless to recapitulate, had conspired during the previous eight or ten years of her life to make her emotional and to induce hysteria. About two years before I saw her she had an attack of "gastric fever." She was ill for a long time, and when convalescent became insensible for several days, and presented symptoms somewhat like those she consulted me for. Again three months ago she was ill for three weeks with symptoms of the same kind. Her present attack was of a month's duration, and was getting worse. Her condition was very peculiar. Women rarely stammer, and she was not an habitual stammerer. But now she stammered so badly that it was difficult to understand her. Her stammering moreover was odd. She began by repeating a word or two many times, then, perhaps similarly repeated one word and then the initial letter of the word, thus: "I think, I think, I think," then "I, I, I," then "think, think, think," and then the consonantal sound represented by *th*. Accompanying the stammering were rapidly repeated distortions of the face. These involved both sides, but were most severe on the right. The muscles of the eyelids twitched incessantly until the eyes were nearly closed. The corners of the mouth were similarly affected; and the other facial muscles, but in a less degree. The convulsive movements extended even to the muscles of the neck. She had difficulty in writing. Slowly and with deep consideration she could generally manage to translate printed words into written words. But when she tried to express her thoughts in writing she soon began to make hopeless blunders, and to repeat letters; nor could she succeed in writing her name. She could not recollect the forms of the letters she wished to use, nor could she recall their names. I tried to make her perform simple sums

in addition, but she could not do it, and the figures were meaningless hieroglyphics to her. She said she could not read anything so as to understand it; that for the most part she knew the words which were actually under her eyes, but always when she reached any one word she had quite forgotten those that preceded it, and hence could not catch the meaning of even the shortest sentence. She could name anything she saw, but had great difficulty in recalling the names of things which were not present or visible. I saw her again about nine months later. I learnt then that all her symptoms had disappeared in the course of a few months, but that they had recently returned. She had had recurrence of stammering, but that was not present now. She presented, however, all the old spasmodic twitching of the facial muscles, all the old difficulty in writing and in the recognition of letters, and all the old forgetfulness of names of things not before her. She could not recollect the name of the day or of the month, and she told me that a few days previously she had had, as she thought, a serious and interesting conversation with a lady whom she knew, and who called upon her next day and asked her if she had not been ill, for she had talked nothing but nonsense. The patient had occasional attacks of unconsciousness, which, for anything I know to the contrary, may have been either attacks of syncope or epileptic seizures. I have no sufficient reason, however, for doubting that the case was essentially one of hysteria; and that was, I believe, the view of the medical man under whose charge she was.

(To be concluded).

REMARKS UPON THE

CHOLERA BACILLUS OF KOCH.

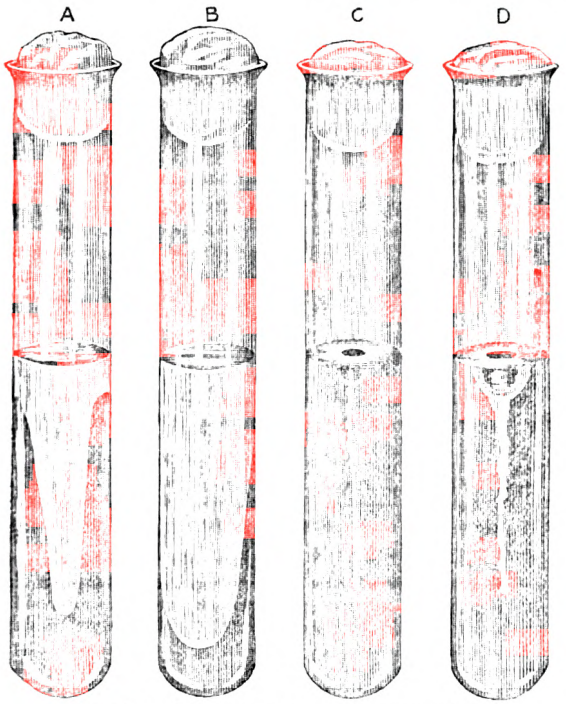
BY EDGAR M. CROOKSHANK, M.B.LOND.

THE works of Koch and his collaborators, of Hueppe, Johne, Babes, and others, have made us acquainted with the most recent and trustworthy methods of bacteriological research, which are of such especial importance in enabling us to decide the burning question of the present day—the etiology of Asiatic cholera. The interest in the discovery by Koch of a cholera bacillus, and in his methods of its investigation, is increased by the approach of summer and the possibility of a fresh outbreak in Europe. Consequently the attention of the profession and of the scientific world has been drawn to this subject throughout Germany, Italy, Spain, and France—in fact, almost everywhere; while this interest especially finds expression in America in the demands in the medical journals for a thorough acquaintance with scientific bacterioscopy, and in this country in the recent discussion at the Royal Medical and Chirurgical Society. The result of this discussion, however, though convincing to those who know how to appreciate the importance of the arguments brought forward by Watson Cheyne, Heron, and Warden, is in several respects very unsatisfactory, more especially for those who do not fully realise the minute and searching methods employed in bacteriological research by the school of Koch, and in the face of contradictory opinions the medical public remains without any guide. Having through the kindness of Professor Virchow shared the bacteriological laboratory of Dr. Babes in the Pathological Institute of Berlin, and for some time almost entirely restricted my attention to the study of comma bacilli, it is my aim in these remarks, by describing in the simplest form possible the methods employed, to enable all to judge for themselves, and, I trust, not only to appreciate, but to be convinced of, the searching arguments brought forward by Koch to prove the essential *rôle* of this micro-organism in the causation of the disease, and to be provided with a practical and sure means of diagnosing true Asiatic cholera. By reference also to some of the most recent researches, and by commenting upon some of the points raised at the above-mentioned debate, one can clear up many difficulties which lie in the way of accepting the conclusions of Koch. Those who are acquainted with Koch's comma bacillus can easily demonstrate its presence in the intestine in all cases of true cholera. Hitherto nearly one thousand cases have been examined by capable observers, and have given positive results; and there does not exist one observation which is contradictory, nor can one find the same microbe in other maladies. Physicians can therefore accept the presence of the comma bacillus of Koch as a pathognomonic sign of cholera, and in so doing it is an essential part of one's duty to become acquainted with its nature. The character of the comma bacillus is manifested in its habitat, its form, its cultivation, and its pathological action. The morphological characteristics have been fully described in the writings of Koch and in the reports of the Berlin Cholera Conferences, and need not be repeated; but inasmuch as it is often difficult to distinguish other bacilli which are present in the ejecta from the bowels and resemble it more or less in microscopical appearance, it is most essential to become familiar with the methods of pure culture which have been employed by Koch.

It is necessary, however, to obtain a characteristic culture, always to employ a 10 per cent. gelatine, slightly alkaline (Babes), and as it is difficult to prepare, it would be best to procure it ready made. Provided, then, with ready prepared sterilised tubes, a platinum needle (two or three inches of fine platinum wire fixed at the end of a glass rod), a few dinner- and soup-plates, half a dozen small panes of glass (6 in. by 4), a solution of sublimate (1 in 1000), a common dinner knife, some potatoes, methyl violet, a microscope, and its usual appendages, the medical man (especially the medical officer of health, who has not access to the elaborate apparatus of a bacteriological laboratory, has all that is required for conducting the simple methods which Koch often had recourse to and employed with success in India. For the plate cultures improvise a damp chamber by utilising a common dinner plate and a soup plate, both previously washed with sublimate, the plate having a piece of filter paper laid upon it, which is also moistened with sublimate. A small plate of glass, sterilised by carefully heating one surface over a spirit lamp, is placed on the filter paper, as level as possible, with the sterilised surface uppermost. Prepare two such chambers, then liquefy the gelatine-peptone broth in two tubes, and introduce into one by means of the platinum needle a mucous flake from choleraic discharge, and stir it well up; from this inoculate the second tube by introducing the needle five times, and stirring round as before. Lastly, pour the gelatine out on the plates in the form of a ring, so that every part can be brought into the field of the microscope. At a temperature of from 16° to 20° C. little specks commence to be visible in about twenty-four hours. They consist of isolated colonies, and when examined with a low power and a small diaphragm have the following characteristics. They appear as little masses, granular, and slightly yellow, and of a faintly yellowish-red tinge. They liquefy the gelatine, sink down, making a little excavation, at the bottom of which one recognises the little punctiform colony. By means of the platinum needle, with the extremity bent into a miniature hook, one can, under the low power of the microscope, select and pick out a typical colony and inoculate a tube. Another colony can be selected in the same way and well spread out with a needle on a cover glass, and stained after the method of Babes. This consists in putting on the cover glass so prepared a drop of a weak aqueous solution of methyl violet (B) and leaving it for a minute; then place the cover glass on a slide, and with filter paper remove the excess of liquid, and examine. A rapid examination is thus made of a pure culture of the bacilli. In about twenty-four hours the tube-culture commences to display its absolutely distinctive appearance. Liquefaction sets in slowly, commencing at the top of the needle tract around an enclosed bubble of air, and forming a funnel continuous with the lower part of the needle tract, which preserves for several days its resemblance to a white thread (Fig. C, Pl.). In about eight days, however, this too is liquefied, with the exception of the deepest part of the needle tract, which disappears only at the moment when all the rest of the gelatine underneath it is liquefied. Babes has shown that the cultivation on an oblique surface of agar-agar peptone-broth is also quite characteristic. By inoculating the surface vertically with the needle, in about two days a culture is developed in the form of a plate, semi-transparent, and with well-defined margin, while the liquid which exists at the bottom of the oblique surface becomes milky. If one compares this with the behaviour under similar circumstances of other comma bacilli, the difference is in all cases easily appreciated. The potatoes are prepared by removing eyes and rotten spots, well washing, soaking in sublimate for half an hour, and then steaming for the same length of time. Holding them, with

the fingers previously dipped in sublimate, they are cut in two with a knife which has been sterilised by heating in the flame of a spirit lamp, then placed in damp chambers extemporised as before, and inoculated by smearing the micro-organisms over the surface with the flat of the knife. Koch's comma bacillus will only grow at the temperature of the blood (37° C.), forming a slight brown transparent layer.

If, on the other hand, we are dealing with a case of cholera nostras, we shall by the same procedure produce the characteristic biological appearances of the Finkler bacillus. In the tube culture we find that the gelatine in two or three days is liquefied along the whole tract of the needle puncture, excavating the gelatine in the form of a conical sac, and resembling in some degree the finger of a glove turned inside out (Figs. A and B). In glass plate cultures the colonies have a slightly yellowish-brown colour; but they are larger and rounder than the colonies of Koch's bacillus, have a well-defined border, and under a higher magnifying power a distinctly granular appearance. They liquefy the gelatine much more quickly, and give rise to a penetrating odour and rapidly become irregular in shape. Even in two or three days the gelatine on the second plate with only a few colonies is altogether liquefied. On agar-



PURE CULTIVATIONS IN GELATINE-PEPTONE-BROTH.
A. Finkler's bacillus, twenty-four hours old.
B. ,, ,, two days old.
C. Koch's cholera bacillus, twenty-four hours old.
D. ,, ,, ,, two days old.

agar the Finkler bacillus forms a white layer much more quickly; the liquid at the bottom of the oblique surface also becomes milky, but after a certain time a brown, coffee-coloured layer appears, which is very characteristic. On potatoes the Finkler bacillus grows rapidly at the ordinary temperature of the air, the culture has a brownish colour with a whitish border, and the surface of the potatoes appears to be eaten in.

Other comma bacilli differ in that they cannot be cultivated on gelatine, with the exception of a comma bacillus very frequently found in water. This liquefies gelatine very slowly, and forms on its surface a white pellicle (Babes). The last link in the chain of evidence is afforded by the effect of the inoculation of a pure culture of Koch's comma bacillus in animals. Nicati, Rietsch, Koch, Ermengen, and Babes have inoculated the bacilli with success in the duodenum. Babes, who used all practical antiseptic precautions, had three successful cases out of six; the guinea-pigs, which were the animals experimented upon, exhibited at the post-mortem examination the appearances produced by cholera without any trace whatever of peritonitis or putrid infection. In the intestine, in the mucus typical comma bacilli were found and pure cultivations obtained. Recently it is reported that Koch, by a new method, without forming any lesion, has produced choleraic symptoms, without exception, in a great number of animals. Koch and Babes have also studied the pathological appearances produced by the cholera bacillus. They have found in all cases, more or less, in the intestine that the epithelium to a great extent is missing, the superficial tissue necrosed, the glands dilated, their epithelium swollen, in the glands and sometimes in the inflamed tissue more deeply, and in the necrosed parts they have established the presence of the micro-organism. In internal organs of chronic cases affected with parenchymatous degeneration, round or oval bacteria are sometimes seen; they are also pathogenic (Babes), but these latter are not in any way characteristic of cholera, but are considered to be merely the result of septic complication.

From these investigations we are led to the following conclusions:—That the presence of the cholera bacillus of Koch is quite characteristic of cholera; that the comma bacilli of Koch exist in the tissue of the intestine; that they are, there is every reason to believe, the actual *causa causans* of cholera. With regard to the second statement, one can only conclude that if observers have failed and do fail to find the bacilli in the tissues, it must be that either they are not masters of the technique, or that they have not sufficiently sought for them. The method employed by Babes is to cut very thin sections of a recent case of cholera, if possible immediately after death, and especially from the immediate neighbourhood of a Peyer's patch. Then leave the sections for twenty-four hours in a watery solution of fuchsin (fabrique de Bale), wash a little in sublimate (1 in 1000), pass rapidly through alcohol and oil of cloves, thoroughly dry with filter paper, and preserve in Canada balsam. From material supplied by a case examined by Babes in Paris I have also succeeded, by closely following his method, in staining the bacilli in the tissue and demonstrating their presence with a Zeiss $\frac{1}{12}$ oil immersion lens. With regard to the inoculation of animals with cholera bacillus, one must confess that it is not easy to avoid peritonitis or accidental infection, but it is easy to be convinced that if one does avoid these errors one will have a certain number of cases which give positive results. That Dr. Klein has so often encountered accidental infection may account for his want of success. Emmerich has asserted that he has found in the internal organs a special microbe which causes choleraic symptoms by inoculation. This, however, is in direct contradiction to all other observers, who have shown, like Babes, that if there be a pathogenic microbe present in the organs, it has penetrated through the necrosed tissue of the intestine, and that it is nothing more nor less than a pyogenic or septicæmic bacterium.

FERROCYANIC TEST PELLETS FOR ALBUMEN.

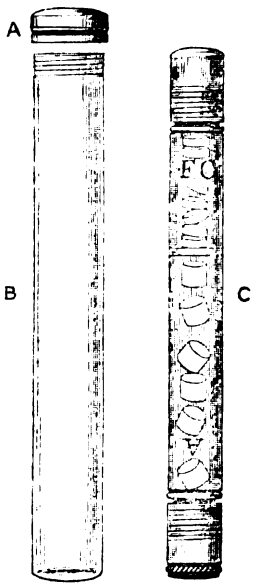
BY F. W. PAVY, M.D., F.R.S.

THESE pellets afford a ready, portable, reliable, and delicate clinical test for albumen. They require no spirit lamp to be employed and supply information which can be accepted without needing the application of any other test for correction or corroboration. When albumen is present it does not fail to be indicated by the production of a precipitate; and, on the other hand, when a precipitate is produced albumen, as far as I yet know, is the only principle that occurs in the urine to occasion it. With these qualities the ferrocyanic test commends itself as specially adapted for general use in medical practice.

The sketch on the following page shows the portable character of what is needed for the application of the test. The whole appliance can be carried in the pocket like a pencil case, which it only to a trifling extent exceeds in size. There is a celluloid tube (C) for holding the pellets, and this fits into a glass tube (B), which is employed as the test tube. No heat being required for the application of the test permits the glass tube to be made of sufficient thickness to be carried in the pocket without danger of breaking. The celluloid tube has a partition inside to keep the acid and ferrocyanide pellets separate, and at either end there is a screw top. The glass tube is provided with a metal cap (A),

which screws on and closes it. Messrs. Maw, Son, and Thompson of Aldersgate-street make the apparatus.

Under the form of acetic acid and ferrocyanide of potassium, the ferrocyanic test has for a long time been favourably regarded as a delicate test for albumen. Senator, in his recently published monograph on albuminuria, in referring to the drawbacks belonging to heat and nitric acid, speaks thus[1] of the test:—"As, however, notwithstanding these drawbacks, the test in question [heat and nitric or acetic acid] is the only one in common use, it will not be superfluous to give a brief account of far more reliable tests which should be used in doubtful cases, or I would rather say, in all cases in future. These are as follows: (1) To acidify the urine with acetic acid and then add carefully a (concentrated) solution of ferrocyanide of potassium, according to Hofmeister the most delicate of all the tests for albumen, and which precipitates all the albuminous bodies, but not peptone." To adapt the ferrocyanic test conveniently for clinical use, it occurred to me to follow what I had already done as regards the cupric test for sugar, and bring it into the pellet form. At first I placed the acid (citric) and ferrocyanide in the same pellet, and these pellets were introduced to the notice of the profession at the Clinical Society in the early part of 1883. Subsequently, for reasons that presented themselves as experience was gained with the employment of the test, the agents were placed in separate pellets, and it is in this form that I now recommend it. As the pellets are devoid of any foreign principle whatever, there is nothing to undergo deterioration by keeping. Citric acid is just as eligible for the purpose required as acetic acid. Enough is supplied in the pellet to secure the presence of free acid in any alkaline specimen of urine that is likely to be come across, provided the quantity mentioned in the instructions for the application of the test is taken. Should any doubt exist, two pellets can be used in place of one. The ferrocyanide pellet consists of the sodium instead of the potassium salt, on account of its yielding a looser and more speedily soluble product. The pellets are made by Mr. Cooper of 66, Oxford-street.



In using the test about a drachm of urine is taken as the quantity to be employed. An acid pellet is dropped into it, and with a little agitation is found to be quickly dissolved. One of the ferrocyanide pellets is next dropped in, and the urine again shaken to facilitate solution. If albumen is present, a precipitate immediately appears.

It is necessary that the test should be used in the manner which has been mentioned—that is, the acid pellet must be first dropped in and dissolved, and then the ferrocyanide pellet added. The latter pellet it is which supplies the information required, and if a precipitate is by this pellet produced, the conclusion may be drawn that albumen is present, for the test does not precipitate peptones or other principles incidentally present in the urine. For sensitiveness the ferrocyanic will bear comparison with any other albumen test; and should no precipitate be rendered visible it may be safely inferred that no albumen is present. There is no need therefore for anything beyond the test itself being employed, and no spirit lamp being required, gives it a great advantage.

It occasionally happens that a precipitate is produced by the acid pellet alone, but no fallacy should arise from this. It is the ferrocyanide pellet which affords the evidence of the presence or absence of albumen. The acid pellet only supplies a preparatory condition to allow the ferrocyanide to act, and does not constitute the test. The usual source of the precipitate referred to is uric acid, and by diluting the urine with about an equal bulk of water, it is prevented from appearing. In this way the interference thus occasioned to the application of the test is removed. Mucin also is precipitated by an acid, and the best plan here is to take two test tubes and to treat the urine in one with the acid pellet alone, and in the other with both pellets. A comparison of the two will show whether albumen is present or not.

Should the urine be turbid from lithates, it may be cleared either by the application of moderate warmth, or, what may be more convenient, the addition of about an equal bulk of hot water.

A most portable little case is made by Jahncke of Canonbury Works, Dorset-street, Essex-road, N., which contains the two kinds of pellets for albumen, the cupric test pellets for sugar, a spirit lamp, test tube, and urinometer. This gives all that is required for the ordinary examination of the urine, and makes an elegant, compact, and convenient little case.

Grosvenor-street, W.

[1] Sydenham Society's Translation, 1884, p. 14.

THE ETIOLOGY OF GOITRE IN ENGLAND[1]

BY W. N. THURSFIELD, M.D.

As a rule the subjects which are brought for discussion before the Society of Medical Officers of Health relate either to matters connected with sanitary administration, or to infectious disease, or to influences acknowledged to directly affect the health of the community. As goitre may not at first sight appear to belong to either of these classes, it may be as well for me to state that my attention was first directly drawn to this subject about three years ago, in consequence of my being requested by a sanitary authority to inquire into an epidemic prevalence of goitre amongst the children in some schools in their district. The undoubted epidemic nature of the disease and other facts were so diametrically opposed to the etiological views almost universally given in the text-books on medicine, that I was induced to make further investigations as to the general liabilities of the population and physical characteristics of certain districts where goitre was endemic, and, in order to avoid hasty generalisation from general conditions, which may have been merely coincidences, to check these observations by particular inquiries in individual cases, wherever opportunity offered.

I have restricted my conclusions as to the cause of goitre to the disease as it occurs in England, because I wish to confine myself as far as practicable to personal experience, and there may be in other countries contributing causes of which I have no knowledge. It would, for instance, be interesting to know why in India goitre should be nearly as common in men as in women.

For a definition of goitre I do not think I can do better than follow the official nomenclature of the Royal College of Physicians, which defines goitre as "enlargement of the thyroid gland, endemic in certain mountainous districts, but not limited to them." This enlargement depends upon simple expansion, hypertrophy of tissue, or vesicular distension, or a combination of all three, and results from persistent abnormal increase in the blood in the gland, or persistent abnormal call upon the physical action of the gland, and usually upon both combined. Goitre is much more prevalent amongst females than males, and certainly in my experience affects in undue proportion the industrial class. The primary causes of goitre are as follows: (1) Climatic, (2) physiological (including sex, heredity, &c.), (3) industrial, (4) dietetic, (5) neurotic and strumous diathesis.

In localities where goitre is endemic two of the above causes are always present, and generally three or four, in various degrees of preponderance, and the preponderating cause will often be found to differ in different localities. Sporadic cases of goitre occurring in localities where goitre is not endemic, when not directly imported, are the result of the preponderating influence of some one or two of the above causes, probably conjoined in many instances with the influence of heredity. The causes are mentioned in the order it will be most convenient to consider them. I have not referred to absence of sun light, confined atmosphere, and other causes considered as contributing in some

[1] Paper read before the Society of Medical Officers of Health May 15th, 1885.

countries, as these are not in my experience concerned in producing English goitre.

The Climatic Influence.—This is as a rule the chief factor in the production of endemic goitre. Endemic goitre may elsewhere exist in low-lying plains, due doubtless to the combination of some of the causes above alluded to; but in England, so far as my experience goes, the endemic prevalence of goitre is not found at much less altitude than is indicated by a fall in the column of mercury equal to about three-quarters of an inch. This diminished atmospheric pressure in hilly districts, together with the climbing of hills and other conditions leading to sudden alterations in the circulation, combined with the natural distensile property of the thyroid, is, I believe, the origin of the goitrous diathesis. In the goitrous districts abnormal enlargement of the thyroid occurs at any age up to adult life. At the present moment I could show cases at almost any age from infancy upwards. It appears, however, usually to show itself from five to twelve years of age, perhaps most commonly at about eight years of age; but where medical advice is sought, it is not generally until a marked enlargement coincides with the first catamenial period or some other cause interfering with the circulation. It is this circumstance, I think, which has given rise to the statement found in most text-books that it is at the above period that goitre usually makes its first appearance. It is my experience that a much larger proportion of cases of enlargement of the thyroid in a goitrous district will be found in females under the age of thirteen than above it. The enlargement in the majority of cases then disappears; in some, however, it is persistent and increases much, and it is these cases which are ordinarily known as goitre. This persistence is owing to causes specially interfering with the circulation of the thyroid or otherwise conducive to hypertrophy of the gland. The cause most directly conducive is, however, diminished pressure of the atmosphere.

The Physiological Influence.—Of the thyroid gland little is definitely known beyond its anatomical structure, which is that of a very vascular ductless gland, with a dual supply of bloodvessels and nerves from different sources. The thyroid has this peculiarity, that of all the glands of the body which we can see and feel it is most prone and most capable of alteration in volume, and it is to this peculiarity that goitre is due. It is, in fact, the giving way under varying degrees of increased force below, or diminished pressure above of the point of least resistance in the human body externally. In other words, the abnormal and persistent expansion of a structure normally distensile for physiological reasons. I have no personal information on the point, but it is stated that goitrous tumours increase in size in wet weather—i.e., with a low barometer; and a locality with a high local humidity might in the same way be a contributing influence. The function of the thyroid in the human body appears to be of a double nature—one almost mechanical, the other physiological. One purpose served by the thyroid appears to be to act as a diverticulum for the circulation on the occurrence of arterial tension in the brain or uterus. That it should so act in the case of the intercranial circulation might be anticipated from the very intimate anatomical relation between the arterial supply to both, and cases have been recorded of acute goitre supervening on intense excitement. This function or habit of the thyroid has much to do, as will be presently shown, in the production of goitre. That it does so act in the case of the uterus is also an observed fact, sudden enlargement of the thyroid frequently supervening in connexion with menstruation and pregnancy, and in some cases a periodical expansion occurs. As no direct anatomical connexion between the uterus and the thyroid is traceable, we are driven to the explanation of correlation of nerve influence between the two organs. That intimate sympathy exists between the generative organs and those of the throat is obvious from well-known facts; and the liability of sudden enlargement of the thyroid to follow uterine excitement appears to have been utilised for practical purposes both in classical and mediæval times. This function or habit of the thyroid would account for the greater liability of the female to suffer from enlarged thyroid. The thyroid is at all ages normally proportionately larger in the female than in the male; and the fact, as I have observed, that the preponderance of cases of enlarged thyroid amongst females is found, though perhaps not to the same extent, in childhood as in adult life, is evidence that this special liability is not, as has been suggested, owing to the greater use of water as a beverage by females, but is a liability of the sex, and doubtless the result of a natural provision for equalising the sudden alterations in the circulation to which females are specially liable.

As regards the function of the glandular apparatus of the thyroid (the vesicles, &c.), little is known definitely. Physiologists seem generally to agree that the gland performs some office in connexion with the composition of the blood. Dr. Baber frequently found the vesicles to contain red blood-corpuscles in various stages of degeneration and decolourisation, and concluded that the gland was concerned in the retro-transformation and excretion of the elements of the red blood-corpuscles. This assumption, if correct, has a most important bearing, and may help to throw light upon the mysterious but undoubted occasional connexion between the use of certain drinking waters and the production of goitre, and will be referred to subsequently in connexion with that point. Goitre has a most decidedly hereditary tendency. I have seen many such cases both direct and collateral. It has been suggested by Dr. Woakes, on analogical grounds, that this hereditary tendency would be most marked where there was a strumous taint, inducing goitre by abnormal relaxation of the arteries of the gland, the result of neurosis of the cervical ganglia. The cases, however, in which I have noticed heredity have generally been of a high physical standard of development, and of an average intellectual standard.

The Industrial Influence.—That goitre is frequently entitled to be considered an industrial disease I entertain no manner of doubt whatever. Carrying weights on the head or otherwise, so as to interfere with the cerebral circulation, is a most potent contributing cause. It requires, however, to be combined with the climatic or some of the other influences alluded to, and even in goitrous districts I have obtained strong evidence that for the industrial influence to be operative it is necessary as a rule that it should commence at or soon after puberty. I am well acquainted with two populous localities both situated at an altitude of about seven hundred feet. In both goitre used to be endemic, and is so to some extent at the present time. In both the water-supply is the same as it has been from time immemorial; in both there has been a most marked diminution in the number of cases of goitre, especially of the more severe kinds, and the only alteration in the habits or liabilities of the inhabitants which could at all affect this has been the cessation on the part of the young females of the locality of the habit of carrying weights on the head in their employment in connexion with the coal and ironstone mines, also their daily water-supply, &c.; as having acquired the ability to readily carry weights on their heads, they adopted that mode of carrying everything. The present generation of females in the locality, not having had a similar education, carry water &c. in the ordinary way. Of one of these localities I have intimate knowledge, and well remember as a boy passing through the streets to have frequently noticed the repulsive looking huge goitrous tumours of a kind one seldom, if ever, sees now. At the present time the alteration is most marked and is at once admitted by the older inhabitants. This district is a mining and manufacturing one, more flourishing years ago than now, and situated close to a navigable river, and no explanation of greater mixing of population and cessation of intermarriage would apply here. The only alteration here has been industrial. Years ago this locality was so notorious for goitre as to give a name to the affection in that part of England. The women were also celebrated for their ability to steadily carry great weights on their heads, and at certain seasons of the year many of them were engaged to go to other localities and occupations where such an accomplishment was desirable. Following up this clue, I have found several instances of sporadic goitre where the only member of the family affected with goitre has been the only one who had carried weights on the head habitually; these have generally been people dwelling at a considerable altitude. In carrying weights on the head the return circulation of the neck is retarded and the arterial stimulated, conditions directly tending to congestion of the thyroid, and this I believe to be the most potent industrial influence, but any heavy exertion has a tendency to the same effect; and this would probably explain the not unfrequent cases in which domestic servants develop goitre in non-goitrous districts. In these cases there would, I think, generally be present hereditary tendency to goitre or a strumous and neurotic diathesis. I have ascertained that the traditional practice of one eminent

medical man who practised in a goitrous district in the midlands before the introduction of iodine was to strictly enjoin upon his goitrous patients the necessity of not carrying weights on their heads and to boil the drinking water. This boiling of the water was probably intended to get rid of some of the lime salts, but it would also precipitate the iron where lime was present.

The Dietetic Influence.—If in my investigation into the origin of goitre I could have made my mind a complete *tabula rasa* as to all that I had previously heard or read on the subject, I do not think I should have found it necessary to consider the probable influence of the water at all in the matter. I am, however, disposed to think that in some of the localities water was certainly a contributing cause. In each of these cases a theory of excess of saline and earthy matters in solution, or of iron in solution in small quantities, would have been equally applicable. I have adopted the theory of iron, as it appears to me that it can be more readily and scientifically connected with hyperæmia of the thyroid body than excess of dissolved matter in the water consumed. In looking through the various text-books of medicine, nothing is more striking than the uniformity with which the quality of drinking water is assigned as the cause of goitre, though on the question of the element in water producing the evil the diversity of opinion is almost as remarkable. Personally I venture to express a belief that water is by no means essential to the production of the disease, and has frequently nothing to do with it. That every kind of water from snow-water downwards has been credited with producing the disease is presumptive evidence that water in some instances has had nothing to do with it, and I am satisfied that under favourable conditions of climate and industry goitre may occur altogether independently of the water, and, in the epidemic above alluded to, the water-supply of the majority of cases was derived from the hard Cambrian formation, and to quote the report of the well-known analyst, Mr. Sutton of Norwich, was "one of the purest natural waters which had ever come under his notice or of which he had seen any record." It did, however, contain slight traces of iron. Indeed, the very fact of the existence of an epidemic is, in the case of such a disease as goitre, strong evidence that water had nothing to do with the malady. Water has, however, been credited as the cause of goitre from the earliest records of medicine, and there is abundant testimony that it is often a potent contributing cause of the affection. To my mind no satisfactory explanation as to how it acts has yet been afforded, and on this point I speak with special diffidence. The theory I have to offer in the explanation of the goitriferous property of certain waters has however, I believe, sufficient basis of fact and probability to justify my bringing it before you. Of the numerous hypotheses which have been brought forward to explain the influence of water in the production of goitre, the two which have received most support from observers on the subject, and which appear to have the broadest basis of the fact are (1) the theory that goitre follows the use of water from magnesian and limestone rocks, and (2) the theory that the presence of iron pyrites in the strata from which the water is drawn is the cause. I believe that in the coincidence of these two may be found the true explanation, or, to speak more accurately, that the presence of iron in the strata in a form liable to pass into a soluble salt of iron on meeting with the ordinary spring water of the district may account for the above discrepancies, and afford a rational explanation. I am quite aware of the objection to the above theory, that iron is very universally diffused and constantly occurs in water where no goitre is found. This would, however, apply with equal force to any of the other properties of water which have been suggested as the cause. Iron pyrites is insoluble, but when brought in contact with spring water containing carbonate of lime and magnesia in carbonic solution it gradually passes by a process of exidation into carbonate of iron. This salt of iron is, according to Professor Ringer, most readily and directly assimilated by the system. Now, the mode in which the water tends to aggravate or promote goitre may possibly be as follows: Iron is in a certain sense food, and is necessary and conducive to the formation of the red corpuscles of the blood. Administration of iron in anæmia increases the number of the red blood-corpuscles and the amount of iron contained in them, and although such result may not take place in health, it is not too much to assume that a readily assimilated form of iron dissolved in minute quantities in water would act as food for and stimulate the production of the red corpuscles, and so throw more work upon the glands which deal with these corpuscles in the system. Now, the most recent view as to the physiological function of the thyroid appears to be that it is an excretory organ for the effete blood-corpuscles, and may it not be that the observed effect is the result of undue ingestion of that form of food with the excretion of which the gland is concerned? I use the word food advisedly, because I believe (assuming the theory to be correct) the result to be due not to the ingestion of large quantities of iron, but to the habitual and constant consumption of minute traces of iron in a most readily assimilable form, and which would pass into the system as albuminate of iron. The carbonate of iron indeed under such conditions in natural water would be constantly in a state of change, and would only exist in the water in small amount in ordinary circumstances, and imperceptible to taste, and being a most unstable compound it is readily precipitated. This is a reason why iron in this form is not unfrequently overlooked, as after the lapse of some time and a little exposure the iron is precipitated, and no reaction follows the tests for iron applied to water in ordinary sanitary analysis. The therapeutic effects of iron may throw some light upon this point. When iron is administered therapeutically, a sensation of fulness and pain in the head sometimes supervenes, and is recognised as indicating the desirability of discontinuing the medicine. This would give support to the theory advanced. On the other hand, anæmia is frequently present with goitre. This may be due to the blood-elaborating function of the thyroid being out of order; but iron is said, in some cases of anæmia accompanied with goitre, to produce marked benefit. I believe these cases will be found where a strumous and neurotic diathesis is the preponderating cause. In connexion with this subject, I think it well to refer to the instance so frequently quoted of French peasants, who are alleged, in order to avoid the conscription, to artificially produce goitre by drinking goitriferous water. According to the best account I can obtain, the conscripts are sent to "go up to Briançon." Briançon is, I believe, upwards of four thousand feet above the sea, and this fact, combined with the goitrous diathesis of many Frenchmen, would be powerful contributing influences.

Is Goitre diminishing in England?—Endemic goitre certainly is. In a disease where the influence of heredity is so marked, we may assume that the endemic prevalence may to some extent in isolated communities have been due to intermarriage, and that increased migration and facilities for travel would certainly tend to produce a decrease; but I am persuaded that the chief cause is due to the disuse of the practice of carrying weights on the head. This would chiefly apply to those hilly districts where a slight contributing influence, in addition to that of diminished atmospheric pressure, is all that is needed to induce the deformity. Throughout England generally there has been, during the last quarter of a century, a marked alteration in the custom of the rural population in the matter of carrying weights. To carry weights on the head safely, and with comfort, requires early training and practice. Before the introduction of tins with handles, the wooden milk pails with side handles were of such a shape and make that when full they could not well be carried by one person except on the head. Hence the early training and acquired facility in carrying weights on the head. The introduction of tin ware with handles has altered this, and led to the disuse of the practice, and, as I believe, may thus be said to have contributed to the diminution of goitre in some agricultural districts in England. With sporadic goitre in towns the case may be different. This affection is said by some to be on the increase. If this be so, and, considering the element of debility present in so many of these cases, the neurotic influence may be the preponderating one, and the theory advanced by Dr. Woakes is probably correct—viz., that this affection shares in a general increase of neurotic affections in the present age.

Epidemic Goitre.—Time will not allow me to do more than to refer to the epidemic of goitre mentioned in the commencement of this paper. It had been noticed for some months before I investigated it, and the cause I believe to have been purely climatic, probably aggravated by some meteorological condition peculiar to the year.

Connexion of Goitre with Cretinism.—On the theory of goitre being a circulatory disease and dependent to a large extent on atmospheric influences, the connexion of cretinism with goitre seems to admit of explanation. In some countries the goitriferous influences, including the strum-

diathesis, may be sufficient to produce goitre and cretinism in the same individual. In this country cretins are rare, and in the majority of such cases in which a post-mortem examination has been obtainable, the thyroid has been found absent. Now, assume an infant of a strumous diathesis with deficient arterial tone under strong goitriferous influences. In the absence of the safety valve action of the thyroid, a cretinous condition would be expected to result. Indeed, the converse may be true, and I have recently met with a microcephalic idiot with a huge goitre.

NOTES ON TWO CASES OF REMOVAL OF THE JAW FOR TUMOURS.

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THE cases to which the notes below refer occurred during the present year and exhibit several points of interest.

CASE 1. *Large naso-pharyngeal polypus, removed by displacement of the superior maxilla.*—Badawah, Mahomedan, male, aged forty, was admitted into the Mayo Hospital, Lahore, on April 26th, 1884. His general health tairly good. Nothing noteworthy regarding his family, habits, &c. His present illness commenced three years ago, when he noticed some obstruction in his right nostril. Since then the obstruction has progressed gradually with swelling of the right cheek, difficulty in breathing and swallowing, and a moderate amount of pain. Urgent symptoms, connected with dyspnœa, dysphagia, and want of rest, have been present during the past three or four months, and lately he has lost much flesh.

Present state.—A thin and weakly-looking man, evidently considerably emaciated and with a marked look of distress; breathes with mouth wide open, and voice has a marked nasal twang. The right cheek is seen to be bulged outwards *en masse*, the outline of the bone not being interfered with. At the inner angle of the right eye is a soft swelling, the shape and size of an almond, which can be emptied of thick mucoid material into the nose by applying pressure over it. Both nostrils are completely blocked, the right by a soft reddish growth which extends to within a quarter of an inch of the orum nasi, and the left by the septum, which is pushed over in a very marked degree. On looking into the mouth the hard palate is seen to be natural, but the whole of the upper two-thirds of the pharynx is occupied by a rounded mass which pushes the soft palate down in front of it, so as to interfere considerably with respiration. Marked dysphagia is also present, and liquid food only can be taken. The diagnosis of naso-pharyngeal polypus of large size and probably high attachment was made. The patient's general condition was good, and he was very anxious for something to be done.

On April 28th chloroform gas was given by the mouth, but produced troublesome symptoms owing to pharyngeal obstruction. Tracheotomy was performed and the inhalation of chloroform carried on without further hitch through the tube. The right superior maxilla was then displaced in the ordinary way, the superficial incision being carried through the centre of the upper lip, along the side of the nose and lower margin of the orbit, and the flap turned downwards. The bone was then divided by saw and bone forceps and displaced outwards, the soft palate being separated transversely from the hard on the right side. An enormous soft reddish growth was found occupying the naso-pharyngeal and right nasal cavities, having three or four points of attachment to the under surface of the skull. The largest portion (about the size of a medium orange) was detached and removed with difficulty through the mouth. Various smaller pieces were torn off and withdrawn from in front and the stump freely cauterised with the hot iron. Throughout the operation there was remarkable freedom from hæmorrhage. The bone was then replaced and kept *in situ* by drilling the malar process and wiring it together with silver wire and connecting the incisor teeth in the same manner. The flap was sutured with alternating wire and catgut sutures, the soft palate being left untouched.

The man was placed in a separate ward, which was kept at a uniform temperature and carefully steamed at night. The tube was left in the trachea for the first twelve hours, and covered with a light bag of pine sawdust, purified with eucalyptol. At the end of this time it was removed, and a light bandage applied. Recovery was uninterrupted, and very rapid. The patient slept well and could take large quantities of liquid nourishment. Pulse of good quality, and the temperature never exceeded 100·5°. On the third day his condition was as follows:—Temperature 100°; pulse 90; wound entirely and soundly healed by first intention, with the exception of a small opening through the soft palate, and another at the point of exit of the wire through the malar bone; tracheal opening contracted to the size of a crowquill; moderate amount of inflammatory swelling about the right side of the face, but this rapidly disappeared. All the sutures were removed, and on the seventh day the man sat up in bed and ate soft solid food, being quite free from all symptoms of dyspnœa and dysphagia. The wire suture was removed on the tenth day, and in the following night he considered himself well enough to run away, a common practice with patients in this country. He was seen at work accidentally about a week afterwards.

Remarks.—The points of interest in connexion with this case are: 1. The large size of polypus. 2. The great help obtained during the operation by first performing tracheotomy. 3. The rapid recovery of the patient.

CASE 2. *Entire excision of the lower jaw for myeloid sarcoma.*—Mussamat Jhandi, a female Hindoo aged thirty-two, was admitted into Jullunder Dispensary on September 26th, 1884.

Her general health had been good; mother of several children, and is at present nursing one. Has had occasional attacks of intermittent fever, but not seriously. No history of syphilis. Her present illness commenced two years ago with a swelling about the central incisors of the lower jaw; very gradual at first, but much more rapid during the last three months. Has emaciated considerably of late, and especially since the protrusion of the growth between the lips (about two months). Can assign no cause, and has not had much pain, but suffers principally from the inconvenience arising from the position of the growth and the difficulty in masticating and speaking.

Present state.—A slightly made and much emaciated woman about thirty years of age. Temperature normal; pulse weak and small; respiration healthy. No disease present, with the exception of that in the lower jaw, which is the seat of a growth of a reddish colour, part of which protrudes between the lips. The protruded portion is the size of a large walnut, irregularly lobulated and ulcerated on the surface from constant exposure to air and dirt. The lips cannot be made to close over it. Internally the growth is found to involve the lower jaw, principally at its upper or dental margin, and to be of a soft, almost fungating nature, with the teeth embedded and lying quite loosely in it. The bone itself is felt to be considerably expanded in its upper half, the limits being on the right side beyond the last molar tooth, and on, up to, and including the first molar. The lower border of the bone is free, but behind the symphysis there is a nodule, about the shape and size of half a walnut, which appears to be springing from the bone. The whole growth is about the size of a small orange, and gives the jaw a peculiar pointed appearance. No enlargement of glands can be detected, nor are the superficial structures in any way involved. There is the greatest difficulty in eating anything, even liquids being taken with considerable effort, so that really the woman is being slowly starved. Speech is so much interfered with that her statement is made out with difficulty. She is extremely anxious for an operation to be performed.

She was kept quiet in hospital, and fed up as far as possible for twelve days, taking also small doses of quinine. During this time it was noticed that there was a decided increase in the size of the growth and its protrusion from the mouth.

Operation.—On Oct. 9th, under chloroform, laryngotomy was performed as a preliminary step in order to facilitate the main operation by obviating the risk of the respiration being impeded by the falling back of the tongue over the glottis, and also to facilitate the administration of chloroform. A ligature was then passed through the tip of the tongue, to retain command over it in case of any accident to the tube in the larynx. At this stage, owing to the failure of the heart's action, the pulse, which had been very bad throughout, ceased altogether, and artificial respiration

had to be performed for about ten minutes and a brandy enema given. On the restoration of animation, the administration of chloroform was continued through the tube. No further trouble was experienced on this score, the breathing and pulse continuing good throughout the remaining steps of the operation. An incision was made on the right side from a point three-quarters of an inch below and half an inch in front of the external auditory meatus along the lower border of the jaw to the median line. The facial artery was controlled and ligatured before any hæmorrhage took place. The bone was then cleared by means of a blunt periosteal scraper, the knife being entirely laid aside, except to divide the mucous membrane and, carefully guarded, to touch the capsule of the joint from in front. One small muscular branch in the substance of the masseter had to be ligatured, but no large vessel was injured, and the bone was entirely and cleanly cleared. Detaching the temporal muscle from the coronoid process was found to be the most troublesome part of the operation. The same process was gone through on the left side, the facial line being twisted, and no ligature was necessary. The bone was removed in its entirety, and was quite free from soft parts, with the exception of a small portion of the insertion of the internal pterygoid on the left side. Not more than an ounce and a half of blood was lost during the whole operation, which occupied an hour and a half. An enormous wound, seven inches in length, resulted, which was carefully closed by ten metallic and sixteen catgut sutures, the edges being painted over with compound tincture of benzoin. The tube was left in the larynx and covered with a light pad of carbolised sawdust. The following arrangements were made:—1. A separate ward and special service of attendants. 2. The nights being unusually cold for the season of the year, and the difference between the day and night temperature being marked, care was taken to maintain an equable temperature by means of fires and steaming the room between the hours of 5 P.M. and 9 A.M. 3. The tube was constantly protected with a light pad of sawdust and muslin bandage, and cleaned out with a feather occasionally. At the end of twenty-four hours it was changed, and on the fourth day removed altogether, the patient continuing to breathe through the opening. 4. A pint of milk and half an ounce of brandy were given every eight hours, and an enema of soup (four ounces) with brandy (half an ounce) each afternoon. 5. A solution of morphia (one drachm) was given night and morning.

The woman did remarkably well from the first. There was no shock, and with the exception of a moderate amount of pain, principally in the head, she was fairly comfortable. She slept a good deal day and night and took all the nourishment ordered by her own efforts for the first thirty-six hours; but after that, owing to the presence of inflammatory swelling and the fixing of the tongue to the floor of the mouth, she was fed through a tube passed to the back of the pharynx. The wound united firmly throughout by first intention and half the sutures were removed on the third day and the remainder on the fourth, when her condition was as follows:—Temperature 100·5°; pulse 110; respiration 28. Breathing quietly, and can lie in any position with comfort, and sit up. Is suckling her baby, and has insisted in doing so since twenty-four hours after the operation. Asked for semi-solid food and is picking up strength and flesh very rapidly. Can articulate when the laryngeal opening is closed with the finger. Tongue clean and bowels regular. There is only moderate discharge from the interior of the mouth and no facial paralysis. On Oct. 14th, or six days after the operation, the temperature rose to 102·5° and the respiration to 35. Patient complained of pain in the right axilla, but nothing could be detected on examination. A mustard plaster was ordered and greater precautions were taken to avoid chill. However, symptoms of acute pleuro-pneumonia of right side developed themselves, and the patient died on the eighth day of exhaustion. No doubt the woman, considering herself out of danger, had thrown off her clothing during the early part of the night and had caught a chill in the early morning, when the difference in temperature was most marked. Post-mortem examination was not allowed.

Remarks.—As in the previous case, the opening of the larynx as a preliminary measure was of the utmost service during the performance of the operation itself, and almost a necessity afterwards owing to the tendency of the tongue to fall back on the glottis. The remarkable freedom from hæmorrhage, and the fact that the facial nerve on both sides was uninjured, I attribute entirely to the use of a blunt scraper instead of a knife. It is evident from the rapid progress of the patient towards recovery that the cause of death was accidental, and I think it may be claimed that the operation itself was successful. I made no objection to the mother suckling her child, so long as she took and assimilated such large quantities of nourishment, for it is a common occurrence in this country to continue suckling after the most severe operations and injuries. Examination of the tumour showed it to be a myeloid sarcoma springing from the central portion of the maxilla, and involving the dental margin. I am indebted to Surgeon-Major P. Ramsay for his able assistance during the operation.

CLINICAL STUDY OF THE LIVER VIEWED THROUGH THE URINE.

BY GEORGE OLIVER, M.D. LOND.

(*Concluded from p. 884.*)

The systemic diffusion of bile salts from the portal organ is apparently not excessive, but the kidneys fail to keep pace with it.—Hitherto I have dealt only with the reaction of the peptone test suggesting the presence of an increased quantity of the biliary salts in the urine; as in jaundice, diseases of the liver and spleen, fever, and in diseases in which the cellular elements of the blood undergo dissolution—such as some varieties of anæmia, scurvy, and hæmoglobinuria; the increase being absolute, even though the discharge of the biliary elements is at times lessened. Should any clinical value be attached to the renal elimination of bile salts when subnormal, or reduced to the verge of extinction? I am under the impression that a surcharge of these excreta in the blood may now and then take place from an imperfect removal of them by the kidneys, though there are no apparent indications of derangement or embarrassment of the portal organs to favour the accumulation. This is as yet, however, but little more than a surmise; and it may turn out that the detection of an excess of these biliary derivatives in the urine is the only important clinical aspect of the subject. A subnormal reaction is met with in many apparently healthy individuals, in whom perhaps the other emunctories, the skin and the bowels, are in this respect more active than usual, or in whom there is less biliary matter to be disposed of; also in a large proportion of those said to suffer from chronic biliousness, but who for their years probably make less bile than normal (subcholia), and in various forms of deficient constructive activity, as in ordinary anæmia and the like.

Chronic renal disease.—I have been rather struck with the fact that in all the cases of cirrhotic kidney I have examined the reaction was either decidedly subnormal or *nil*. But in a case of waxy kidney, which I observed from its origin to its close, the reaction was always above normal—often considerably so—and the post-mortem examination afforded no indications of uræmic poisoning, nor were any observed during life.[1] If this observation be confirmed by further inquiry, perhaps the question will arise how far should the symptoms of uræmia be referable to the grave form of cholæmia that culminates in convulsions and coma?

Skin disease.—So far I have always found the reaction subnormal in eczema. This is the urine of a patient now under observation, and the reduction amounts to at least one-half.

Conditions that influence the renal elimination of the biliary salts.—I think it is highly probable that neurotic influences frequently play a leading part in checking the discharge of these excreta by the kidneys; they are, however, often obscure and difficult to track. Hence the

[1] Just at this time I have under observation a young lady, aged twenty-one, suffering from intermittent albuminuria of hepatic origin, in which I have noted the interesting fact that when there is not a trace of albumen (as is always the case in the urine discharged before breakfast) the amount of the bile salts as indicated by the peptone test merely reaches the normal standard; but when albumen appears (as it is apt to do in considerable quantity three or four hours after a meal) the proportion of the biliary elements rises considerably, becoming doubled or even trebled, and this at a time when they should appear in smaller quantity than in the morning. When after a meal there is no albumen, the bile salts are found in subnormal amount.

teaching value of experimental evidence, such as that lately brought forward by M. Vulpian, who applied electric stimulation to the white matter in the neighbourhood of the sigmoid gyrus, and on inserting cannulæ into the bile-duct and urethra found the flow of bile increased and that of the urine arrested, and the animal was seized with epileptic convulsions. This observation is probably of clinical interest in suggesting how a source of eccentric irritation—such as an undigested mass lodging in the stomach—may take the part of the electric current of the experiment and induce like effects. Then, again, some medicines increase the renal elimination of bile salts, while others appear to check it. The experiments of Feltz and Ritter showed that the preparations of antimony and arsenic augment the bile salts of the blood and the urine; and the mode of death in chronic poisoning by these metals is similar to that induced by the biliary salts—namely, cardiac asthenia and fatty degeneration. On the other hand, opium is probably a checking agent; and this remedy administered alone is, as a rule, a sort of touchstone with the cholæmic. If this be so, the clinical acumen of Graves, who prescribed antimony along with opium in the cerebral excitement of fever, shot ahead of experimental inquiry; and perhaps other corrective combinations, such as Dover's powder, which have received the sanction of experience, may be shown to rest on a basis of fact which accounts for their *raison d'être*.

The degenerations of the cholæmic.—I am disposed to conclude that fatty degeneration is a prominent pathological feature of cholæmia. This position was well illustrated by the post-mortem examination of a patient whom I recently saw in consultation with Dr. Johnson of Kirkby Overblow. Within a period of four months a woman, aged fifty, became extremely anæmic without obvious cause, and without presenting any distinctive indications of organic disease; a positive sign of mischief was, however, afforded by the urine, which, though generally rather high coloured, gave no reactions of bile pigment, but, according to the peptone test, always contained a large quantity of bile salts—never less than 300 per cent. increase. The post-mortem examination, however, did not reveal the cause of the anæmia; it merely indicated the existence of widespread and advanced fatty degeneration—e.g., of heart, liver, &c. The amount of blood was remarkably small, and no clots were observable. I obtained about half a teaspoonful from the chambers of the heart, and on submitting it to microscopic examination I readily detected numerous molecules of fat, varying in size from that of mere granules to the dimensions of the largest oil globules found in milk. This observation of the fattiness of the blood was corroborated by several medical friends. The corpuscles were mostly leucocytes.[2] In four days the cellular elements had almost entirely disappeared, and the oil globules were much more numerous.

May not the continued discharge of an excess of bile salts by the kidneys favour or lead to the development of chronic renal disease?—I have no facts to adduce in favour of this suspicion, and I can merely point to the parenchymatous degeneration of the kidneys induced in animals by the intravenous and subcutaneous injection of bile salts, as recorded by Leyden, Feltz, Ritter, and Brown; and to the interstitial renal changes observed in leucocythæmia and in chronic jaundice. In this connexion, perhaps, I should note that Nothnagel believes that renal tube casts are always to be found in the urine of jaundice when bile acids are eliminated by the kidneys, and that Dr. George Harley has observed both hyaline and granular casts in the form of albuminuria which he denominates "hepatic."

When this paper was sent to press I proposed to append to it an addendum, consisting of notes of some recent observations on decoctions of liver, spleen, mesenteric glands, &c.; but other work just now compels me to defer the publication of these data, which, however, merely form the basis of further inquiry to be resumed next winter.

[2] The small number of red discs, and these considerably deformed, was remarkable. Were they in great part dissolved during the thirty hours that intervened between death and the post-mortem inspection? I think it is quite possible, if not probable, that such an event may happen after death in the cholæmic, just as it has been observed to occur sometimes in hæmoglobinuric urine after emission.

THE statue of Pinel, given to the municipality of Paris by the Société Médico-Psychologique, and which has been placed in the Place de la Salpêtrière, will, it is stated, be formally unveiled on the 13th prox.

A CASE OF CONVULSIONS DURING PREGNANCY TREATED BY INJECTIONS OF PILOCARPINE; RECOVERY.

BY P. HORROCKS, M.D. LOND., B.SC., M.R.C.P.

E. N——, aged twenty-four, was admitted into Guy's Hospital on March 7th of this year under my care. She had been married fifteen months, and had had one miscarriage before the third month, in June, 1884. Before marriage she was a servant, but since she has done only her own housework. She had never previously had any fit nor was there any tendency to fits in her relatives. Her father died of phthisis. Her own health has always been good. Her menstrual periods have been irregular, occurring at intervals varying from three weeks to two months. She is not quite sure when her last period occurred, but thinks it was in August, 1884, and believes herself to be seven months' pregnant. A week ago she began to have headache, which grew worse and occasionally she vomited. At 1 A.M. to-day (March 7th) she had a fit which lasted a few minutes, and after this at intervals of less than a quarter of an hour she continued to have fits throughout the day, each lasting from three to ten minutes. Ice-bags were applied to the head, and a purgative given which acted. No urine passed during the day. Dr. Faraker, who was attending the case, sent her up to Guy's, where she was admitted at 9·20 P.M. The face was much swollen, and the body and lower extremities œdematous, and some blood was issuing from the mouth, the tongue being severely bitten on the left side. A catheter was passed, but only a drop of urine came away in it. Vaginal examination appeared to bring on the fits. A gag was placed in the mouth to protect the tongue. There was much lividity. Two fits took place in the first half hour, the first being very severe, convulsing the whole body. Chloroform was administered, and it relieved the severity of the convulsions. A catheter was again passed, but no urine came away. At 10.5 P.M. a fourth fit came on during a vaginal examination. The fœtal heart was heard beating at the rate of 140 per minute. The patient has been quite unconscious since morning. At 11.30 P.M. a third of a grain of hydrochlorate of pilocarpine was injected subcutaneously, the patient being well wrapped up in hot blankets. In five minutes profuse sweating took place. At 12.10 A.M. (March 8th) another but much slighter fit came on. 2.15 A.M.: The sweating is nearly finished. She can be roused to some extent, but does not answer questions. A fourth of a grain of pilocarpine was injected, the patient resisting the puncture. Sweating began again in less than five minutes. Much of the lividity has disappeared. Temperature 101°; pulse 120, and less tense than it was. During the night the patient took some milk and brandy. She remained somewhat lethargic and did not speak in answer to questions, but put her tongue out when requested to do so. The left side of the tongue was bitten right through. At noon, and again at 5 P.M., a fourth of a grain of hydrochlorate of pilocarpine was injected hypodermically. Temperature normal; pulse 82. Five ounces of urine were drawn off; specific gravity 1020, acid, highly albuminous (nearly solid on boiling).—9th: No fits; temperature subnormal; took 23 oz. of milk; the tongue is in a very painful and swollen condition, the patient can scarcely speak for it; she is quite conscious. The mouth was washed out with a lotion of chlorinated soda.—10th: Bowels opened; urine passed normally; still albuminous.—11th: Urine acid; specific gravity 1015; albuminous.—12th: Passed 45 oz. of urine during the last twenty-four hours; less albumen.—13th: Colostrum in breasts. Fœtal heart sounds cannot be heard. Uterus seen to contract firmly at times; os patulous.—14th: Pain in abdomen; uterine contractions (?). Has complained of headache ever since she could speak.—15th: Albumen in urine is steadily diminishing in quantity. Still taking milk only.—16th: Labour pains set in, and a partly macerated dead fœtus was born at 4 P.M. The placenta was expressed after giving the patient chloroform, as she was too tender in the abdomen to allow it to be done without. Examination of the fœtus showed it to be between the sixth and seventh month. There was no ossific centre in the astragalus. An interesting point about the fœtus was that the testes were completely descended into the scrotum.

It is not necessary to detail the further progress of the

case. The patient made a rapid recovery, and left the hospital on March 28th with only a trace of albumen in the urine, a slight headache, and no œdema. She has been attending as an out-patient under my care since, and the last time she came up there was no albumen at all, and the headache had entirely disappeared. This is the only case that I have treated with pilocarpine, but the result was so immediate and so satisfactory that I thought it worth publishing. The patient had only one slight fit after the pilocarpine was commenced, and she seemed to improve rapidly. How it acted is less clear, but it seemed to me to relieve the system by causing the skin to take on the function of the kidneys vicariously.

Many believe that when convulsions come on during pregnancy the uterus should be emptied as speedily as possible. Others believe in venesection or anæsthetics, especially ether and chloroform. An interesting point in the present case is that the patient was relieved, and practically cured, of the convulsions without emptying the uterus. Labour did set in, however, a week later, apparently spontaneously. It may be that the fœtus died in utero during the convulsions, and that labour set in consequently; but pilocarpine has been used for the induction of labour by Marsman of St. Petersburg and Clay of Birmingham.[1] Hence it may be that the injection of this drug set up the uterine contractions, which resulted in premature birth. Dr. Fordyce Barker in 1879 condemned the use of pilocarpine in puerperal convulsions,[2] asserting that it produced continuous and exhausting depression. In Clay's case there was very alarming depression; but this was a case not of convulsions, but contraction of the pelvis, in which the drug was given to induce labour. In my own case there was no depression to cause any anxiety. Hence I think the drug deserves further trial in these very distressing and often fatal cases.

St. Thomas's-street, S.E.

A COCAINE SPRAY PRODUCER.

By H. PERCY DUNN, F.R.C.S.,

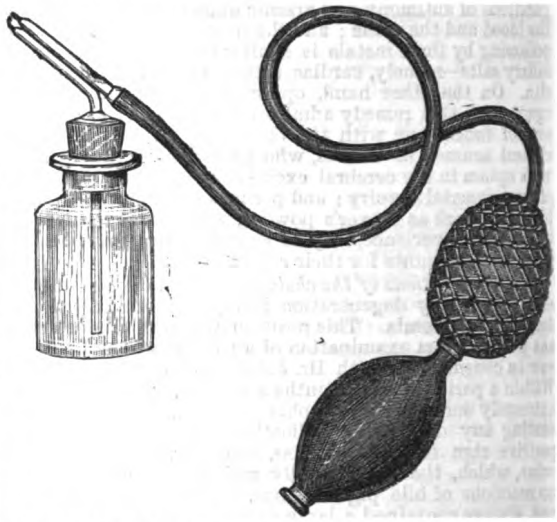
ASSISTANT OPHTHALMIC SURGEON AND PATHOLOGIST TO THE WEST LONDON HOSPITAL, AND LECTURER ON ELEMENTARY PHYSIOLOGY AT THE WEST LONDON HOSPITAL PREPARATORY SCHOOL OF MEDICINE.

As the use of a spray producer undoubtedly commends itself in regard to the employment of cocaine in surgery, I have just devised an apparatus which, by the introduction of certain modifications upon the usual type, will be found to meet the requirements of the case in question.

In the first place, cocaine is a drug the universal use of which is somewhat curtailed by its expensive nature, consequently every drop of a cocaine solution has some significant value; further, the mission, so to speak, of cocaine when applied to a part is eminently a pacific one, and is in all respects different from the germ devastating, germ murdering objects of the gross carbolic spray, which with this purpose in view can be discharged over a wound with no inconsiderable velocity. Having therefore prefaced the description of the new spray producer by these remarks, the significance of the points to which I will now draw attention will be the more readily understood. From the accompanying illustration will be gathered the general appearance of the apparatus, and it is therefore only necessary to refer to its special features.

The spray producer is made of silver, and the jet is as fine as it has been possible to produce; it plays softly over a part without spluttering, and is so constructed as to act upon the eyeball without inconvenience to the patient; in the ordinary sprays the air contained in the reservoirs has only one means of exit—namely, through the jet. One of the results of this is the waste of some of the solution, inasmuch as the spray continues to act until the air is exhausted in the reservoir. In order to counteract the waste, which in the case of cocaine would represent something in the end worth saving, a small aperture has been made in the air-tube which while the spray is in use can be kept covered by the thumb. As soon, however, as the spray is no longer required the thumb is removed, the air at once escapes through the opening, and simultaneously the action of the jet is arrested. This contrivance obviates all dropping of the solution, and at the same time renders the spray exceedingly handy in the matter of regulating its action.

The cocaine spray has proved useful in all ophthalmic operations, and for all operations upon mucous membranes. In the removal of hæmorrhoids, for instance, the assistant could keep the part in an anæsthetic condition by an occasional spray while the surgeon without interruption carried out the various details of the operation. Again, in general surgery it might be equally useful; for instance, in herniotomy, ligature of arteries, and other operations of this nature. The difficulty, however, is to obviate the pain



of the first incision through the skin; but this having been overcome or ignored, a sufficiently strong solution of cocaine sprayed over the exposed surface of the subcutaneous tissue would render the operation painless throughout the rest of its course, and for this reason practicable without the employment of a general anæsthetic.

The spray producer can be procured of Messrs. C. Wright and Co., 108, New Bond-street, who have made it at my suggestion, and I am glad to be able to take this opportunity of thanking them for their assistance and for the trouble they have taken in the matter.

St. Stephen's-road, W.

ON A CASE OF IDIOPATHIC TETANUS.

By OCTAVIAN N. ROYLE, M.D., F.R.C.S. ENG.

I WAS sent for at two o'clock on the morning of March 11th last to see the wife of the gravedigger of the parish of Grouville. The messenger upon inquiry informed me that she had been feeling ill for the last ten days with spasms and slight pains in the stomach, and that her bowels had been unrelieved for more than a week. Looking at the constipation as cause and effect—the night, moreover, a stormy one, and the house some distance from my residence,—I did not consider the nature of the attack one of sufficient urgency to pay a visit at that early hour, so sent her by the bearer a brisk purge of croton oil, with directions to foment the body well until I saw her. Calling at eight o'clock the same morning, the bowels, I found, had freely acted, but the pain and spasm associated therewith had much increased. I then for the first time recognised the nature of her case. The last day in February, it seems, this poor woman had become greatly alarmed at seeing the hand of a child placed on a machine for cutting turnips in motion, although with no injury to the child further than a slight graze of one finger. It was a clear case of idiopathic tetanus from nervous shock. The poor husband was in great grief and distress about his wife, whom I succeeded in calming by my assurance that she would soon be better; nevertheless, every day for more than a week after first seeing her the symptoms increased in severity. Trismus and opisthotonos at one time were well marked, the latter coming on after an interval of some hours, and lasting from

[1] THE LANCET, 1879, vol. i. [2] The New York Medical Record.

five to ten minutes, resisting apparently all treatment employed, first with opium, in two-grain doses every three hours for three consecutive days, then with chloral, in half-drachm doses every four hours for a like period, with very little improvement, and subsequently with one grain of morphia injected hypodermically every night with two of Indian hemp, repeated at short intervals during the day, the symptoms after this treatment gradually disappearing on the second day until her recovery, just three weeks after receiving the shock. The case, I think, of some interest and worthy of record; first, from the great impression made on the nervous system from so slight a cause; again, no marked symptom of the disease showing itself until the eleventh day after the fright, resisting at first all treatment; and lastly, succumbing to Indian hemp and morphia injections, a line of treament I should commence with most certainly if ever called upon to treat a similar case.

Grouville, Jersey.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

UNIVERSITY COLLEGE HOSPITAL.

RENAL CALCULUS; NEPHRO-LITHOTOMY; CURE; REMARKS.

(Under the care of Mr. BERKELEY HILL.)

THE treatment of calculus of the kidney is well illustrated by the two cases which we publish this week. In the first case, where the symptoms had been noticed about seven months before operation, the renal structure had been so little altered by inflammatory changes that the organ was left after removal of the calculus. In the second, symptoms referred to the kidney had been present on and off for sixteen years, and extensive pyonephrosis induced by the presence of the calculus; for this the kidney was also removed. In each the result was satisfactory, and the cases form interesting contributions towards the surgery of the kidney, which has made such rapid advances during the last few years.

For the report of this case we are indebted to Mr. Bilton Pollard, B.S., surgical registrar.

E. R——, a woman aged forty, was admitted to the hospital on Oct. 28th, 1884. She stated that about three months previously she began to suffer from a gnawing pain in her right loin, which shot down to her right groin and knee; the pain came on suddenly, and was attended by vomiting. About a week later her urine was thick and red, but not, she thinks, due to blood. She passed urine frequently during both day and night; she never noticed any blood in it.

On admission the patient had occasional attacks of pain in her right groin and thigh; she had some tenderness in the right loin, but it was doubtful if any fulness was present there. Her urine was acid, had a specific gravity of 1080, and contained an abundant deposit of pus. She remained only three days at the hospital at that time, but she was readmitted four months later, and then stated that during the interval the attacks of pain had been more severe. Her urine was acid; it had a specific gravity of 1010, and contained a large quantity of pus, and on one occasion was dark-brown from mixture with blood. There was a slight fulness in the right loin, and during deep inspiration the kidney could be felt, and it was rather tender. From the persistence of the symptoms and absence of others connected with the bladder, Mr. Hill concluded that there was a calculus in the right kidney; and on March 11th, 1885, he exposed the kidney in the loin and punctured it in several places with a needle, but he did not strike a calculus. He next explored the surface of the kidney thoroughly with his finger and detected a hard substance at the lower part of the organ near the hilus; towards this point, guided by the position of the tip of his finger, he passed a knife through the kidney and struck the calculus. Finding it closely embedded in thick layers of fibrous tissue, he then enlarged the incision in the hilus of the kidney, and after freeing the calculus with a scoop, he extracted it with his finger. The wound was closed, except at the posterior part, where the drainage-tube was placed; carbolic gauze dressings were applied. During the first forty-eight hours after the operation the watery fluid, probably serous, not urinous, which drained from the wound was too great for the antiseptic dressings to retain. Notwithstanding this, the wound remained aseptic all through. About eight hours after the operation the patient passed three ounces and a half of urine per urethram; it contained pus. Nine hours later she passed an ounce and three-quarters of urine, which contained much less pus. During the first twenty-four hours after the operation the total amount of urine passed was only twelve ounces, which contained thirty-nine grains of urea; during the next twenty-four hours twenty-seven ounces of urine, containing 106 grains of urea, were passed. The quantity of urine excreted increased day by day until it reached forty-nine ounces, containing 364 grains of urea, during the sixth period of twenty-four hours. On the fourth day after the operation the pus entirely disappeared from the urine and remained absent for about six weeks, and then returned in slight amount. The patient had no return of the lumbar pain. She was discharged seven weeks after the operation; there was then a little pus in the urine, and the wound in the loin was almost healed. The calculus weighed 142 grains; it had an irregularly conical shape, and measured an inch across its base and along the two longest sides; the apex of the cone was smoothed off, and was represented by a flat facet, which seemed to indicate that it lay in the kidney against another calculus, but although this was carefully searched for at the time of the operation, it could not be detected. The patient was seen again on May 15th, when she was in generally good health. She said that she had felt pain in her right loin during that day for the first time; the wound had healed, and there was no fulness or tenderness there; her urine was turbid with flocculent pus.

Remarks by Mr. BERKELEY HILL.—The above case of nephro-lithotomy was very successful, though disappointing. It was successful in that a correct diagnosis of a renal calculus could be made on the presence of three symptoms—persistent pain in the loin, shooting thence towards the groin, the presence of pus in acid urine, and occasional slight hæmaturia at the onset of the case; successful also in that the calculus was found and removed without difficulty through an incision into a healthy kidney from the loin, with the effect of removing the symptoms from which the patient suffered. But the case is also disappointing in that after the urine had been free from pus for six weeks, and the pain in the loin relieved, there should be a return of the purulent discharge. It is difficult to explain this relapse, unless we conclude that there is still another calculus in the kidney, and this view is somewhat supported by the existence of a flattened surface on the irregularly shaped calculus which was removed. This flattened surface was observed at the time of the operation, and I searched very carefully for another calculus, but failed to detect one, and attributed the surface to the stone having been moulded in a calyx which fitted it closely. It is possible that so long as the wound in the loin remained open the pus discharged itself through that channel, and that when the wound closed the pus was obliged to find a vent along the ureter. Meanwhile the patient is enjoying a state of health and complete freedom from pain which she has not had for some years past.

DUNEDIN HOSPITAL, NEW ZEALAND.

A CASE OF NEPHRECTOMY FOR CALCULOUS PYELITIS AND PYONEPHROSIS; CURE; REMARKS.

(Under the care of Dr. COLQUHOUN.)

THE notes of the following case are furnished by Mr. Christie, clinical clerk.

John C——, aged forty-four years, a shepherd, single, was admitted on Dec. 26th, 1884. He is a native of Inverness, Scotland, but had been in Otago for the last twenty years He came of a healthy family, and, excepting his urinary troubles, had always been a healthy man. About sixteen years ago he first felt pain in the left side, just below the ribs behind, and shooting towards the front. His urine was dark in colour and contained blood. These symptoms continued for about a year. He was then bled and took some medicine, and was free from pain afterwards for about two

years. The pain again becoming severe, he came to Dunedin, where a doctor told him that a calculus was passing down from his kidney to his bladder, and after some treatment the pain again ceased. Two years later he began to feel something turning in his bladder, and the urine was frequently suddenly stopped in micturition. Blood was passed occasionally, and he had several attacks of shivering. The urine then began to dribble away in small quantities when he tried to pass it. He came into Dunedin Hospital, and while there Dr. Hulme made an incision into the urethra in front of the membranous portion, and removed a small calculus. He left the hospital well, and was free from any severe pains for four years. He then again had pain in the left side and was "fevered," for which symptoms he was admitted into the Queenstown Hospital, where he stayed for about a week. Since then he has frequently had pain in the left side, worse on riding or after any exertion. His urine has contained a thick sediment for a good many months, he cannot tell exactly how long, and lately he has lost flesh and strength to a considerable extent. In November, 1884, the pain in the left side became severe and continuous, but he does not recollect having any sweating or shivering attacks.

Present condition (Jan. 13th).—The patient is a man of exceptionally good physique, but somewhat emaciated. He says he has lost at least two stone in weight within the last few months, and that he is much weaker than he has ever been. The lungs and heart are healthy. No abdominal tumour can be felt, but on deep pressure in the left hypochondriac region he complains of pain. There is no fulnesss in that region nor any notable increase of dulness. The pulse is quick and somewhat weak. The temperature is normal. He complains of constant dull aching pain in the region of the left kidney. The urine is faintly alkaline, contains phosphates, and there is a deposit of pus on standing to the extent of about a tenth of the total amount of urine. On the 15th there was little or no deposit in the urine examined. On the 18th, at noon, he had a severe and prolonged rigor, the temperature rising to 105°; the urine afterwards passed contained an abundance of pus, and was acid in reaction. For the next few days the temperature kept about 100° to 101°; on the 21st the urine contained no trace of pus, and was free from albumen. The bladder was examined with a sound, but was found to be normal. A consultation was held with the members of the hospital staff, and an exploratory incision in the left lumbar region was recommended, with the view of performing nephrectomy or nephro-lithotomy, according to circumstances. The condition of affairs was explained to the patient, who agreed to the operation. The amount of urine passed daily for five days before the operation was noted, and was as follows: Jan. 25th, 42 oz.; 26th, 35 oz.; 27th, 37 oz.; 28th, 35 oz.; 29th, 33 oz.

On the 24th the temperature was 101·4°, and it kept fluctuating daily, but there were no severe rigors.

Operation (29th).—The patient, being anæsthetised with ether, was placed on his right side with a pillow under his flank. An incision was made on the left side, parallel with the last rib and about an inch below it, extending from its anterior extremity to the outer border of the erector spinæ. The distance between the lower border of the centre of the rib and the crest of the ilium was two inches and a quarter. On cutting through the skin, muscles, and fascia, the lower end of the kidney was laid bare without difficulty. It was elastic and fluctuating, and an aspirating needle was inserted. About six ounces of thick pus were drawn off. The needle was then pushed in various directions, but no calculus could be felt. An incision was made into the kidney, and about eight or ten ounces of pus subsequently escaped. On passing the finger into the opening, the kidney could be felt to be sacculated and much enlarged; externally it was strongly adherent to surrounding parts in every direction. The kidney was with considerable difficulty separated from its attachments, and was pushed from the abdomen towards the wound. The external incision was increased anteriorly, the amount of space to be gained by a downward incision being so small that no attempt was made to increase the aperture in that direction. As it was not possible to withdraw the kidney whole, a stout hempen ligature was passed round the pedicle, and the lower half of the kidney was cut through and taken away. Considerable bleeding followed this, which was controlled by pressure with sponges and forceps. A large calculus could now be felt in the pelvis of the kidney, and two or three small pieces extending into the calyces were removed. The other part of the kidney was then removed, another ligature having been placed on the pedicle, which was drawn towards the edge of the wound. No attempt was made to ligature the ureter and vessels separately. Bleeding ceased after the second ligature. The wound was washed out with chloride of zinc solution, a large drainage-tube was put in, and the skin incision was closed with silver sutures. The operation was done under the spray. The kidney weighed twenty ounces and a quarter, and the calculus half an ounce.

30th.—The patient has passed a good night. To-day he says that the pain in his side is less than it was before the operation. In the twenty-four hours following the operation he passed thirty-five ounces of urine; that first passed contained a great deal of blood and some pus, the last being quite clear. Temperature (10.30 A.M.), 100°; pulse, 112.

31st.—10.30 A.M.: Temperature 103·2°; pulse 120. There is a good deal of oozing of sanious pus from the wound. In twenty-four hours he passed thirty-four ounces of urine, containing a copious deposit of phosphates, but free from pus or albumen. Henceforth no pus or albumen was present in the urine. During the first week the wound became very foul and septic symptoms set in. The tongue became brown and hard, the temperature reached 104·8°, and the pulse was as high as 150. Charcoal poultices were applied, and the wound was freely irrigated with warm carbolic solution (1 in 40). The abdomen remained soft and free from pain. On February 9th the wound was again healthy and clean, the temperature being 99°; from that time convalescence was steady, and healing went on rapidly. The patient was able to get out of bed on February 28th.

On March 20th the ligatures had not yet come away from the pedicle, but with the exception of the small sinus thus left the wound had entirely healed, and the patient was gaining flesh and strength daily. From fifty to fifty-six ounces of urine were passed daily. During the first week, while the wound was septic, a bed-sore formed over the right sacral region, which gave rise to a good deal of trouble and discomfort, but which was healing rapidly.

When examined on April 10th the patient was in excellent health.

Remarks by Dr. COLQUHOUN.—The diagnosis of this case presented no particular points of difficulty. The previous history of calculus, the absence of cystitis, the occasional acidity of the urine, the appearance and disappearance of pus, and the pain in the region of the left kidney, all indicated that the left kidney was the source of the pus, and that it was probably due to the presence of a calculus. The next question that arose was as to the condition of the right kidney. The absence of albumen, when pus was not present, was considered to be satisfactory on that point, and it was thought to be very probable that the right kidney was, and had been for some time, doing the main part of the work, and that little extra burden would be thrown on it by removing its diseased fellow. The age of the patient made the operation a serious one, considering the mortality that had followed such operations in patients of middle life. Mr. Barker stated at the Congress of 1881 that out of ten cases of nephrectomy for calculus collected by him, seven had died, and all the recoveries had been in patients under twenty-four years of age. In this case, however, the peculiarly good physique of the man, the absence of any constitutional weakness, and a previous life of strict temperance in a healthy climate, made the patient a good subject for operation in spite of his years. An operation under such circumstances certainly seemed more likely to be successful than in many of the cases of nephrectomy for strumous disease performed on unhealthy and cachectic individuals many years younger. The lumbar incision was chosen in preference to the abdominal, and no regret was felt for this, notwithstanding the difficulty experienced in removing the kidney through a comparatively small aperture. The condition of the kidney bore a strong resemblance to that of a phthisical lung strongly bound down by pleuritic adhesions, it was so strongly adherent to all the surrounding tissues; and there would have been considerable danger of some of the fetid pus escaping into the cavity of the abdomen had the incision been made from the front. The treatment after the operation was mainly directed to keeping the wound clean and to maintaining the strength of the patient. He rallied quickly from the shock of the operation. During the few days of septic trouble brandy was freely given. The bowels were somewhat constipated throughout, but this the patient said was not more than was

his habit when he was at work. The calculus externally consisted of phosphates, with no trace of uric acid; no examination of its internal composition has yet been made.

GREENOCK INFIRMARY.

PENETRATING WOUND OF ABDOMEN, WITH PROTRUSION OF STOMACH AND INTESTINES; REDUCTION OF HERNIA AFTER ENLARGEMENT OF WOUND; DEATH.

(Under the care of Dr. DOUGLAS.)

THOMAS C——, aged eight, was admitted on April 18th, 1885. This boy, when bathing in a shallow burn, lay down on his belly close to the bank in order to practise swimming movements. The ragged edge of a broken bottle which lay at the bottom of the burn penetrated his abdominal wall. Saying nothing about his injury, he at once got out of the water, walked to his clothes, put on his shirt and one leg of his trousers, but his exertions caused his intestines to protrude through the wound, and this being observed by his companions, assistance was sent for, and he was at once brought to the infirmary in the ambulance van, being admitted about an hour and a half after the accident.

On admission, midway between the umbilicus and the ensiform cartilage, in the median line, was an incised wound only three-quarters of an inch long, through which had protruded the stomach, omentum, and almost the entire length of the jejunum and ileum. These viscera now lay to the right of the middle line. The stomach and intestines were uninjured, although considerably congested and distended with flatus; the peritoneum covering them was smooth and glistening, and no dirt or foreign body of any kind was adherent. The omentum was slightly torn here and there, and at one part a very small portion of it was almost detached. The neck of the hernial protrusion was firmly constricted by the edges of the wound. The surface of the patient's body was cold, his face pale and anxious-looking, and the pulse slow and feeble. Chloroform was administered, the viscera carefully washed with a weak tepid solution of carbolic acid, and the semi-detached portion of the omentum firmly ligatured with carbolised catgut and removed. Careful attempts were then made to return the hernia, but, as was expected, they proved of no avail, so the wound was enlarged upwards and downwards about half an inch in each direction, and the whole protrusion was then returned with comparative ease. The edges of the wound were stitched accurately together with sulpho-chromic gut, a drainage-tube inserted at the lower end, and a dressing of protective carbolic gauze and carbolised wool applied. The carbolic spray was employed during the operation. He was ordered small quantities of brandy and iced milk.

19th.—Slept fairly well during the night; micturated freely; complained of no pain; pulse rapid and feeble. Temperature in rectum 100·8°. The following was ordered: solution of morphia and simple syrup two drachms of each, distilled water two ounces; one drachm every two hours. Incessant vomiting and hiccough began shortly after mid-day; he gradually sank, and died at 9.30 P.M., thirty-two hours after admission.

The wound was reopened and enlarged after death. No hæmorrhage had taken place; no peritonitis; the viscera had exactly the same appearance as before their return into the abdominal cavity. There was no attempt at healing of the wound.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Fatty Tumours.—Lympho-sarcoma of Tongue.

THE last meeting of the session of this Society was held on Tuesday last, Dr. George Johnson, F.R.S., President, in the chair. At the close of the meeting the President said that the ventilation of the room in which the Society met would undergo a thorough revolution during the vacation.

Mr. BLAND SUTTON read a paper on Fatty Tumours, the object of which was to endeavour to point out the probable origin of certain forms of fatty tumours which occur in unusual situations. The author removed the biceps cubiti muscle of an old woman, a dissecting-room subject, the upper part of which had become metamorphosed into a lobulated fatty tumour; it was not merely an example of fatty degeneration of a disused muscle, but a genuine lipoma. Mr. Pearce Gould removed a congenital fatty tumour from the clavicle of a child, the base of which contained striated muscle fibre. Mr. Butlin reported a similar case in the twenty-eighth volume of the Pathological Society's Transactions. The patient, a girl seven years old, was operated on by Mr. T. Smith for a fatty tumour growing among the deep muscles of the calf. It contained striated muscle fibre. In a fibro-muscular tumour of the uterus, removed by Sir J. Paget, and reported in the twelfth volume of the same Society's Transactions by Mr. T. Smith, a fatty tumour was found of the size of a pigeon's egg. These four cases seem to favour the view that the muscle-tissue had suffered fatty degeneration, and the retrograded elements had acquired, or assumed, an independence and grown into a tumour. Muscles do not stand alone in this respect. Inflammatory new formations may degenerate into fat and become veritable fatty tumours. Dr. Norman Moore presented to the College of Surgeons Museum a ureter surrounded by a "fatty tumour." The ureter contains a calculus, and in the catalogue is printed the following noteworthy explanation: "The fat was probably produced by fatty degeneration of newly formed fibrous tissue (inflammatory new formation) occasioned by irritation of the calculus." The museum of the Middlesex Hospital contains a specimen illustrating syphilitic stricture of the rectum; the pelvic organs are embedded in a mass of fat, tunnelled with sinuses from the bowel. Possibly the stricture and the passage of fæcal matter outside the bowel had acted as irritants, leading to increased activity in the parts surrounding the gut, which fell just short of inflammation and led to overgrowth of fat, or in the early stage of the stricture inflammatory products were exuded, which later retrograded into fat and took on independent growth. Dr. J. K. Fowler pointed out the condition to the author, and stated that it occurs in many cases of long-standing stricture of the rectum. In November, 1876, Mr. Henry Morris removed from the buttock of a man a fatty tumour containing a shapeless mass of bone. Careful examination of this and similar tumours, particularly a case described in the thirty-third volume of the Pathological Society's Transactions by Mr. F. Treves, lends support to the notion that congenital fatty tumours containing bone are really examples of "parasitic fœtuses whose soft parts have retrograded wholly or partially into fat." The question is also borne out by numerous examples in pathology and comparative anatomy. The fatty contents of dermoid cysts may be explained in the same way—viz., degeneration of the higher tissues of which it was originally composed. The "lipoma arborescens" of Müller doubtless arises by fatty retrogression of the villous processes, which are so common in joints affected with chronic disease. Evidence in many ways is adduced in the paper to prove that any of the soft tissues of the body, normal or pathological, may degenerate into fat, and that this retrograded tissue does, in some instances, assume an autonomy and grow into a veritable fatty tumour. — Mr. BUTLIN said that, working at lipomata of infancy and childhood some years ago, he had come to the conclusion that they might arise as degeneration of fibrous tissue. He thought that Mr. Sutton had extended these views, and with a considerable show of truth.—Dr. CREIGHTON considered that Mr. Sutton had hardly proved his point. He said that the notion that such congenital fatty tumours were parasitic fœtuses was far-fetched. In dermoid cysts no doubt there was a greasy substance; but this was due to the existence of an enormous number of sebaceous glands. Throughout the paper fat was spoken of as degenerate tissue, and Dr. Creighton objected to such a view. The paper did not state where the fat occurred precisely in the tumour of the biceps cubiti muscle, and there was no histological description. He believed that it was just as likely that we had to do with a congenital rudiment of fat in cases of congenital fatty tumour. When fat forms in the intestine, in the tract of an old hernia, he had found that the fatty change proceeded in the most orderly way, and without preceding inflammation.—Mr. BLAND SUTTON, in reply, argued that fœtuses did remain at their autosite, and gave several illustrations: one, that of a rudimentary fœtus on a man aged thirty, in which the fœtus moved its stunted and rudimentary limbs; and another case in which the fœtus was attached to the breast. The fatty material in dermoid cysts

was no doubt of two kinds: the one was a fluid sebum; the other was unquestionably fat and a genuine adipose tissue. His paper was simply an earnest endeavour to give some satisfactory explanation as to how fatty tumours may arise in such untoward situations in which we sometimes find them.

Mr. JONATHAN HUTCHINSON read a paper on a case of large Lympho-sarcomatous Tumour of the Tongue. The paper consisted chiefly in the narrative of a case in which a tumour, beginning in early life in the substance of the tongue, had required removal on account of its large size. It had grown until it completely filled the mouth and obstructed deglutition and respiration. It weighed after removal seven ounces, being probably the largest tumour of the tongue on record. The operation necessitated a preliminary tracheotomy and section of the lower jaw at the symphysis, since it was quite impossible to get at the mass from the mouth. The patient was a medical student, aged twenty-two, and the tumour had been growing for twelve years, or possibly much longer; it was painless and of almost stony hardness. Its surface at one part was covered with papillary outgrowths, but there was not the least tendency to ulceration. There was no gland disease. The patient was in good health, and the inconvenience caused by the size of the tumour was the only reason for its removal. Careful microscopic examination had been made by Mr. Eve, Dr. Klein, and others, with the result that the tumour was declared to be of a sarcomatous or lympho-sarcomatous nature. This verdict had unfortunately been supported by the final result, for after about two years of good health, without the slightest symptom of recurrence, a new growth suddenly developed in the scar, and, increasing very rapidly, brought about the patient's death. The author, whilst admitting that the tumour in its final development was of a malignant or sarcomatous character, drew attention to certain clinical features which were different from those common to such growths. If not actually congenital, it had begun in very early life, and its growth had been very slow and absolutely painless. The development of coarse papillæ on its surface, without any tendency to ulcerate or fungate, was another feature of peculiarity. He had not been able to find on record any case which corresponded with his own in all its characters, but had met with several which resembled it in its early stages. In one of these, in which a portrait was shown, the appearances on the surface were exactly similar; but in this no tendency to persistent growth was shown, and the patient, a railway porter, aged twenty-three, is still free from any material inconvenience. This and some other cases led the author to believe that the starting-point had been of the nature of a congenital mole, in which other morbid tendencies had been developed later on. The paper was illustrated by a series of drawings, and by the preparation itself, which had been preserved in the museum of the College of Surgeons.—Dr. JOHNSON congratulated Mr. Hutchinson on the temporary success which had attended the surgical interference.

Mr. HUTCHINSON showed a living specimen of Papillary and Nævoid Mole of the Tongue in a railway porter. There was hypertrophy of one-half of the tongue with, in addition, papillary growths all over the organ and enlarged veins. The growth had certainly diminished during the last year or so. — Mr. BUTLIN had investigated the literature of the subject of sarcoma of the tongue, and so far as he could make out there was but one on record besides that related by Mr. Holmes. He thought that Mr. Hutchinson was probably right in believing that the growth had arisen in some other tissue. It was not an ordinary round-celled sarcoma, and Mr. Hutchinson's view as to the origin must be accepted. He remembered the case of a little girl under the care of Mr. Howard Marsh, in which there was a papillary growth on the tongue and the disease spread through that organ. Certainly Mr. Bryant had shown that such growths might be due to the degeneration of a nævus, for Mr. Bryant saw one case pass through the various stages. If a further proof of the nævoid character were wanted, it would be found in the profuse bleeding, which was with much difficulty controlled in one case operated on by Mr. Butlin. Mr. Hutchinson's case was most probably one of a congenital condition of the tongue which had undergone cystic and papillary degeneration, and in this degenerated tissue a sarcoma had developed. The case was one of surpassing interest.—Mr. HOWARD MARSH said that he had seen three cases of a nævoid condition of the tongue at the Hospital for Sick Children. In two of these the patients were about three months old. It was interesting to know that such nævi did take on a coarse papillary degeneration.—Mr. BARKER had seen one more case than those he had put on record—that of a young woman aged twenty-one, in whom there appeared to be a rather larger admixture of the nævoid condition than existed in Mr. Hutchinson's case. The papillæ appeared to be made up of saccules, which, on incision, gave vent to serous fluid. A lymphangiectatic condition was probably also present in these cases. Injection could be performed from the lymphatics into the veins, and *vice versâ*. Setons had been used, with the result of setting up glossitis; and an incision into the inflamed area did not give rise to much bleeding, though there was a considerable escape of a clear fluid. — Mr. HUTCHINSON did not accept the limitation of the tumour to the class of nævus only; he considered that there was the "mole" element—that is, a hypertrophy of the various tissues. Mr. Arnott had described enlargement of the lymphatics, as well as all the other tissues, in a case of the kind. He did not think that such cases always began as a nævus. In many cases there was hypertrophy of all the solid tissues.

OPHTHALMOLOGICAL SOCIETY.

Congenital Changes in Vitreous Body.—"Black" Cataract.—Nævoid Conditions of Eyelids and Orbital Tissues.—Intraocular Gumma.—Double Retinal Glioma.

AN ordinary meeting of this Society was held on the 4th inst., Mr. H. Power, F.R.C.S., Vice-President, in the chair.

Mr. LANG showed a specimen of Congenital Changes in the Vitreous Humour with choroiditis and atrophy of the optic disc.—Mr. H. POWER asked for what reasons the changes were considered to be congenital.—Mr. H. E. JULER suggested that there had been an inflammatory process which had left behind it the fibroid changes; the lesions were not the remains of the hyaloid artery.—Mr. LANG said that the sight of the right eye had always been defective; the left eye was normal. By direct inspection three branches could be seen, one of which passed vertically upwards and another horizontally inwards; he thought it could not be the remains of an artery, and suggested that an intra-uterine inflammation was the cause: there was also choroiditis of extensive nature; the optic disc was decidedly grey, and much darker than in ordinary grey atrophy. In answer to Mr. Power, he said there was no specific history.

Mr. H. POWER showed a specimen of "Black" Cataract, which was the only one that had occurred in his own practice. Mr. Myrtle, at the Western Ophthalmic Hospital, had informed him that he had seen three black cataracts in Paris during a period of six months. Mr. Power's case was that of a woman aged forty-three, in whom the field of vision was good in all directions, though feeble. The lens was removed without iridectomy, and the cataract came away in the capsule. The result would in all probability be very good.—Mr. SWANZY had seen many black cataracts both in von Graefe's and his own practice. The result of their extraction was rather unsatisfactory in his experience.—Mr. LANG referred to two cases which had been under his care. In one there was extensive myopia and mixed astigmatism; the patient did well for a time, but subsequently detachments of retina came on and useful vision was destroyed. He had seen another case at Moorfields also in a myopic patient.—Mr. JULER remarked on the large size of the lens in Mr. Power's case, and thought that the eye ought to have been glaucomatous were it not for the myopia.—Mr. NETTLESHIP had seen many cataracts of a brown tint, but none actually black; he referred to Mr. McHardy's case, published in the second volume of the Society's Transactions.—Mr. MACKINLAY had seen a few cases of black cataract.—Mr. ADAMS FROST remarked on the obscure nature of black cataracts.—Mr. HENRY POWER suggested that absorption of hæmoglobin might account for the colour, and thought a chemical examination might clear up this point.

Mr. MCHARDY showed a girl with a Subcutaneous Nævoid Condition of the Eyelids, which was attended with alterations in the temporal bones. There was no proptosis; the eyeball appeared to be unaffected.—Mr. SPENCER WATSON referred to a case of nævus of the orbit, orbital tissues, and upper lid, which did not extend so far into the temporal

region as in Mr. McHardy's case. He had used ligatures to tie portions of the growth in the lids and the actual cautery for the orbital portions; by these means he had obtained a good result. He thought Mr. McHardy's case not so favourable for operation, and yet he suggested that some of the vessels might be tied up.—Mr. H. POWER had seen many cases of nævus of the eyelids, and referred especially to the case of a child aged between three and four years, in which he had twice used a deep figure-of-8 ligature, with success at the second operation. He mentioned another case in which a nævus was rapidly growing at the inner canthus and caruncle of the eye and had penetrated into the orbit; this was in a female infant aged eight months. He dissected out the growth with some difficulty after separating it from the conjunctiva; there was some hæmorrhage, and the operation had to be more extensive than he had anticipated.—Mr. NETTLESHIP referred to a case of "lymphatic" nævus in a boy, in whom there was defective vision; nothing was done; an attack of spontaneous inflammation led to no improvement. He considered that Mr. McHardy's case was one of nævus; large cords passed through the growth, which were apparently obliterated vessels.—Mr. JESSOP referred to the enlarged veins and cords passing apparently into the external jugular veins.—Mr. WAREN TAY asked whether the choroid was affected.—Mr. MCHARDY said that the choroid was probably free; there was some hypermetropia about 2 D. The growth did not dip into the orbit very much, for there was no exophthalmos. He mentioned a case in a boy aged fifteen, in whom proptosis was a marked feature; he thought he should deal first with the isolated mass in the lower lid, and then proceed to remove a portion from the upper eyelid.—Mr. ADAMS FROST referred to a case on which he had operated, and said that the skin never resumed its natural texture; in this case the tumour went deeply into the orbital tissues.

Mr. JESSOP read the report of the Committee on Mr. Benson's case of Growths on the Cornea and Iris. It was found that the nodules on the cornea were chiefly situated external to the posterior elastic lamina. The nodules consisted of round nucleated cells, which stained deeply; in some spots there were signs of disintegration. There was practically no caseation. No giant cells were found anywhere. No reticulated structure and no bacilli were detected. The growths in the inoculated animals had the same characters. This was not a case of tuberculosis, as the above facts showed, and as was further borne out by the fact that there was no evidence of general tuberculosis in rabbits inoculated into the anterior chamber of the eye.—Mr. SWANZY asked the Committee what kind of growth they regarded it as.—Mr. JESSOP, in reply, said some form of granuloma, possibly syphilitic.

Mr. SPENCER WATSON read a paper on a case of Intra-ocular Gumma in a child aged six years, whose history pointed to inherited syphilis. The father was the subject of phthisis. The patient came to the South London Ophthalmic Hospital with a protrusion of the upper and outer quadrant of the sclerotic. This was punctured, and on it, though no pus escaped, a prominent growth of lympho-pus formed. The earlier stages had resembled those of acute onyx with hypopion, but after the formation of the protrusion in the sclerotic the pus in the pupillary area disappeared. Under a course of mercury the protrusion subsided, leaving a pigmented scar in its place, and a shrunken eyeball. All the other symptoms also were ameliorated, and the child's general health improved. The whole case seemed to indicate an intr-ocular syphiloma. At one time the sympathetic irritation of the sound eye threatened danger to it also, but the mercurial course had a good influence, and, as the damaged eye contracted, the fellow eye lost all irritability and the general health correspondingly improved. This form of syphilitic affection of the eye is, according to the author's experience, very uncommon.—Mr. ADAMS FROST referred to a case of gumma on the anterior surface of the iris which was absorbed under mercurial treatment; the other eye was symmetrically affected.—Dr. BRAILEY referred to cases of gumma of the choroid which he had seen, none of a large size. He mentioned cases of tubercle, in one of which the sclerotic was perforated and a suppurative panophthalmitis resulted. In a case of glioma with increased tension a tuberculous mass growing from the optic disc was found. He thought there was evidence to show that genuine glioma does shrink.—Mr. NETTLESHIP had not seen intra-ocular gumma in a child, but had seen many in adults, where there was no doubt as to the acquired syphilis. He remembered very well two cases in women with severe secondary syphilis, and each lost one eye. In one the disease led to the formation of a bulging mass in the ciliary region, which tended to perforate and was broken down in the centre. In another case in a lad it was doubtful whether the growth was syphilitic, tubercular, or of some other nature.—Mr. LANG spoke of a case in a man with acquired syphilis; the gumma was situated on the anterior surface of the iris and perforated the sclerotic. In another instance the gumma separated the iris from the sclero-corneal junction and bulged the sclerotic forwards.—Mr. POWER said that it was the early age of the patient which was the interest of Mr. Spencer Watson's case. In adults syphilitic affections of the iris were very common, especially at Chatham, where, the Contagious Diseases Acts not being in force, he had seen numerous examples.—Mr. SPENCER WATSON said that the mother showed no evidence of syphilis till after the birth of the child; and he suggested that the fœtus was primarily affected, and that the mother was infected from the fœtus.

Dr. BRAILEY described a case of Double Retinal Glioma, which resulted in the shrinking of one eye and the perforation of the anterior part of the opposite eye by a large projecting mass of new growth. He first saw the child, who is still living, in October, 1882, when there appeared at the fundus of the left eye a yellowish-red vascular reflex. The right also showed a greyish reflex, with a few vessels on it. The disease was diagnosed as glioma, the condition being more advanced in the left eye, where it implicated the entire retinal thickness, and of comparatively short duration in the other, where it was apparently confined to the external retinal layers (glioma exophytum). In the diagnosis of glioma Mr. Vernon concurred. The disease progressed slowly for ten months, when the right eye was apparently the seat of an acute suppurative panophthalmitis, during the progress of which the child lay for several days in a state of stupor. Dr. Brock of Tooting, under whose care she was, attributed this condition to meningitis. Two and a half years from the time of her being first seen the tumour perforated the left eye and projected for about three-quarters of an inch as a rounded mass, about half an inch in diameter, from between the lids. There was at present no evidence of any further extension of the disease. Dr. Brailey thought that the points of interest in the case were its long duration, and the fact that an intra-ocular glioma could shrink and become inert. He referred to such a case recorded by Mr. Snell in the Society's Transactions for 1884, to which he had himself appended another; but in neither of these did the shrinking appear to be the result of a suppurative panophthalmitis. Another point of interest was the probable mode of extension of the disease from one eye to the other. He thought that this, in some cases, at all events, was by the optic nerves and chiasma. — Mr. POWER had seen but one case of glioma in both eyes; in this case, and against his wish, no operation was performed, and the child died in great misery. — Mr. MCHARDY spoke of a case of double glioma in which one eye was removed, but the parents refused to have the other touched. The growth at death weighed 8½ lb., and the child only 24 lb.—Mr. FRANCIS MASON also spoke of a case of double glioma. One eye was removed, and the further growth in the orbit of that side certainly shrank, whilst the glioma of the other eye went on enlarging.—Mr. ADAMS FROST thought that, as the growth extended along the optic nerves, removal would prove useless in established cases.—Mr. SWANZY spoke of a case of double glioma which had not extended from one eye to the other, but had appeared independently in each eye. He mentioned a case in which the glioma lasted two years before the disease became extra-ocular, and agreed with Dr. Brailey that gliomata were not always rapid in their growth. — Mr. POWER thought it would be important to know whether early removal prevented recurrence in other organs.—Mr. NETTLESHIP referred to a case in which he had removed the eye at an early period and no recurrence had taken place after three years, and Mr. Brudenell Carter had put on record a case in which certainly eight years elapsed without recurrence.—Dr. BRAILEY had seen altogether twenty cases of ordinary glioma, five of which recovered after excision.—Mr. LANG gave an instance showing that growth may occur in the second eye without extension by the optic nerve.—Mr. WAREN TAY referred to a case, probably a glioma, in which there had been no recurrence after eight years.

HARVEIAN SOCIETY OF LONDON.

AT the meeting on May 7th, the President, Dr. T. Merton, in the chair,

Dr. M. HANDFIELD JONES read the notes of a case of Porro's Operation. The patient, a single woman, aged thirty, had come to him complaining of a lump in her abdomen; about four months previously she had had an acute attack of pelvic pain, following violent exertion, and accompanied with constipation and great frequency of micturition. Since the attack her courses had stopped, constipation had been very troublesome, and the general health had deteriorated. Physical examination revealed the existence of pregnancy, complicated by a large fibroid tumour impacted in the pelvis, and leaving only a small chink between its anterior surface and the symphysis pubis. At the time of labour it had been found possible to dislodge the tumour under an anæsthetic to such a degree that the performance of craniotomy was deemed advisable; this however failing, the abdomen was opened and the child removed by uterine incision. Then the tumour, being freed from adhesions which bound it to the pelvic wall, was raised out of the pelvis and removed with the uterus. The patient rallied well from the operation, but succumbed on the third day from peritonitis.

Dr. DE WATTEVILLE read a paper on Electrical Diagnosis in Nervous Diseases. After showing some of the recent improvements effected in electro-therapeutic instruments, he spoke of the method of conducting an investigation of the reactions of nerves and muscles. He then dwelt at some length on the phenomena observed in various forms of facial paralysis. Ordinary facial paralysis from "cold" offers three types of intensity; and an accurate prognosis may often be based upon the results of an electrical investigation; and recovery may be predicted within one, two, or six months respectively. He then explained the relationships between the "reaction of degeneration" and the morbid changes in the nerves and muscles; and he pointed out how the latter depended upon an interference with the "trophic" influence of the motor nuclei. The division of paralyses into "cerebral" and "spinal" (Marshall Hall) is of value if, by these terms, we denote the fact that in some the muscles are cut off from the brain influence only; while in the others the spinal (trophic) influence is also cut off. Progressive muscular atrophy, poliomyelitis, and "wrist drop" from lead or from pressure on the musculo-spiral nerve, were briefly alluded to as offering many opportunities for clearing up doubtful points and framing a prognosis by means of an accurate investigation of the behaviour of nerves and muscles to faradism and to galvanism.

ACADEMY OF MEDICINE IN IRELAND.

AT a meeting of the Obstetrical Section on March 6th,

Dr. MORE MADDEN exhibited Five Uterine Tumours which he had recently removed from patients in the Mater Misericordiæ Hospital, and read a paper on the Treatment of Uterine Fibro-myomata, as exemplified in his own gynæcological hospital practice during the past fifteen years. In this communication the author described fully his method of removing uterine fibromata by enucleation, and also referred to Emmet's operation for the same purpose, as well as to the treatment of uterine tumours by abdominal hysterectomy, myotomy, and oöphorectomy.—Dr. KIDD agreed with Dr. More Madden that the prevailing epidemic of laparotomies needed to be stayed. Capital operations should only be performed when the risk to life was imminent. The treatment required would vary with the size of the tumour—submucous, interstitial, or subserous. If necessary, the first two classes of uterine myomata might be removed by enucleation. The submucous variety caused most trouble and danger to life through accompanying hæmorrhages, but interstitial tumours might grow towards the mucous surface, and so become practically submucous. In the same way these tumours might become subserous. The latter class very seldom gave rise to really threatening symptoms such as alone would justify serious operations being undertaken for their removal. Mere inconvenience and some amount of pain would not justify laparotomy. Serious difficulty in defecation rarely occurred in connexion with these tumours, but micturition might be so difficult as to call for the use of a catheter. He had generally found it possible to relieve such symptoms by lifting the tumour out of the pelvis. He knew many cases in which very large uterine tumours had existed for many years without giving rise to any real danger to life, even though the abdominal and thoracic viscera were much pressed upon and displaced.—Dr. MACAN said that everyone would agree that in the absence of proper indications serious operations should not be undertaken. This rule was obvious; but enucleation as an operation he regarded as infinitely more dangerous than laparotomy. Nor did he accept Dr. More Madden's faith in the efficacy of subcutaneous injections of ergotin. Schroeder had laid down very clear rules and indications for the performance of myomotomy. It was called for in the case of a rapidly growing tumour in a young woman, when it gave rise to symptoms from mechanical pressure or excessive bleeding, or when it interfered with the patient's power of earning her bread. Other indications sometimes requiring operative interference were, according to Schroeder, complication with ascites or with pregnancy. Another rarer indication consisted in evidences of sloughing of the tumour. Removal of the ovaries might in many cases be preferable to myomotomy, but Battey's operation was very difficult and sometimes almost impossible in the cases of large tumours. It would be erroneous to say that menopause held out certain prospects of the cessation of the growth of uterine tumours.—Dr. BYRNE thought that the dangers of uterine tumours complicating pregnancy had been overrated. He believed with Dr. Kidd that the more serious operations were very seldom required.—The PRESIDENT pointed out that all of the tumours presented by Dr. More Madden except one were intra-uterine and pedunculated. He entirely differed from Dr. Madden in his estimate of the difficulties and dangers of enucleation. More difficult and less successful operations he had never performed. In his experience enucleation was most often left unfinished. He had some time since made up his mind never again to attempt this operation, except upon examining the uterus he found the tumour so circumstanced as to lead him to think that it would come away very easily. Myomotomy he looked on as a very dangerous operation, and not to be undertaken without the clearest indications. Death from pressure or from bleeding was very exceptional in these cases. He had entirely lost faith in subcutaneous injections of ergotin. It could only be of possible use in the case of intramural tumours. He had lately practised incision over the tumour, with subsequent injections of iodised phenol into the cavity of the uterus at fortnightly intervals, with very distinct advantage.—Dr. PUREFOY having spoken, Dr. MORE MADDEN replied, and the Section adjourned.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

AT a meeting of the Society on April 23rd,

Mr. ATKIN showed microscopical specimens of a Calcified Enchondroma of the Cerebellum which was accidentally discovered during the post-mortem examination of a boy who died of meningitis following otorrhœa.

Mr. F. WOOLHOUSE related particulars of a case of Hysterectomy in which a large uterine fibroid was removed with the body of the uterus and appendages. The patient, single, aged forty-three, had noticed as long ago as eight or nine years an enlargement in the lower part of the abdomen and on the left side, and this had gradually increased, and latterly had become so painful as to render life almost unbearable. When seen in December, 1884, a rounded smooth movable tumour was found, about the size of a uterus at the seventh month of pregnancy. Operation was performed on February 19th, 1885, and removal of the tumour was effected by taking up the uterus at the junction of the body with the cervix in segments, and tying each with strong catgut ligatures and cutting through about half an inch above. The edges of the stump were drawn together and dropped into the pelvis. The operation was performed without the spray. The after-progress was detailed. The chief difficulty experienced was the severe gastric disturbance, the patient being unable to take any food by stomach without pain. There was a history of dyspepsia of several years' standing. On March 18th she had an attack of hæmatemesis, vomiting a large quantity of blood, and died the next day. At the post-mortem the

external wound was found perfectly healed, and the surface of the stump (cervix uteri) was cicatrised over. The stomach was filled with blood, and a large perforating ulcer was found in the posterior wall adherent to the pancreas, which had evidently prevented extravasation into the abdominal cavity. The specimens were exhibited.

Dr. BANHAM introduced a boy, aged thirteen, suffering from Pseudo-hypertrophic Paralysis, in whom there was marked hypertrophy of the muscles of the calf and buttock, and equally striking atrophy of the muscles of the chest and shoulder, especially the pectoralis major. The weakness of the legs, which was first noticed when he was six years old, had been progressive since that time. The arms had been similarly invaded, and now there was as complete a paralytic condition as is usually met with in the most advanced stages of the disease. No passive exercise having been had recourse to, and the legs remaining constantly in a flexed position, contracture had taken place in the hamstring muscles, and the knee-joints also were considered to have undergone some change. These conditions, whilst they added greatly to his helplessness, had also doubtless favoured degenerative changes. The patellar-tendon reflex was absent, and powerful faradaic currents elicited no response on the part of the calf muscles. There was, however, a feeble contraction of the gastrocnemius on the making of kathodal and anodal currents of ten milliampères. Microscopical examination of a small piece of muscle that had been harpooned from the gastrocnemius revealed the usual excess of interstitial connective tissue.

Dr. DYSON showed the Spleen and Heart from the case of Leucocythæmia which he had exhibited at the Society on March 12th. The patient died on April 17th, after diarrhœa, general anasarca, and great asthenia had supervened; coma suddenly came on half an hour before death. At the post-mortem the abdomen was found to contain a large quantity of greenish-turbid fluid. The spleen weighed 2¼ lb.; the capsule was thickened, and on the surface were three white not raised patches, and on section these were found to be white in colour and triangular in shape, the apex being inwards; they were probably old hæmorrhagic infarcts; the rest of the splenic tissue had the usual features of hypertrophy. The liver weighed 3¾ lb.; a small, whitish leukæmic patch was seen in the left lobe. Lungs healthy. Kidneys large and pale on section, calyx diminished, and capsule adherent; there was a small cyst in the right kidney. The muscular tissue of the heart was pale and thin; the sulci (auriculo-ventricular and interventricular) were occupied by a somewhat firm gelatinous tissue, composed chiefly of lymphoid tissue. The lymphatic glands were healthy, except the post-bronchial, which were pigmented and many calcareous.

Reviews and Notices of Books.

Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques. Directeur de Rédaction Dr. JACCOUD. Tome XXXVI., 1884 (TR—TYPHO), and Tome XXXVII., 1885. Libraire J. B. Baillière, Rue Hautefeuille, Paris.

THE thirty-sixth volume of this fine dictionary contains the following chief articles:—Trachea and Tracheotomy, by L. Dubar; Transfusion, by Oré; Tremblement, by Picot; Trepan, by Poulet; Trophoneurosis, by Leloir; Tubercle and Tuberculosis, by Hanot; Tumour, by Heurlaux; Tympanites and Typhlitis, by Lutoy; Typhoid Fever, by Homolle and Dreyfous. The thirty-seventh volume contains Typhus (Typhus, Exanthemtic, Recurrent Fever), and Cerebro-spinal Meningitis, by E. Richard; Urœmia, by Labadie Lagrange; Urethra, by Bouilly, Guiard, and Janin; Urinary Passages, by Bouilly: Urine, by Danlos, Charpentier, and Schwartz.

We naturally turned with interest in the first instance to Dr. Leloir's essay on Trophoneurosis, one of the most recent chapters added to pathology. Dr. Leloir coincides with Charcot that nothing is better established in pathology than the existence of trophic troubles consecutive upon lesions of the nerve centres or of the nerves. The tissues and organs in which these effects have been most distinctly shown are the skin, the muscles, the bones, and the joints; but M. Leloir limits his observations in this article to the trophic lesions of the skin. He commences by pointing out the intimate relation that exists between the nervous system and the skin in regard to their origin, both being developed from the epiderm, and then takes up in succession chronic erythema and superficial dermatitis; vesicular affections, such as certain forms of eczema and herpes; bullæ, including certain localised bullous eruptions and certain forms of pemphigus; pustular affections, including certain ecthymas; ulcerations, including the perforating disease and some little slender forms of trophic ulceration; gangrene; sclerodema; morphœa; facial trophoneurosis; lepra; certain forms of ichthyosis; disturbance of the pigmentary cells of the skin in the direction of excess or diminution, and vitiligo; and finally, lesions of the cutaneous appendages, as the nails, hairs, and sudoriparous and sebaceous glands—a large list, considering that it is but a few years ago since the first cases in which the connexion between the nerves and the skin were adduced by Paget, Weir Mitchell, Brown-Séquard, Charcot, and Bärensprung. The article on Tumours, though of considerable length, is materially reduced from the circumstance that many of the forms are described under their proper names in other volumes. Nearly half of this volume is occupied with the subject of Typhoid Fever, the article upon which has been written by M. Homolle, and gives a thoroughly reliable account of this disease. M. Homolle dwells strongly on the means of disinfection that should be adopted in hospitals, giving his adhesion to the methods recommended by MM. Besnier, Lucas-Championnière, and Baudrimont. Good sections are devoted to antipyretic and antithermic treatment.

The thirty-seventh volume is chiefly occupied with the consideration of five subjects—Typhus, Urœmia, Urethra, Urine, and Uterus. The article on Urine is by M. Danlos, and is a treatise in itself, occupying, with the remarkably complete bibliography of recent works with which it closes, no less than 250 pages. Commencing with Hippocrates, some of whose aphorisms are still pertinent, the author gives a succinct historical review, from the date of that physician downwards, of the advances of our knowledge. The changes which the urine undergoes even in health, and more especially in disease, have always rendered it a favourite study, and, according to Leube, from the time of Magnus of Alexandria to the close of the last century no less than 200 treatises were written upon it; whilst in M. Danlos' bibliography, which includes only the treatises and papers published from the year 1850, upwards of 600 are mentioned. The plan pursued by M. Danlos is that a short account of the physical and chemical properties of urine as a whole is first given, the several constituents are then described separately, and the changes in their quantity or nature effected by disease fully discussed. Throughout the practical side of the subject is considered, the very proper view being taken that the article is written for a Dictionary of Medicine and not for a treatise on physiology. As an example of the mode in which M. Danlos treats contested points, we venture to abstract a part of the section which deals with the changes taken place in the urea after urine has been passed. The formation of ammonium carbonate from urea by the action of acids and alkalies is of course well known, and is due to the urea taking up two equivalents of water.

"The hydration of urea may proceed in a very different manner, which, however, is full of interest to the physician. Dumas in 1830 gave the chemical equation representing the process. In 1843 Jaquemart, one of his pupils, observed that the deposit which occurs in ammoniacal urine is a very active agent in decomposing healthy urine. This was confirmed by Müller in 1860. Pasteur was the first to recognise, in his celebrated memoir on Spontaneous Generation, the presence of a low organism which he suspected to be the agent of ammoniacal fermentation—a theory the truth of which was demonstrated

by Van Tieghem. The parasite is a torula, named by Koch the micrococcus ureæ. In urine undergoing free fermentation it forms elongated chaplets composed of spherical globules, with a diameter of 0·0015 mm. Light exercises a certain influence on its development, for the side of the vessel turned towards the light is always covered with a more abundant parasitic vegetation than the opposite. The parasite grows and multiplies in highly alkaline media. It develops in a culture fluid containing, in addition to urine, yeast or phosphates, as freely as in urine. Fermentation may proceed in the fluid so long as the quantity of ammonium carbonate does not exceed 13 per cent., according to Van Tieghem. When the process is ended, the chaplets break up, and their elements fall to the bottom of the vessel in the form of exceedingly minute spherules, mixed with ammonium urate and ammoniaco-magnesian phosphate. The ferment of urea exists always and everywhere in the air, though often mixed with other organisms. The truth of this theory has been contested by Musculus, who has shown that a soluble ferment can be extracted from urine capable of converting urea into ammonium carbonate. To obtain it, it is sufficient to precipitate the putrefied urine of a patient affected with vesical catarrh with alcohol, and to collect the precipitate on a filter and dry it. On the addition of water, a substance is dissolved which rapidly destroys urea. Pasteur and Joubert have verified the truth of the statements of Musculus, and shown that the contradiction is only apparent. They have demonstrated that the torula pre-exists in all cases where the soluble ferment occurs, and that this may be regarded as the product of plant life, just as the gastric juice is the product of the cells of the gastric follicles; and it hence follows that the fermentation of the urine is a kind of diastase."

M. Danlos then briefly discusses the statements of Neubauer, Miquel, and Bouchard, and shows how the introduction of unclean instruments may induce decomposition of the urine in the bladder itself. Under the head of each constituent of the urine the quantitative and qualitative tests are given, and the characters of the urine in various diseases are recorded at length. The section on the Uterus, which runs to 340 pages, is divided into several subheadings, of which that dealing with its embryology, vices of conformation, and lesions, has been committed to the charge of M. Charpentier, the anatomy and operations to M. Schwartz, and the pathology to MM. Siredey and Danlos. The serious operation of removal of the uterus seems to have been fairly successful in France; thus Demons reports seven operations with three deaths; two cases remain well after eighteen months, and two have had relapses.

Clinical Lectures on Scrofulous Neck. By T. CLIFFORD ALLBUTT, M.A., M.D., F.R.S., Consulting Physician to the Leeds General Infirmary; and *On the Surgery of Scrofulous Glands.* By T. PRIDGIN TEALE, M.A., M.B., Consulting Surgeon to the Leeds General Infirmary. London: J. and A. Churchill. 1885.

WE are very glad that these two clinical lectures, each the complement of the other, have been published. They deal with a subject which is full of distressful interest to all practitioners in this country; and no men enjoy the confidence of the profession more thoroughly and more worthily than Dr. Clifford Allbutt and Mr. Pridgin Teale. Dr. Allbutt deals with the pathological side of the question, the causes, course, and possible consequences of scrofulous glands. He lays stress upon the origin of the disease in trivial local conditions unperceived at the time, and soon forgotten, and upon the spread of the infection from gland to gland. The disastrous effects of the disease are not limited to the mere local inflammation and destruction of tissue, but include also slow chronic septic infection, and probably also tubercular infection. While clearly indicating the appropriate treatment in the earlier stages of the malady, the chief purpose of the opening lecture is to advocate thorough surgical interference in all cases of suppuration and evident caseation of the glands. Mr. Teale develops this part of the subject, and describes in full the details of the operation he has practised with striking success; and he appends short accounts of several illustrative cases. The lectures are well worthy of the attentive study of all physicians and surgeons; and we believe that the line of practice advocated in them is destined to meet with wide acceptance and be followed by great benefit to a class of sufferers to whom hitherto neither medicine nor surgery has been able to offer much aid. Part of the proof of the first lecture evidently escaped revision, for on page 4 we twice read "diathesis" for "diatheses"; and on page 7 "mucous" for "mucus," and "asceptic" for "aseptic"; on page 8, too, "prolification" must be a misprint for "proliferation."

OUR LIBRARY TABLE.

Endemic Goitre or Thyreocele. By WM. ROBINSON, M.D. and M.S. London: J. and A. Churchill. 1885.—This *brochure* contains the facts and arguments adduced by its author in his thesis for the degree of Doctor of Medicine of the University of Durham, together with subsequently added footnotes, and an appendix giving an account of three cases of cretinism. The thesis was awarded the gold medal of the year 1884. The small work is chiefly a well-arranged and practically exhaustive collection of the facts connected with goitre. One of the most interesting portions of the work is that which treats of the etiology of goitre. St. Lager's observations are quoted, showing that where the sulphide of iron exists in a form readily convertible into sulphate of iron there the endemicity of goitre is most marked. On this point our readers may refer to Dr. Thursfield's paper published in another column. Dr. Robinson gives reasons for believing that there is no diminution of goitre in Stanhope, which lies on the north bank of the river Wear. He states that there is certainly no excess of lime in the drinking water of Stanhope, for he obtained no reaction on the addition of oxalate of ammonium.

On some Common Injuries to Limbs: their Treatment and After-treatment, including Bone-setting (so-called). By EDWARD COTTERELL, M.R.C.S., L.R.C.P., late House-Surgeon, University College Hospital, &c. London: H. K. Lewis. 1885.—This is a readable and useful little book. Mr. Cotterell writes sensibly upon "bone-setting," stating plainly its value and its dangers. Practical hints in the treatment of common injuries of the limbs are given, and special stress is laid upon the importance of the surgeon himself ascertaining that the function of injured limbs is completely restored. Too often splints are removed, and no pains taken to restore perfect mobility of stiffened joints; this is wrong. Mr. Cotterell says so plainly, and gives good rules of treatment for such stiffness. The book will repay perusal, although not actually novel in its teaching.

The Quarterly Journal of Microscopical Science. No. XCVIII. April, 1885. Edited by Professors RAY LANKESTER, THISELTON DYER, E. KLEIN, MOSELEY, and SEDGWICK. London: J. and A. Churchill.—This number contains the following articles:—1. The Urinary Organs of the Amphipoda, by W. Baldwin Spencer; with one plate. 2. The Skin and Nervous System of Priapulus and Halicryptus, by Robert Scharff; with one plate. 3. The Eye and Optic Tract of Insects, by Sidney J. Hickson; with three plates. 4. A Peculiar Sense Organ in Scutigera Coleoptrata, one of the Myriapoda, by F. G. Heathcote; with one plate. 5. The Structure and Development of Loxosoma, by Sidney F. Harmer; with three plates. 6. A New Hypothesis as to the Relationship of the Lunghook of Scorpio to the Gillhook of Limulus, by E. Ray Lankester. The editors state that so many papers of value have accumulated in their hands, that they intend to issue a supplementary number in the course of the present month. It must, however, be specially ordered by subscribers. Amongst other articles they promise

one by Oudemans, on the Circulatory and Nephridial Apparatus of the Nemertea; another by W. Bateson, on the Development of Balanoglossus; a third by Baldwin Spencer, on the Early Development of Rana Temporaria; and one by Herbert Carpenter, on the Vascular System of the Urchins.

Lehrbuch der Physiologie. Herausgegeben von Dr. A. GRUENHAGEN. Siebente Auflage, 5te Lieferung. Leipzig: Leopold Voss. 1885.—The present part of this work, which is a new and revised edition of Funke's well-known treatise, completes the first volume and commences the second. It is chiefly occupied with the subjects of the excitability of the nerves, the capacity of the nerves to transmit impressions in opposite directions, the rapidity of nervous conduction, and the nature of nervous stimulation. The work is remarkable for a clear and continuous exposition of the science of physiology, and for the excellent bibliography which is appended to each section.

Dwelling-houses: their Sanitary Construction and Arrangements. By W. H. CORFIELD. Second Edition, with Illustrations, pp. 117. London: Lewis. 1885.—This is one of the best handbooks we have met with on the subject of house sanitation. It states clearly and intelligibly the requisite conditions of a healthy home, indicates the most usual defects, and points out the most appropriate remedies. It is a work deserving the study of all householders who care for their own health and for that of their families.

Shepherd's First Aid to the Injured. Revised and rearranged by R. BRUCE. Pp. 78. London: St. John Ambulance Association. 1885.—This work, by Surgeon-Major Shepherd, who was killed in the unfortunate massacre at Isandhlwana, was one of the first handbooks brought out for the use of the ambulance classes. It still remains, in our opinion, the best manual for the use of non-professional persons to enable them to render aid in cases of accident or sudden illness until professional assistance can be obtained.

Help at Hand; or, What shall we do in Accidents or Illness? By COUNTESS COWPER. Pp. 38. London: Wells, Gardner, Darton, and Co. 1885.—The object of this work is to furnish a cheap guide to "first aid," for the use of Lady Cowper's "own parish." It is to a great extent compiled from Surgeon-Major Shepherd's manual; but the chapter on Anatomy and Physiology has been omitted, probably as being unsuited to the class for whom the book is intended, and one has been added on the treatment of some of the more generally prevalent diseases. We cannot say that we approve of the addition, as we fear it will often have the effect of delaying application for professional advice in cases of serious disease.

Illustrations of Clinical Surgery. By JONATHAN HUTCHINSON, F.R.S. Fasciculus XVII. London: J. and A. Churchill.—The four plates in this fasciculus illustrate Extra-capsular Fractures of the Neck of the Femur, Lupus of Mucous Membranes, Superficial Forms of Rodent Cancer, and Chancres in Unusual Positions. Both the plates and the descriptive letterpress maintain a high order of merit; and those who take in this serial work possess a very valuable book on clinical surgery.

The Tricycle in relation to Health and Recreation. By B. W. RICHARDSON, M.D. London: W. Isbister. 1885.—The papers collected in this volume, except a few additional notes, were published in *Good Words* a year or two ago. The main questions which the author endeavours to solve are: (1) whether the tricycle can be safely used by all classes of the community, or whether it is only fitted for a select few; (2) whether the working of the tricycle is healthful as an exercise; (3) whether there are any special dangers from its employment which, apart from mere accidents from falls and collisions, militate against its general use; and (4) whether there are any practical rules which can be offered for the guidance of those of different sex and different age who are anxious to become riders. These points are all fully discussed by Dr. Richardson, and to all intending to commence the use of the tricycle we can recommend a perusal of this little book.

New Inventions.

NEW MICROSCOPES.

M. THEILER & SONS, of 86, Canonbury-road, London, N., have brought under our notice specimens of their "Demonstration Microscope" and the "Universal (Achromatic) Pocket Microscope." Both are of novel design, and remarkable for the simplicity of their construction, the excellence of their manufacture, and the facility with which they may be manipulated. Intended for the observation of translucent or semi-transparent objects only, mirrors and condensers are in the use of these instruments dispensed with. The method of adjusting and fixing the focus is simple and ingenious. We anticipate that a wider knowledge of the convenient arrangement and the low price of these microscopes is all that is necessary to create for them a large demand.

SANITARY SEAMLESS STEEL SAUCEPANS.

THE increasing interest taken in the art of cookery, and the wider recognition of its importance from a public health point of view, have naturally stimulated invention in the direction of devising utensils more in harmony with the advancing intelligence in respect of the elements included in the question of the proper preparation of food. Messrs. Perkins and Son, of Bermondsey-street, have contributed to the perfecting of the process by introducing seamless steel saucepans and stewpans, for which they were awarded a silver medal at the recent Health Exhibition, and which were used at the School of Cookery in connexion therewith. These accessories to the *cuisine* are certainly quite worthy of the approval bestowed on them, and are a great improvement upon the cast-iron and copper culinary vessels hitherto employed. The ease with which cleanliness may be ensured in their use, to say nothing of their superior durability and sightliness as compared with the ordinary ware, ought to secure for these utensils extensive patronage.

THE PARLIAMENTARY REPRESENTATION OF THE UNIVERSITIES OF EDINBURGH AND ST. ANDREWS.

To the Editor of THE LANCET.

SIR,—The Conservative Committee have, with the haste characteristic of sharp electioneering tactics, sent round a circular in which, putting forward as a plea the abrupt retirement of Sir Lyon Playfair, they quietly assume that Mr. Macdonald is to be allowed without opposition to take his seat as representing these universities. With a constituency consisting of so large a predominance of scientific men, it is to be hoped that some man of scientific eminence may be found to contest the election with the legal profession. I trust that my fellow-graduates will not hastily be induced to throw up their interest in Liberal politics, led astray by the plausible statements of the Conservative Committee, who would fain persuade us that no alternative can be found to the return of Mr. Macdonald.

I am, Sir, yours obediently,

June 8th, 1885. M.D. ST. AND.

AT a meeting of the Metropolitan Asylums Board on the 6th inst., it was stated that the returns of small-pox for the fortnight ending the 5th inst. showed a decrease of 97 in the total number under treatment in the hospitals of the managers. The number under treatment on the 5th inst. was 1247.

THE LANCET.

LONDON: SATURDAY, JUNE 13, 1885.

WE are again confronted with the great question of Hospital Sunday. The institution is no longer a local one, confined merely to Birmingham or London, but it exists in almost every town that boasts of a hospital, and promises to be as general and as successful in the United States as it is here. In every aspect of it Hospital Sunday is a thing to be encouraged and supported. The most creedless man must believe in the existence of an untold amount of physical suffering in a community like that of the metropolis, for which the pent-up homes of outcast London afford no accommodation. It is not for us to open too widely the windows of London hospitals and to expose the mass of disease with which the medical profession is contending, for the most part without fee or reward. And not the medical profession alone, but the dozen or score of gentlemen who, almost more benevolently, undertake the administration of hospitals in days when criticism is sometimes more active than charity. It has always been our regret that the ministers of religion in London do not see the hospitals on the Saturday preceding the Sunday on which they are to preach those sermons which in the last twelve years have produced the large sum of £358,256 11*s.* 1*d.* for London medical charities. There is something exceedingly eloquent in a well-ordered hospital: the sweetness of the air, the tenderness of the medical and nursing service, the adaptation of apparatus and of diet, and the obvious comfort of the majority of the cases, would supply data that should strengthen the argument of the best preacher, and perhaps double the contributions of the congregation. While the accommodation for the living and the strong in London is so unsatisfactory, it is pleasant to know that in a London hospital there is accommodation and skill for the sick which the richest might envy. The poor patient with fever, with consumption, with incipient cancer, with an imperilled eye, with an exhausting suppuration, with joint disease, or with the misery of tumour or of calculus, cannot wait. Every day makes his case worse and his prospect darker. And yet every day such cases are kept out of London hospitals from want of funds, or from want of room. In two even of the great endowed hospitals whole wards that were meant for the poor have had to be appropriated to those who can pay. We have entered our protest against such an alienation of London hospitals; but it still exists. It has a certain fascination for embarrassed treasurers, and will certainly be extended if care is not taken. The treasurers cannot reasonably be charged with the whole blame. They say that they would willingly keep the wards for the poor if the funds were forthcoming. But they are not. Rents of hospital properties have to be reduced. Subscriptions have fallen off. And to ask the treasurers to keep wards open without giving them money is like requiring the Israelites to make bricks without giving them straw. There is a certain amount of truth in these statements. What is the remedy? The remedy is in more generous subscriptions, and a larger Hospital Sunday collection. There is no other remedy. It is astonishing to notice the large number of persons who contribute nothing to charities. Mr. BURDETT has found that in a town with twenty-five charities and 350,000 inhabitants, only 6000 persons of the whole number contributed. He was very careful to count all contributions, great and small, and yet he had to conclude that only one in fifty-eight contributed to support charities; and he considers that this town represents most other communities. The Hospital Sunday Fund has put it within the easy power of all to make their contribution to this cause. It is not meant to supersede personal subscription and interest on the part of the wealthier classes. But it is meant to appeal to all to help to make a comfortable bed for the sick, the wounded, the maimed, and the blind, that they may be healed; or if this may not be, that their misery may be abated. The average annual amount of the metropolitan collection for the last twelve years has been £29,854. This is a great sum in itself; but when considered in connexion with the suffering which it is meant to meet, or with the means of those to whom appeal is to be made on Sunday next, it must be pronounced to be inadequate. No excuse will avail for this supreme neglect. "I was sick, and ye did not minister to me." It is of no avail to say that treasurers sometimes do not spend the money wisely, or that now and again a person who can pay occupies the bed that misery should claim for its own. This is only to say that the administration of hospitals is in human hands. Let all abuse be weeded out. The Council of the Hospital Sunday Fund has done great good in this direction, and has on this ground a strong claim to the confidence of those who wish wisely to help medical charities, whether in the way of a contribution on Hospital Sunday, or of a legacy that will permanently help the sick poor of this huge and complex community. We give in another column a list of hospitals which are at the present time suffering from the crippling effects of lack of funds.

How are the prospects of medical legislation likely to be affected by the political crisis which has occurred? At the moment of going to press we do not certainly know whether there will be an immediate transfer of authority to the opposite party, or if the still existing Government will retain office until the natural expiration of a moribund Parliament. Whatever the eventuality, it seems only too certain that the prospects of legislation for the reorganisation of the profession and the advantage of the community in matters medical must be irretrievably damaged so far as the present session is concerned. Looking back on the last five years, it is only an act of justice to record the fact that seldom, if ever, within an equal period has the medical profession received so many honours from the hands of a Prime Minister as Mr. GLADSTONE has distributed, and we are glad to acknowledge that for this measure of favour we are directly indebted to the enlightened and generous appreciation of services and usefulness shown by the gifted statesman who is now, it is to be feared, finally resigning the control of public affairs. It is not for us to speak of general politics. Science has no knowledge of party, and can only concern itself with the public good; but it will

not be thought out of place by any of our readers that we should express the strong persuasion that the respect, and if we may say so, the esteem of the medical profession will follow Mr. GLADSTONE into the retirement he seeks. If some of the subordinate members of his adminstration have been less appreciative, and shown less wisdom, that is a disappointment which, however keenly felt, cannot detract from the estimation in which the medical men of of this country—as a profession—must needs hold the outgoing political chief.

There are some commotions out of which good may come to all who are affected. This cannot be our case as medical reformers. For the present certainly, and the near future we fear, medical reform will have to wait. There is no reasonable prospect that the measures which it was hoped the session might see matured will find a place in the programme of a reconstructed Cabinet or of the incoming Government. We wish we could feel hopeful as to the chance of medical reform engaging the attention of the new Parliament. There is only too much reason to anticipate that, however advantageous the extension of the franchise and the consequent reconstruction of the Lower House may prove, for some at least, the spirit of vestryism will dominate the counsels of the nation, and domestic legislation will take the form of *political* sweeping and garnishing, rather than of a broad and intelligent ministering of justice to the great public needs.

If the Conservatives should hold office, we are bound to confess that—all party views and sympathies apart—it would be absurd to expect that medical men and their opinions will count for much. The healing art has little interest for the *aristocratic* party in politics. To be a "doctor" is to be beneath regard, unworthy of honour; and to speak of the interests of health, except in a meaningless phrase, is to introduce a topic too vulgar for delicate ears. Medicine, whether as a science or as a profession, has little to hope from the party which never once in six years conferred an honour on any member of the medical body; and, though it talked much, did nothing—or, if possible, less than nothing—for the advancement of science and the encouragement of those whose lives are spent in a ceaseless struggle to reduce to practice the fruitless aphorism, *Sanitas sanitatum, omnia sanitas.*

THE extension of the franchise in its political bearings is a subject beyond our care. Both parties in the State have sanctioned it and actually co-operated in arranging it, so we may presume there is some deep justice, some deep necessity in the measure. Our concern is with the moral and social consequences of it. Millions of our humble fellow countrymen are to be endowed with grave political functions. It is not denied that many of these millions are ignorant and unintelligent, but it is supposed that by some divine instinct in the people they will be led to great and true conclusions. We hope it may be so. We are not disposed to think quite so meanly of the people as even MILTON did.

> "And what the people but a herd confused,
> A miscellaneous rabble, who extol
> Things vulgar, and, well weigh'd, scarce worth the praise?
> They praise and they admire they know not what
> And know not whom, but as one leads the other."

What we may fairly ask for in the new voters is an increase in the sense of independence, of that creditable pride which makes men almost starve rather than ask alms or parish relief. The question of disfranchisement for medical relief, which, like so many other questions, serves for Parliamentary strife and debate, should settle itself in the conscience of honest men, who should disdain to ask a voice in the settlement of national affairs till they have shown themselves capable of managing their own. How can a man receiving parish relief have either the conscience or the intelligence to vote? We demur to the doctrine that to be on the parish for medicine is different from being on the parish for a loaf of bread. We can recognise no such distinction, and we think it high time that it was exploded. Medicine is a rarer and a lesser want than food, and there is by so much the more discredit in an improvidence which does not recognise its humble claims. Medical men have been too long the scapegoats of the improvidence of the poor on the one hand, and of the scanty charity of the rich on the other. And the Franchise Bill will have a much-needed vindication if it intensifies the sense of personal responsibility in the humblest man, and makes him feel it a mean thing to go on the parish for a bottle of medicine or even for a serious illness. The humanity of the medical profession needs no vindication. It has had ample recognition from all judges and all classes. It makes the most generous provision for the poorest, and it is now for the poorest to break with all pauperising associations and to maintain their own independence and political power by entering provident clubs, in which a medical officer is fairly well paid, and in which the patient, when sick, can find not only an efficient medical man, but temporary allowances of money. No greater mistake could be made than to introduce the Irish dispensary system into England, it being greatly abused even in Ireland; and there is a great risk of doing this if we make fine distinctions between medical and other forms of relief. If the working classes are to derive benefit from the franchise, it will be by raising in them the sense of their importance and of the meanness of dependence on rates, either for medicine or anything else. Very little self-sacrifice will suffice to prevent the disfranchisement of voters on the score of medical relief, and the man who will not make it is presumably—there will no doubt be honourable exceptions—unworthy of the franchise.

HEADACHE, although so common an affection, possesses a peculiar interest on account of the tantalising obscurity in which its cause is often shadowed. Depending upon one or two main physiological principles connected with the passage of nervous impulses and the calibre of cerebral bloodvessels, it yet arises in response to so many different stimuli, that, practically, the branches of its original stem of structure, its distributive variations, are perplexingly numerous. Among the forms but recently described and named, though probably as old as Art, is the "academy headache." Critics and doctors have vied with one another in trying to translate this term according to the rules of medical logic, but have not, so far, been able to agree as to its meaning. In venturing to put forward our own opinion on the subject, we think it best to notice the different circumstances which tend to produce in the frequenter of

galleries that general sense of fatigue which is often the precursor of pain, and then to note the special stimulus which brings out of this chaos the formed and local ache. It should be noted that all do not suffer from this form of headache; while of those who do, some are less and some more affected. Fatigue may be the limit of annoyance with a certain class. They are heavy-limbed and heavy-headed, languid, but no more. The forces at work upon them are the warmth of the crowded room, the summer sunshine pouring through the skylights, the listless rotation or circulation, rather than walking, through the rooms, and the weariness of much-divided attention. Being robust and used to go about upon their feet, they soon lose the feeling of languor after its causes cease to act; and if their eyesight be equally healthy, they suffer no strain in these organs. There are other persons, of weaker organisation or more sedentary habits, in whom pain quickly follows fatigue, and it is felt, for certain reasons, chiefly in the head. Among these reasons we must note the fact that in the standing position the blood, driven by a languid heart, reaches the head with greater difficulty than when recumbent. Anæmia is one cause of headache. Anæmia, too, is associated with changes of arterial calibre which constitute the usual cause of megrim. Under these conditions, also, the giddy malaise of a loitering gait is painfully perceptible. Concentrated attention increases the uneasy sensation. The frequently constrained position of the head has its influence. It would be strange, moreover, if ocular movements had no share in the production of this complex indisposition. Let anyone converge his eyeballs to an acute angle, as in squinting, or let him direct a sidelong glance of extreme obliquity, and a single effort will convince him of the pain of such muscular effort. No doubt this is the pain of muscular tension, acute and so far abnormal; but it is also possible to induce a similar pain from the strain of too frequent muscular action within the normal limits of accommodation to distance or other movements of the eye. Ocular pains of this kind are felt as an aching about the middle and back of the head. The scrutiny of paintings or engravings, from the many points of interest which have to be noted, requires a considerably greater exercise of the muscles of the eyeball than is called for in ordinary life. In this fact, established, as we have already stated, on a basis of fatigue and general muscular and nervous strain, we have probably the usual exciting cause of the form of headache we have been discussing.

Annotations.

"Ne quid nimis."

THE COLLEGE ELECTION.

FOR the three vacancies in the Council of the Royal College of Surgeons of England there will be seven candidates—namely, Mr. Savory, who seeks re-election, and, in their order as Fellows, Messrs. Gant, F. Mason, Rouse, Cowell, Macnamara, and O. Pemberton. It will be remembered that the other retiring members, Messrs. Erichsen and Holmes, do not desire re-election. This is a regrettable circumstance, as both these gentlemen are avowed supporters of a policy of reform. Their withdrawal from the Council at this time may therefore seriously cripple the action of the party favourable to progress. At all events, it suggests a more careful selection of candidates and a closer scrutiny of their views. It would save some misunderstanding and possible recrimination if all candidates were to set forth briefly and succinctly their political doctrines. For the last two or three years several candidates have owed their election to a general belief that they would support certain projected attempts to place the Council *en rapport* with the Fellows and Members. No sooner were they elected than they gave their votes in favour of maintaining the *status quo antea*. While it would be unjust to impugn the probity of these members of the Council, it is impossible to acquit them of culpable political incapacity, indifference, or ignorance. Such a contingency should not be possible. If a candidate is not prepared to make a declaration of his political faith and belief, he ought at least to have the courage not tacitly to accept imputations which, though favourable to his election, are contrary to his convictions.

MEDICAL DEGREES AT OXFORD.

ON Tuesday last, the 9th inst., the preambles of two statutes of great importance to candidates for the medical degrees of this University were approved. By the first, a Faculty of Medicine distinct from that of natural science was constituted, and the professors of anatomy, botany, chemistry, experimental philosophy, medicine, natural philosophy, and physiology were assigned *ex officio* to the Board of the Faculty. By the second, the examinations for the degrees will be materially changed, and the alterations are very freely criticised. Exception is especially taken to the proposition that any candidate may be exempted from the whole or any part of the examinations in medicine, surgery, or midwifery, if he has passed a qualifying examination in these subjects approved by the Board. It is evidently intended by this clause that candidates for the final M.B. examination should have previously passed the Conjoint Board of the Colleges of Physicians and Surgeons, and to this the Oxford medical graduates are unanimously opposed. They urge very forcibly that Oxford has nothing to do with the corporate examinations, which are only put forward as a necessary minimum of medical knowledge, and that it will make a false step if it allows the principle that the University can accept an examination carried on independently of itself as the equivalent of its own. The subjects proposed for the three examinations for the M.B. degree are—for the first, elementary anatomy and physiology, organic chemistry, materia medica and pharmacy; for the second, human anatomy and physiology; for the third, medicine, surgery, midwifery, pathology, pharmacology, and climatology.

THE ETIOLOGY OF ERYSIPELAS.

THE now fairly well determined fact that erysipelas is a disease due to the invasion of micrococci has not hitherto led to a sufficient explanation of the varieties of the disease, and particularly of the points of difference and of resemblance between traumatic and idiopathic (so-called) erysipelas. In an interesting study of the subject in Virchow's *Archiv* (Bd. 100, Hft.2), Dr. Rheimer, pathological assistant at Zurich, after reviewing the evidence as yet adduced concerning the nature of erysipelas, details the results of his examination of two cases of typhoid fever in which this complication occurred. The cases arose in a very severe epidemic which took place in Zurich in the spring of 1884, and he contrasts the microscopical characters of the affected skin, and other tissues obtained from them, with those observed in traumatic erysipelas. In the latter he describes not only masses of minute cocci in the lymphatic spaces and vessels, but also very definite chains of larger cocci and diplococci, apparently the same as those originally described by Recklinghausen,

and since by Lukomsky, Koch, Ziegler, and many others. In the typhoid erysipelas these last-named micro-organisms were conspicuous by their absence; for although the minuter forms were present in much the same situations and character as in traumatic cases, there were, instead of large micrococci, a number of mostly straight rod-shaped organisms scattered throughout the tissue. These organisms stained badly with reagents, and were apparently identical with the bacilli which Klebs, Eberth, and Gaffky have found more or less constantly in typhoid fever. Although the fact of the existence of a "bacillus typhosus" is still *sub judice*, and has indeed been contested by many, it receives a certain amount of confirmation from this discovery. The latter has, however, a bearing upon the etiology of erysipelas, as indicating that the cutaneous lesion—i.e., the dermatitis—may indeed be excited by more than one kind of poison, or, perhaps, to speak more correctly, by more than one kind of microparasite. It may be that there is a specific erysipelas organism for the traumatic affection; but it is possible that the spontaneous cases, and especially those which arise as complications of other infective diseases, own a different etiology. The question is a suggestive one, and offers a fertile field for further research.

FAITH-HEALING A FACT.

THERE can be no question that faith-healing is a fact The brain is not simply the organ of the mind, it is also the chief centre, or series of centres, of the nervous system by which the whole body is energised, and its component parts with their several functions are governed and regulated. There is no miracle in healing by faith; whereas it would be a miracle if the organism, being constituted as it is, and the laws of life such as they are, faith-healing did not under favourable conditions occur. The fallacy of those who proclaim faith-healing as a religious function lies in the fact that they misunderstand and misinterpret their own formula. It is the *faith* that heals, not the hypothecated source, or object, of faith outside the subject of faith. The whole process is self-contained. Nothing is done for the believer; his act of believing is the motor force of his cure. We all remember the old trick of making a man ill by persistently telling him he is ill until he believes it. The contrary of this is making a man well by inducing him to believe himself to be so. The number of the "miracles" performed will be the precise number of the persons who are capable of being thrown into a state of mind and body in which "faith" dominates the organic state. Pathologists will limit the area of this process to the province of functional disease; but we are not sure that they are justified by scientific facts in making this limitation. It must not be forgotten that function goes before organism in development, and that there are large classes of cases in which the disabilities of a diseased organ for a fair performance of its functions are mainly due to want of power or irregularity in action. And it is a fact in pathology, that if the function of an organ be maintained or restored much of the destructive metamorphosis due to proliferation of connective tissue, fatty deposit, or even certain forms of atrophic change in which the nuclei of cell-life are rather denuded than destroyed, may be arrested and to some extent repaired. The *vis medicatrix naturæ* is a very potent factor in the amelioration of disease, if only it be allowed fair play. An exercise of "faith" as a rule suspends the operation of adverse influences, and appeals strongly through the consciousness to the inner and underlying faculty of vital force. There are many intractable cases in every practice which might be "cured by faith." It is well that these poor persons should be benefited by some means, it matters little what; and if they can be "healed by faith" we ought to be very glad, and thankful too, for the mistaken zeal of those who, being weak-minded themselves, make dupes of other weak-minded folk to their advantage. This is a blind leading of the blind in which they do not fall into the ditch, but, by a happy combination of circumstances, actually escape danger and gain something to boot.

INCONCLUSIVE EVIDENCE OF THE CAUSE OF DEATH.

AN inquest was held at Horninglow, on June the 3rd, before Mr. A. Flint, coroner for the district, touching the death of Mrs. Millar, aged twenty-seven, wife of the vicar of the parish. It appears that the deceased, who was in her usual health on Sunday evening, May 31st, retired to her bedroom at half past ten o'clock, seeming then a little unwell, and at eleven—half an hour afterwards—she was discovered dead on her bed. There was nothing in the surrounding circumstances to explain or suggest the cause of death beyond lividity of the face and blueness of the lips noticed by the husband of the deceased. Dr. W. G. Lowe, who saw the body some two hours later, deposed that there was "a little livid discolouration of the nose, and her lips looked a little blue, but not markedly so; the rest of the face was pale." At the autopsy no organic disease was discovered. A small piece of orange pulp was found in the mouth, but it had clearly not caused death by impaction in the glottis. We cannot agree with Dr. Lowe when he says: "There would have been more indications" if poison had been taken, for it is well known that certain narcotics and convulsants leave no characteristic sign of their action. We have no reason to believe that death arose from other than natural causes, as found by the jury; at the same time we hold that the evidence was sufficiently equivocal to warrant further inquiry. No mention is made in the report of the inquest whether the urine was examined or not. Was there albuminuric eclampsia? Was there diabetic coma? Was the deceased subject to epilepsy in its minor manifestations? Was there a neurotic family history? These are questions that suggest themselves for investigation. Diabetic coma rarely ends so quickly as to be a probable explanation of this case, but we want further experience of the variations to which this peculiar and interesting state is liable. Mrs. Millar may have died from natural causes—apparently she did; but notwithstanding, it is matter of regret that the proximate cause of death was not brought within narrower limits.

A POISONOUS CARPET.

ANOTHER and aggravated example of poisoning, apparently by arsenic, is said to have occurred in New York. A green carpet, which was cut and sewn by the lady who purchased it, acted in this case as the medium of conveyance. The symptoms present are not detailed. They were, however, severe, and unexplained by any circumstance until traced to the carpet referred to, and this article was found on analysis to be loaded with pigment of the most dangerous kind. Such cases are, unfortunately, too old in memory, and too unmistakable, to afford in themselves much material for comment. One important fact is recorded in the instance before us, and is well worthy of general imitation. The local sanitary authorities have taken the matter in hand, with the intention of prosecuting the manufacturer of the carpet, and will thus do what they can to prevent the occurrence of such culpable mishaps in future. This is the most effective method of dealing with such cases of domestic poisoning. Unless the source of the evil is stopped, there is obviously little hope of a permanent cure. The mere treatment of its effects will not suffice. The purchaser of dyed material on his part cannot be expected

to distinguish at sight a noxious arsenical or other dye from a harmless one of exactly similar hue. He usually and almost inevitably derives his proof of quality from painful experience. The subject therefore is clearly one which calls for penal regulation at an earlier stage, and the example set by the Sanitary Board of New York will not, we hope, be lost upon our own Legislature and Executive body.

AN INFECTIOUS DISEASE HOSPITAL FOR NOTTINGHAM.

THE Corporation of Nottingham have just decided to purchase 126 acres of land situated, not, as stated last week, on the site of the dwellings to be demolished, but outside the town and some two miles distant from the market-place, for the purpose of erecting thereon a new hospital for infectious disease. They have certainly acted wisely in the step they have taken; the situation of the existing hospital is open to much criticism, and, as we have before pointed out, has had in its immediate neighbourhood, when used for the reception of small-pox patients, a suspicious number of cases of this disease. By going to the intended site they will escape this risk, and will doubtless be able to save themselves in the future the expenses of litigation, which have made small-pox hospitals so costly to London ratepayers. But to avoid litigation is not, however, the whole object to be considered. Nottingham will judge the matter from a higher point of view than is possible for London under existing government. In Nottingham the hospital is to be used for the prevention of infectious disease; in London the primary object of similar institutions is for the treatment of persons suffering from this class of malady. The difference between the two purposes is worthy of observation.

THE TREATMENT OF CHOLERA.

THE current number of the *Practitioner* contains the concluding paper of the interesting series that have been published in that journal by Drs. Lauder Brunton and Pye-Smith, in the course of which they have discussed the present knowledge of the pathology of cholera. Speaking of the treatment of the disease, they divide remedies into five classes: of these, three contain remedies which act on the intestine. They are—1. Those which are likely to have an antiseptic action on the intestine by destroying any organisms there present, such as carbolic acid and its allies, sulphurous acid, nitro-muriatic acid, hyposulphites, permanganates, chlorine, chloralum, turpentine, salts of copper, boracic acid, calomel, and corrosive sublimate. The cholagogue action of calomel is thought to be of service by inducing indirectly the antiseptic action of bile. 2. Those remedies which will tend to remove the cholera poison, whether it consists of living organisms or of some chemical substance, exemplified by the treatment by castor oil and other purgatives. 3. Those remedies which will counteract the effect of the poison upon the intestinal canal, as opium, morphia, ice water, belladonna, cannabis indica, chloroform, chloral, carminatives, and astringents. 4. Remedies which will tend to eliminate the poison from the system, as copious draughts of water (as diuretic) and purgatives. 5. Those remedies which will counteract the effects of the poison—viz., intravenous injection of saline fluids and other substances, and various measures to restore the circulation by acting upon the skin. In dealing with the premonitory diarrhœa, Cantani's method of injections, by means of the long intestinal tube, of laudanum and tannic acid is described. The authors consider that Ferrán's results of inoculation are more favourable than could have been expected, and point out the following as "directions in which further researches after a remedy for cholera are most likely to prove successful":—"1. The discovery of an antiseptic which will destroy pathogenic organisms in the intestine and prevent the formation of the cholera poison, while they are not themselves poisonous. Corrosive sublimate is a sufficiently powerful antiseptic, but it may itself prove poisonous to the patient as well as to the pathogenic organisms. It is possible that amongst the members of the aromatic group of bodies substance may be found having the desired properties. 2. The discovery of some substance which will antagonise the action of the cholera poison after its absorption. As a preliminary step in this direction further experiments are needed in the nature and action of alkaloidal substances obtained from cholera dejecta, as well as from artificial cultivations in various media and under various conditions, electrical and otherwise. 3. Observations on the effect of stimulation of the mesenteric plexus by currents passed through the uninjured abdomen in poisoned animals and in patients suffering from the disease."

THE DARWIN MEMORIAL STATUE.

ON Wednesday last the Prince of Wales accepted, on behalf of the Trustees of the British Museum and for the nation, a statue of Darwin. There was a large gathering of scientific men, and the statue, which is the work of Mr. Boehm, has been placed in the Great Hall of the New Natural History Museum at South Kensington. Mr. Huxley, who was chairman of the committee and is the President of the Royal Society, made a characteristic speech, in which he pointed out that the publication of the "Origin of Species" practically effected a revolution in science, whilst its effects were even now being felt in many other departments of human knowledge. Vehemently opposed in the first instance, the foundations of that work were laid so deeply, and its conclusions were so well supported by facts, and afforded such satisfactory solutions of problems long regarded as insoluble, that, even within the author's lifetime, he had the satisfaction of feeling that his views were accepted by naturalists in every country, and the majority were engaged in applying them in their every-day work, rather than in attempting to dispute their value and accuracy. The subscriptions for the statue have been sent in from almost every civilised country, and the interesting statement was made that from Sweden alone 2296 subscriptions were received, the donors differing in station from the bishop to the seamstress, and the sums from £5 to 2*d*. The statue has been erected from a small part only of these subscriptions; the major part is to be applied to what the modest philosopher would have most desired—the promotion of biological research.

POISONING BY PENNY ICES.

In the year 1878[1] we drew the attention of the profession to the manufacture of penny ices, showing their composition and the quality of their ingredients. In the following year, 1879,[2] a LANCET Sanitary Commission reported on the condition of the Italian quarter, and described the mode of life and surroundings of the London penny ice man when at home. We fear that as great a necessity for supervision by the local sanitary authorities exists now as when the inquiries were made, and that chemical examination of samples of the ices should be made from time to time as then recommended. During Sunday, June 7th, and Monday, June 8th, more than twenty people suffered from symptoms of irritant poisoning, which came on about two hours after partaking of penny ices bought from one of the Italian street barrows. Thirteen of these were treated by the house physician, Mr. R. M. Williams, at St. Thomas's Hospital, the symptoms being

[1] Vide THE LANCET, vol. ii., p. 264. [2] Ibid., vol. ii., p. 580.

similar, but varying in severity. The most severe case was that of a woman aged forty-two, who was admitted. She arrived about four hours after eating one of the ices, suffering from severe colicky pains, diarrhœa, some vomiting, dryness of the fauces and tongue, and collapse. An emetic was given, which produced free vomiting; later she was given some carminatives, with ammonia, and was able to return home on the following day. Some of the cases treated at their own homes were quite as severe as this. It was difficult to say what was the cause of these symptoms. The day after these people were poisoned the contents of the ice-bowl were examined, but with negative results. Examination of the vomited matter, however, has proved the presence of sufficient carbolic acid to explain the symptoms, and it is probable that this found its way into the ices from carelessness on the part of the maker; carbolic acid being used in the earlier stages of manufacture of a preservative material which is employed by the men to prevent decomposition of the ingredients used in making the various ices. Either the chemical processes had not been carried out to their full extent, and the solution used contained much free acid, or the acid itself had been employed by mistake.

LOZANO ON THE MORTALITY OF MADRID.

DR. G. G. LOZANO endeavours, in a series of essays just reproduced in pamphlet form, to account for the high rate of mortality existing at Madrid. He complains that medical students have but little instruction given them in the diseases of children, amongst whom the mortality is especially high. In his own case he says that he had but a single lesson, from an eminent professor it is true, in the diseases of childhood, and as, when he began practice, his first patients were children, he found himself in an unpleasant situation. There is plenty of clinical material for such instruction in Madrid if it were made proper use of. He complains also of the number of *curanderos*, or quacks, and tells a story about one who "put the bone in" in a case of abscess, which could probably be matched by many an English surgeon who happens to practise in the vicinity of a bone-setter. Small-pox claims a considerable number of victims. Señor Lozano, however, does not discuss the efficiency of the arrangements for vaccination, though he enters at some length on the subject of the importance of a new hospital for contagious diseases, with especial reference to variola. He passes over in a few words the subject of general hygiene, and we look in vain for any proposal for a satisfactory system of drainage, which must be sadly needed in Madrid. A good deal is made of the want of ventilation, and of the injurious crowding in theatres and cafés, and some mention is made of the vices of the inhabitants. The writer is very dissatisfied with the death-rates as published; that of Madrid is, in his opinion, too high, and that of London too low, his respect for the figures in the "Annual Summary" of Messrs. Eyre and Spottiswoode being very small.

EXCITABILITY OF THE CEREBRAL CORTEX.

AT recent meetings of the Académie des Sciences M. Vulpian has continued his demonstrations on some of the functions of the cerebral cortex. He points out that in the dog the effect of an equal stimulus is greater at the facial centre of the cortex than it is at the brachial or crural centres. Pflüger's theory, that a nervous impulse gathers force as it passes along a nerve (avalanche theory), is rejected. If the avalanche theory be true, then stimulation of the crural centre of the cortex ought to give rise to a more energetic contraction than stimulation of the facial centre. The opposite is notoriously the case. Vulpian believes that electrical excitations must be stronger in order to put into action the posterior limb than those used to provoke a facial movement, not because there is any real difference in the excitability of the grey matter of the two regions, but simply because of the distances which separate the centres from the muscles. In the same way, if the dog be anæsthetised by successive doses of chloral hydrate, a time arrives at which a certain stimulation of the cerebral cortex fails to excite a movement in the limbs, whilst the same stimulus may call forth a movement of the face. The reason, according to Vulpian, of this difference is simply that the impulse originated by the electric stimulation has a less distance to pass before it reaches the facial nucleus than it has to reach the nuclei governing the movements of the limbs. Vulpian argues in favour of a uniform excitability of the grey matter of the so-called motor centres.

THE LATE PROFESSOR COHNHEIM.

THE numerous contributions to pathological science which Professor Cohnheim made during the twenty years of his active scientific career have been collected into a volume ("Gesammelte Abhandlungen von Julius Cohnheim." Berlin: A. Hirschwald), under the editorship of Dr. E. Wagner. The papers and monographs, thirty-eight in number, are mostly reprinted from Virchow's *Archiv*, to which Cohnheim was a constant contributor. They are arranged in chronological order, opening with his essay on Inflammation of Serous Membranes (1861), and closing with his Studies on Renal Circulation, made in conjunction with Dr. Charles Roy (1883). Between these two how many familiar subjects are to be found in essays that have attained a world-wide renown! Here, for example, is the famous paper on Inflammation and Suppuration (1867), and the well-nigh as celebrated Researches on the Embolic Process (1872); followed by those studies upon circulatory disorders, œdema, dropsy, &c., which seem naturally to flow from the new ideas. Here, too, is his suggestive paper on Tumour Metastasis, and his celebrated address on Tuberculosis, which may be said to have anticipated the subsequent discoveries of Koch. Besides these there are many contributions to pathological anatomy. The volume, taken together with the well-known "Vorlesungen über Allgemeine Pathologie," forms a lasting memorial of the ardent student and teacher, who, in spite of continued ill health, contrived to contribute so largely to knowledge, and to inspire so many with a like zeal for research. The value of the book is enhanced by a memoir of the author from the pen of Professor W. Kühne, who knew him well, and who testifies to the severe loss sustained by his early death. A portrait of Cohnheim is prefixed to the volume. Many who knew him only by his work will doubtless be glad to possess a volume which those who did know him personally will cherish as embodying the history of his career, for his life compels admiration not only for the genius he possessed, but for his nobility of character and the steadfastness with which he pursued his duties under obstacles that would have crushed a man of less abundant energy.

TREATMENT OF RICKETS.

DR. SEMZCHENKO writes to a St. Petersburg journal that he was induced by the successful results obtained by Kassovitz in the treatment of rickets by phosphorus to make trial of it, notwithstanding the adverse statements of Henoch and Schwechten. He gave it to fifteen children from eleven weeks to twenty-two months old, all other medicine being intermitted during the trial of the phosphorus, which was prescribed in an emulsion with sugar and gum. It was only stopped when severe vomiting occurred. He came to the conclusion that it was an utterly useless mode of treating these cases, and reverted to his usual method of

managing rickety children, which consists of giving salt baths daily, the head being washed with warm water and the whole body with brandy-and-water. Internally tannate of quinine (one to two grains) is administered with one-eighth of a grain of extract of secale in from two to four powders daily. They are fed with bouillon, boiled milk with from one to two tablespoonfuls of lime-water and from a quarter to half a teaspoonful of cognac to the tumbler. Children at the breast are given a teaspoonful of lime-water and glycerine from two to four times a day. When they have large abdomens, enemata (one to two tumblerfuls), containing from fifteen to forty grains of salicylate of soda, from ten to thirty grains of borax, or from two to three tablespoonfuls of a 1 per cent. solution of carbolic acid, are given. In from one to two months the little patients invariably show a marked improvement under this method of treatment.

THE LATE MEDICAL OFFICER OF HEALTH FOR LEICESTER.

WE hear with much regret that Dr. William Johnston has resigned the appointment of Medical Officer of Health to the Borough of Leicester, which he has held for seven years. Dr. Johnston's excellent work during this period, and especially his investigations into the etiology of infantile diarrhœa, are well known to the profession. It is therefore with the more surprise we learn from the *Leicester Advertiser* of May 30th that his retirement is due to the difficulties he has encountered at the hands of members of his authority, and has resulted from "the bullying and hectoring" he has been called upon to endure. The position of the medical officer of health is becoming increasingly difficult. He is expected to bring to the performance of his duties a greater technical knowledge, and is required to devote to them, for very inadequate remuneration, a considerable portion, if not the whole, of his time. He is also required by public opinion to protect the inhabitants of his district against disease, and to do so he must necessarily interfere with the vested interests of those who are but too readily allowed to assume the position of his employers. The duties of other officers of local authorities, clerks, surveyors, &c., do not cause them to excite the hostility of individuals whose interests are opposed to sanitary improvement, and their positions are therefore sufficiently secure. The medical officer of health is, however, differently circumstanced, and recent events have but too clearly shown the need for an improvement of his position. Unless the public mind is soon awakened to the importance of this matter, the public health service will deteriorate, and the public themselves suffer.

ŒDEMA OF THE GLOTTIS IN TABES DORSALIS.

ANY phenomenon may be met with in the course of tabes dorsalis; at least, this statement would seem to be a warrantable conclusion from known facts. We must not lose sight of the circumstance that accidental phenomena also exist and may occur in tabes dorsalis, as in any other disease, without any special significance. M. Huchard read at a recent meeting of the Société Médicale des Hôpitaux (*La France Médicale*, June 2nd) a paper on a case of Œdema of the Glottis following the administration of iodide of potassium in a patient the subject of tabes dorsalis. There was no history of syphilis or alcoholism, and no evidence of Bright's disease. The man was treated on account of the locomotor ataxy with four grammes of iodide of potassium per day. The treatment had to be suspended owing to the induction of iodism. After some days the medicament was given in smaller doses. This renewed treatment was followed by grave attacks of dyspnœa, which threatened suffocation. M. Gougenheim detected œdema of the arytenoid region by laryngoscopic examination. During one of the attacks the "interne" was obliged to perform tracheotomy. The patient ultimately did well. M. Huchard thought that the grave result was largely due to the influence of the iodide of potassium, whilst admitting that a sensory disturbance in tabes dorsalis may have played a part in the occurrence of the phenomenon. Chemical examination of the iodide of potassium showed that it was impure and contained a certain amount of iodates.

TREATMENT OF NEURALGIA BY NEUBER'S METHOD.

DR. SCHAPIRO recently read a paper, at the Medical Society of St. Petersburg, upon the results of researches on treatment of neuralgia by Neuber's method of hypodermic injections of a solution of osmic acid. His observations include eight cases of trigeminal neuralgia (three males and five females). The age of the patients varied from thirty-eight to sixty. In every case the disease was of a very severe type and of long standing. The result of the treatment was complete cure in five cases (three females and two males), great alleviation of the pain in two cases, and no success at all in one case (female). The number of injections made in each case was from one to twelve (twenty in one case), five to ten drops being injected every time. The duration of the treatment was from one to sixty days. Dr. Schapiro adopts a modification of Neuber's 1 per cent. aqueous osmic solution on account of the osmic acid soon undergoing decomposition in a watery solution. After a whole series of combinations, he concluded that an addition of glycerine to the watery solution prevents for a long time osmic acid from undergoing any change. In not one of the cases treated by him was an injection followed by any ill effect. The patients are now under the author's observation (two to six months after the commencement of the treatment).

VIVISECTION RETURN.

THE return issued by the Home Office containing the reports of the inspectors showing the number of experiments performed on living animals during the year 1884 appears to us to be highly satisfactory. It shows that a considerable amount of judgment and caution must have been exercised in the granting of licences, and this is indicated not so much by the paucity of persons holding licences as by the nature of the experiments and the purposes for which they were undertaken. We believe the Home Office takes a good deal of trouble in endeavouring to ascertain, not only from its inspectors, but from the most eminent men in science, whether the experiments proposed to be done by the applicant for a licence are such as are likely to be attended with useful or important results. Licences have been refused or the application allowed to fall through as the outcome of this advice from men fully competent to judge. Altogether 441 experiments were performed under forty-nine licences held in England and Scotland. Of these 218 were done under the full influence of anæsthetics, and the animal not being allowed to recover consciousness no pain would be felt. Of the remaining 223, 99 experiments simply consisted in inoculation with a morbid virus, and the pain caused at the time and the suffering experienced afterwards amounted to no more than ensues on ordinary vaccination; but of the 99 only 16 are reported as suffering afterwards, for the inoculation had no morbid effect in the majority. Twenty-four experiments were performed for the purposes of medico-legal inquiries in cases of suspected poisoning, resulting in death by tetanus of three frogs and six mice, which survived, however, only a few minutes. Ten other cases were experiments on the infection of fish with a species of fungus very

destructive in certain rivers and streams; and five on the effects of immersion of fish in distilled water, which proved fatal to about thirty minnows and sticklebacks. In none of these cases could it be said that any appreciable suffering was inflicted. In seven cases in which the salts of ammonia were hypodermically injected, two are returned as having suffered pain, but of a very trifling character. Of the remaining 76 experiments, 47 required a simple operation, but this was always done under anæsthesia, and the after-effects, though in many cases resulting in partial paralysis, are reported as having been unattended with actual pain in any case. The report concludes by stating that the amount of direct or indirect actual suffering, as the result of physiological and therapeutical experiments performed in England and Scotland under the Act in the year 1884, was wholly insignificant. In Ireland the report states that only thirteen experiments were performed, and these were all of a painless character.

MEDICAL HONOURS.

OF the honours bestowed in connexion with Her Majesty's birthday a few have fallen to the share of members of the medical profession. Dr. Peter Eade, F.R.C.P.L., lately Mayor of Norwich, has received a knighthood; Dr. J. M. Cuningham, lately Sanitary Commissioner with the Government of India, has been appointed Companion of the Order of the Star of India; and Francis Day, Esq., Deputy Surgeon-General (retired), Medical Department, Madras, Companion of the Order of the Indian Empire.

SIR CHARLES ALEXANDER CAMERON.

THE profession as well as the public will learn with much pleasure that Dr. Cameron, the medical officer of health for Dublin, has received the honour of knighthood. It is stated that Dr. Cameron's services in the promotion of the public health have gained for him this distinction, and we warmly congratulate him upon being the first health officer who has had his services thus recognised. As a rule, honours of this character are bestowed upon medical men only for personal services to the Sovereign, the principal medical officers of the Army and Navy and very few others being exceptions. Sanitary service has, however, grown in public estimation, and we may hope to see in the future that the prevention of disease and saving of life effected through its means are thought to be not less deserving of recognition than other duties performed for the State.

CHOLERA IN EUROPE.

THE increase of cholera in the east of Spain and the invasion of fresh towns may be regarded as an indication that the year will not pass away without a repetition of some of the calamities which marked the appearance of the disease in France and Italy last summer. As yet there is no confirmation of the report that Marseilles is again the seat of the disease; but there can be no question of its prevalence in Madrid, and as the season progresses and the warm weather of June and July has had opportunity to exert its influence, we shall doubtless hear of the extension of cholera into more northern latitudes. Whether England may come within the area of its operations during the present year it is as yet too early to predict; but the fact that the second week of June has nearly ended without any sign of cholera in the direction which it usually follows before reaching this country is no criterion that we shall escape. The inoculations of Dr. Ferrán will doubtless excite more interest on the Continent than in England; our own defences against the disease are fortunately not only of a more trustworthy, but of a more permanent, character.

MIND AND MATTER RECONCILED.

MR. ROMANES, the Rede Lecturer at Cambridge this year, has hit upon an ingenious way of reconciling the antagonistic properties and interests of mind and matter. Finding himself in the midst of the cross fire between the spiritualists and the materialists in science, he proposes to put an end to the conflict by a synthetical process of reasoning, in which he seeks to show that the antithesis between mind and motion is phenomenal or apparent, not absolute or real. He does not think matter is the cause of mind or mind the cause of matter; in other words, motion does not always cause change or change always cause motion, but the two working side by side react and work out the chain of cause and effect together. This is a new development or application of the law of resultants, by which two forces acting in converging lines, or obliquely upon each other, give rise to a third or intermediate force, which is the result of their mutual reaction. We are therefore to believe that neither spiritualistic views of science are true nor materialistic views, but that truth is a mean of the two. We trust those who are harassed on the subject will find comfort in this new revelation of fact.

COCAINE IN "SNUFFLES."

DR. ZEMSHCHENKO has treated seventeen infants from two weeks to eleven months old with coryza by means of cocaine dropped into the nose. Two drops of a 2 per cent. solution were thus applied from four to six times a day with remarkably good results. In only one case was any increase of secretion observed. He has also made use of a 4 per cent. solution for older children. As, however, there is some risk of the solution being swallowed and producing vomiting, he finds it best to apply the cocaine by means of an ointment. In one case of suspected "snuffles" in a child three weeks old whose mother was syphilitic, the writer painted the nares with a 2 per cent. solution with a satisfactory result.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS.

THE Lord President of the Council has acknowledged the receipt of a letter from the Association, praying that the proposed new Charter of the College shall not be approved till the Fellows have had an opportunity of setting forth their views, which in many important respects differ from those adopted by a majority of the Council.

THE FRIENDLY SOCIETIES AND THE HOSPITALS.

THE Friendly Societies have recently made several demonstrations in support of the hospitals of London. Sometimes these take place on a Sunday, doubtless on the principle "the better day the better deed," and we fully recognise the goodness of the motive and of the service. But we are disposed to think that the bands would discourse their music more effectually for the purpose on some other day of the week—say on a summer Saturday afternoon.

DETECTION OF COPPER AND LEAD IN WINE.

A NEW method for testing the freedom of wines from cupric and plumbic salts has been put forward by H. Hager in the *Analyst*. The wine is mixed with half its volume of a clear solution of caustic soda which may contain carbonate. If the liquid remain clear after boiling, neither copper nor lead is present. A turbidity with colouration points to the presence of copper. About six cub. cent. of this solution are poured into a test tube, a piece of tin-foil introduced, and the whole heated for half an hour on the water bath. If lead and copper be absent, the foil remains perfectly bright; whereas if in the presence of a

trace of one of these metals it becomes dull and grey for lead, and brown or brown-black for copper. This reaction may be applied to all cases when other metals are not present, and the solution remains clear after the addition of alkali.

SIR ANDREW CLARK.

THE profession will learn with regret that Sir Andrew Clark has been confined to bed for the past few days. But we are glad to be able to announce that, under the care of Dr. George Johnson, he is so far improved in health that he intends resuming his professional work on Monday. Sir Andrew will not take it ill from us if we venture to express the hope that he will use his indisposition as a sound excuse for refraining from working so hard.

DISARTICULATION OF THE HIP WITHOUT ANÆSTHESIA.

PROFESSOR GRUBE has recorded in the *Russkaya Meditsina* a case of disarticulation at the hip-joint for a large sarcomatous growth of the femur which weighed about sixty pounds, or nearly a third of the total weight of the patient. Distinct cardiac mischief being present, it was deemed necessary to avoid the use of an anæsthetic, also that of Esmarch's bandage. The patient was convalescent in seven weeks.

FATAL CASE OF PORRO'S OPERATION.

Il Morgagni of the 30th ult. relates the case of a primipara aged thirty-two, on whom Dr. Antonio Fibbi of Fabriano performed Porro's operation on April 15th. The patient had been in labour four days, and three days had elapsed since the membranes had ruptured. Delivery was blocked by a large tumour. The operation lasted a few minutes over an hour, and was unattended with complications. The pedicle was treated by the extra-peritoneal method. The patient died in collapse the day after the operation.

DIABETES IN THE DOG.

DR. PASQUALE FERRARO has recently (*Il Morgagni*, February and April, 1885) conducted a research on the comparative pathology of diabetes, in the anatomical institute of the University of Naples, under the direction of Professor Schrön. It results that diabetes mellitus may develop spontaneously in the dog, and gradually intensify until it becomes fatal. The etiology, clinical course, and histological anatomy of the disease, are similar in the human and canine species.

AT the Worship-street Police-court on the 9th inst., it was stated that the main drain in a certain road had been opened up for repairs by the Metropolitan Board of Works. The work had proceeded very slowly, and the drain had been fully exposed for the past three months, which was considered by the dwellers in the road to be an exceedingly long time for the necessities of the case. For many weeks the stench arising from the open drain had been unbearable. The magistrate, in reply to a gentleman who asked if anything could be done by the court to protect the inhabitants of the neighbourhood, stated his belief that the Board are liable to indictment for culpable delay, and advised that a solicitor be consulted.

THE King of Greece has recently conferred on Dr. Morris H. Henry, of New York, the Gold Cross, and created him an officer of the Royal Order of the Saviour. The honour was conferred for services rendered to medical science, on the recommendation of the Faculty of the University of Athens.

AT the forthcoming meeting of the British Medical Association, to be held at Cardiff on July 28th, 29th, 30th, and 31st, 1885, it is arranged that two subjects of considerable practical interest shall be discussed—namely, Mr. Treves (London) will introduce the subject of "Operative Interference in Intestinal Obstruction." Mr. Reginald Harrison (Liverpool) will read a paper introductory to a debate on "Bladder Tumours, their Diagnosis and Treatment." On the invitation of Dr. Bennett, the President of the Surgical Section, Professor Guyon of Paris has consented to be present and take part in the discussion on "Tumours of the Bladder."

AT the meeting of the Académie Royale de Médecine of Belgium, held on May 30th, Dr. Fleming, Principal Veterinary Surgeon to the Army, was elected a foreign correspondent. The Société Royale de Médecine et d'Hygiène Publiques has also elected him as a foreign correspondent. We are glad to learn that the health of Dr. Fleming is being gradually, though slowly, re-established, and that he is able to resume his important duties at the War Office.

A NEW edition of Dr. Murchison's work on Diseases of the Liver is in the press and will shortly be issued by Messrs. Longmans and Co. A new book by Dr. B. W. Richardson, entitled "The Work and Works on Health and Social Reform of Edwin Chadwick, C.B.," and a new work on "Children's Diseases" for popular use by Dr. C. West, will also be issued by the same firm in a short time.

ON the 4th inst. the medical officer of health for the Port of London obtained an order from the West Ham Police-court for the destruction of 463 carcases of sheep, 584 legs and shoulders of mutton, 70 pieces of beef, 20 bags of kidneys, &c., which were certified to be unfit for food. These formed part of the cargo of the steamship *Ruapehu*.

THE annual dinner of the Army Medical Department took place at the Holborn Restaurant on the 8th inst. Sixty-six officers, past and present, sat down, under the chairmanship of the Director-General. Sir William Jenner, who was to have been present as one of the guests, was unavoidably absent. A very pleasant evening was spent.

AN epidemic of cerebro-spinal meningitis appears to prevail in Dublin at present, and last week no less than eight deaths were recorded from the disease.

DR. WYCHERLY, High Sheriff for Cork, was knighted last week by Earl Spencer for his services in connexion with the recent visit of the Prince of Wales.

DR. JAS. J. L. RATTON, Surgeon-Major, Madras Army, has been appointed Professor of Surgery and Senior Surgeon at the General Hospital at Madras.

A CONVERSAZIONE will be held at the Royal College of Physicians, Pall-mall, on Wednesday, July 1st, at 9 P.M.

MR. VICTOR HORSLEY has been elected an Assistant Surgeon to University College Hospital.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.—The Prince of Wales has fixed Saturday, July 4th, for the ceremony of opening the Albany Memorial and other buildings of the hospital in Queen-square. The Prince and Princess Christian have signified their intention to be present, and the Archbishop of Canterbury will take part in the proceedings.

THE METROPOLITAN HOSPITALS.

As the result of inquiries we have recently instituted, we are able to state that the following metropolitan institutions are, amongst others, at the present time hampered in their sphere of usefulness by want of funds.

In the City Orthopædic Hospital there are three wards, recently furnished, with twelve beds, which cannot be used. The applications for admission to these wards on behalf of helpless little cripples are very numerous, and it is most distressing that they should have to be refused. The committee were three years appealing for funds to open and complete these additional wards. At the British Lying-in Hospital, Endell-street, some thirty more patients per annum could be received did funds permit. At the Royal Orthopædic Hospital there are five beds vacant for want of funds. At St. Thomas's Hospital three wards, containing ninety beds, are closed. The Committee of the Hospital for Consumption and Diseases of the Chest at Brompton were compelled, to avoid closure of a ward, to sell out £2000 of their funded stock last year. At the Paddington-green Children's Hospital many cases are daily refused admission for want of more beds. If funds permitted additional accommodation could be obtained. At the Royal Westminster Ophthalmic Hospital there are twenty-eight vacant beds. At St. Mary's Hospital there are twenty-six beds vacant. At St. George's Hospital many applicants are refused admission for want of accommodation. At Charing-cross Hospital there are thirty empty beds. In the report which was presented at the meeting of the Governors of the North-West London Hospital on March 27th the committee state that hitherto all the beds and cots have been occupied, but that now the stern necessity of partially closing the hospital, unless additional help is forthcoming, must be faced. At the Hospital for Epilepsy and Paralysis the burden of debt is so heavy, and the necessity of immediately meeting some of the largest and oldest claims so urgent, that unless the public will enable this institution to place itself forthwith in an honourable and satisfactory position, the committee cannot feel justified in increasing or perpetuating the existing state of indebtedness, and will most reluctantly feel it their duty to close the hospital against all but paying patients. What this will entail upon the suffering classes concerned can only be fully known to those who are intimate with the distressing kind of diseases dealt with in this institution, diseases which cause the profoundest suffering both of body and mind, and often preclude the possibility of self-support. At the Poplar Hospital for Accidents there are no beds vacant from want of funds, but the number of beds will have to be reduced from want of cubic space, if funds are not forthcoming to build additional accommodation. As it is, the number of beds is insufficient to meet the demands made upon them. At the Chelsea Hospital for Women the "Albert Edward" floor of twenty beds is entirely vacant for want of funds. At St. Thomas's Hospital, in addition to the empty beds mentioned above, two wards have been, through lack of funds, appropriated to the use of paying patients; and at Guy's, too, a similar expedient has for the same reason been adopted. At the London Hospital, where the number of in-patients treated last year was no less than 8015, the number of beds is 797, and the average fully occupied during last year was 606. If the funds were larger more beds would be occupied, but there is no absolute rule that more than a certain number shall not be filled. In emergency, or in case of grave sickness, any person is admitted, it being trusted that the generosity of the public will supply the necessary funds. At this hospital there is a steadily increasing pressure as population increases, and as, indeed, it may be said with much regret the people become poorer. At the Evelina Hospital for Sick Children the committee have been compelled, in order to meet the deficit of the previous year, to trench upon the small invested capital of the hospital to the extent of £1000. Notwithstanding this sacrifice the balance-sheet shows a considerable deficit on the past year. At the London Lock Hospital and Asylum there are about fifty beds vacant from want of funds in the female department. At the London Fever Hospital, though no beds are unoccupied through lack of money, the isolation block, a most useful and necessary part of the establishment, is unused for that reason. At University College no beds are vacant, but the committee are obliged to depend upon the public and upon loans from their bankers to tide over their immediate pressing necessities. The debt of the hospital at the present time is over £7000.

It may be added that at St. Thomas's Hospital 79,019, and at the London Hospital 64,598 out-patients were treated last year, and that the total number of beds at the hospitals which derive benefit from the Hospital Sunday Fund is about 8000.

THE SANITARY CONFERENCE AT ROME.

SINCE our last issue the proceedings of the Technical Commission have been placed on a much more satisfactory footing. All the work is now submitted to sub-committees which hold morning sittings and prepare definite series of propositions, and these are then discussed and voted on separately by the full assembly. A record of the proceedings of last week's work will, therefore, be made more conveniently under the heading of each separate piece of work.

First came the report of a committee consisting of Drs. Eck, Hofmann, Thorne, Semmola, Koch, Proust, and Sternberg on Disinfection, and after discussion its provisions were accepted with only a few verbal alterations. The committee, desiring simplicity above all things, recommended for purposes of disinfection only three measures: (1) by steam under pressure, a system specially adapted to steamers; (2) carbolic acid or chloride of lime as chemical agents; and (3) efficient aeration; and they then entered into details as to the various methods of applying these agents to different objects and under varying circumstances. The report is one which is in the main fully in accord with the principles held in England, and it received the support of the English and Indian delegates.

Another sub-committee, consisting of Drs. Buonomo, Eck, Hunter, Koch, Lewis, and Zaëros Pacha, prepared a report on the measures to be adopted in connexion with the Pilgrimage to Mecca. The constitution of the committee will at once show that the interests of our great Indian Empire were well represented, and it is not too much to say that the report submitted was, up to the point of entrance of the pilgrims into the Red Sea, in the main an adaptation of the excellent sanitary regulations which have long been enforced in India. On some points India has not yet felt it right to interfere with religious convictions; but now that it appears from the statement of the Turkish delegate that the Mussulman creed is in no way affected by a requirement that no pilgrim should be allowed to start on his journey unless he can show that he possesses adequate means for the journey, it is much to be hoped that this very important condition will be universally acted on. Such a step will result in the saving of much life. As regards the measures to be adopted in the Red Sea, the delegates from this country assented to the propositions of the committee. It had several times been urged, as for example by Sir Guyer Hunter, that each country should be allowed to act on its own views as regards arrivals in its own ports, and hence where Turkish ports in the Red Sea were concerned, it was explained by Sir Joseph Fayrer that whilst he and his colleague thought that many of the restrictions imposed were needless and hence vexatious, yet that no opposition would be offered by delegates from this

country. The assistance given to the Conference by Dr. Lewis's wide knowledge of this special subject was evidently of influence in securing a report which was accepted almost without modification.

Next came a report from a sub-committee as to the action necessary in ports of arrival, and, as in the case of the Red Sea Commission, we may congratulate ourselves that it contained no English blood amongst its members. So hopelessly had the committee tried to win both sides that the report was utterly rejected, and the committee were sent back to their labours. The next report they submitted was a substantial advance on the first. It gave free admission to a certain class of vessel even from so-called suspected ports, provided a medical inspection showed that after a certain length of journey there had been no illness, and that all needed measures of cleanliness, &c., had been observed. But if the journey had lasted less than ten days, all the crew and passengers had first to be kept under observation for twenty-four hours. As to infected ships, the sick were very properly to be landed and isolated, but this, too, was coupled with a regulation enjoining a period of from twenty-four hours to five days' observation for all on board if during any part of the voyage any person was suspected of having had cholera. This detention of healthy people was protested against by Dr. Thorne, who maintained that the English system of detaining only persons actually suspected of being ill for a period sufficient for the symptoms to develop themselves was ample. He was supported by all his colleagues from this country; but in view of the notions prevailing on the Continent, they were necessarily in a minority. Then came a genuine *fiasco*. What was to be done with the people who were landed? A committee, composed of such men as Drs. Koch, Baccelli, and Rochard, had actually prepared four propositions as to douching and bathing them. The ridicule cast by the Indian and British delegates on such a proposal secured them a strong following; and when, finally, Sir Guyer Hunter asked the committee to explain how they would bathe and douche nearly 2000 men, women, and children on board our great troop-ships, the committee thankfully accepted a suggestion that all the four propositions should be erased, and they were at once struck out as fit only for the waste-paper basket. As a general principle, the delegates from this country voted in the negative as to the imposition of quarantine of the healthy, whether under the name of observation or not, and then declined to take part in any divisions that took place as to the details relating to those measures.

Passing over certain matters of minor importance, the subject of the proceedings to be adopted after landing was dealt with by another sub-committee, composed of Drs. Sonderegger, Buonomo, Thorne Thorne, Eck, Ruysch, Grozs, and Hofmann. The report presented by this sub-committee was, like others where English and modernised views were represented, a valuable one, and, with the exception of the circumstance that it was regarded by Dr. Koch and others as entering into certain details which it would be better to leave to each country, it was practically accepted as a whole. English views were represented in its first paragraph, which claimed that the prevention of cholera was, above all things, to be dealt with by the sanitary development of a country and means of isolation, all of which should be ready in advance. This point was enforced by Dr. Thorne Thorne, who explained that in her action against quarantine England was not influenced by pecuniary motives, and that her authorities had since the date of the Vienna Conference spent over £27,000,000 in the interests of human life and health; and he showed by statistics of mortality how truly remunerative this expenditure had been. He added that it would be a lamentable day for England if she should ever think of changing such a system for the useless five days' quarantine which seemed to find such favour with the Conference. Following on a series of resolutions as to sanitary organisation, notification of first cases, &c., all of which are excellent, came certain details as to international trains, their inspection and cleansing, the provision of means of temporary isolation at stations, &c. Our delegates found no difficulty in accepting these on the ground that measures of precaution and cleanliness were always valuable; but Dr. Timothy Lewis explained to the Conference that the construction of railways in India had in no way altered the ancient lines of cholera diffusion, and Dr. Koch and others considered some of the details proposed as to train service quite superfluous. Sir Joseph Fayrer gave some valuable statistics as to the effect of sanitation in India, urging the Conference to put their trust in these rather than in detailed regulations as to traffic; and he was supported by Sir Guyer Hunter, who reverted to details bearing in the same direction which he had given at a previous sitting.

The work of the Technical Commission came to an end on Saturday last, and since the full Conference did not again assemble till Thursday, the Government have asked the delegates to be the guests of the State during a visit to Naples, special trains, and a man-of-war in the bay, being provided by the Government.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5892 births and 3497 deaths were registered during the week ending June 6th. The annual death-rate in these towns, which had been equal to 21·1 and 21·0 per 1000 in the preceding two weeks, further declined last week to 20·5. During the first nine weeks of the current quarter the death-rate in these towns averaged 21·8 per 1000, against 22·6, the mean rate in the corresponding periods of the nine years 1876-84. The lowest rates in these towns last week were 10·0 in Brighton, 10·9 in Norwich, 13·2 in Wolverhampton, and 13·5 in Halifax. The rates in the other towns ranged upwards to 25·5 in Preston, 26·3 in Birkenhead, 31·0 in Newcastle-upon-Tyne, and 33·6 in Manchester. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 510 and 487 in the previous two weeks, rose to 521 last week; they included 224 from measles, 130 from whooping-cough, 32 from diarrhœa, 37 from small-pox, 44 from "fever" (principally enteric), 23 from diphtheria, and 31 from scarlet fever. No death from any of these zymotic diseases was recorded last week in Brighton, Norwich, or Halifax; whereas they caused the highest death-rates in Sheffield, Manchester, and Newcastle-upon-Tyne. The greatest mortality from measles occurred in Birkenhead, Sheffield, Manchester, and Newcastle-upon-Tyne; from whooping-cough in Cardiff, Plymouth, and Blackburn; from scarlet fever in Leicester, Sunderland, and Cardiff; and from "fever" in Portsmouth and Newcastle-upon-Tyne. The 23 deaths from diphtheria in the twenty-eight towns included 15 in London and 2 in Hull. Small-pox caused 59 deaths in London and its outer ring (exclusive of 28 recorded in the metropolitan asylum hospital ships and camp at Darenth), 2 in Manchester, and 1 in Hull. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had steadily increased in the preceding ten weeks from 830 to 1389, declined to 1201 at the end of last week; the admissions, which had ranged between 354 and 211 in the previous five weeks, fell to 180 last week. The Highgate Small-pox Hospital contained 68 patients on Saturday last, 19 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 291, 305 and 302 in the preceding three weeks, declined last week to 290, but exceeded the corrected weekly average by 20. The causes of 90, or 2·6 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Portsmouth, and Brighton, and in five other smaller towns. The largest proportions of uncertified deaths were registered in Oldham, Sheffield, Blackburn, and Bolton.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 23·4, 21·2, and 20·5 per 1000 in the preceding three weeks, rose again to 21·8 in the week ending 6th June, and exceeded by 1·3 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 12·2 and 16·5 in Leith and Aberdeen, to 25·1 in Glasgow and 25·4 in Greenock. The 532 deaths in the eight towns showed an increase of 32 upon the number in the previous week, and included 23 which were referred to whooping-cough, 16 to diarrhœa, 15 to measles, 11 to scarlet fever, 7 to diphtheria, 3 to "fever" (typhus, enteric, or simple), and not one to small-pox; in all 74 deaths resulted from these principal zymotic diseases, against 67 and

59 in the preceding two weeks. These 74 deaths were equal to an annual rate of 3·0 per 1000, which was 0·1 below the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 22 and 27 in the preceding two weeks, declined again to 23 last week, which included 12 in Glasgow, 6 in Edinburgh, and 3 in Dundee. The 16 deaths attributed to diarrhœa showed an increase of 6 upon the number in the previous week, but were equal with the number in the corresponding week of last year. The deaths from measles, which had been 19, 15, and 11 in the previous three weeks, rose again to 15 last week, of which 14 occurred in Glasgow. The 11 fatal cases of scarlet fever showed a considerable increase upon the numbers in recent weeks, and included 4 in Glasgow, 2 in Edinburgh, 2 in Leith, and 2 in Paisley. Four of the 6 deaths from diphtheria were returned in Glasgow. The 3 deaths referred to "fever" showed a decline from recent weekly numbers, and were considerably below the average number. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 107 and 87 in the preceding two weeks, rose to 126 last week, and exceeded by 36 the number returned in the corresponding week of last year. The causes of 74, or nearly 14 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 35·0, 31·2, and 25·7 per 1000 in the preceding three weeks, further declined to 23·1 in the week ending June 6th, and was considerably lower than in any previous week of this year. During the first nine weeks of the current quarter the death-rate in the city averaged, however, no less than 30·8 per 1000, the mean rate during the same period not exceeding 20·5 in London and 18·6 in Edinburgh. The 156 deaths in Dublin last week showed a further decline of 18 from the high numbers in recent weeks, and included 9 which were referred to measles, 2 to whooping-cough, 2 to diarrhœa, 1 to scarlet fever, 1 to "fever," and not one either to small-pox or diphtheria. Thus 15 deaths resulted from these principal zymotic diseases, against 34, 33, and 21 in the preceding three weeks; these 15 deaths were equal to an annual rate of 2·2 per 1000, the rate from the same diseases last week being 3·2 in London and 2·7 in Edinburgh. The fatal cases of measles in Dublin, which had been 17 and 13 in the previous two weeks, further fell to 9 last week, and were fewer than in any week since the middle of February last. The deaths from "fever" and from scarlet fever also showed a further decline from recent weekly numbers. Only one inquest case and 1 death from violence were registered within the city. Nearly a quarter of the deaths occurred in public institutions. The deaths both of infants and of elderly persons showed a further considerable decline from the numbers in recent weeks. The causes of 26, or nearly 17 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

Honorary Brigade Surgeon W. F. Ruttledge, now on retired pay, has been appointed to take charge of the 1st Infantry Brigade at Aldershot.

Thirty-five officers undergoing a course of instruction in Medical Staff Corps drill, &c., at Aldershot are attached for a course of instruction in riding, 20 to the Cavalry Brigade, 10 to the Royal Artillery, and 5 to the Commissariat and Transport Corps.

WAR OFFICE.—The Secretary of State for War has appointed Howard W. Hunt, Esq., M.R.C.S., to be Visiting Surgeon for Shorncliffe, under the Contagious Diseases Acts, 1866 to 1869, vice J. W. Howard, deceased.

ARMY MEDICAL STAFF.—Brigade Surgeon W. O'Halloran has retired on temporary half-pay; Surgeon John Sydney Langdon resigns his commission.

ADMIRALTY.—The following appointments have been made:—Fleet Surgeon Garland W. L. Harrison, to the *Britannia;* Fleet Surgeon Daniel O'Connor, M.D., to Devonport Dockyard; Staff Surgeon Fleetwood Duckle, M.D., to the *Duncan;* Surgeon James Porter, M.B., to the *Pembroke;* Surgeon John Cashin, to the *Duncan;* Surgeon Timothy J. Crowley, M.D., to the *Royal Adelaide.*

YEOMANRY CAVALRY.—Cheshire: George Harrison, Gent., to be Surgeon.

ARTILLERY VOLUNTEERS.—1st Northumberland and Sunderland:—William Henry Besant, Gent., to be Acting Surgeon.

RIFLE VOLUNTEERS.—1st Bedfordshire: Acting Surgeon Henry Frederick Holland, M.D., to be Surgeon.—10th Lanarkshire (Glasgow Highland): Angus Macphee, Gent., M.D., to be Acting Surgeon.—2nd Sussex: Walter Samuel Simpson, Gent., to be Acting Surgeon.—1st Volunteer Battalion, the Prince of Wales's Own (Yorkshire Regiment): Acting Surgeon Alfred Baker to be Surgeon.

Correspondence.

"Audi alteram partem."

ADDISON'S DISEASE.

To the Editor of THE LANCET.

SIR,—Dr. Wickham Legg, in his interesting communication to your journal on Addison's disease, says that the theory which makes it a tubercular affection of the suprarenal bodies must be given up. I am somewhat at a loss to know whether Dr. Legg is arguing solely against the opinion that the change usually found in the adrenals is strictly tuberculous, or whether he is denying the truth of the usually received theory of the nature of the disease, and which in common parlance is often spoken of as tuberculous. If Dr. Legg writes merely to maintain the former, I agree with him, but if the latter, I am sorry to find myself at variance with him. Addison's first published cases were examples of what was then called tuberculous disease, but the author did not state that this condition was characteristic of the disease; it was left for myself, by an accumulation of a large number of cases, to insist upon the fact, and therefore reduce morbus Addisonii to a very strict definition as regards the changes in the organs. I maintain that the disease was primary and of one kind. This view I further propounded in the article on Morbus Addisonii in Reynolds's System of Medicine. It was shortly as follows:—

In Addison's disease there is found a total destruction of the adrenals, the consequence of a primary or essential disease, which is comparable with that of the primary affections of other organs. In considering the diseases of other double organs, we do not refer to their accidental implication by new growths, but to the slow implication of their structure by a primary morbid process. Indeed, I know of no instance where both lungs would be involved to their destruction without a trace of similar disease elsewhere, or of a uniform implication of the kidney, and the rest of the body free. Were I, indeed, to meet with such cases, I should regard the disease as one essentially primary. In the same way, I have no knowledge of any adventitious disease attacking both adrenals to their destruction, and showing no trace of its existence elsewhere. From what I know of pathological processes, it seems to me that a disease involving the entirety of both adrenals, and leaving the rest of the body untouched by it, must be a primary affection of those organs. It would therefore not be tubercular. This fact, too, would also imply more—that the disease would be of a similar nature to that found in the other viscera, especially the double organs. Now, the slow process which gradually involves the parenchymatous structures is usually called inflammatory, and the same term may be with equal truth applied to the process which destroys the adrenals. The chronic primary affections of the lungs are of a similar nature to those seen in cirrhosis of the liver, and called interstitial hepatitis, or in the kidney, and called interstitial nephritis, or in the spinal cord, and styled sclerosis, the process being modified according to the structure of the organ. In the adrenals the organs may sometimes be found increased to three or four times their ordinary size, owing to the production of an albuminous material composed of fibre and cell elements. At a later period this material undergoes caseation, cretification, and softening, and at the same time the mass is much reduced in size, so that in very long-standing cases of morbus Addisonii, nothing but a few nodules of cheesy matter may be found, or a few grains of chalk, or perhaps a thimbleful

of creamy fluid. In looking at these cases it is evident that a few more months would have seen the whole of this morbid material disappear. This sometimes occurs, as in one of the best-marked cases of the disease which I have seen, the one referred to by Dr. Legg as presented to the Pathological Society by Dr. Eastes, and several other similar cases have been reported. I do not look upon this termination as surprising, but as inevitable, and I see no reason why the same should not occur in other organs if they were non-vital. The adrenals are not vital organs in the ordinary sense, seeing that persons live without them for many years, although it is equally true that when diseased they bring about death in a slow and insidious manner. We see the liver waste in the cirrhotic state, and, as regards the kidneys, we sometimes find them in Bright's disease reduced to their minimum size compatible with the existence of life. In the case of the thyroid, the glandular structure may altogether disappear, and as a result of inflammation of the testes every trace of the organ may have gone.

I would say therefore, in conclusion, that if Dr. Legg merely wishes to maintain that the affection of the adrenals so usually found in morbus Addisonii is not tubercular, I cannot but agree with him, having always insisted upon the same fact; but if his paper is written with the object of contravening the views which I have just stated, that the disease of the organs is essentially of one nature, and of that character which has mistakenly been called tubercular, then I am at variance with him. From a study of a large number of cases over many years I have formed the opinion which I have given, and I regard the cases which Dr. Legg has described as highly confirmatory of this view. His paper and remarks thereon are very interesting, and the truth can only be arrived at by a thorough criticism of this kind, but my conclusions drawn from his illustrations are, I am sorry to say, totally different from Dr. Legg's. He would say that, inasmuch as we sometimes see cases of Addison's disease where no trace of the adrenals can be found, the usual theory of their so-called tuberculous nature must be given up. I, on the contrary, would say that the total absence of the organs in very chronic cases proves to my mind indisputably that such process (so-called tubercular) and none other must have led to it.

I am, Sir, yours obediently,

Grosvenor-street, June, 1885. SAMUEL WILKS.

TREATMENT OF ACUTE PERITONITIS BY ABDOMINAL SECTION.

To the Editor of THE LANCET.

SIR,—The abstract of Mr. Treves' paper on this subject, given in THE LANCET of March 14th, gives doubtless a complete view of that gentleman's opinions and action in the particular case narrated, though it does not contain anything more than a slight allusion to a previous work on the subject; but it is quite enough to convince me that he has taken an insufficiently wide grasp of this important advance in abdominal surgery, and that he is not aware of the fulness of the reception which has already been accorded to the practice which he suggests as being proper for cases of acute general peritonitis. So far as I know, the first record of an operation performed deliberately on account of acute peritonitis was proposed and carried through by Dr. Wiltshire in 1868. An account of the case will be found at page 294 of the recent edition of my book on Diseases of the Ovaries, where I say: "I think sufficient praise can hardly be given to Dr. Wiltshire for his courage in performing the operation under such urgent conditions, and it is not too much to say that to his success in this case we owe a new departure in the practice of abdominal surgery by which operations under acute symptoms are undertaken, and apparently with results as satisfactory as those obtained in cases free from emergency." This has long since become the established practice, and I should think that some scores of cases are now on record where it has been completely and successfully adopted.

It is now some twelve years since I myself for the first time followed Dr. Wiltshire's example, and after I had done so I naturally asked myself the question, Why should I limit my operations to cases of peritonitis in which the disease is complicated by an ovarian tumour? Since that time I have never allowed a patient to die of peritonitis without opening the abdomen, if I could obtain the consent of my colleagues and the patient's friends, and that consent has very rarely been withheld. The results of the great majority of these operations have been published in detail under various headings, because it has rarely been found that the cause of the peritonitis could not be ascertained, and under the head of the cause each case has been recorded, leaving only two instances in which the cause was not ascertained, and which were therefore recorded as operations for acute peritonitis. I have not made an accurate research into my record for the purpose of this paper; but I believe my statement is nearly correct when I say that I have opened the abdomen forty-four times on account of the presence of peritonitis, and that the operation has been completely successful in forty-one of the cases.

This leads me to say that Mr. Treves' case is open to a criticism on two points to which I desire to draw emphatic attention; because, though I give him most willingly all credit for the success of the case so far as it has gone, I think that success is due more to good luck than to good guidance. He tells us the patient was admitted to the hospital "on Jan. 21st, suffering from chronic pelvic peritonitis following severe gonorrhœa." Sufficient has been put upon record concerning this condition to make it perfectly certain that this patient was suffering from pyosalpinx; and if any further proof is needed, we have only to pass on two sentences, and find that the abscess was on the left side, where it always is if pus exists at all in the Fallopian tube. The case was clearly one of antecedent rupture of a suppurating tube, with the formation of a limited abscess, the secondary rupture of this abscess being the cause of the peritonitis. The first point of criticism is, therefore, that this patient ought to have been operated upon within three or four days of her admission to the hospital, and should not have been allowed to go on till Feb. 26th merely for the purpose of running the gauntlet of an attack of acute peritonitis. The second point of criticism is that Mr. Treves has not—at least he does not tell us that he has—removed the Fallopian tube. If the rent, which undoubtedly occurred in it, was sufficiently large and satisfactory to allow for a vent and the healing of the tube, then perhaps the patient may escape without further trouble. But the experience of those of us who have had a large number of these cases to deal with is that a case so incompletely treated as this will simply be the subject of further trouble by-and-by, when the removal of the tube will be a difficult and risky proceeding.

I am, Sir, your obedient servant,

Birmingham. LAWSON TAIT, F.R.C.S. Eng.

AURAL EXOSTOSES.

To the Editor of THE LANCET.

SIR,—In answer to Mr. Dalby, I beg to state that I have never claimed any originality for the operation for the removal of aural exostoses. On the contrary, I have always mentioned the name of Dr. Arthur Matthewson[1] of Brooklyn, New York, as being entitled to all the credit that is due in this matter. Dr. Matthewson some years ago kindly sent me his pamphlet, in which he carefully describes his first case (1876), and from this paper I got my idea of the operation.

Mr. Dalby says that from 1874 he has employed the drill, and in 1876, in THE LANCET, he states, "The operation consists in grinding the bone away, and the most satisfactory appliance for this purpose I find to be the drill which is in common use among dentists." But he has not published any cases for our guidance describing the details of the operation, and I was certainly under the impression that Dr. Matthewson's was the first case. That I am not singular in this opinion, I would refer to the authors[2] indicated below, who in this connexion never mention Mr. Dalby's name, for they doubtless have all of them missed so brief a notice of what is really a tedious and capital operation.

In the last edition of Mr. Dalby's work, published this year

[1] THE LANCET, July 20th, 1878; Jan. 8th and 15th, 1881; Jan. 8th and April 1st, 1882; and May 30th, 1885; and British Medical Journal Nov. 24th, 1883.

[2] Roosa: Treatise on Diseases of the Ear, sixth edition, p. 456. Bar Diseases of the Ear, p. 213. Buck: Diagnosis and Treatment of Ear Diseases, p. 118. Macnaughton Jones: Aural Surgery, p. 12. McBride: A Guide to the Study of Ear Diseases, p. 46. Politzer's Text-book of Diseases of the Ear, p. 622 (Cassell). Burnett: A Treatise on the Ear second edition, p. 306. Cumberbatch: St. Bartholomew's Hospital Reports, 1880. Pomeroy: Diseases of the Ear, p. 117.

he tells us nothing that adds to our knowledge, except, he says, that at the International Medical Congress held in London, Aug. 1881, "I called attention to the fact that in a very large proportion of these cases the subjects of the growths had been for many years addicted to sea-bathing." A fact that I was the first to demonstrate at least six months before.[3]

Mr. Dalby was present on one occasion when I operated, and in three of my cases of aural exostosis I had the advantage of a consultation with him.

I am, Sir, yours truly,

Lower Seymour-street, June, 1885. GEORGE P. FIELD.

ON ACQUIRED IMMUNITY FROM INFECTIOUS DISEASE.

To the Editor of THE LANCET.

SIR,—While Dr. Sternberg, in his paper entitled "What is the Explanation of Acquired Immunity from Infectious Diseases?" in THE LANCET of April 11th and 18th of the current year, does not directly claim originality for the "vital resistance theory," a claim is at least implied by his statement that his work antedated that of Grawitz and Salmon. Dr. Sternberg's paper was read at the meeting of the Clinical Society of Maryland held on Dec. 5th, 1884. In it he bases his claim to priority upon a paper published in the *American Journal of the Medical Sciences*, April 1st, 1881. In the discussion which followed, I had the honour to show that at the annual meeting of the Medical and Chirurgical Faculty of Maryland held in April, 1875, I had read a paper (published in the Transactions of the Faculty for that year) in which the theory of immunity expressed by Dr. Sternberg in his paper was distinctly and explicitly propounded. This was publicly admitted by Dr. Sternberg at the meeting at which his own paper was presented. As Dr. Sternberg, while mentioning those who followed him, has neglected to refer, even in a footnote, to my publication antedating his own by six years, I beg that you will favour me by printing the enclosed extract from my paper, a reprint of which I have also the honour of sending.

I am, Sir, your obedient servant,

University of Maryland, Baltimore, May 5th, 1885. J. E. ATKINSON, M.D.

Extract.

"It has been stated that all the parts of the tissues of the body whose molecular motion was such that the consequence of their union with the contagious particles was to degrade them until they were unfit for their normal functions were thrown off from the body, and that there were left behind only such portions as were able to repel the contagia, or, having united with them, were able, while undergoing a certain modification themselves, to also modify the life of the contagia, so that the union would result in matter, somewhat altered it is true, but not to such an extent as to interfere with the performance of proper normal function. The body will thus have gotten rid of all matter capable of being degraded by the contagium of the given specific fever. In the course of the subsequent nutrition of this individual, there must be a constant and almost unvarying supply of new material introduced from without. It has been seen that within the system, and endowed with life, this material is termed protoplasm. Now the mere fact of proteinaceous compounds gaining access to the circulation does not confer upon them the properties of this protoplasm. ..... On the contrary, it must be that, as these matters enter the circulation, they may not attain the dignity of protoplasm until life shall have been conferred upon them by their incorporation with the protoplasm already existing in the body, with the buds and gemmules split off from the larger masses, and which, thus nourished, increase in size and develop the properties of their progenitors. Understanding, then, that these buds and gemmules are all descended from the protoplasm that has already resisted or been modified by the especial contagium particle, it is perfectly evident that they and their descendants must possess the same qualities of resistance. At the same time, it will not be difficult to imagine that this condition, being one opposed to the perfectly normal life of the cells of the body, may after a time, in consequence of a steady and persistent struggle to regain the condition enjoyed before infection, be receded from, and the individual again acquire his susceptibility to the same eruptive fever that he has already experienced. In the same manner may we account for the fact that the occurrence of the diseases in the parent does not necessarily or usually confer immunity upon the offspring; that a certain protection is conferred we know, since the eruptive fevers almost always produce their most dire effects upon virgin populations. The history of epidemics in the Pacific Islands exemplifies this. It is even probable that several diseases, the causes of dreadful mortality in centuries gone by, have disappeared in consequence of an immunity gradually inherited. In spite of this, however, it is very probable that in the reproductive processes the inheritance of perfectly normal molecular motion tends to reassert its superiority over that of a recently acquired modified motion, and that it returns to the mode of life that appertained to the parent previous to the occurrence of the eruptive fever, just as the parent would return, and sometimes does, were his vital processes as active."

[3] THE LANCET, Jan. 8th, 1881.

HEALTH ASSURANCE ASSOCIATIONS.

To the Editor of THE LANCET.

SIR,—As imitation is the sincerest flattery, I suppose I ought to feel flattered by the fact referred to in your leading article of the 30th ult., that no fewer than three of these associations have been started within the last few months. I do not feel flattered however, I am simply grieved—not because of the fact that these societies have adopted my scheme as far as they can, and one of them has even appropriated the name which I have given to the system without the slightest acknowledgment, but at the misapplication of the scheme, and at the further loss and damage which the profession in particular is sure to suffer if these associations are to be allowed to grow.

On what grounds are my objections based? On these:—The formation of an "Association" for the working of health assurance is not only absolutely unnecessary but positively mischievous—first, by increasing the cost of working the system; and, secondly, by taking the control of the fees out of the hands of the medical practitioner. These are two of the evils of the provident dispensaries, and in these new associations they will be greatly magnified.

First, the cost of working. Where are the expenses of rent of offices, salaries of the secretary and clerks, commissions of agents, and other disbursements to come from? Is it not clear that if the fee charged to an assurer for medical attendance be 20*s.* per annum, not more than 15*s.* will find its way into the pockets of the medical attendant? Why should medical fees be thus divided and the profession or the public robbed?

Secondly, the doctor's loss of control over his fees. That this is an evil only too real, the medical officers of provident dispensaries and the various amalgamated friendly societies can bear witness; but the evil is trifling in amount compared with what it will be if the promoters of these aggressive companies are to have their way. One would have thought that the profession had already learned a lesson on this point which would have made it jealous of its rights and duties for the future; but it seems the lesson has not yet been severe enough. I have elsewhere shown that the one remedy *par excellence* for the evils of clubs and many other evils besides is health assurance—not health assurance "associations." For the working of life assurance, and the various schemes of assuring against the losses of accident and sickness, associations are really necessary; but a serious blunder is committed if it be assumed that health assurance can be advantageously worked in the same way. Nor does the blunder affect the medical profession alone. One of the great advantages of health assurance is that the patient is brought into an intimate and friendly relation with his client, in whose health he becomes interested from the moment when the first fee is paid, and he has many and regular opportunities—at the periods of payment for example—of seeing the assurer and his dwelling, observing his state of health, advising him thereon, and detecting the beginnings of disease. Is this a picture of the state of things likely to obtain under a middleman, *alias* an "association"? If the medical profession persists in its policy of indifference and *laissez-faire*—which has already proved so disastrous—in matters so nearly concerning its best interests

and those of the public, of whose health it ought to be the custodian, the punishment will be as certain as it will be richly deserved.—I am, Sir, yours truly,

W. FLEMING PHILLIPS.

St. Mary Bourne, Andover, Hants, June 6th, 1885.

"SINGULAR MEDICAL EVIDENCE."

To the Editor of THE LANCET.

SIR,—Under this "singular" heading I was astonished to see a notice in your issue of June 6th of an article which appeared in the *Echo* regarding the medical evidence given at an inquest held in Poplar on May 28th. I may state briefly that the *Echo* has given an entire misrepresentation of the whole matter. In the first place, there was no "fatal fight at Poplar" at all; and, in the second place, I did not say what in the account referred to I was reported to have said.

The facts are simply these:—An old man was peacefully driving a barrow along the road, when a drunken man, an utter stranger, rushed up, struck him heavily under the jaw so that he fell backwards, striking the back of his head with great violence on the ground, and was picked up dead. On making a post-mortem examination, I found the cause of death to be cerebral hæmorrhage from the violence of the concussion, well-marked atheroma of the vessels greatly predisposing to the result. I found also advanced renal disease and cardiac hypertrophy. In describing the skull and brain appearances, I mentioned that on removing the skull-cap quite an unusual amount of thick fluid *escaped* from the sinuses, &c. I could not measure it, as most had oozed out, but my assistant and myself roughly estimated there might be nearly a pint; however, I could form no exact estimate of the amount. I subsequently went on to describe the usual signs of cerebral hæmorrhage which I found.

I can only ascribe the insertion of the article in question to lack of sensational matter, but I do not feel particularly ambitious to be chosen as the subject of such fictitious reports.

I am, Sir, your obedient servant,

W. MURRAY LESLIE, M.B., C.M.Edin.

Cubitt Town, E., June 10th, 1885.

*** We do not see that our correspondent has any material ground of complaint, as our remarks practically agree with his own version of the matter.—ED. L.

MANCHESTER.

(*From our own Correspondent.*)

CHARITY ORGANISATION IN MANCHESTER.

AT the last meeting of the Manchester Statistical Society a paper of considerable interest to the profession was read by Mr. F. Scott upon Charity Organisation in this city. He stated that the total sum received annually by forty-two voluntary institutions was nearly £150,000, and that, comparing this sum and the machinery provided therewith, the total results were much below what they might be if the various charities were working more or less together. He pointed out that this was especially the case with the hospital charities. Economical administration would be largely promoted by co-operation. He suggested that a kind of federal council should be formed, made up of representatives elected by the subscribers to the different institutions, which council should be subdivided into committees and subcommittees, to superintend the details of the working of each charity, such committees to report to and be controlled by the general council, whilst the main body would legislate and control all matters of common interest. The debate was carried on by a number of gentlemen interested in our charities, amongst whom was the Dean of Manchester, who gave it as his opinion that our organisations were worked too much on the lines of competition, that by too much subdivision there was a loss of power, and that much good would be effected by more combination amongst them.

THE FORTHCOMING CONFERENCE AT BLACKPOOL.

At a preliminary meeting of representatives of Boards of Guardians, held last week in the Town Hall, to consider the programme for the conference to be held at Blackpool, the Lunacy Laws Amendment Act was under discussion, and it was noted with satisfaction that the Lord Chancellor had made several important amendments in the Bill, which had brought it into more harmony with the views of various boards of guardians who had made representations concerning the unworkable nature of some of the clauses. There has lately been some little trouble in dealing with pauper lunatics here; hitherto it has been the habit of the magistrates to remit pauper lunatics to the workhouse, where they were kept for a time under observation, and, if confirmed lunatics, were then removed to an asylum. The master of the Manchester Workhouse has, however, lately notified to the guardians that he must in the future refuse to admit lunatics to the workhouse, it being illegal to do so, nor have the magistrates power to order them there. Amongst the subjects set down for discussion at the coming conference at Blackpool is that of hospital accommodation for infectious diseases, and as most of the rural sanitary authorities are formed from boards of guardians, it is one that may be discussed there with considerable advantage.

THE SALE OF HORSE-FLESH.

For some little time past disquieting rumours have been abroad as to the illicit sale of horse-flesh, and the subject has occupied the attention of both the Salford and Manchester Town Councils. At the last meeting of the latter, it appeared that certain regulations which the Market Committee had contemplated putting in force with a view to check this imposition on the poorer classes had failed to receive the sanction of the Local Government Board, on the ground that the power sought by the Corporation was not merely an amendment or addition to any existing Act, but was virtually new legislation, for which there was no precedent.

DEATH OF DR. THORBURN.

Again we have to mourn the loss of one of the leaders of the profession in the comparatively sudden death of Dr. Thorburn. His loss will be felt among a large number in and around Manchester; his genial kind-hearted disposition had endeared him to students, colleagues, and patients. By his death another gap has been made in the professorial staff at Owens College, where he occupied the chair of Obstetrics and Diseases of Women. At the infirmary a vacancy is also caused, where he held the post of Obstetric Physician. It had for some time been known to his friends that he suffered from heart disease, but none suspected the end was so near. Pulmonary thrombosis suddenly laid him low, and he died in little more than a week from the first onset. The continuation of the course of lectures he was engaged on at the College has been arranged to be completed during the present session by members of the staff of St. Mary's Hospital.

SIR HENRY ROSCOE.

It is not improbable that ere long the College will lose the active services of another old and valued professor, Sir Henry Roscoe, who has been asked to become a candidate for parliamentary honours at the ensuing general election. Should he be elected, his time available for College work will necessarily be very limited; but his presence in the House of Commons would undoubtedly be a great acquisition to the scientific element, which at present is too scantily represented there.

SMALL-POX.

The outbreak of small-pox which occurred here some few weeks since has not assumed very large proportions, and so far the authorities have had no difficulty in providing sufficient hospital accommodation. Up to the present time the cases have chiefly arisen in Manchester, and the bulk of these in the northern part of the city. Very few cases have as yet occurred in the neighbouring borough of Salford.

At the last meeting of the Chorlton guardians tenders were received for the extension of their hospital at Withington, to the amount of nearly £15,000.

Manchester, June 8th.

NORTHERN COUNTIES NOTES.

(*From our own Correspondent.*)

NEWCASTLE CATHEDRAL NURSING SOCIETY.

THE second annual meeting of the Cathedral Nursing Society has been held. This Society does a large amount of good in a quiet manner amongst the sick poor in the way

of supplying nurses, suitable invalid food, and appliances necessary in the sick-room; and this is done irrespective of religious denomination—principally, too, on the recommendation of medical visitors. It has dispensed during the past year 5255 pints of beef-tea, 8460 pints of milk, 528 chop dinners, 342 fish dinners, and 1621 meat dinners. The number of persons nursed has been 1171; supply of night-nurses, 195. Most of the persons nursed have been out of work during the winter. In some cases the patients cheerfully contributed to the funds of the Society.

A MEDICAL MAN ATTACKED BY A HORSE.

Our papers give a circumstantial account of a savage attack on a medical man by a horse. Dr. Richards, assistant to Dr. W. Renton of Shotley Bridge, Durham, in attempting to mount his horse on leaving a patient's house, the animal resisted, and attacked him in a savage manner with its teeth. Dr. Richards struck it several blows with his stick, but, notwithstanding, the animal succeeded in thrusting him into an enclosed yard, where it again attacked him in a most vicious manner, tearing his clothes and fracturing his arm. A passer-by rushed at the horse with a heavy block of wood, and succeeded in beating it off. I am glad to hear that, with the exception of the fracture, Dr. Richards's injuries are not serious.

THE MEASLES EPIDEMIC IN THE NORTH.

The course of the epidemic of measles in Sunderland shows a steady waning, but has made progress in Newcastle. During the last month (May) the increase has been very marked in the latter town, while in Sunderland during the same time there has been more than a corresponding decline. Some of the large towns on the Tyne, such as Jarrow, as well as the smaller mining and manufacturing villages, have suffered very severely. Lately the weekly mortality of Sunderland from all causes has fallen to 18·6 per 1000.

LUNATICS IN HARTLEPOOL WORKHOUSE.

At the last meeting of the Hartlepool Board of Guardians, Mr. Cleaton, one of the Commissioners in Lunacy, sent in a report upon his recent visit to the workhouse. It set forth that there were eighteen imbecile and insane patients, nine of each sex; one admitted on April 23rd was in a strait waistcoat, and was suffering from acute insanity, and quite unfit to be under workhouse care. A woman suffering from acute mania, it was pointed out, was scarcely fit to be in a workhouse. Another case required constant watching. The accommodation for these classes was quite inadequate. The clothing, too, of the imbeciles was unsatisfactory. The Local Government Board also sent some extracts from the report of the Poor-law inspector complaining of the bedding of the female imbeciles. The clerk to the guardians had been directed to state in reply that there were now no more cases than the wards were certified to accommodate.

LUNACY APPOINTMENT.

The Lord Lieutenant of Ireland has appointed Dr. A. Finegan to succeed Dr. Norman as resident medical superintendent of the District Lunatic Asylum at Castlebar. Dr. Finegan is well known in the north of England, having been for some time assistant medical officer in the Northumberland County Asylum at Morpeth.

Newcastle-on-Tyne, June 10th.

EDINBURGH.

(From our own Correspondent.)

SPECIAL MEETING OF THE MEDICO-CHIRURGICAL SOCIETY.

A NEW departure in the meeting arrangements of this Society was made recently, when a special meeting was held for the exhibition of pathological specimens and the discussion of clinical cases of special interest. The meeting was largely attended, and the proceedings were of an unusually interesting nature. At the close, the President congratulated the Society upon the success of the experiment, and announced that a series of similar meetings will be held in future alternately with the ordinary meetings.

NEW METHOD OF COMPRESSING THE SUBCLAVIAN ARTERY.

Dr. Joseph Bell exhibited the upper extremity of a patient in whose case amputation had been performed for extensive sarcomatous disease of the scapula. The hæmorrhage had been controlled by a method recommended to him by Professor Chiene, in which a curved steel skewer was passed from above downwards behind the subclavian trunks, and brought out in front through the pectoral muscles. Pressure was exerted on the vessels by an elastic tube applied as a figure-of-8 over the anterior part of the region transfixed, a firm pad intervening between the elastic tubing and the patient's skin. The method is similar to that used by the late Professor Spence in the case of the femoral artery in amputation at the hip-joint. In this case Dr. Bell found the method perfectly satisfactory, as the limb was removed with the loss of but two ounces of blood.

ULCERATIVE ENDOCARDITIS.

Dr. Byrom Bramwell showed a series of microscopic sections of various tissues from cases of acute ulcerative endocarditis, stained by Gram's method. In all there was a most admirable demonstration of the micrococci present in this disease. Dr. Bramwell mentioned that some cultivation and inoculation experiments made in connexion with these cases had yielded as yet no positive results; but that he had little doubt as to the infective nature of the disease.

PARIS.

(From our Paris Correspondent.)

THE INTERNATIONAL SANITARY CONFERENCE.

FROM a conversation I have had with an English physician who has just come from Rome, where he had been to take part in the proceedings of the International Sanitary Conference, I have learned, but not with astonishment, that the Conference may probably break up without having materially increased our knowledge of the nature and prophylaxis of cholera, as the majority of the foreign members seem to be antagonistic to their English colleagues, for almost every proposition that emanated from the latter was pooh-poohed or so little heeded that it has been a question whether the British representatives should not withdraw from the Conference. Some concession has, however, been made as to the futility of quarantines, whether on sea or on land. But what astounded the members present was the affirmation made by an English physician to the effect that cholera was not imported from India, but that each epidemic that has occurred in Europe originated from local causes. There is, however, nothing new in this theory, for it will be remembered that M. Jules Guérin has entertained it, though almost alone, for nearly half a century.

OLD SHOES AND CHOLERA.

A propos of cholera, the report of the Society of Hygiene of Milan draws attention to the influence of old shoes as a means of propagating the disease. When a person treads a soil more or less damp in a locality infected, there is every chance of his conveying the germs in the manner described.

PLANTS IN BEDROOMS.

It is generally supposed that the presence of plants in a bedroom is prejudicial to the health of its occupants. This, it appears, is an error, for at a recent meeting of the Congress of Pharmaciens one of the members stated that plants, far from being hurtful, on the contrary, in disengaging ozone from the vapour emanating from them, render the atmosphere of a room in a state of humidity perfectly healthy; moreover, it is averred that ozone, in destroying the microbes, and thus purifying the air; is favourable to persons affected with pulmonary consumption. Hence the Congress recommended that, while bedrooms may be furnished with plants which disengage the most ozone, flowers should be eliminated from them, as they do not possess the same virtues as the plants.

THE QUEEN'S BIRTHDAY.

Every year on the occasion of the Queen's birthday a grand dinner is given at the British Embassy. That for this year took place on Saturday last, when the principal members of the British Colony were present, the medical profession being represented by the Hon. Dr. Alan Herbert, Dr. Boggs, Dr. Loughman, Dr. Douglas Hogg, and Dr. Faure-Miller. Lord Lyons received his guests with his usual affability. His dinners are excellent, and his wines are reputed to be of the choicest kind and quality, yet his

lordship never partakes of the latter. He is most abstemious, and appears to enjoy the best of health.

THE ILLNESS OF M. ANATOLE DE LA FORGE.

M. Anatole de la Forge, Vice-President of the Chamber of Deputies, who was one of those who were struck with insolation at the funeral of Victor Hugo, and was rather seriously affected, is now, I am glad to say, out of all danger. M. Anatole de la Forge is one of those rare Frenchmen who are teetotallers. He told me that he has never taken a glass of wine since he was a boy, drinks nothing but water, and has always enjoyed very good health. He is now sixty-five years of age.

At its last meeting, the Paris Faculty of Medicine decided that the prize founded by M. Lacaze, of the value of 11,400 francs, and which is given every two years, will next be awarded in 1886 to the author of the best work on Phthisis and Typhoid Fever.

Paris, June 9th.

EGYPT.

(From a Correspondent.)

THE examinations at the medical school mentioned in my last letter were concluded on May 23rd. The whole number of students was 147, consisting of 126 students of medicine, 4 of pharmacy, and 17 of midwifery. Of the medical students, 84 passed and 41 were referred to their previous studies for a year, while one was ill during the examinations. There were 20 students of the fifth and final year, of whom 16 passed, and these 16 will now undergo a competitive examination to elect 5 of their number as house-surgeons at £72 a year, while the remaining 11 will become unpaid dressers, and work in the native hospital. In twelve months' time the whole 16 will be again examined in order to receive their certificates to practise. The whole of the 4 apothecaries and 17 pupil midwives were passed by the examiners. Each class was examined by its own native professor, aided by an independent examiner, of whom there were the following eleven:—Dr. Abbate Pasha (President), Dr. Grant Bey, Dr. Murison, Dr. Milton, Dr. Sandwith, Dr. Hess, Dr. Engel, Messrs. Hooker and Sickenberger for pharmacy, and two natives. This is the first year that students have been subjected to the test of written papers and clinical examination in addition to the stereotyped *vivâ voce* of a quarter of an hour, during which the candidate repeats from memory in the exact words of the text-book all that he knows of the disease in question. Thus it happens that a subject approached from an unaccustomed point of view, a cross-examination on his own glib quotations, or a question requiring reasoning intelligence on the part of the candidate, usually baffles him effectually. This is even more noticeable among the girl students than the boys. It is wonderful, however, how much young men may learn who study anatomy without dissecting, and even without seeing other preparations than those of wax, who are taught organic without the rudiments of inorganic chemistry, who do no practical ward work, and who are entirely dependent on professors, some of whom have little or no interest in, or aptitude for, the lessons they deliver. No great hope can be entertained of this school of medicine until the scholars are taught a European tongue, but the slight reforms which have taken place during the last twelve months are sufficient to encourage those in Cairo who are unselfishly striving for the school's welfare.

Cairo, May, 1885.

MEDICAL NOTES IN PARLIAMENT.

Inoculation against Cholera.

IN the House of Commons, on the 8th inst., Dr. Cameron asked the President of the Local Government Board whether his attention had been called to the report of a Committee of the Academy of Medicine and Surgery of Barcelona appointed to investigate Dr. Ferrán's system of protected inoculation against cholera; whether he had observed that, according to Spanish telegrams published in the newspapers, the Spanish Government on May 28th appointed a commission to proceed to the cholera-stricken district of Valencia along with Dr. Ferrán, with the view of testing his system; and whether, in view of the probable fleeting nature of the opportunity now presented for an investigation, and the trifling expense required for the despatch of a small commission to an accessible country like Spain, he would consider the propriety of at once nominating such a commission without awaiting the result of protracted negotiations with the Indian Government as to their bearing a portion of the cost.—Mr. Russell replied that attention had been called to the report referred to, but that the Local Government Board did not deem it necessary at the present time to despatch a commission on behalf of the Board with the view of investigating Dr. Ferrán's system of inoculation.

ROYAL COLLEGE OF PHYSICIANS.

AT an extraordinary Comitia held on Thursday last, a communication was received from the secretaries of the British Association for the Advancement of Science in reference to the establishment of an International Scientific Association, and, in proposing that a preliminary scientific conference be held in London in 1888, asking for the co-operation of the College in promoting that object. It was felt, however, that the matter would be better left in the hands of the British Association.

The report of the Committee on the Lunacy Bill was received and adopted; as was also the report from the Croonian Trust Committee.

ROYAL COLLEGE OF SURGEONS.

AT an ordinary meeting of the Council of the Royal College of Surgeons of England held on Thursday last, a unanimous resolution of condolence with Miss Arnott on the death of Mr. Moncrieff Arnott was passed. The nomination of Hunterian Professors was proceeded with, Messrs. Treves, Stewart, Brailey, and Alexander Hill being appointed. The nomination of Professors of Surgery was postponed. Dr. Wooldridge, of Guy's Hospital, was appointed Arris and Gale lecturer for the ensuing year. Mr. Bland Sutton, of the Middlesex Hospital, was appointed Erasmus Wilson lecturer.

A letter from Mrs. Cæsar Hawkins was read, offering a marble bust of her late husband, to be placed in the College. The bust was accepted, and the best thanks of the Council were voted.

It was proposed that the College take 100 copies of the autotype reproduction of the original manuscripts of lectures given by Harvey in and after the year 1616, and which have recently been discovered in the British Museum after having been lost for above 100 years. This proposition was agreed to.

A communication was received from Dr. Hickman, forwarding a memorial signed by more than 600 teachers, practitioners, and students of medicine, urging that the Royal College of Physicians of London and the Royal College of Surgeons of England be amalgamated, forming a Royal College of Medicine; and that this College of Medicine be empowered to grant the degree or title of Doctor of Medicine, giving the power to practise in medicine, surgery, and midwifery. The memorial was referred to the joint committee on the title of Doctor.

Thanks were voted to Mr. Marshall for the report of the General Medical Council which was received from him.

A letter was received from Dr. Hack Tuke, calling attention to the in many respects objectionable clauses 12 and 13 of the Lunacy Act Amendment Bill now before the House of Lords, and suggesting that a protest should proceed from the Council.

On the 8th of May, 1884, a resolution was adopted by the Council, that a meeting of the Fellows and Members be called every year, to which a report from the Council be presented: it was now resolved that a meeting be held in October, of which due notice shall be given, and at which the report of the Council be presented. A letter from the Association of Members, containing resolutions passed at their last meeting, was presented.

A communication from the secretaries of the British

Association for the Advancement of Science was received, asking the opinion of the Council as to the advisability of holding a Preliminary Scientific Congress in London in 1888, and also whether the Council would give facilities for the holding of meetings. The Council replied that it was not called upon to give an opinion as to the advisability of holding such congress considering its present information, but would be prepared to offer what facilities it could for promoting its success.

Obituary.

SIR WILLIAM MURE MUIR, M.D., K.C.B.

SIR WILLIAM MUIR, the late Director-General of the Army Medical Department, died on the 2nd inst., after a long illness. In the autumn of 1877 he first exhibited symptoms of the disease which ultimately killed him. At that time his life was in jeopardy from the effects of very severe intestinal hæmorrhage and hæmatemesis. He rallied, returned to his duty, and discharged it manfully to the end of his Director-Generalship in May, 1882. But the manifestations of abdominal disease in 1877 were but the indications of the beginning of the end, and Sir William Muir's most attached friends could not have wished to have seen his life prolonged after so lingering and protracted an illness. He had suffered at different times during his tropical service from the effects of climatic disease.

Sir William Mure Muir, K.C.B., late Director-General, Army Medical Department, received his professional education at the University of Edinburgh and at St. George's Hospital, London. He obtained the degree of M.D. Edinburgh University, and the diploma of the College of Surgeons, Edinburgh, in 1840.

Dr. Muir entered the service as an assistant surgeon on Nov. 22nd, 1842, and finally became Director-General in April, 1874. He served upon full pay for nearly forty years, of which twenty-four were passed upon foreign service, in the Mediterranean, Turkey, and Crimea, Mauritius, Bombay, Madras, China, North America, and Bengal. He landed with his regiment, the 33rd, at Old Fort, and continued in charge of it throughout the siege of Sebastopol, having been present at the Alma, Inkerman, sortie of Oct. 26th, and at the attacks on the Redan, and siege and fall of Sebastopol (medal and three clasps, Knight of the Legion of Honour and Turkish medal). In February, 1885, and again in September, he was specially recommended by Mr. Alexander, the principal medical officer of the Light Division, for promotion on account of the zealous and careful manner in which he performed his duty, both in Bulgaria during the ravages of cholera, and in the Crimea. With the exception of a few days' sickness on his first landing at Eupatoria, he never quitted his post. He was also recommended for advancement by Generals Simpson and Codrington. Dr. Muir subsequently proceeded with his regiment to Mauritius, and thence to Bombay, and served in the Indian Mutiny in 1857-58. He was selected as principal medical officer of the Expeditionary Force to China under Sir Hope Grant in 1860, and was mentioned in despatches (medal with two clasps and C.B.); and for the able manner in which he had conducted the medical duties of the Expedition he was specially promoted to the rank of Inspector-General.

In 1861 Dr. Muir was nominated to accompany the Expedition to North America in the *Trent* affair, and marched with the troops through Nova Scotia. He remained in North America upwards of five years. During the active operations of 1862-63 in the United States he paid several visits, as an amateur, to the army of the Potomac, and on May 14th, 1865, he proceeded, at the request of the British Government, to Washington, in view of reporting on the sanitary and field medical arrangements of the army. He visited all the principal hospitals, and the hospitals of the Confederate Army at Richmond, &c., and embodied the results in a very valuable report. He had the highest opinion of the American nation, of their energy, force of character, and fertility of resource, and always looked back upon his experience and upon the friendships he contracted in that country with the liveliest satisfaction

In 1868 he became principal medical officer of Her Majesty's British troops in Bengal, where he remained for upwards of four years, and was then selected as head of the Sanitary Branch of the Army Medical Department, London.

On the retirement of Sir Galbraith Logan, Sir William Muir was promoted to the post of Director-General for a term of seven years, from April 1st, 1874, which period was specially extended to May 6th, 1882.

On Dr. Muir's relinquishing his post in India for that of head of the sanitary branch of the War Office in this country, the Government of India expressed in very warm terms their appreciation of his services, and of the important assistance the Government had derived from his experience, advice, and practical suggestions. Lord Napier of Magdala also recorded his opinion of the very valuable character of Dr. Muir's services, and of the independence, honesty, and sound judgment he had always exhibited.

In 1868 Dr. Muir became honorary physician to the Queen, and in 1873 he was made a K.C.B., and awarded a good service pension in 1880.

There are two ways of speaking of the dead. One is the principle of "De mortuis nil nisi bonum;" the other and truer

> "Speak of me as I am; nothing extenuate,
> Nor set down aught in malice."

Sir William Muir would himself have shrunk from all exaggerated estimates of his ability and services. What was he, then? What did he seem to be to those who knew him well and who were honoured with his confidence and friendship? He was one of Nature's noblemen: he had an eminently handsome head, finely chiselled features expressive of intelligence and strength; he was large of heart and intellect, and there was nothing mean about him; he had great courage, independence of character, and directness of aim; he was not, like Admirable Byng, for example, a man of personal courage, but, where responsibility was concerned, calling for a council of war. With Sir William Muir the boldest was often the best policy, because it was the boldest. Once having pictured to himself the object to be attained, he never faltered. Through good report or evil report (and it was for years the latter) it was all the same; he could labour and wait, for he had that strength which comes partly of moral robustness of character, partly of intellectual conviction—qualities which characterised statesmen of a past age. United with this power, this self-reliance, there were great gentleness and naturalness, and these formed that personal charm which first attracted and then welded his friends to him. Of course he made enemies: no man of character and independence can do otherwise; but those who knew him best believed in him most. He did what he thought right, and no doubt estranged some of his friends by doing it; but he gave the public medical service the power of growth and development by an unflinching persistence in his policy. Most, if not all, have come to recognise that the usefulness of the Department has enormously increased with its increase of power. The indebtedness of the medical service to Sir William Muir is undoubted, and at his last public appearance at a departmental dinner he was evidently overcome by emotion at the ovation he received. No one could have held a more enviable position as a regimental officer than did the late Director-General in the earlier stages of his career. When he left the 42nd Highlanders, the commanding officer told him, to prevent disappointment, that he could not expect in another corps to have the same amount of influence; but in the 33rd Regiment he gradually won the respect and esteem of all, and his influence for good was universally acknowledged. Still, he always recognised that responsibility and power must go hand-in-hand, and he regarded the position of the medical service under the regimental system as inherently defective. What is best for the public service as a whole, he was never tired of proclaiming, is best for the medical service, and the only tenable ground for it to occupy. In everything appertaining to the sick and wounded soldier, to the hospital service and its administration, and to army hygiene, the medical officer should be supreme; and within the limits which were clearly defined and circumscribed by his sphere of duty, the medical officer should be endowed with authority in the interest of the soldier and the State. His experience had taught him that of all men the medical officer had the greatest sympathy with the private soldier; and that, next to the general in command, the principal medical officer of a force in the field had the greatest responsibility, but lacked the power to get his requirements fulfilled. What had been begun by his predecessors in the direction of the depart-

ment was consolidated and completed under his *régime*. He gave the medical service an autonomy. The Warrant of 1879, under the terms of which all army medical officers are serving at the present time, was unquestionably an enormous stride in advance of anything that had gone before it. If Sir William Muir erred, it was in favour of military efficiency, and in view of securing military success. Impressed with what he had seen of war on a vast scale in America and elsewhere, he had learnt the paramount importance of disencumbering a marching and fighting force of its sick and wounded and all unnecessary impedimenta, so as to leave the general free to make a rapid movement and inflict a prompt and decisive blow whenever and wherever this could be effected. By an irony of fate not at all uncommon in the world, the system was condemned by those in whose interest it was mainly designed. Still, he was right. When war comes upon this nation in earnest, and upon a scale compared with which our small campaigns will sink into insignificance, it will be seen that the provisions for such a war cannot keep pace with the requirements of a luxurious and selfish age.

Sir William Muir never lost sight of the true dignity of his calling; and, like all high-minded men, regarded the artificial glare reflected from military rank, dress, or titular distinction as nothing compared with the true light reflected from the scientific attainments of the members of a benevolent and dignified profession. Whatever may be the hankering of some after these things, progress and respect can only come from advancing knowledge and usefulness. All the public medical services have a common cause and a common calling, and are but a part of the great medical profession, the members of which have only to be true to themselves. Time will do the rest. What the late Sir William Muir accomplished will be regarded more and more highly as time goes on, because his work will go on developing, and the wounded in the field, the sick in our war hospitals, and those who have charge of them, will reap the benefit of his labours even after his name is forgotten.

JAMES MONCRIEFF ARNOTT, F.R.C.S., F.R.S.

MR. JAMES MONCRIEFF ARNOTT, whose death recently occurred at his residence in Sussex-gardens, Hyde-park, was born at Chapel, Fifeshire, in 1794. He was educated at the High School and University of Edinburgh, in this latter institution commencing those professional studies which he subsequently continued in London, Vienna, and Paris. Mr. Arnott was one of the founders of the medical school of the Middlesex Hospital fifty years ago, along with Sir Charles Bell, Dr. Copland, Dr. Leighton, Dr. (afterwards Sir Thomas) Watson, and others, and for many years acted as surgeon to the Middlesex Hospital and North London Hospital. He was afterwards successively selected to occupy the chairs of Surgery in King's College and University College. In 1840 Mr. Arnott was nominated one of the Council of the Royal College of Surgeons; he was elected a Fellow in 1843, and later on became a member of the Court of Examiners of that body, of which he had twice been elected to the presidency. In 1860 he was elected representative of the College in the General Council of Medical Education and Registration of the United Kingdom. Mr. Arnott held the appointment of surgeon in ordinary to the late Prince Consort. The subject of our notice was in every sense of the word a truly great man, conscious of his abilities to assume the highest responsibilities of his profession, and most conscientiously discharging those duties when undertaken. He belonged to the epoch of British surgery when the old traditions were being sent to the winds, and is best remembered in actual surgical work as having successfully performed a then difficult plastic operation for ruptured perineum. His writings consisted chiefly of contributions to the Transactions of the Royal Medical and Chirurgical Society.

JOSEPH BUNNY, M.D.

BY the death, on the 30th ult., of Dr. Joseph Bunny, Newbury has lost one of its oldest and most respected inhabitants. He received his medical education at Edinburgh, Guy's, and St. Thomas's, and in 1823 obtained the degree of M.D. at the University of Edinburgh, having previously, in 1820, become a Member of the Royal College of Surgeons of England, and a Licentiate of the Society of Apothecaries. He commenced the practice of his profession in Newbury, and in 1839 was elected borough coroner, an office which he held until 1873, when he resigned. Dr. Bunny was a Fellow of the Obstetrical and Medical Societies of London, a magistrate for the borough, and held several other offices connected with local charities. He was the first hon. surgeon to the Newbury Dispensary, established in 1835, and performed the duties for ten years, after which he was hon. consulting surgeon until the year 1877. For some years past his health had been such as to gradually induce him to seek release from his practice and to take a less active part in public matters. The deceased had attained the age of eighty-six years.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members, having passed the Final Examination for the Fellowship on May 28th, 29th, and 30th, and June 1st, were at a meeting of the Council on the 11th inst. admitted Fellows of the College:—

Barlow, John, Elmbank-crescent, Glasgow; Diploma of Membership dated Nov. 17th, 1874.
Penny, William J., Caledonia-place, Clifton, Bristol; Nov. 19th, 1879.
Galpin, George Luck, Great Marlborough-street; Nov. 18th, 1880.
Pedley, Frederick Newland, Finsbury-square; April 21st, 1881.
Bass, Frederick, Union-road, Jan. 18th, 1882.
Collier, Joseph, Manchester; July 17th, 1882.
Thring, Edward Thomas, Torrington-square; July 20th, 1882.
Voss, Francis Henry Vivian, Clapton-square; July 31st, 1882.
Worthington, Sidney, Pattensweir, Enfield; Nov. 16th, 1882.
Saneyoshi, Yashuzumi, St. Thomas's Hospital; Jan. 24th, 1883.
Pigeon, Henry Walter, Royal Infirmary, Manchester; Jan. 25th, 1883.
Wynter, Walter Essex, Templecombe, Twickenham; Jan. 26th, 1883.
Vogan, James Norman, Hatchlands, Redhill; April 18th, 1883.
Paget, Stephen, Grosvenor-street; July 23rd, 1883.
Steedman, J. Francis, High Ercall Hall, Wellington; Nov. 13th, 1883.
Muspratt, Charles Drummond, Nightingale-lane; July 30th, 1884.

Three other candidates passed the examination, but two not having attained the legal age (twenty-five), and one not possessing a medical qualification, will receive their diplomas at future meetings of the Council when qualified. Seven candidates failed to reach the required standard, and were referred to their professional studies for one year.

Mr. Edward Albert Schäfer, M.R.C.S., F.R.S., will commence a course of three lectures on "Secretion" on Monday, the 15th inst., at 4 o'clock.

SOCIETY OF APOTHECARIES.—The following gentleman passed his examination in the Science and Practice of Medicine, and received a certificate to practise, on the 4th inst.:—

Shaw, Wm. Wright, M.R.C.S., St. Bartholomew's Hospital.

The following gentlemen also on the same day passed the Primary Professional Examination:—

William Gilmore Ellis and Percy John Rendall, St. Bartholomew's Hospital; John Elliotson Pennington Sparrow, King's College.

THE Hull General Infirmary has received a bequest of £10,000.

THE second annual dinner of the Association of Public Sanitary Inspectors was held on the 6th inst.

DR. LEWIS A. STIMSON has been elected Professor of Anatomy in the University of the city of New York, to succeed the late Professor Darling.

THE epidemic of small-pox at Burslem is reported to be spreading; nearly forty persons are suffering from the disease, and several deaths have occurred.

ACCORDING to the *Calcutta Englishman*, Dr. Fraser has been shot in Borneo during an attack made by natives upon the expedition of which he was a member.

SUPERANNUATION ALLOWANCE.—Mr. G. Macdonogh, late medical officer for the Clapham district, has received a superannuation allowance of £80 a year.

AT the College of Surgeons on Tuesday evening last, a private conversazione was given by the President, Mr. Cooper Forster. About 1200 guests were present.

VACCINATION OFFICERS ASSOCIATION.—At the next meeting of members of this Association, to be held on June 20th, at 2.30 P.M., at the Charing-cross Hospital Medical School, Chandos-street, Dr. Robert Cory will read a paper on "Some Medical Facts relating to Vaccination, of which it is desirable Vaccination Officers should have more extended Knowledge." Remarks will also be made on "Duties devolving on Vaccination Officers during Epidemics of Small-pox."

ROYAL SOCIETY.—Sir Andrew Clark, M.D., Henry Hicks, M.D., Arthur Milnes Marshall, M.D., and Professor Sydney Ringer have been elected Fellows of the Royal Society.

SIR WATKIN WILLIAMS WYNN, Bart., M.P., has expressed his intention of erecting a cottage hospital at Ruabon, North Wales, to the memory of his uncle, the late baronet.

THE French Association for the Advancement of the Sciences will hold its fourteenth session at Grenoble from the 13th to the 20th of August, under the presidency of M. Verneuil.

ST. ANDREWS GRADUATES' ASSOCIATION. — The members of this Association will hold a conversazione on Wednesday evening next at the rooms in Chandos-street, Cavendish-square.

MIDDLESEX HOSPITAL STUDENTS' SOCIETY. — The members of this Society will hold a conversazione on the 25th inst., when Dr. B. W. Richardson, F.R.S., has consented to deliver an address on "Medical Poets."

THE VOLUNTEER MEDICAL STAFF CORPS.—By the permission of the Lord Mayor, a meeting will take place at the Mansion House on June 19th, at 3 P.M., with the object of furthering the interests of the Volunteer Medical Staff Corps.

HYDROPHOBIA.—On the 8th inst. two cases of hydrophobia were reported in Manchester, a man and woman having died of the disease at the infirmary. On the 7th inst. in Dublin twenty-one persons were bitten by two rabid dogs.

HANDEL BICENTENARY FESTIVAL.—This festival will be held at the Crystal Palace on the 19th, 22nd, 24th, and 26th inst. The rehearsal takes place on the first day, a performance of "The Messiah" on the second, selections on the third, and "Israel in Egypt" on the fourth.

UNIVERSITY OF OXFORD.—At a congregation held on the 4th inst. the degree of M.D. was conferred on E. Daly (University) and E. Jenkins (Trinity). Convocation has passed a decree conferring the degree of M.A. upon Arthur Thompson, M.R.C.S., Lecturer in Human Anatomy in the University Museum.

SANITARY INSTITUTE OF GREAT BRITAIN.—At an examination held on June 4th and 5th, twenty-five candidates presented themselves, nine as local surveyors and sixteen as inspectors. Certificates of competency were awarded to three candidates of the former class and to fourteen of the latter.

THE thirtieth annual festival of the Poplar Hospital for Accidents was held on the 10th inst., when it was stated that the number of in-patients admitted to the hospital during the past year was 612, the number of out-patients treated being 7289. During the evening subscriptions amounting to £1450 were announced.

SOCIETY FOR THE STUDY AND CURE OF INEBRIETY.—A meeting of this Society was held on Tuesday last at the rooms of the Medical Society, the President, Dr. Norman Kerr, in the chair. A paper was read by Dr. J. Muir Howie (Liverpool) on "The Treatment of Inebriety." The physical aspect of the disease in dipsomania was specially treated of. A discussion followed, in which Sir Edwin Saunders, Dr. Bridgwater, Dr. Longhurst, Mr. F. J. Gray, and Mr. H. R. Ker took part.

AT the St. Pancras Coroner's Court on the 8th inst., inquests were held on the bodies of four persons, and at the close of the inquiries the foreman of the jury entered a protest on behalf of himself and fellow-jurors against the disgraceful mortuary accommodation, or rather want of accommodation, in St. Pancras. A rider was appended to each of the verdicts, declaring that the present dangerous and unhealthy state of the mortuary, and the want of proper accommodation for the holding of inquests, showed that the St. Pancras Vestry had no consideration for the living and a total disregard of the dead.

THE ROYAL ACADEMY OF MEDICINE OF BELGIUM.—The following subjects have been selected for theses, and to the writer of the most meritorious essay on each a prize will be presented by this institution:—1. The determination by new experiments and applications the degree to which spectral analysis may be realised in the researches of forensic medicine and the medical police. 2. The experimental determination of the influence which desiccation exerts when employed as a means of conserving the simple vegetable medicaments. 3. The physiological effect of sanguineous depletion, either local or general; its indications and contraindications in the treatment of disease. 4. Description and critical review of the different methods of surgical dressing and of the antiseptic treatment of wounds and surgical affections. 5. The study of erysipelas, *charbonneux* or *rouget*, of swine, as relating to its causes, manifestations, lesions, prophylaxis, and treatment, and to establishing eventually its relations with carbuncular or bacterian diseases.

CITY-ROAD CHEST HOSPITAL.—On the 5th inst. a meeting was held at the Mansion House in aid of the fund for completing the new wing now being added to this institution. Last year as many as 7439 patients were admitted, and the numbers are constantly increasing. The special feature of the hospital is that beds are kept for the reception of persons presenting themselves for relief as out-patients who are suffering from acute and dangerous diseases of the chest of recent origin, and who cannot be properly treated unless immediately received as in-patients. The total income last year was £4424. For completing the extension the sum of £5000 is still needed.

ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.—The following office-bearers have been elected for the ensuing year:—Committee: the Presidents of the Colleges of Physicians and Surgeons, E. Adrien, L. Atthill, J. T. Banks, J. Hawtrey Benson, E. Bennett, D. Brady, E. Brunker, Henry G. Croly, B. G. Darley, J. Denham, G. F. Duffey, J. F. Duncan, T. Fitzpatrick, S. Gordon, T. Grimshaw, J. Harvey, A. H. Jacob, H. Kennedy, G. H. Kidd, J. Little, J. M'Donnell, R. M'Donnell, W. J. Martin, E. D. Mapother, A. H. Marks, William Moore, G. Morrogh, J. F. Pollock, Sir G. H. Porter, P. C. Smyly, W. Stokes, R. Tagert, J. Tufnell, J. H. Wharton. Trustees: J. F. Duncan, John M'Donnell, J. H. Wharton. Hon. Treasurer: W. Thomson. Hon. Secretaries: J. M. Finny and J. W. Moore. Hon. Secretary for India and the Colonies: Henry King. Acting Secretary: A. H. Benson.

THE LOWER THAMES VALLEY MAIN SEWERAGE BILL. By the new Bill, which dissolves the Lower Thames Valley Main Sewerage Board and constitutes a new united district for the disposal of the sewage of the Lower Thames Valley Main Sewerage District, it is proposed that the district of the Joint Board shall be subdivided, so that Richmond and the parishes constituting the Richmond Rural Sanitary Authority (Richmond Union, Barnes, Kew, Mortlake, and Petersham) shall be combined as one district; that Kingston-Surbiton District and the district of New Malden shall be constituted as another authority under the name of the Kingston District; and that the Local Government Districts of East Molesey, Hampton Wick, Ham-common, and Teddington, and the Kingston Union, shall be formed into a third district. Power is given to each of the newly constituted authorities to make due provision for the disposal of the sewage of its district, failure to make such provision within two years from the passing of the Act to render the authority liable to be declared in default.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BANHAM, HENRY FRENCH, M.A., M.D.Cantab., L.S.A.Lond., has been appointed Senior Physician to the Royal Berkshire Hospital, vice Wells, deceased.

BLUMER, F. MILNES, B.A.Dunelm, M.B., C.M.Ed., has been appointed House-Surgeon to the Staffordshire General Infirmary, vice William Edward Rawson, M.R.C.S., resigned.

BURBIDGE, JOHN WALTER, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Eastham District of the Wirral Union, vice Wykes.

CANNY, DENIS JOSEPH, L.R.C.P.Ed., M.R.C.S., has been appointed Government Medical Officer and Public Vaccinator for the District of Port Stephens, New South Wales.

CHISHOLM, JOHN MERRITT, M.D., C.M.Ed., M.R.C.S., has been appointed Medical Officer for the Woolton District of the Prescot Union, vice Wood.

COLLINS, JOHN SHEILL, M.D.Q.U.I., M.R.C.S., has been appointed Assistant House-Surgeon to the Hull Royal Infirmary, vice H. C. Chambers, L.R.C.P., M.R.C.S., resigned.

DAVIS, HENRY, M.R.C.S., L.S.A.Lond., has been appointed Second Chloroformist to the Middlesex Hospital.

EMBREY, Mr. GEORGE, has been appointed Public Analyst for the County of Gloucester.

HARRISON, J. W., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Sandwich and Ash Districts, vice Horne.

HOUSEMAN, JAMES GILPIN, M.B., has been appointed Honorary Physician to the Newcastle-on-Tyne Sick Children's Hospital, vice David Drummond, M.D., resigned.

JACK, ROBERT NILSON, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Health Officer for Stawell, Victoria.

KERR, ELIAS WM., M.B., M.Ch.T.C.D., has been appointed Medical Officer for the Eastern District and the Workhouse of the Cerne Union, vice McEnery.

LACEY, THOMAS SAMUEL, L.R.C.S.I. & L.M., L.R.C.P.Ed., has been appointed Medical Officer for the Royton and Thornham District of the Oldham Union.

MACDONALD, HUGH, M.D., M.Ch.Glas., has been appointed Government Health Officer and Surgeon to the Gaol, Lyttleton, New Zealand.

MORRISON, W., M.A., M.D. & C.M.Glas., has been appointed Resident Surgeon to Ballarat District Hospital, Victoria, Australia.

SMITH, HENRY STRODE, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Eighth District of the Axbridge Union, vice Tarleton.

WATSON, THOMAS ALFRED, M.B., C.M.Ed., has been appointed Assistant House-Surgeon to the South Dispensary, Liverpool.

Births, Marriages, and Deaths.

BIRTHS.

BARBER.—On the 4th inst., at Clapham, S.W., the wife of H. Vaughan Barber, M.A., L.R.C.P.Lond., of Stuart-road, High Wycombe, of a daughter.

BOTT.—On the 3rd inst., at Brentford, the wife of Henry Bott, L.R.C.P., of a son.

BROWN.—On the 1st inst., at Ainslie-place, Edinburgh, the wife of J. Graham Brown, M.D., F.R.C.P.E., of a son.

CANE.—On the 3rd inst., at The Mansion House, Peterborough, the wife of Leonard Cane, M.D., B.S., of a son.

CHIPPERFIELD.—On the 6th inst., at Bloxham, Oxon., the wife of T. J. B. Pearse Chipperfield, L.R.C.P., M.R.C.S. (prematurely), of twin sons.

CREED.—On the 31st ult., at Rathkeale House, Girdler's-road, West Kensington-park, the wife of Charles Philip Creed, M.R.C.S., L.R.C.P.Ed., of a son.

DOUGLAS.—On the 30th ult., at New-walk, Leicester, the wife of Claude Douglas, M.R.C.S., of a daughter.

FRASER.—On the 4th inst., at Western Lodge, Romford, Essex, the wife of James Alexander Fraser, M.R.C.S., L.R.C.P., of a daughter.

LORD.—On the 1st inst., at Wilton House, Landport-terrace, Southsea, the wife of Frederick Lord, L.R.C.P., L.R.C.S.Ed., of a daughter.

ROSS.—On the 3rd inst., at Macquarie-street, Sydney, New South Wales, the wife of E. Fairfax Ross, M.D., of a son.

SANKEY.—On the 1st inst., at Boreatton-park, Salop, the wife of Arthur O. Sankey, of a son.

MARRIAGES.

DOWN—JONES.—On the 4th inst., at St. John's, Chelsea, Hubert Vincent, second son of George Down, M.D., of Holmhurst, St. John's-hill, S.W., late of South Kensington and Montague-place, W.C., to Margaret, only daughter of the late Benjamin Jones, Esq., of Britannia-road, Fulham.

EVANS—WRIGHT.—On the 3rd inst., at S. Mary's, Lower Merton, Surrey, by the Rev. J. C. Erck, Frederick William, M.D., M.R.C.S., &c., eldest surviving son of the late Alderman Thomas Evans, of Cardiff, Surgeon, to Henrietta Clarissa, youngest daughter of the late Richard Wright, Esq.

PHILLIPS—GOETZ.—On the 3rd inst., at All Saints', Margaret-street, John Phillips, B.A., M.D. (Cantab.), M.R.C.P., of Harley-street, eldest son of the late L. Phillips, of Birchmoor, near Bedford, to Jessie, eldest daughter of the late E. L. Goetz, of Gloucester-gardens, Hyde-park.

STABLES—DRURY.—On the 2nd inst., at Rathgar, Dublin, Walter Williams Godfrey Stables, M.R.C.S., of Heckington, Lincolnshire, eldest son of the late Walter Williams Stables, of Crosland Hall, Huddersfield, Jun., Esq., to Isabella Mary, youngest daughter of the late Thomas Drury, of Dartry, Upper Rathmines, County Dublin, J.P.

WALKER—LESTER.—On the 9th inst., at St. Matthias, Earl's-court, S.W., by the Rev. Henry Westall, of St. Cuthbert's, South Kensington, Charles Edward Walker, M.B., M.R.C.S., of Hurworth-on-Tees, Darlington, second son of W. H. Walker, M.D., Aldbro', Darlington, to Annette Curtis, youngest daughter of the late Rev. J. W. Lester, D.D., Vicar of Lower Norwood, Surrey. No cards.

DEATHS.

FISHER.—On the 7th inst., suddenly, at Haselly Manor, near Warwick, Thomas Fisher, M.D., of Stone House, near Wigan, aged 81.

LING.—On the 1st inst., at The Beeches, Saxmundham, Suffolk, John Mitford Ling, M.R.C.S., L.S.A.Lond., aged 75.

LIVINGSTON.—On the 10th inst., suddenly, at his residence, High Barnet, John Livingston, M.D., aged 45.

STUART.—On the 1st ult., at Fraserburg, Cape of Good Hope, of typhoid fever, Donald Stuart, M.B., C.M.Aberd., late of Kenmay, Aberdeenshire, N.B., aged 31 years and 11 months. Deeply regretted.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, June 11th, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
June 5	29·82	S.W.	75	65	123	83	65	...	Hazy
,, 6	30·00	W.	60	60	109	73	59	·29	Raining
,, 7	29·82	S.W.	62	59	121	75	58	·24	Cloudy
,, 8	29·73	N.E.	60	60	...	63	69	·17	Raining
,, 9	29·97	N.	52	52	85	63	52	·74	Raining
,, 10	30·35	E.	56	51	105	64	51	·03	Cloudy
,, 11	30·39	E.	54	47	98	64	45	...	Bright

Medical Diary for the ensuing Week.

Monday, June 15.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Mr. A. E. Schafer: Secretion.

Tuesday, June 16.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Wednesday, June 17.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department: 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Mr. A. E. Schafer: Secretion.

ROYAL METEOROLOGICAL SOCIETY.—7 P.M. Dr. William Marcet: Meteorological Observations made on a Trip up the Nile, February and March, 1885.—Dr. H. H. Hildebrandsson: The Mean Direction of Cirrus Clouds over Europe.—Dr. A. Woeikoff: On the Influence of Accumulations of Snow on Climate.—Mr. Charles Harding: Note on the Weather of January, 1881.—Lieut. Alexander Leeper: Results of Meteorological Observations made in the Solomon Group, 1882–84.—Mr. David Cunningham: Graphic Hygrometrical Tables.

Thursday, June 18.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Friday, June 19.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Mr. A. E. Schafer: Secretion.

Saturday, June 20.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

A DUTCH ACCOUNT OF HOTTENTOT PATHOLOGY.

A DUTCH practitioner who has lived for twenty years in South Africa sends to an Amsterdam medical journal some particulars of native customs and beliefs. The uterus is supposed to have a great tendency after parturition to fly upwards, and consequently after the second stage of labour the funis is carefully tied to one of the woman's great toes, so as to prevent the placenta from slipping away, and as soon as the third stage is completed she is tightly bound with a cloth or a cord at the level of the umbilicus, for if not the restless uterus would ascend into the breast. After the birth of a stillborn child nothing can prevent the womb from betaking itself into different regions and then performing unpleasant and painful gyrations. The writer mentions an old native woman who came to him with a scirrhus of the mamma. She complained of occasional pain in the abdomen, but was not seriously concerned about it, for, said she, "I know what that is; it is the womb going round; have I not had a stillborn child? From that time there can be no rest for the womb; he [the womb] keeps springing round and round, not always, but at times, perhaps for three months, and then for a fortnight he is still. Sometimes he sits here [indicating the spleen]; sometimes here [touching the right breast]; sometimes he sits behind my shoulder-bone, and then he burns like a coal of fire." The uterus has to answer in the native mind for most of the ills to which female flesh is heir; has she a colic, sickness, or any abdominal trouble, it is always the old story—"the womb is going round." When listening to a gesticulating patient describing her malady and enunciating her diagnosis of the cause, it is frequently somewhat difficult for a medical man to keep his countenance. It is utterly useless for him to attempt to reason with the woman or explain to her the absurdity of the position she has taken up. She will only doubt his skill, and scornfully reply: "Doctor must not say it is not so, for I know that it is." Amongst the natives the new-born babe is treated to a purifying draught of the father's freshly passed urine. The whites, some of whom are nearly as ignorant and superstitious as the natives, employ a quack "wonder-essence" as a substitute.

Surgeon, V.A.—1. The regulations for the reserve forces provide for only two grades of medical officers of volunteers—acting surgeon and surgeon. If our correspondent has completed twelve years' service as surgeon, he might apply to the Secretary of State for War, through his commanding officer, for promotion to the rank of surgeon-major, as it is granted to militia surgeons.—2. The relative rank of acting surgeon of volunteers is lieutenant, and that of surgeon is captain.

E. (P——th) is referred to a general notice at the head of this column.

CARE OF EPILEPTICS.

To the Editor of THE LANCET.

SIR,—The parents of a lad subject to epileptic fits followed by unconllable outbursts of temper are most anxious to get him admitted into ne institution where he will be well cared for and medically treated, he is getting beyond their control. Some of your numerous corpondents would confer a favour by affording such information as will ure the object desired. I am, Sir, yours faithfully.

June 8th, 1885. M. G. E.

DIPHTHERIA.

To the Editor of THE LANCET.

SIR,—May I ask through the medium of your columns for particulars the latest and most successful treatment for diphtheria. Perhaps ne brother practitioner will be able to suggest a line of treatment more sfactory in its results than any known to Yours truly,

une 8th, 1885. L.S.A.

MEDICAL MISSION WORK IN CHINA.

FROM the report for 1884 of the Hang Chow Medical Mission in connexion with the Church Missionary Society, it appears that the total number of out-patients attended during the year was 2920, and of in-patients 235, patients visited at their homes bringing up the total of those who were relieved by the mission to 4707. Anæmia, as in the case of the Chin-Chew Hospital, the work of which was noticed in a recent issue, formed a large percentage of the cases coming under treatment. It is especially common amongst women, and is easily accounted for by the following causes: marrying too young, hæmorrhagic losses during confinement, suckling their children for three and four years, and their cramped feet, which prevent them taking proper and sufficient exercise. Diseases of the skin and digestive system and malarious fever also each contribute a large percentage of patients. A new hospital, comprising a refuge for opium smokers, which was its *raison d'être* when commenced some thirteen months ago, and a medical school are almost completed, and will, it is expected, be opened in a few months.

Dr. Whitelegge.—The statement is corrected in another column.

Mr. S. Johns.—The Preliminary is indispensable.

Mr. G. E. Walker.—Next week.

THE RISK OF SMALL-POX.

To the Editor of THE LANCET.

SIR,—The following two cases of small-pox have been selected from nearly fifty which occurred during an epidemic about thirty-five years ago in a parish in Essex comprising a population of about 1500.

Two cases presented themselves simultaneously in opposite parts of the parish. Having obtained authority from the Board of Guardians for a general revaccination, I lost as little time as possible in commencing my defensive operations. I began, of course, with the families connected with the patients; but, as in those days no lymph-bearing calves were in existence, and the Privy Council had not come forward as protectionists, some considerable time elapsed before obtaining a sufficient supply of lymph, which was then supplied either on points or glasses. That delay gave the enemy a considerable advantage, hence the large number of cases. In the course of about two months I had operated on more than 1000 persons, not a single one of whom was subsequently attacked by the disease, although I had no means whatever for isolation.

1. Thomas H—— occupied a cottage which formed part of a "row" in which occurred a case of confluent small-pox of a malignant character. I at once vaccinated and revaccinated every person in the row except T. H——, who could be neither persuaded nor compelled to submit to the operation, in which he "had no faith." I did, however, insist upon vaccinating every other member of the family, which was a large one. His neighbour died, and he, by way of daring, assisted at the funeral. Within ten days he required the like service from others, and he was the only one in the row attacked.

2. John H—— lived in a hamlet in which seve ral cases occurred, about two miles from my residence. I at once put them under a state of siege by vaccinating every person except J. H——, whose avocation as an ash-gatherer took him much from home. I met him, however, several times, and he always declared his intention of "coming to be cut." Unfortunately for him and myself, he never did come. He, too, had a very severe attack. Early in the morning of the third day, whilst his wife was dozing after her night's vigil, he escaped in his nightshirt and ran to the village, two miles distant. The ground was covered with snow. When summoned I found him crouching in the corner of a coal-hole which he had been in the habit of emptying, shaking with cold and fear, and declaring that the bleeding was caused by people shooting at him. I procured for him some hot brandy-and-water, whilst a tumbril was being prepared with straw and blankets, in which I sent him home, having first provided a strait jacket, which I had shown a man in attendance how to apply when the patient had been placed in bed. Late that evening I was again summoned to the hamlet, as the patient had "broken loose." On my arrival I found two men holding him down. Discovering that the jacket had not been properly applied, I reversed it, and, having secured him to the bedstead, left him in the charge of the two men. After a month or so he was convalescent, and is now alive. His face is deeply pitted, but in no other respect is he the worse.

Now, when it is considered that all the above number of cases had been nursed by the wives or mothers, who had uninterrupted intercourse with their respective families; that they occupied cottages with no more than two bedrooms; and that after the first three weeks of the outbreak in no single instance did more than one case exist in a house—when all these circumstances are considered, I do affirm that should any person still doubt that vaccination is a sure and certain protection against small-pox, such person is entitled to no sympathy should he ever suffer the penalty which his blindness or obstinacy is sooner or later likely to inflict upon him.—Your obedient servant,

London, May 12th, 1885. WILLIAM B. OWEN.

A PLAGUE OF FLIES.

To the Editor of THE LANCET.

SIR,—Can any of your readers suggest the best method of ridding a house of flies? At the house I live in they are a regular pest, swarming in thousands. I am, Sir, yours faithfully,

June 11th 1885. VEXATION.

SMOKING IN ASTHMA.

IN Henry Taylor's autobiography (Longmans, 1885, vol. ii., p. 153) occurs the following passage:—"The spasmodic form of disease has never returned. The cigarette which brought it to such a sudden end was made of a mild tobacco in paper slightly impregnated with saltpetre; not so manufactured with any medicinal view, but merely to make it burn better. It happened to be at hand when I was advised to try smoking tobacco; and it was this particular combination which saved me, for neither saltpetre nor tobacco pure and simple, or in other proportions, was of much use."

Mr. J. C. Richardson.—There can be no doubt that a medical man called to assist a midwife is entitled to a fee independent of the midwife's fee.

DOES COCAINE AFFECT DEEP-SEATED PARTS?

To the Editor of THE LANCET.

SIR,—In reply to Mr. Jackman's queries in your last issue I think that if a solution of cocaine of sufficient strength be applied for a long enough time, it will be found that the sensibility of the iris is reduced to zero. As I pointed out in a former communication, when solutions of atropine, eserine, or cocaine are applied to the surface of the conjunctiva, they percolate through the cornea, and come into actual contact with the iris, and the extent of their influence upon that membrane depends upon the strength of the solution, the frequency of the instillation, and the time that has been allowed to elapse from the date of the first application; thus the aqueous humour of a cocainised eye will produce anæsthesia of its fellow if applied to it. In one case in which I tried this experiment I was surprised to find the pupil contract under the influence of aqueous humour, which, so far as I knew, contained only a mydriatic—a circumstance that was explained by the fact, subsequently ascertained, that the patient had been using a solution of eserine prescribed elsewhere. There is undoubtedly a considerable difference in patients; in fact, I had one who behaved exactly in the manner described by your correspondent; but my experience after forty-one extractions for cataract under cocaine, and numerous other operations, is that the effect, on the whole, even so far as the iris is concerned, is very satisfactory. I questioned a patient on this point on whom I performed iridectomy. I said, "Did you feel any pain?" His reply was, "Well, not to say pain." "Did you feel anything?" "Well, I felt you were doing something, but the eye was numb." In very nervous patients it is well to apply the solution after section of the cornea, and to wait a few minutes before excising the iris; this brings the anæsthetic as thoroughly into contact with the iris as with the cornea, and there can be no doubt as to the result; or the iris may be excised with the knife in passing it across the chamber, a method I frequently practised before the introduction of cocaine when operating for cataract, as I constantly did without any general anæsthetic. I did not, however, find it necessary to do this, or to apply the cocaine after incising the cornea, when I operated upon Mr. Copeland. The solution employed in that case was one of 6 per cent., instilled every five minutes for half an hour.

I am, Sir, your obedient servant,

CHARLES BELL TAYLOR, M.D., F.R.C.S.,
Surgeon to the Nottingham and Midland Eye Infirmary.

June 8th, 1885.

R. D. H.—There would seem to be no course open to our correspondent but to put pressure on the Local Government Board.

Mr. H. W. Freeman's paper is marked for insertion.

Mr. L. Wies.—We do not prescribe.

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The Cavendish Lecture

ON

HYSTERIA AND ITS COUNTERFEIT PRESENTMENTS.

Delivered before the West London Medico-Chirurgical Society, on Friday, June 5th, 1885,

BY J. S. BRISTOWE, M.D., LL.D., F.R.S.

(*Concluded from p. 1072.*)

2. I PASS on to another group of cases. Hettie R——, a girl, fourteen years of age, came under my care about three years ago. Shortly before that she lost her father, and her brother died in a fit. These losses affected her deeply, and she was attacked with violent spasmodic jerkings of the muscles of the right arm and leg, and of the same side of the body, and with right hemianæsthesia. She remained in the hospital for some few weeks, and left it well, having been cured (it was thought) by the daily application of the faradaic current along the spine. She continued well until four-and-twenty hours before her admission for the second time into St. Thomas's Hospital on April 14th of this year. She was now seventeen. She went out to service a week previously; found the work hard and her mistress exacting; and was attacked with a kind of fit, followed by similar jerking movements to those which she had suffered from on the first occasion. She was a healthy-looking, well-conducted, sensible girl. She had violent rhythmical spasmodic movements of the arms and legs, neck and trunk. These were most marked on the right side, and did not involve the muscles of expression or the tongue. They ceased during sleep. She had anæsthesia on the right side of the body, with impairment of smell and taste, and colour-blindness in the corresponding eye. There was slight tenderness in the ovarian regions, but chiefly in the right. Within a day or two the movements on the left side of the body subsided; but those on the right were more persistent, and though they practically ceased after a few days under the renewed use of faradaism (which she begged might be employed), there were slight and trivial recurrences from time to time. Her sensory phenomena varied. At the end of a few days the right-sided anæsthesia became replaced by hyperæsthesia; a little later the anæsthesia appeared on the left side of the body; then she presented universal analgesia, and shortly afterwards the analgesia was limited to the lower extremities. It may be noticed, that during all the variations of distribution of disturbances of ordinary sensation, colour-blindness persisted in the right eye and involved that eye alone; and that during at any rate part of the time in which she was suffering from general analgesia there was general loss of feeling in the lips, gums, tongue, and inside of the mouth, with notable impairment of taste and smell. During her stay in the hospital she had several fits, lasting from a few minutes to half an hour. These began with general tremors, passing into convulsive movements of a violent kind (associated with general rigidity), and were attended during the latter part of their duration by voluble, somewhat incoherent talk, which related largely to recent events and to persons she had seen, and in which she made statements as to her relations which she would certainly not have made in her proper senses. She appeared therefore to be conscious, but she had no recollection whatever after the fits of anything that had occurred during their continuance. It may be added that the fits were sometimes preceded by globus and followed by headache, and were unattended with biting of tongue or discharge of evacuations. But lividity of surface was observed once or twice at the early period of an attack, and in one (during which the temperature was taken) this reached 100·4°. In the rigidity above referred to the back became arched, the arms extended horizontally, and the lower extremities straight, the feet being extended at the ankle-joints, and the toes flexed. The teeth were clenched. The right leg remained rigid for some hours after each attack. In this leg also at this time were observed increase of tendon reflexes and ankle-clonus. The last remaining hysterical phenomena were colour-blindness and a hitch in the action of the right leg in walking. She is now well.

There can be no doubt that this girl has been suffering from hysteria. The emotional origin of the attacks, the shifting sensory disturbances, the rhythmical muscular contractions, the fits, the ovarian tenderness, collectively establish the truth of this diagnosis. But it is worth while to observe that there was nothing in the manner or conduct or mental state of the girl to suggest hysteria. She was bright and sensible; she had a healthy appreciation of the ludicrous, and could join in the laugh which some of her performances excited, and especially was most anxious to be cured. Indeed, as has already been stated, it was at her own request that faradaism was applied; because, although the pain was dreaded by her, she had a vivid belief that she had been cured by it before. It is interesting to note that one of her fits came on at night, during sleep.

My special object in quoting this case is to call attention to the mental condition of hysterical patients in connexion with the convulsive attacks to which they are liable. It had generally been taught that hysterical fits were fundamentally different from epileptic fits, and that there could seldom or never be any real difficulty for a well-informed medical man to distinguish the one form of seizure from the other. It has latterly, however, been admitted that in certain aggravated forms of hysteria fits occur which partake of the special features of the paroxysmal attacks of both affections; and the term "hystero-epilepsy" has been invented to meet the requirements of the case. The classical descriptions of epileptic fits and of hysterical fits are founded on fact; their accuracy is confirmed every day; and it will be admitted that a typical epileptic fit and a typical hysterical fit stand in essential and striking contrast with one another. But it is rather by their collective phenomena than by any one distinctive feature that they must be discriminated. Even the sudden attack of profound unconsciousness which so commonly and characteristically marks the onset of the epileptic seizure, and has been largely regarded as the test and proof of epilepsy, may be present, I think, in affections which have no true claim to be regarded as epileptic; and may certainly be absent from fits whose epileptic nature is unquestionable. Another remarkable feature of epilepsy is the tendency which many epileptics have (sometimes previous to a convulsive seizure, sometimes in place of a fit, but more commonly in immediate succession to a fit, or rather perhaps as the later stage of it) to pass into a dreamy condition of shorter or longer duration; in which the mind is possessed, in one case, by wild frenzy, in another case by apparently a calculating and calm resolve to carry out some atrocious design; in which, in another case, the patient simply acts absurdly or incongruously, or even comports himself much as he would do in health; in which the motor functions obey the mental impulses as in the normal state; but on recovery from which the patient has either no recollection whatever of what happened during his period of mental aberration, or merely that kind of recollection which one has of a dream.

About two years ago a servant girl, seventeen years of age, came under my care. For two years she had suffered from headaches. At first they came on at long intervals, and lasted continuously for a week or two at a time. Latterly they had become more frequent and more severe, and attended with drowsiness, which made it difficult for her to perform her ordinary duties. On Easter Monday one of her attacks came on, and it continued until the following Friday, on the afternoon of which day she left her mistress's house to visit her mother, who lived four miles and a half away. She had often traversed the road before, and knew it perfectly; but, suffering still from headache, she got confused, and lost her way. She did not reach her destination till 10 o'clock P.M. on Saturday night, when she recollects sitting down upon her mother's doorstep, where she became unconscious, and remained so until aroused by some neighbour who recognised her. She retained a vague recollection of wandering about these many hours, and of occasionally asking her way of passers-by. What was her condition during all this time? Was she in an epileptic trance, or was her condition a phase of hysteria? There was no history of her ever having had a fit of any kind. She was healthy-looking and free from paralysis. But she was peculiarly slow in her speech and movements. She had spots of hyperæsthesia just above both clavicles and under both mammæ; and the right ovarian region was tender. More-

over, she had marked analgesia of both arms. During her stay in the hospital she suffered much from headache, but improved in this and other respects; the analgesia left the right arm; and the left became both analgesic and anæsthetic. There was still anæsthesia of the forearms when she left the hospital. I may add that careful inquiries were made, and left no doubt that the story the girl gave of herself was true. Collateral facts prove, I think, that the girl was hysterical, and render it pretty certain that her temporary mental confusion or obliviousness was also hysterical. But what she did is not unlike what epileptics do; of which I will quote a recent example.

A young man, a jeweller, twenty-two years old, had had fits for two years past. The first occurred just after getting out of the train on arriving at London Bridge. He came to himself nine hours and a half later, when he found himself in a cab near his own home in the suburbs of London. On getting out of the cab he was going to pay the driver, but was told that payment had already been made; and he found later that the fare had been taken out of his own purse. Another fit occurred a month ago. He was in Berwick-street, felt giddy, ran on a little way, and fell. He recollects nothing more until he found himself walking somewhere near the Great Northern Railway Station, a part of London in which he had no business. The last fit occurred near the Blind Asylum at St. George's-circus. He cannot recall the beginning of the fit, and recollects nothing until he awoke to consciousness some hours later, and found himself still walking somewhere about the circus. Now here, no doubt, the condition was epileptic, and the loss of consciousness, or rather the forgetfulness of what occurred to him during the attack, was complete. There is no evidence as to what he did during the periods which were a blank to him; though on one occasion it seems pretty clear that he must have appeared so far helpless as to justify his being taken care of. But on two other occasions at least, and in one of them for a period of some hours, his behaviour must have been such as not to attract any special attention. He probably acted like the girl, and as one knows epileptics are liable to act.

In the case of Hettie R——, the periods of mental aberration which followed her fits, in which she appeared to be conscious of what was going on around her, and talked incoherently, were a blank when she came to herself. She declared, and I believe, that she had no recollection whatever of anything that happened during their continuance. One of the most remarkable examples of this kind of phenomenon in an hysterical case that I know of was published by me in the *British Medical Journal* six years ago. The case is a voluminous one, and, indeed, is still in progress; but I will quote briefly so much of it as relates to the subject I am considering. The patient was a young lady whose hysterical symptoms commenced in the year 1873. They presented many variations during the next few years. She had cataleptic attacks, in which she became plastic, and in which her arms and legs could be bent into various attitudes, wherein they would remain indefinitely; and she had violent convulsions, alternating with a strange mental condition, which, after a few months, became established, and then continued for two years without change. During this period she could move her limbs freely, and, indeed, seemed to have much muscular power, yet was unable to rise from her bed, or even to feed herself without assistance. The least exertion was usually followed by an attack of profound syncope. She could feel, but there was total insensibility to pain, and she was absolutely deaf. On the other hand, she was closely observant of all that was going on round her; was voluble in her talk, her vocabulary being peculiar; would often sing; would never take food from anyone of her immediate friends or relatives; and was vindictive, biting if she had the opportunity, and concealing sticks or knives under her pillow, and striking anyone with them if she had the chance. For a long time her doctor was the only person she cared to see, or would obey; as soon as she caught sight of him, she would tremble with pleasure and eagerness, hold out her arms to him, catch hold of his hand, and fondle it in hers, and begin to talk volubly. She would first say, "Paws," which meant "shake hands"; and if he failed to respond she would become sullen, cry, and refuse food until he did; then she would say she had a lot to tell him, and would recount all that had occurred since his last visit. His visits, which were for the purpose of feeding her, were made three or four times a day. During the whole of this time she had a strong antipathy to her father and mother and other relatives, and did not even seem to recognise them for whom they were. She knew them, however, from one another, and gave them names. One sister she called "Dog," another sister "Fox," her mother was "that one," and her aunt was "the other one." I do not think that her father had a name, but she disliked him more than all the rest: and for a long time, as her fits were disappearing (for she remained liable to them), his presence alone caused them. At the end of the two years her mother, one morning, heard her heave a deep sigh, and saw her head drop suddenly on one side on the pillow. She thought she was dying, rushed up to her, and said, in alarm, "Do you know me, Edith?" when the daughter replied "Yes," in a scarcely audible whisper. This was the first indication of hearing and of recognising her mother which she had manifested. She remained in this condition for a few minutes, and then suddenly passed again into her maniacal state. From this time forward she had nearly every day one of these lucid intervals. At first they lasted perhaps for about ten minutes, but gradually they increased in duration, so that at the end of six months they often persisted from half an hour to two hours. They always came on in the manner above described, and ended suddenly. They were always characterised by the same phenomena; and these, it will be observed, were in many respects the exact converse of those which marked her maniacal state. While in them she seemed to possess all her normal qualities of mind; was quiet, lady-like, and affectionate; and knew and appreciated her father, mother, and other relatives and friends. But there was utter bodily prostration; she spoke in a whisper; her eyelids were closed without the power of opening, and tremulous, though she could see when they were raised for her; and her hearing, which in her other state was absolutely lost, was now preternaturally acute. Indeed, any slight shock, and especially a sudden noise, would render her at once maniacal. On the first occasion on which her doctor saw her in a lucid interval, he conversed with her quietly; asked her to put out her tongue, which she did; and then invited her to take food as usual, which she declined, but in a quiet, lady-like way, and simply because she was not hungry. He asked her if she knew him, and she said she did not. He then tried to feed her with a spoon, when she suddenly opened her eyes, was excited as usual at his presence, and at once greeted him with "Paws, doctor." The lucid intervals gradually increased in duration, and at the end of another five or six months they occasionally lasted for days together; and, moreover, as they increased in length the other intervals diminished, until after a while they constituted what might be termed mad fits of a few minutes' duration only. Further, the extreme bodily prostration of her lucid periods gradually lessened; and by degrees the power of opening her eyes, of speaking aloud, and of taking food, without going off into a maniacal paroxysm, was restored. In 1877 she had recovered completely.

During the prevalence of the alternating conditions above described she appeared while in the one to know absolutely nothing of what had occurred in the other, but retained a vivid recollection of all that had happened to her in the previous period of the same condition. Her recovery was of very short duration; and for a long time past she has been suffering from extreme contracture of one of her lower extremities, associated with occasional cataleptic attacks, lasting for several weeks at a time.

It seems to me that this girl's maniacal condition (of which she retained no recollection whatever when she was in her normal mental state) was the same in quality as the condition presented by Hettie R—— after the convulsive attacks; and I repeat that I can see no real difference between their mental affection and that which is presented by many epileptics.

In reference to the relation of hysteria to epilepsy, I may just allude, in passing, to the case of a young girl, Rose D——, who was three or four times under my care during the years 1881, 1882, and 1883. Her fits began when she was fourteen, a year before I first saw her. She was a plump, healthy-looking girl, suffering from fits which came on irregularly, having sometimes as many as fifteen in the day. They were generally preceded by a cry, sometimes by more than one; were attended with loss of consciousness and convulsions; and lasted, perhaps, for about half a minute. They were certainly, I think, epileptic. In favour of which view, it may be stated, that they came on when she was asleep, as well as when she was awake; that they were

generally preceded by an aura beginning in the right thigh, rising to the right side of the chest, and then involving the right arm from the fingers upwards; that she once bit her tongue in a severe fit; and that she often passed urine during an attack. But she emerged from her fits into consciousness generally with a smile on her face, and occasionally laughing. Latterly she once or twice came to herself crying. It is further stated in the notes of the case, that when she was last under treatment she more than once was laughing during an entire fit, and on one or two occasions was attacked with causeless and uncontrollable laughter, without loss of consciousness.

3. I had intended, when first the subject matter of this lecture began to take form in my mind, to devote no inconsiderable proportion of it to the discussion of hysterical anæsthesia and its relations with anæsthesia arising under other conditions. This subject, however, is too extensive to be treated of at the fag-end of a lecture. And so I will pass on to the consideration of some of the visceral phenomena of hysteria.

a. In the *Practitioner* of 1883 I published some remarks on "The Functional Vomiting of Hysteria." This, as we all know, is a very common affection, and often a very serious one; and generally, I have no reason to doubt, depends on irritability of the stomach itself. But occasionally it is due to other causes, as one of the cases I there related proves.

A delicate-looking girl of fourteen came under my care in 1881, suffering from an hysterical affection of the right hip. This she had been troubled with for two years; and, though she had never had hysterical fits, or had hysterical symptoms in the popular sense of the term, every surgeon who had seen her previously, and my surgical colleagues at St. Thomas's now, had no doubt of the hysterical, or at any rate functional, nature of her disease. She improved slightly under treatment, during a three months' residence in the hospital. She was readmitted five months later, still complaining in some degree of her hip, but suffering mainly from constant vomiting, which she had had for several months, and great consequent emaciation and debility. She weighed only 3 st. 3½ lb., and was bedridden. Her cheeks were flushed, and her face wore a mixed expression of apathy and martyr-like resignation. She had no pain except in her hip; she vomited after every meal; and her abdomen was shrunken and concave. From the time of her admission she continued to vomit after whatever was taken, the vomit consisting mainly of the food swallowed and mucus, and the sickness generally coming on a few minutes after ingestion. It was sometimes, however, delayed for ten minutes or a quarter of an hour. Various measures were adopted to relieve the suspected irritability of the stomach; and at length she was fed only with enemata. During this time she lost weight slightly, her temperature sank to 96°, and her pulse varied from 42 to 60. After the feeding with enemata had been persisted in for ten days, the administration of milk by the mouth in teaspoonful doses was commenced, at first only three or four times a day, and then every hour. But again we were disappointed, for after every dose the milk was speedily vomited; in fact, her stomach appeared to be just as irritable now as it had been at first. At the end of four or five days, being much puzzled and disheartened, I gave more serious thought to the incidents of the case than I had previously done. I now called to mind that she had never complained of actual pain or tenderness in the region of the stomach; that she was not flatulent; that her vomiting was an easy process with her; and especially that she brought back the greater part of the minutest quantities of food taken, and in whatever form it was given. And I asked myself the question, Was it possible that the bulk of her food never entered the stomach at all, but was retained in the œsophagus, and thence regurgitated? I now made the girl drink a dessertspoonful of milk in my presence, and watched the progress of events. She swallowed it without difficulty, and evidently it went beyond the influence of the pharynx; then she appeared to suffer from some discomfort, and in the course of a minute or so (without any very violent effort, but with a certain amount of spasmodic action) the milk was gulped up into her mouth. I then got the resident assistant-surgeon to see the case with me; and at my request, and in my presence, he passed a medium-sized indiarubber tube along the œsophagus into the stomach, and then injected into that organ about three ounces of milk. There was a little impediment to the passage of the instrument through the lower part of the canal, but it was readily overcome, and was evidently not due to any organic disease. The milk thus injected did not provoke any feeling of sickness, and remained in the stomach without causing discomfort. She did, immediately after the removal of the tube, regurgitate a small quantity of milk, but this was clearly only the milk which had escaped into the œsophagus during the withdrawal of the instrument. It was intended to feed her daily by the tube, but she never required it again during her further stay of six weeks in the hospital. The result showed that my suspicions were correct; and it is an interesting practical fact that the spasmodic action of the œsophagus, which had persisted for months, was cured by a single operation.

In the same paper I quoted the case of a man who was affected with what seems to have been the same kind of œsophageal affection as that which this girl presented, but who manifested no other hysterical symptoms, and whose temporary spasm of the œsophagus can scarcely have been hysterical. The patient was over fifty years of age, and had suddenly (a week before I saw him) become incapable of swallowing. He had been a healthy man, and there was no explanation of his state that I could make out; he had been wholly without food for a week, and had consequently lost flesh and strength. On making him take food in my presence I found that he masticated properly, and that the act of deglutition was performed without difficulty, but that what he swallowed was immediately ejected with violence. The impediment was clearly in the upper part of the œsophagus. Having failed to detect any lesion by external examination or by looking down the throat, I proceeded to pass a bougie. There was a very slight impediment at the upper part of the gullet, which was readily overcome, and the instrument was pushed on into the stomach. The effect was marvellous; the patient swallowed without the slightest difficulty immediately afterwards, and swallowed thenceforth as readily as he had always done up to the time of his illness. He came under my care again six months later for a temporary attack of catarrhal jaundice, from which he recovered in the course of a week or ten days. He had had no recurrence of dysphagia.

On the same occasion I published a third case, which was one of painful interest to me, for I failed to recognise its nature, and it is mainly, perhaps solely, to this failure that the patient's death must be attributed. The patient was a young man, whose illness had commenced six months before I took charge of him, and was attributed by him to his having drunk a pot of beer which irritated his gullet as it passed down. From that time he seems to have had constant sickness after food, and to have vomited from five minutes to half an hour after every meal. He was very thin and weak when I first saw him, but I was unable to detect any evidence of abdominal disease. I attached very little importance to the attributed origin of his illness, and assumed that as his vomiting was often, indeed generally, delayed for some considerable time after the ingestion of food, it was due either to pyloric obstruction or to some functional disturbance of the stomach referable to disease external to it. In other words, though I never ventured to commit myself as to the exact nature of his malady, I believed that he had organic disease, either chronic ulcer or cancer of the stomach, or disseminated peritoneal cancer, or tubercle. There were obvious and strong reasons against each of these views of his case; but, believing as I did that the vomited matters came from the stomach, I never thought of passing a bougie or of feeding him by the œsophagus tube. His vomiting persisted up to the time of his death. At the autopsy his stomach and other abdominal organs were all found to be healthy, and the only lesion discovered was dilatation of the œsophagus with hypertrophy of its walls. Whether this condition was really a consequence of irritation caused by the draught of beer to which the patient referred his illness, or whether it was analogous to the similar condition observed in the large intestine in cases of neglected peritoneal constipation—a condition secondary either to sluggish action of the dilated tube, or to spasmodic action of the part below,—I cannot venture to say. But if the latter view be correct, the essential similarity of this case to the other two becomes apparent.

b. Besides aphonia, other symptoms referable to the respiratory organs occur in cases of hysteria. I shall not enumerate them, but will briefly speak of two or three. I recollect some five-and-twenty years or more ago a nurse, aged thirty-six, was admitted into the hospital under the care of one of my senior colleagues. She was suffering, not only from aphonia, but from difficulty of breathing. Her

medical attendant believed the case to be one of hysteria, but he was not absolutely sure upon that point; and, as her dyspnœa increased in urgency, he judged it advisable to have tracheotomy performed. The operation was done by a surgeon (long since dead), who transfixed the trachea and passed the trocar and cannula into the apex of the right pleura. Strange to say, the patient seemed to be immediately benefited; but within half an hour the right pleura had become distended with air, and difficulty of breathing of another kind had come on. She died in a couple of days from the results of the operation; and the larynx was found to be absolutely healthy. The case occurred before the invention of the laryngoscope, or the thermometer had come into use as an agent in diagnosis. Here the dyspnœa was probably due to functional affection of the larynx. In a case of my own, that of a highly hysterical girl of eighteen (who was under treatment for many months with hysterical paraplegia, attacks of hystero-epilepsy, and analgesia), dyspnœa of an asthmatic character formed one of her symptoms. This came on quite suddenly on the first occasion, and was unattended with rise of temperature; but it continued for five or six weeks with varying severity, and during this period became associated with rapid breathing, frequent cough, and scanty expectoration, occasionally tinged with blood. At times, too, there was a slight rise of temperature. An attack a few months later presented similar phenomena. But rapidity of breathing may constitute the sole respiratory trouble. I recollect about ten years ago having a female patient under my care—I think between thirty and forty years of age—who, with other hysterical symptoms, suffered from attacks of rapid breathing, during which, sometimes only for a few minutes, sometimes for several hours, her respirations would rise to 70 or 80 in the minute, her pulse remaining normal in frequency, and there being no other indication whatever of intrathoracic disease. In 1883 Dr. Mackey of Birmingham published in THE LANCET a similar case in which the respiratory acts varied between 88 and 128 in the minute, while the pulse ranged from 59 to 72, and the temperature was normal.

c. Circulatory troubles are also common in hysteria. Limited pulsations, mainly of the abdominal aorta, simulating aneurysm, have often been referred to this affection. Rapid action of the heart, tumultuous and irregular action, and extreme feebleness of action, are severally frequent consequences of emotional conditons, and necessarily, therefore, are frequently observed in hysterical patients. I have recently seen a remarkable case of what seems to me to have been functional, not improbably hysterical, rapid action of the heart. A lady, thirty years of age, three years married and without children, had a slight attack of pneumonia, from which, at the end of about five weeks, she had recovered sufficiently to be allowed to go out for a drive. This seems to have upset her, for shortly afterwards she was attacked with retching, difficulty of breathing, and nervousness. The retching subsided in the course of a day or two, but it was noticed that her pulse was remarkably rapid. It reached 180 in the minute, and as her aspect became rather livid, and she was unable to lie down, her medical attendant naturally became uneasy. When I saw her a week later she was sitting up in bed; she was spare, pale, and delicate-looking, with a shade of anxiety on her countenance, but nevertheless she was bright and cheerful, conversed pleasantly and without difficulty, and certainly did not look seriously ill. Her breath was a little quickened, but her heart was beating at the rate of 192 in the minute; the action was regular, the pulse was feeble, and the cardiac sounds, which were sharp and short, were free from murmur. The lungs were both healthy, and there was no evidence of disease in any other organ of the body. Her tongue was a little coated, and her appetite bad. This rapid action of the heart, which had existed for a week when I saw her, continued for another week, when it fell almost suddenly to 110, and then to 92. I visited her again soon afterwards, when she seemed quite well, but her pulse was still 92. The patient had always been delicate and nervous, but had never presented definite hysterical symptoms; formerly she had been stout, but some years ago became slim, and has since continued so. She never had rheumatism or any other serious disease; but during the last few years she has had several attacks like the present, and there is reason to believe that her pulse has been generally rapid. There was no protrusion of the eyeballs or enlargement of the thyroid. So far as I can call to mind, I have only on two other occasions met in adults with more rapid action of the heart than was presented by this lady But the patients here referred to were dangerously ill, and their extreme rapidity of pulse occurred at times when death seemed imminent. One case was that of a young woman, in whom in the course of a very severe relapse of enteric fever, and when for some days her death was expected momentarily, the pulse continued at the rate of 198 in the minute. She ultimately recovered. The other case was that of a middle-aged man who had been suffering for two years from gradually increasing pallor and debility, and whom, when he came under my care, I thought to be suffering from progressive anæmia. He improved, however, considerably under treatment, and left the hospital stronger and better than he had been for many months. One day, shortly after his admission, he fell, without obvious cause, into a state of collapse, and occasionally this was so extreme that his recovery was despaired of. During these attacks his pulse from time to time ran up to 200. His collapse was not due to hæmorrhage.

4. At the beginning of my lecture, gentlemen, I said I should not then attempt to define hysteria, or to fix the lands marks which separate it from other functional nervous disorders. At the close of my lecture, guided in part by the case that have been passed in review, I return to the subject I at first dismissed. I have quoted a series of cases which I have labelled "hysteria," and have compared them with other cases, some of which I have regarded as not hysterical. But what right have I to make this distinction between them? Again, I ask what is hysteria?

Typical hysteria occurs, or generally appears for the first time, in persons who from sex, age, or the conditions in which they live, are specially emotional; it is attended with marked emotional disturbance, sometimes with intellectual disturbance, and is characterised by a liability to convulsive attacks, and to various affections of the sensory and motor systems, which are sometimes of general distribution, sometimes hemiplegic, sometimes paraplegic, sometimes limited to particular nerves or groups of nerves. The affection, moreover, is various in its incidence, and liable to sudden onset, sudden change, sudden recovery—circumstances which prove its independence of organic nervous disease.

But hysteria may occur with many of its characteristic symptoms highly aggravated, with many of its characteristic symptoms in complete abeyance, or indicated haply by only one or two trivial incidents. The emotional and intellectual disturbance may pass into genuine madness, as in so-called "hysterical mania." The convulsive attacks may resemble, if they do not merge in, those of epilepsy, as in cases of so-called "hystero-epilepsy." On the other hand, there may not be, and there may never have been, definite or discoverable emotional disturbance or tendency, never any convulsive attacks, never hemiplegia or paraplegia, and, indeed, the manifestations of the disease may be limited, so far as I know, to an attack of neuralgia, to painfulness and tenderness of a particular organ, to paralysis or spasm of a single muscle or a group of muscles, or to some functional disorder of a single viscus.

In other words, so-called "hysteria" may, as it seems to me, consist in excess, diminution, or modification of all or any of the nervous functions, whether of the brain, the ganglia at the base of the brain, the medulla, the cord, the sensory or motor nerves, or the sympathetic system. And hence, by specially implicating particular parts, it may, in its symptoms, resemble, more or less accurately, a large number of organic diseases of the nervous system developed in the same parts. And hence also, and on similar grounds, it may resemble, more or less accurately, many other recognised functional disorders of the nervous system, which are regarded as definite diseases, and have received distinctive names, if indeed, under such circumstances, it does not become indentical with them.

No doubt an emotional element preponderates in cases generally regarded as hysterical; and, for the most part, definite hysterical symptoms are the consequence either of overwhelming emotions excited in healthy minds, or of lesser emotional influences acting on minds already in a state of unstable equilibrium. But it must not be forgotten that emotional disturbance characterises, or complicates, a large number of intra-cranial disorders which are not of hysterical origin. It is of the very essence of insanity; in chorea, in megrim, and in epilepsy, especially in the first, the emotions are generally implicated; the presence of syphilitic tumours, and generally disease in the neighbour-

hood of the fourth ventricle, evoke a tendency to laugh and cry, and to become erotic; and the lowness of spirits and proneness to tears which follow hæmorrhage into the brain are well known. Emotional affection is, therefore, no monopoly of hysteria. And not only so; for while we might naturally expect emotional symptoms to preponderate when the other hysterial symptoms are such as depend on cerebral disturbance, we might as naturally expect these to be less and less pronounced in proportion as the hysterial phenomena become more and more limited to remote and less important parts of the nervous organism. And so no doubt it often is.

The view which I am inclined to hold with respect to hysteria and other functional nervous diseases, and to their mutual relationships, is as follows. There are many functional diseases of the nervous system, among which may be included insanity in many of its forms, epilepsy in its different varieties, chorea, megrim, neuralgia, and hysteria. These are all characterised by groups of symptoms referable to excitement, depression or aberration of the nervous functions, and mainly of those of the nervous centres. They are severally distinguished clinically by the association of definite groups of symptoms; determined either by the particular part of the nervous system affected, by the special kind of affection which takes place therein, or by the order and mutual relation of events. And we regard them as specific diseases, because experience teaches us that such groups of symptoms are so commonly observed under particular conditions as to show that specific causes must underlie them and determine their concurrence. But the causes of the different affections are for the most part closely related to one another, if not identical; the individual symptoms which, by their modes of aggregation, constitute the several diseases as we know them are common more or less to all of them; many cases occur in which it is difficult, if not impossible, to determine satisfactorily in which category they should be placed; and, indeed, as it seems to me, there is no substantial line of demarcation between the diseases.

If this view be correct, the terms insanity, epilepsy, hysteria, &c., would still imply well-marked, and for the most part permanent, varieties of functional nervous diseases; but the recognition of intermediate types, or the failure to form a definite diagnosis in every case, could not be taken to imply ignorance; and it would follow that many of the limited functional disturbances of which several of my cases furnish examples have little or no claim to be called hysterical (an adjective which is usually, and perhaps conveniently, applied to them), unless the meaning of the word hysteria be so far extended as to include all functional affections for which no other name has yet been invented.

In conclusion, I may venture to say, the more extensive my experience of nervous diseases has become, the more I have learnt to recognise the following facts: that many grave nervous disorders which, from their mode of onset, their symptoms, and their progress, would seem to imply the presence of organic disease, present post mortem no visible pathological change, that many such disorders, progressive and threatening a fatal issue, ultimately recover perfectly, that limited or localised nervous phenomena, paralytic or spasmodic, anæsthetic or neuralgic, come and go without obvious cause; and the more I have been brought to believe that functional nervous disorders capable of cure simulate the most serious as well as the most trivial cases of organic nervous disease. It may be admitted that emotional persons, and persons of marked hysterical tendencies, are more than others liable to suffer from the affections here referred to; but some of the most remarkable examples I have met with have been in patients who, apart from their particular malady, have presented no sign or symptom whatever of the hysterical condition.

I thank you, Mr. President and Gentlemen, for the high honour you have done me in inviting me to deliver this address, and for the kind patience with which you have listened to it. I wish it had been more worthy of the occasion and of my audience.

ST. MARY'S HOSPITAL.—The festival dinner in aid of the funds of this hospital is to be held on Wednesday next, at the Langham Hotel. George Palmer, Esq., M.P., will preside.

ON

HEALING BY FAITH, WITH REFERENCE TO A VISIT TO THE GROTTO OF LOURDES.

BY GEORGE BUCHANAN,
PROFESSOR OF CLINICAL SURGERY IN GLASGOW UNIVERSITY.

PUBLIC attention has recently been directed to certain alleged cures which are said to have been performed by members of the Salvation Army, as it calls itself. These recoveries are stated to have taken place after prayer and the laying on of hands. It is not claimed that anyone has obtained the gift of working miracles; but it is claimed that through faith in the efficacy of the prayer the person so believing obtains the benefit of direct divine interposition. It is religious faith in the efficacy of the prayer that alone secures the desired result. The co-operation of the desire, will, and faith of the patient are necessary for the effect to follow. If, as frequently happens, there be a misgiving of the expected cure, it is set down to want of desire and faith. Mr. Spanton has taken the trouble to investigate a number of the alleged cases in which the affection said to have been cured was almost exclusively subjective—pain, dimness of vision, dulness of hearing called deafness, &c. So far as he was able to estimate, the improvement was not discernible by such tests as he was able to apply.

There is nothing in medical diagnosis more difficult than to distinguish between real and feigned disease. Even in such manifest things as alleged stiffness and powerlessness of joints it is not easy to detect assumed conditions. Anyone who has much experience of hospital practice, or has seen a little military service, knows how difficult it is to detect malingerers. When I was on duty in the camp hospital in the Crimea I had occasionally to examine men who asserted that they were unfit to return to duty owing to pain, stiffness, and want of power in their shoulder- and elbow-joints, and I sometimes failed to detect the imposture, till I got the assistance of a colour-sergeant who was one of my patients. By making them go through a certain amount of drill in the hospital tent, one or two forgot or omitted the sort of deficiency of movement which must have existed if the alleged affection was real. How much more deceptive when the symptoms are subjective.

I wish, however, to call attention to a class of cases, less numerous but more marked, in which there is a real abnormal condition, accompanied by all the symptoms and sufferings of structural disease, in which the patient loses sleep and appetite, and emaciates, and frequently dies of exhaustion, while all the time the disease is nervous and not organic, mental and not bodily. I believe that some such cases have been restored to health by what is called healing by faith in prayer. I know that many such have been apparently miraculously cured by a visit to the miracle grotto of Lourdes.

In the autumn of 1883, when on a tour in the Pyrenees, I paid a visit to this spot, now such a celebrated shrine of the Roman Catholic faith. At the mouth of the grotto, at which a vision of the Virgin is said to have appeared to a poor girl, Bernadette Soubirons, are suspended numerous crutches, splints, &c., said to have been left there by persons who came lame and walked away restored to the use of their limbs. I believe that some of these cases are sufficiently well attested to make it quite certain that a number of apparently miraculous cures of halt, lame, and decrepit persons have actually occurred there. And this fact, which cannot be denied, is used as an argument to prove that the grotto is the seat of direct divine interposition, and the water which flows from it is endowed with miraculous healing power. On reflecting on the credibility of the alleged miraculous cures, which are so often appealed to as a proof of the truth of the story, it is no argument against the belief in them that multitudes of the patients who have visited the grotto and used the water have been disappointed in obtaining a cure. One positive is worth a thousand negatives. The difficulty in such cases always will be to get well-authenticated cases reported on by unbiased judges who are competent to investigate them. For myself I have no doubt that some of the persons who went lame and crippled were restored to the use of their limbs and were relieved from pains and aches

And if we admit some, the question of number does not affect the argument. With regard to partial deafness and dimness of vision which are among the ailments said to have been cured, so much depends on the assertions of the persons affected that I would place little reliance on them; but with regard to persons who have been lame and decrepit, and known as such to their friends, the fact of their leaving their crutches and walking away without help does seem astonishing and miraculous, and it is cases such as these which make the greatest impression. I believe that the simple visit to the grotto by persons who believe in it, and the whole surrounding of the place, might have such an effect on the mind that a sudden change of the nerve condition might result in immediate improvement in cases where there is no real change of structure, but where the malady is a functional imitation of organic disease. Such cases are familiar to all medical men, and are the most intractable they have to deal with, the disorder being in the imagination, and not in the part. To non-professional persons this assertion may seem an enigma. It is an enigma to medical men, but it is none the less true. But instead of pursuing this general statement I shall relate cases within my own experience.

It is rather a remarkable coincidence that on Oct. 2nd, 1883, within three weeks of my visit to Lourdes, I received a letter from a Mrs. F——, reminding me that some years before I had performed in her case a cure, instantaneous and to all appearance miraculous, and which she properly attributed to undoubting faith in my word. It is a very good illustration of the kind of cases to which I have been alluding, and of the power of mind over mind, and of the effect of imagination in simulating real disease.

Mr. F—— called on me in October, 1875, and requested me to visit his wife, who had been confined to bed for many months with a painful affection of the spine. When I went to the house I found Mrs. F——, a woman about thirty-one years of age, lying in bed on her left side, and her knees crouched up, that being the position which afforded most relief. She was thin and weak-looking, with a countenance indicative of great suffering. I was informed that for many months she had been in the same condition. She was unable to move her limbs, any attempt being attended with pain, and practically she was paralytic. She was not able to alter her position in bed without help, and this always gave so much trouble that she would have remained constantly in the same position if the attendants had not insisted on moving her, to allow of the bedclothes being changed and arranged. She had altogether lost appetite and had become dreadfully emaciated, and only took what was almost forced on her by her husband and friends. She had given up all hope of recovery, but had expressed a strong desire to be visited by me, in consequence of something she had heard from her husband connected with a health lecture he had been present at many years before. When I entered her bedroom, something in the way she earnestly looked at me suggested the idea that I might have some influence over her supposing it to be a case of hysterical spine simulating real spinal irritation and sympathetic paralysis. The story I got was not that of real organic disease of the spine or cord, or limbs; and I at once resolved to act on the supposition that it was subjective or functional, and not depending on actual molecular change or disintegration. I went to her bedside and said, suddenly, "I cannot do you any good unless you allow me to examine your back." In an instant she moved slightly round and I examined her spine, running my finger over it, at first lightly, then very firmly, without her wincing at all. I then said, "Get out of bed at once." She declared she could not move. I said, "You can move quite well, come out of bed," and gave her my hand, when, to the surprise of her husband and sister, who looked perfectly thunderstruck, she came out of bed with almost no help at all and stood alone. I then said: "Walk across the floor." Now without demur she walked without assistance, saying, "I can walk quite well, I knew you could cure me; my pains are gone." She then went into bed with very little assistance, lay on her back, and declared she was perfectly comfortable. She was given a glass of milk, which she took with relish, and I left the house, having in a few minutes performed a cure which to the bystanders looked nothing short of a miracle. For many years I heard nothing of Mrs. F——, when on October 2nd, 1883, I got the letter referred to, and shortly after the patient herself called at my house. In February, 1885, she again called on me. She is at present in fair health, not robust, but cheerful and contented. She says she never altogether regained her full strength, but as an evidence that she is not feeble or unable for a good deal of exertion, I may state that she now lives about five miles from my house, and she made her way alone, partly by omnibus, partly by tramway, and the rest on foot.

About two years ago a carriage and pair arrived at my door from the country. In it was a woman about twenty-five years of age, her limb bound up in a splint and resting on the seat opposite to that on which she sat. She was accompanied by her father and brother, who, with the assistance of the coachman, carried her into my house and laid her on the sofa of my consulting-room. She told me she had been confined to bed for four or five months with disease of the knee, but that it had lasted longer than that. It was only the last few months that her medical attendant had enjoined absolute rest in bed, had used blisters and other applications, and had in the end secured it from movement by the application of a splint. She said the pain was very severe, increased on any movement, and was worse at night. There was little if any swelling, but the symptoms were very characteristic of disease of the cartilages of the knee-joint, and undoubtedly she was being treated for that affection. On manipulating her knee whilst I engaged her attention by asking her questions, I became aware that she did not shrink from my touch, as she did when I asked her if she felt pain on pressure; and I was soon convinced that I had to do, not with an organic disease of the joint, but with that strange, painful, and intractable condition which, for want of a better name, we call "hysterical knee." I turned to her and said decidedly, "Your knee is quite well; get up and walk." She at first objected, in consequence of the fear of pain; but when I said, "You will walk quite easily without pain," she got up and, to her own surprise, as well as that of her companions, she walked across my room, saying, "You are quite right; I have no pain, and my knee is cured." A few minutes after she left the house, got into the carriage without much assistance, and drove away. About a month afterwards a person from the same country town had occasion to call on me and spoke of the extraordinary instantaneous cure. I asked if he knew how the person was, and he said she was a friend of his own, and just the day before he had seen her walking as if nothing was wrong with her limb. And he knew that she had been confined to bed with her knee for months.

I cannot pretend to explain these two cases; they are certainly not miracles. But they are just as miraculous as any of the cures alleged to have been performed at Lourdes or elsewhere. Of the many thousands annually attracted to that spot a great number must be cases analogous to those I have related, and the alleged sudden cures are not more numerous in proportion than those which have occurred in medical practice. There are, however, some cases which cannot be included along with those to which I have referred. Cases in which instantaneous cure has taken place, or is alleged to have taken place, in such maladies as ulcers, sinuses, and easily recognised disintegration of bone. Such examples have been reported and vouched for by several French medical men and are referred to in an article in the *Nineteenth Century* for 1882; and I admit that the explanation is not applicable to them. I have not seen the official reports of the cases, so that I cannot admit or deny their accuracy. If there is no fallacy in them, they are beyond my understanding. But in the meanwhile the purpose of my paper is served if I have shown that many sudden cures may be explained without admitting miraculous interposition.

Glasgow.

UNIVERSITY OF CAMBRIDGE.—At a congregation on June 11th the following were appointed examiners:—Third M.B. Examination: Dr. Octavius Sturges, Emmanuel; Dr. Norman Moore, St. Catharine's; Dr. Donald Macalister, St. John's; Dr. W. O. Priestly, Edinburgh. Surgery: Mr. Christopher Heath, F.R.C.S., Mr. David Colley, Trinity. State Medicine: Dr. Alfred Carpenter, London; Dr. F. B. de Chaumont, Edinburgh; Dr. Hubert Airy, Trinity; Sir Charles A. Cameron, President of the Royal College of Surgeons, Ireland. Also the following degrees were conferred:—Doctors of Medicine: Audley Cecil Butler, Trinity; Jamieson Boyd Hurry, St. John's. Bachelors of Medicine: Richard Henry Emerson, Clare; John Mitchell Clarke, Charles Scott Sherrington, Dudley Charles Trott, Gonville and Caius; Walter Spencer Anderson Griffith, Downing.

WHY DOES SALICYLIC ACID CURE RHEUMATISM?[1]

BY P. W. LATHAM, M.A., M.D., F.R.C.P.,
DOWNING PROFESSOR OF MEDICINE, CAMBRIDGE; SENIOR PHYSICIAN TO ADDENBROOKE'S HOSPITAL.

WHY does salicylic acid cure rheumatism? This, gentlemen, is the question I venture to bring under your consideration to-day. The brilliant success which attends the proper administration of the remedy in this disorder is at once sufficient to fascinate us; there is something so decided in its action, so marked in the way it controls the heat and nervous and vascular excitement, and in the rapidity with which the great pain and swelling of the joints decline, that we are impelled to pause and think and question ourselves, How is this possible? Here is a disorder which under different treatment may exist for weeks stationary, so to speak, in its intensity, the great heat and nervous and vascular excitement, and pain and swelling exactly of the same amount to-day as they were weeks ago; a disorder which less than fifty years since was said to be "often such in itself and such in its appalling incidents as to need from time to time that medicine should put forth the full compass of all its powers. Every organ or system of organs which either directly or indirectly can receive the impression of remedies are from time to time called to bear all that they can possibly endure; and it is often only when the powers of medicine are pressed even to the verge of destroying life that life is saved."[2]

And now, by means of our new remedy, the disease seems to be curbed and checked and controlled. Surely we have here one of the greatest triumphs of the practical medicine of to-day, and a subject therefore worthy of consideration and investigation. And as the mind dwells upon the subject, points which physiology and pathology have left obscure rise up and add intensity to our interest and give increased importance to our inquiry; for we see how far beyond this one disease the interest reaches, how many are the problems it would help to clear up, and we become the more eager to obtain an answer. Can the answer be given?

Let me take you to the bedside, and let us learn first of all what is to be gathered from practical medicine. Here is an example, such as will have occurred in the experience of each individual whom I am addressing. You are called to a patient who after a chill, and feeling out of sorts for two or three days, wakes up in the morning with one of the joints stiff and tender; soon afterwards it swells, and motion causes pain. Other joints now become affected; the knees, wrists, elbows, ankles, and the smaller joints of the hands and feet. There are pain, tenderness, increased heat, swelling, and redness of the skin. The slightest motion becomes insupportable, even vibration of the room or of the bed causes suffering. There is more or less febrile movement, the temperature ranging from 102° to 104° or higher, generally more or less sweating, the odour of which is characteristic. The tongue is coated; thirst is generally a marked symptom. These symptoms, varying in intensity, have perhaps continued many days. With or without the administration of a purgative, as the occasion requires, you place the patient fully under the influence of salicylic acid, and in from forty to sixty hours, not unfrequently in a shorter time, the pains in the joints have subsided, the limbs can be freely moved, and the bodily temperature has reached the normal condition. And this example may be indefinitely repeated. Patients presenting the same sort of history, the same picture of suffering and high fever, numerous joints swollen and intensely tender, and all this you subdue completely and effectively with your remedy in a few hours or days. But more than this—and here the remedy shows its signal power,—in no case of rheumatism that has come under my care during the last five years either in hospital or private practice has there been, where the heart was previously sound, any cardiac complication, such as endocarditis or pericarditis, developed. If this can be maintained and ensured, we have indeed in our hands a most potent remedy. Cardiac complications constitute the chief danger of acute rheumatism, and the danger, if the disease is taken in hand soon enough, may with our new remedy be averted.

And what are the conditions, then, which in acute cases will ensure success in the administration of the remedy?

First, the true salicylic acid obtained from the vegetable kingdom must alone be employed. If you have to give large doses, avoid giving the artificial product obtained from carbolic acid, however much it may have been dialysed and purified. An impure acid will very quickly produce symptoms closely resembling delirium tremens.

Secondly, give the acid without any alkali or base. A very good form is to mix 100 grains with 15 of acacia powder and a little mucilage. Allow the mass to stand and harden, and then divide into 30 pills.

Thirdly, place the patient fully under the influence of the drug—that is, let him have sufficient to produce cerebral disturbance—i.e., buzzing in the ears or headache, or slight deafness; with the development of these symptoms the temperature and the pain in the joints will begin to decline. To an adult I generally administer three doses of 20 grains (six pills) at intervals of an hour, and if the head remains unaffected, a fourth dose at the end of another hour; and then repeat the 20 grains every four hours until the physiological effect of the remedy shows itself. In the majority of cases from 80 to 100 grains are enough. In severe cases 140 to 150 may be required. Afterwards about 80 grains a day are sufficient, and as the temperature declines smaller quantities will develop their physiological effects, 60 or even 50 grains being then sufficient to produce cerebral disturbance. It would appear that as long as the rheumatic poison is circulating in the system, the physiological effect—that is, the effect it produces in the healthy organism—does not show itself; acting as an antidote, the greater the amount of poison the larger must be the dose of the remedy; but as soon as the formation of the *materies morbi* is stopped, then the excess of the remedy acts as it would in the healthy organism and its peculiar physiological effects are developed. It is a very striking illustration of the difference between the therapeutical effect of a remedy and its physiological action.

Fourthly, give the patient from 40 to 80 grains daily for ten days after all pain and pyrexia have passed away.

Fifthly, let the patient's diet consist entirely of milk and farinaceous food for at least a week after the evening temperature has been normal. On the other hand, if the patient has meat and soup, you may look forward with fair probability to a relapse.

Sixthly, take care to maintain a daily and complete action of the bowels. Calomel is the best purgative, from 2 to 5 grains at night, followed in the morning, if necessary, with a saline draught. This is the most important adjuvant to the action of salicylic acid, and I will presently explain to you why this is the case. The benefits resulting generally from the so-called purgative plan of treatment have always been recognised by the older physicians as striking and satisfactory.

Seventhly, let the patient be enveloped in a light blanket, and with no more bedclothes than are sufficient to keep him from feeling cold. The object of the treatment now is to cool the patient, not, as in former times, to sweat the poison out of him, and the cooler he is kept the sooner will the temperature be lowered.

These are the seven rules upon which I have acted. I have given the true salicylic acid where there have been both aortic and mitral mischief; and I have also given it in rheumatism complicated with pericarditis, and as yet I have seen no bad result from it. Of course in cases of pericarditis, accompanied with delirium, the use of the remedy requires caution; you cannot tell when the system is saturated with the remedy, and you must therefore trust to smaller doses and other means for controlling the disease. Further, if pericarditis or endocarditis, pneumonia, or pleurisy have been developed, the remedy is powerless over the mischief which is done; it will neutralise the poison producing the mischief so as to stop its extension, but the inflammatory exudations will undergo their usual changes unabbreviated in their course.

And what is the poison? One of the most prominent features in an acute case of rheumatic fever is the formation of lactic acid in large quantities; and the so-called lactic acid theory of the causation of rheumatism is one which has got a very firm hold of the minds of many physicians, probably of most of those whom I have the honour of

[1] An Address delivered before the combined meeting of the East Anglian, South Midland, Cambridgeshire, and Huntingdonshire branches of the British Medical Association, held at Cambridge, June 12th.

[2] Dr. P. M. Latham's Works, Sydenham Society, vol. i., p. 112.

addressing. It was the view with which I started four or five years ago when I resolved to try and help to unravel some of the mysteries of the disorder, and a view which I have held till very recently. Nevertheless, I hope to show now that though lactic acid has much to do with the symptoms, it is not the chief substance which causes the disease, nor that upon which salicylic acid chiefly acts as an antidote.

It is the excessive formation of glycocine and of uric acid in the tissues that develops the symptoms of rheumatic fever, and salicylic acid cures the disease by combining with the antecedents of these bodies and preventing their formation.

Last year, as some of you are aware, I published a short paper on uric acid,[3] in which I endeavoured to show that this substance resulted from the conjugation of glycocine with urea, or its antecedents, forming the compound.

$$CO\begin{cases}NH_2\\ \\ NH\\ \\ NH-CH_2-COOH;\end{cases}$$

that is, a compound containing one more molecule of CONH than hydantoic acid, and allied to biuret and allophanic ether. This substance dehydrated would form

$$CO\begin{cases}NH-CO\\ \\ NH\\ \\ NH-CH_2,\end{cases}$$

which, like hydantoin, being soluble in the blood, passes on to the kidneys, and is there conjugated with another molecule of urea, and forms ammonium urate.

$$CO\begin{cases}NH-CO\\ \\ NH\\ \\ NH-CH_2\end{cases}+CO\begin{cases}NH_2\\ \\ NH_2\\ \text{urea.}\end{cases}=H_2O+\underset{\text{ammonium urate.}}{C_5H_3N_4O_3\,.\,NH_4}$$

which is excreted; but a portion overflowing from the kidney into the general circulation, and meeting with soda in the blood, is converted into sodium urate.

I there maintained that whereas in diabetes the essential fault consists in the inability of the system, either in the liver or elsewhere, to effect the metabolism of glucose, in gout the fault consists in the imperfect metabolism of glycocine, or amido-acetic acid. Glycocholic acid, as we know, is one of the constituents of the bile, and poured out into the duodenum performs its function in digestion, and is there resolved into cholic acid and glycocine; the latter being re-absorbed into the liver and transformed, and a corresponding amount of nitrogen being subsequently eliminated as urea by the kidneys.

We know that by atropine we can by paralysing the end organs of the nerves modify the functional activity of the submaxillary gland, and by urari we can in the same way modify the functional activity of the muscular tissues. Further, that the central nervous system possesses the power of varying the functional activity of the tissues, and we can readily understand that if this functional power of the liver were lessened in a certain degree, the glucose conveyed from the portal system would pass unchanged through the liver into the general circulation and produce the symptoms which accompany diabetes. If the power were lessened in a different degree, then glycocine would no longer be transformed by the liver, but, being conjugated with other substances, give rise to uric acid, which acting upon the portion of the nervous system which controls the nutrition of the joints would under certain circumstances give rise to the phenomena of what we call a gouty paroxysm. Here, then, we have diabetes and gout both commencing, so to speak, at the liver, and in such cases the diabetes would be relieved by the avoidance as much as possible of farinaceous and saccharine food. The gout would be prevented or relieved by a diet largely farinaceous and by eliminating the glycocine from the system and by giving as little nitrogenous food as possible.

Now, what happens when salicylic acid is administered internally? It passes off by the urine as salicyluric acid—that is, it has combined in its passage through the system either with glycocine or its antecedent, for on treating salicyluric acid with fuming hydrochloric acid, it is resolved into salicylic acid and glycocine.

$$\underset{\text{salicyluric acid.}}{C_9H_9NO_4}+H_2O=\underset{\text{salicylic acid.}}{C_6H_4\begin{cases}HO\\ COOH\end{cases}}+CH_2\begin{cases}NH_2\\ COOH\\ \text{glycocine.}\end{cases}$$

Consequently in the system, by seizing either upon glycocine or its antecedent, salicylic acid takes away an essential constituent of uric acid, and so prevents the formation of this body.

I have referred to the antecedent of glycocine. Let me say a word about this. In a paper recently published[4] I have endeavoured to show that albumen is a compound of cyan-alcohols united to a benzene nucleus. These cyan-alcohols have been prepared in the laboratory, with the exception of the lowest in the series $CH_2\begin{cases}OH\\ CN\end{cases}$, which requires for its preparation formic or methylic aldehyde, a substance which has not yet been obtained in a pure state. From the cyan-alcohols the corresponding amido-bodies, leucine, alamine, &c., have been artificially prepared. Judging from analogy, therefore, by treating the cyan-alcohol $CH_2\begin{cases}OH\\ CN\end{cases}$ with ammonia, we should form the cyanamide $CH_2\begin{cases}NH_2\\ CN\end{cases}$, which, hydrated with acids or alkalies, would form the amido-acid glycocine

$$\underset{\text{cyan-alcohol.}}{CH_2\begin{cases}OH\\ CN\end{cases}}+NH_3=\underset{\text{cyanamide.}}{CH_2\begin{cases}NH_2\\ CN\end{cases}}+H_2O$$

$$\underset{\text{cyanamide.}}{CH_2\begin{cases}NH_2\\ CN\end{cases}}+2H_2O=\underset{\text{glycocine.}}{CH_2\begin{cases}NH_2\\ COOH\end{cases}}+NH_3$$

By referring to my paper you will see that it is also from the molecules of $CH_2\begin{cases}OH\\ CN\end{cases}$ attached to the benzene nucleus that I think creatine is derived; and that by changes in it and condensation, urea is formed, and the next cyan-alcohol higher in the series, $CH_2\,.\,CH_2\begin{cases}OH\\ CN\end{cases}$ by the hydration of which, as well as by the hydration of $CH_3\,.\,CH\begin{cases}OH\\ CN\end{cases}$ lactic acid would be formed.

$$\underset{\text{cyan-ethylic alcohol.}}{C_2H_4\begin{cases}OH\\ CN\end{cases}}+2H_2O=\underset{\text{lactic acid.}}{C_2H_4\begin{cases}OH\\ COOH\end{cases}}+NH_3$$

It is with this body $CH_2\begin{cases}OH\\ CN\end{cases}$ that salicylic acid (as I would suggest) combines in its passage through the liver. If that substance were combined with cholic acid, we should have

$$\underset{\substack{\text{methene}\\ \text{cyan-alcohol.}}}{CH_2\begin{cases}OH\\ CN\end{cases}}+\underset{\substack{\text{cholic}\\ \text{acid.}}}{C_{24}H_{40}O_5}=\underset{\substack{\text{glycocholic}\\ \text{acid.}}}{C_{26}H_{43}NO_6};$$

and glycocholic acid acted upon by alkalies is converted into cholic acid and glycocine.

$$\underset{\text{glycholic acid.}}{C_{26}H_{43}NO_6}+H_2O=\underset{\text{cholic acid.}}{C_{24}H_{40}O_5}+CH_2\begin{cases}NH_2\\ COOH\\ \text{glycerine.}\end{cases}$$

Now, if salicylic acid, when it passes from the alimentary canal to the liver, combines with the cyan-alcohols, we should have

$$\underset{\substack{\text{methene}\\ \text{cyan-alcohol.}}}{CH_2\begin{cases}OH\\ CN\end{cases}}+\underset{\substack{\text{salicylic}\\ \text{acid.}}}{C_6H_4\begin{cases}OH\\ COOH\end{cases}}=CH_2\begin{cases}OH\\ CN\,.\,OH\\ C_6H_4\\ COOH\end{cases}$$

a formula of the same character as the molecules of living albumen. As this passes from the living tissue, the CNOH would be transformed into CONH, an imido-body, and the

$$CH_2\begin{cases}OH\\ CN\,.\,OH\\ C_6H_4\\ COOH\end{cases}$$ would become $CH_2\begin{cases}NH\,.\,C_7H_5O_3\\ COOH.\end{cases}$ salicyluric acid.

If the salicylic acid has a stronger affinity for the cyan-

[3] See THE LANCET, vol. i., 1884, p. 485.

[4] Ibid., May 23rd, p. 933.

alcohol than cholic acid has, then the combination would prevent the formation of glycocholic acid, and therefore of glycocine, so that by the combination of salicylic acid in the liver, either with methene cyan-alcohol or by its conjugation with glycocine, as the latter is reabsorbed from the alimentary canal, the formation of uric acid in the system would be lessened. *(To be concluded.)*

NOTES OF VISITS TO CONTREXÉVILLE AND ROYAT-LES-BAINS.[1]

BY F. R. CRUISE, M.D. UNIV. DUB.,
PRESIDENT OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

MR. PRESIDNT AND GENTLEMEN,—It is well known to all physicians of experience that one of the most powerful agents we possess in the treatment of many chronic ailments is the use of mineral waters, especially when taken at their sources. However, if it be needful to prescribe the most efficacious drugs for each case we meet, it is no less important to select for each of our patients the mineral water best suited to his disease. To do this requires a somewhat special training and experience, not easily attainable. It is most important, both for patient and physician, that no mistake should be made in the choice, as a visit to a thermal station is not unfrequently a very laborious and expensive undertaking. For these reasons I venture to make the present communication to the Academy of Medicine in Ireland, in the hope of giving to others some information, derived from personal exeprience, of two celebrated French watering-places- namely, Contrexéville and Royat-les-Bains.

A brief history of the circumstances which led to my visiting Contrexéville in the year 1877 may add to the interest of the subject, and therefore I will relate it. Just fourteen years ago Sir George Porter and I attended a young lady (Miss M.) who suffered severely from chronic cystitis. The origin of the disease was obscure, but, from our knowledge of the patient's constitution, we inclined to the belief that a strumous diathesis was to blame. I regret to add that we failed to cure her. After some time Miss M.'s mother took her abroad, and while in Paris consulted the late Dr. Acosta about her case. Dr. Acosta recommended a visit to Contrexéville, and a course of the waters and baths there. His advice was followed, and the result was a perfect cure. I need hardly say that this rapid cure of so obstinate a disease, by a visit to a mineral water of which we had never even heard, made a very strong impression upon Sir George Porter and on me, and we resolved to profit by the experience. Before adverting to the many cases in which we advised a visit to Contrexéville, I may here record the fate of Miss M. A few years subsequent to her cure of cystitis she died suddenly. I learned that her death was preceded by very violent headaches. Although neither Sir George Porter nor I had attended Miss M. during the fatal illness, the family wished us to be present at the post-mortem examination, which was deemed advisable on account of her sudden and unexplained death. The examination showed that the cause of death was a large effusion of blood at the base of the brain. The membranes and adjacent cerebral substance were found extensively infiltrated with tubercular deposits. Sir George Porter and I felt anxious to ascertain the condition of the bladder, which had formerly been so much affected, and accordingly we examined it. As a result we found that organ and all its appendages, kidneys included, perfectly healthy.

Shortly after our favourable experience of the effects of Contrexéville in Miss M.'s case, Mr. C., an elderly gentleman of high position in the legal world, came under Sir George Porter's and my care. His case was one of chronic cystitis, the result of stricture and prostatic disease. The dilatation of the stricture gave but little relief to the cystitis and accompanying sufferings. So we advised him to go to Contrexéville. He went there two summers consecutively. His case was not a hopeful one for cure, but he derived very marked relief, and his life was evidently prolonged considerably.

The next case I shall allude to was that of a distinguished ecclesiastic, the President of one of the Provincial Colleges of Ireland, who suffered intensely from renal colic, caused by oxalate of lime gravel. His cure, accomplished by one visit of three weeks (in 1877), was complete and permanent. A similar case, in the person of a well-known and much respected Dublin merchant, occurred (in 1883) within my own experience.

In the summer of 1882, Dr. James Little asked me to see a medical *confrère* (Dr. L.), who was quite broken down by chronic pyelitis. We decided to send him to Contrexéville, where he derived much relief; and finding this cold, damp climate unendurable, he emigrated to Australia, whence he sends me good accounts of his health and progress.

Without going into details of cases, it will be sufficient to state in brief that since I have known of Contrexéville I have either sent there, or treated here with the imported waters, most of the obstinate cases of irritable bladder or cystitis which have come into my hands, and that all have derived benefit, and the more hopeful quite a satisfactory result. It so happens that my endoscopic studies have brought under my care a large proportion of cases of urinary disease, so that my experience has been somewhat extensive. When first I learned the therapeutic value of Contrexéville, I sought in various directions for information concerning it, and encountered much difficulty in my research. Although so celebrated in France and on the Continent, this watering-place appeared unknown in England, and, with the exception of the brief notice of it in the French manual on mineral waters by Dr. Constantine James of Paris, I could obtain no details. At last one of the patients whom I had sent thither brought me two essays on the subject: one by the late Dr. Victor Baud, who had practised there for a quarter of a century, and another, more brief, by Dr. Tamin-Despalles, who was then in practice at these waters. More recently I have found an essay on the subject by Dr. Debout d'Estrées, the Government inspector of the station, which, on the whole, is the most satisfactory I know of.[2]

Wishing much to see Contrexéville, and urged to do so by Sir George Porter, I took an opportunity while at leisure in Paris, in the autumn of 1877, to run down there and make a personal visit. Taking the night mail from Paris by the Chemin de Fer de l'Est, I reached Neufchâteau, in the Vosges district, about six o'clock in the morning. Having breakfasted, I hired a *voiture* and drove to Contrexéville, a lovely drive of about fifteen miles, through a pretty mountainous country, not unlike our own county Wicklow. I may observe here that nowadays the train from Paris goes straight through to Contrexéville, making the journey shorter and easier than formerly. On my arrival I was most hospitably received by Dr. Tamin-Despalles, who showed me all that was to be seen, and explained the uses and effects of the waters. I regret much to say that this experienced practitioner has since died after a long attack of brain disease. His place is ably filled by several other physicians of eminence, amongst whom I may specially mention Dr. Debout D'Estrées, who has treated several patients I sent to him with judgment and success. I had the pleasure of making his personal acquaintance in the year 1883. To show how little was known of Contrexéville, except on the Continent, I may mention that Dr. Tamin-Despalles told me, in 1877, that so far as his knowledge went, and it extended over a long term of years, I was the first English-speaking physician who had ever visited it. Since that time it has come under marked notice, and has been visited by many of our Irish, English, and American *confrères;* however, as I have not seen any account of their visits in our language, I think a note of my experiences may interest the members of the Academy of Medicine in Ireland.

I found Contrexéville a pretty little town, or rather village, made up for the most part by the hotels and boarding-houses which accommodate the great influx of patients who come to it for the season from May until about Sept. 15th. In former days it belonged to the kingdom of Lorraine, but now it is in the department of the Vosges. Situated on the river Vair, in a valley open from north to south, it is placed at a height of over 1000 feet above the sea level. Its situation explains the sudden changes of temperature to which it is subject, especially in the morning and evening. This fact must be borne in mind by visitors, who should always be provided with woollen garments, even in the height of summer. Though the waters of Contrexéville have been locally celebrated time out of mind, they were only made known to the medical world in

[1] Read before the Academy of Medicine in Ireland, May 29th, 1885.

[2] This guide book can now be had, in English, from Messrs. Churchill of New Burlington-street.

1760, by a report read before the Society of Science and Arts of Nancy, by Dr. Bagard, physician to Stanislaus, King of Lorraine. A short extract from this quaint report will show that even at that distant time Contrexéville was resorted to by patients suffering from gravel, bladder diseases, gout, and liver complaints:—

"The mineral waters of Contrexéville are a sovereign remedy in diseases of the kidneys, of the ureter, of the bladder and the urethra, stone, gravel, glair, suppuration. We can assert that these waters are efficacious against the stone, which they loosen and drive out of the bladder, when the stone is not of a considerable size; that they dissolve and break larger stones, when the latter are chalky. We keep a list of patients of all ages who during several years have got rid of a stone through the effect of these waters. They prevent fresh attacks of gout by restoring the suppleness of the nerves, and of the membranous parts which the disease has dried up. As these waters contain ferruginous matter, a mineral acid and soap, they will be very useful in cases where the bile becomes too thick, and where the liver is obstructed—the more so as they are purgative."

Dating from the time of Dr. Bagard's report, we find the celebrity of Contrexéville steadily growing. Analysis upon analysis has been made of the waters—the Government has taken the station under its protection. Capitalists have expended large sums in making the place attractive to visitors, and year by year the number of these visitors has increased, so that now, owing to the crowds, it is necessary to secure accommodation in advance before venturing to undertake the journey. The accommodation at present is quite first-rate. There are capital hotels and boarding-houses to suit various means; also a well-regulated *établissement* for baths, douches, &c., a very pretty park, with suitable amusements, Casino, theatre, covered promenades, music, reading-rooms, &c. It is right to add that travellers who seek amusement alone are likely to be disappointed. The place is remote and somewhat dull, the patients who go there not young or lively; but the cures are numerous and remarkable, and the patients generally very well satisfied. I was greatly struck in observing the wisdom of the French Executive, which, like all other Continental Governments, takes under its guardianship all places possessing mineral waters of value, developing their utility, and doing full justice to their virtues and capabilities; a contrast very humiliating to anyone familiar with the neglect exhibited by our Government towards places similarly gifted in Great Britain and Ireland.

Contrexéville is prettily situated in the heart of the Vosges mountains, surrounded by agreeable walks and drives, and within easy reach of many interesting places. Amongst others I may mention Domrémy, the birthplace of Joan of Arc; Mirecourt, a flourishing town, celebrated for the manufacture of musical instruments; Neufchâteau, the valleys of Viviers and Bonneval, the baths of Plombières, and similar places. Trips to these various resorts pleasantly fill in the leisure hours of the patients staying at Contrexéville.

As already mentioned, I visited the different springs, and ascertained their properties. Four principal springs are used, which I name in the order of their importance—namely, the Pavilion, the Prince, the Quay, the Sovereign. A fifth, named Le Cler, is also used, and its water exported, but it is weak compared with the Pavilion. All these springs are cold. The Pavilion may be taken as the typical and most important water. I give here a table, showing the result of M. Debray's analysis.

Analysis of the Pavilion Water.

Free carbonic acid	0·080
Bicarbonate of lime	0·402
„ magnesia	0·035
„ iron	0·007
„ lithium	0·004
Sulphate of lime	1·165
„ soda	0·236
„ magnesia	0·030
Silica...	0·015
Chloride of potassium	0·006
„ sodium	0·004
Fluoride of calcium	traces
Arsenic	traces
	2·384

While we may take the Pavilion water as the most important and typical in its composition and effects, it is right to observe that the other springs are similar, on the whole, with some variations. Thus the Prince is richer in iron, and hence of great repute in the treatment of anæmia and diseases of females. According to Dr. Victor Baud it is specially efficacious in functional sterility. The Quay Spring contains more magnesia, and is particularly suited to the gouty. The Sovereign is much weaker than the others, and contains no iron, or at all events none worth notice. Le Cler resembles the Pavilion, but is weaker. I draw attention to this fact as it is now imported, but it is by no means as efficacious as the Pavilion. It is very important to observe that these waters bear carriage well, the only difference observable in the analysis made at the springs and after importation is that the latter show a certain falling off in strength.

My friend Dr. Tichborne, who has lately brought out an important work on mineral waters, in conjunction with Dr. Prosser James of London, was kind enough, two years ago, to place in my hands the results of his analysis of the imported waters of Contrexéville. According to his researches the solid constituents of the imported water amount to 166·7 grains per gallon, as against 229·5 found in the water fresh from the spring. Le Cler water shows only 149 grains per gallon.

It will be seen from the foregoing analysis that the spring belongs to the class of calcareo-sulphated waters—that it is alkaline, with a preponderance of salts of lime, that it contains aperient salines in the form of sulphates of soda and magnesia, also iron and arsenic, and traces of fluoride of calcium. It holds, moreover, sufficient free carbonic acid to make it bright and pleasant to the taste, when fresh from the source, thus masking its somewhat inky flavour. Its effects, when used internally, may be anticipated. It is, first, diuretic; secondly, laxative; and, thirdly, tonic. When taken in suitable doses it purges gently, improves the appetite, stimulates the circulation and skin, promotes the flow of bile, and especially it increases the urinary secretion in a very remarkable manner.

It is upon the urinary organs that the water of Contrexéville exercises the most powerful effect. It acts rapidly, producing a diuresis far in excess of the quantity of fluid ingested; it dissolves the mucus met with in the passages, and loosens and carries out small concretions. It has been observed to subdue quickly excessive acidity of the urine, clearing it remarkably of deposits, and, strange to say, in certain cases it is found to restore alkaline urine to its normal acidity. This seemingly paradoxical effect is due to its efficacy in curing morbid conditions of the urinary mucous membranes, which so often lead to ammoniacal decomposition, and consequent alkalinity of the urine. Its effects in cases of gravel and stone are remarkable. When the calculi are small, they are frequently washed out bodily by the diuresis. When large and soft, they are disintegrated and broken up to such an extent that some actual cures have been recorded; but the more common effect of Contrexéville water on large calculi is to strip them of mucous and phosphatic coatings, thus exposing the central calculus in its rough outline, and increasing the calculous symptoms. In this way the waters act as a valuable test, quickly revealing the presence of the stone, and compelling the patient to seek surgical aid, and waste no time in hesitancy, the too frequent result of procrastination, due to the fluctuation of symptoms. In cystitis, whether essential or symptomatic, the waters of Contrexéville are useful beyond all controversy, often curing the former, and mostly alleviating the latter cases, even when all other remedies have failed. I can speak with confidence on this subject, from an experience extending over fourteen years. The highest Continental authorities are agreed upon the therapeutic value of Contrexéville waters in urinary diseases. As I stated before, my knowledge of their utility arose from Dr. Acosta of Paris sending thither a case which had long resisted other treatment, and both the late Dr. Civiale, a specialist of European fame and historical celebrity, and Dr. Durand-Fardel, another specialist on the subject of mineral waters, speak in the highest praise of them. Dr. Civiale particularly advised their use in cases of atony of the bladder, arising from long-standing stricture, cystitis, and following the operation of lithotrity.

The essential difference observable between the Contrexéville waters and those of other alkaline sources, such as Vichy, Vals, and so forth, is that they are tonic, and thus, while beneficial to the local ailments, are, at the same time, restorative of the general health and strength. Such a com-

bination of virtues cannot, by any means, be affirmed regarding many other alkaline waters.

Besides their internal administration, the waters of Contrexéville are also used externally in baths, douches, &c. I have some doubts of their possessing any very powerful effect when applied to the skin, except perhaps as a stimulant in douches, and thus an adjuvant to their internal exhibition; all the more so, as I observed at the time of my visit that the waters, when heated, freely deposit the solid ingredients, lining the boilers with thick incrustations.

Although my principal object in this paper is to explain the value of the waters of Contrexéville in diseases of the urinary organs, I may be allowed to notice briefly their utility in some other ailments.

First, in gout these waters will be found most serviceable especially in the chronic or atonic forms. This might be anticipated from their usefulness in calculous disorders, which are largely due to gout. In them we find properties at once diuretic, laxative, and tonic, fulfilling the most important indications for treatment. Moreover, being moderate in the degree of their mineralisation, they are much safer, especially for the weakly, than the waters of Vichy, Vals, Carlsbad, and other more powerful alkaline spas, which suit best for the plethoric. Trousseau, as also Charcot, dwells on this point in favour of Contrexéville.

Another class of cases in which these waters are found particularly useful are those in which the liver is congested and inactive from one cause or other, and the bile inspissated and tending to the deposition of concretions or gall-stones. Numbers of patients thus affected are sent by the French physicians to this station, and obtain remarkably favourable results. This, as in the case of gout, is just what we might expect from the composition and effects of the waters.

Another ailment in which Contrexéville waters are used with advantage is nocturnal incontinence of urine in children. I can speak decisively on this point from my own experience. I believe that in such cases the action of the water is twofold. In the first place, it corrects irritating conditions of the urine, and secondly, it restores tone to the organs. Whether this is the correct explanation or not, of one thing I am certain, that the use of the Pavilion water, as a diet drink, has cured a number of very obstinate cases.

Another disease in which Contrexéville water has been found very serviceable is diabetes. I do not mean to affirm that it will accomplish the cure of confirmed cases of diabetes with progressive wasting, but certainly in the group of patients who are gouty, and more or less diabetic, it materially reduces the glycosuria, and proves a useful adjunct to a regulated dietary. In this effect it closely resembles the famous American mineral water, the Bethesda.

To recapitulate: the waters of Contrexéville are mildly alkaline, especially from lime salts; saline, from sulphates of soda and magnesia; tonic, being ferruginous and arsenical, with traces of fluoride of calcium.

The diseases in which they prove useful are: Chronic affections of the urinary organs, especially when complicated by gravel, renal or vesical; gout, especially its atonic forms, these waters being tonic, and thus markedly contrasting with many other alkaline waters; diseases of the liver, especially those complicated by gall-stones; nocturnal enuresis in children; and diabetes, especially when associated with gout.

Let me add a word as to the use of the imported waters of Contrexéville. I advise the Pavilion spring, and none other. Of this I give half a bottle daily as a diet drink, either with milk, wine, or spirit, as otherwise indicated. Watching the effect I increase the quantity up to a whole bottle, but have not exceeded that amount. As to the method of using these waters at the Springs, I do not touch the subject. Taken fresh they are far too powerful to be used without the regular supervision of a physician familiar with their employment. Under such direction I believe they will be found an invaluable adjunct to the resources of the practical physician and surgeon.

(To be concluded.)

TAUNTON SANITARY HOSPITAL.—An honorarium of 100 guineas has been presented to the medical officer (Dr. Alford) and one of 30 guineas to the matron (Miss King) of this institution, for their services during the recent outbreak of small-pox, when 171 cases were admitted into the hospital. The salary of each has also been raised £10 and £5 per annum respectively.

OVARIOTOMY IN ROME.

BY J. HARRY THOMPSON, A.M., M.D.

THE following report is made on account of several points of unusual interest connected with the case before and after the operation.

Marguirata M——, Italian, aged twenty-seven years, consulted me for the first time in February, 1882, and gave the following history. She was married in October, 1879. Her first child was born ten months after; her labour was natural and convalescence perfect. A few months after the birth of her child she noticed a tumour in the left iliac fossa about the size of an orange. At first she experienced no discomfort from it, but latterly the tumour had increased rapidly, and was the seat of repeated attacks of severe pain, accompained by fever. For several weeks respiration had been rapid and difficult; she was unable to lie down, but slept in a half-sitting position. She stated that she had consulted several physicians, who had expressed the opinion that she was suffering from a uterine myoma, and advised her not to submit to any operation. Her general appearance was that of a woman about forty years of age, skin sallow, face haggard and indicative of bodily suffering. The abdomen was enormously enlarged, measuring forty-nine inches around the umbilicus, the feet and legs were œdematous, pulse 118, temperature normal. The tumour was regular in outline, very hard, and the fluid wave indistinct; but a careful examination satisfied me that she was suffering from cystic disease of the ovary. I advised her to submit to the operation for radical cure, but to this neither she nor her husband would consent. It was only after much persuasion that she would consent to be tapped. On Feb. 23rd the tumour was aspirated with a large-sized cannula, and forty-seven pounds of reddish-brown grumous fluid withdrawn. The operation was followed by no constitutional disturbance.

The patient gained flesh and strength rapidly, and at the end of one month was apparently in perfect health. She had lost the aged and worn expression so strongly marked when she first came under observation. She presented herself occasionally for examination, having been advised that in all probability the fluid would reaccumulate, in which event it would be necessary to remove the tumour before it should again seriously impair her health. It was not until the end of May that I detected the sac to be refilling.

In August I received a letter from her husband stating that she was nearly as large as before the tapping, and suffering much pain and inconvenience, and was very anxious for the operation to be performed. I was then at Viareggio on the Mediterranean, where there is an excellent hospital under the charge of a Catholic sisterhood. I sent for her to come immediately, with the intention of placing her there for the operation. In a few days she arrived, and, to my surprise, I found that she was nearly five months advanced in pregnancy. She was larger than most women at full term. The situation was critical and embarrassing. If the pregnancy went on, the sac would in all probability be ruptured. To attempt to relieve her by tapping would be very hazardous, as, owing to the thickness of the abdominal walls, it was impossible to define the outlines of the tumour or uterus. She was fully advised of the situation, and the induction of premature labour was recommended as being the safest procedure under the circumstances. This suggestion was acceded to, and on August 31st a fine piece of carbolised catgut was introduced into the uterus and left there. In forty-eight hours labour pains were strong and the os well dilated, and she was safely delivered of a male fœtus on September 3rd. In two weeks from the time of delivery she felt so well and was so much reduced in size that she would not consent to the operation. She returned to Rome in the latter part of the month, promising me that she would not again expose herself to the danger from which she had escaped.

I saw her again in November. The tumour was large, but gave her little inconvenience; her general health was good, and continued so until February, 1884. At this time her abdomen was as large as when she first came under observation. It was then arranged that the operation should be performed one week after the termination of her next menstrual period. The results of ovariotomy in Rome had

been so generally fatal that I was particularly anxious to protect my patient from any possible source of contamination. An apartment was secured on the top floor of a new palace, where there was abundance of pure air and sunshine. The furniture, which had never been used, was limited to absolute necessaries, and everything made thoroughly aseptic. On March 20th she was removed to her new quarters, and placed in the charge of a trained nurse from St. Paul's Home. The patient's diet for three days before the operation was confined to Scotch oatmeal with cream for breakfast and supper, and broiled beefsteak and bread for dinner, with a glass of claret.

I performed the operation on March 24th, 1884. Dr. Drummond administered the anæsthetic (Billroth's compound of ether, chloroform, and alcohol), and I was ably assisted by Professor Pantaleoni, Dr. Bull, and Dr. Georgiana. I made an incision over the linea alba, one inch below the umbilicus and extending downwards five inches. The abdominal wall was unusually thick and very vascular. Eighteen ligatures were applied before the hæmorrhage was controlled. Upon dividing the peritoneum, the tumour as far as the hand could reach was found to be strongly adherent over all except the lower anterior part. To secure working room, it was necessary to extend the incision three inches above the umbilicus. Adhesions which would readily yield were broken down by the finger, and the sac was tapped with Spencer Wells' trocar. Unfortunately, the rubber tube running from the trocar was bent upon itself, and before it could be straightened some of the contents of the sac escaped into the peritoneal cavity. The omentum was largely adherent; it was tied in six parts, the ligatures cut short, and the omentum divided. The separation of the adhesions about the umbilicus was difficult and tedious, and much time was occupied in this part of the operation. The abdominal wall and the wall of the sac were so intimately incorporated that it was found impossible to separate them with the finger and handle of the scalpel, and a careful dissection had to be made with the knife, a portion of the wall of the sac being left adherent to the abdominal wall. The bleeding was profuse. The larger vessels were ligatured with fine carbolised silk, and the ends of the ligatures cut off short; the remainder were twisted, and the oozing points touched with Paquelin's cautery. The pedicle was broad and very vascular; Sir Spencer Wells' clamp was applied, and the stump thoroughly cauterised and dropped back. The abdominal cavity was then carefully cleansed from blood and cystic fluid, and I was about to close the wound when the stump was discovered to be bleeding freely. Fortunately, it was easily found and secured by a double ligature of stout carbolised silk, the ends of which were left outside. The cavity was again sponged out, and the wound closed by thirteen sutures of stout silver wire. The abdominal walls were loaded with fat, being nearly three inches thick; the sutures were made to include one inch of peritoneum on either side. The ends of the ligatures from the stump were brought out at the lower angle of the wound by the side of an half-inch rubber drainage-tube, which was passed down to Douglas' cul-de-sac, and secured by a large-sized safety pin. Lister's dressings were applied, and over all a many-tailed flannel bandage. When the patient was placed in bed the pulse was scarcely perceptible, and the temperature marked 97°. Bottles of hot water were applied to the feet, hands, and sides of the body, and brandy administered hypodermically. She had been under the continuous influence of the anæsthetic for three hours, and the peritoneal cavity was open and exposed to the carbolic spray for nearly the same time. By 8 P.M. reaction was well established. Pulse 112; temperature 99°. She complained of pain at the site of the wound and thirst. The catheter was passed, but there was no urine in the bladder. Half a grain of the watery extract of opium was ordered to be given every four hours, if the pain continued or the patient became restless, and ice to allay the thirst.

March 25th.—6 A.M.: Has passed a restless night, but has less pain. Pulse 112; temperature 98°. One ounce of dark-brown urine has been drawn during the night. 4 P.M.: Complains of dull pain in the head and much thirst. No urine in bladder. Ordered four ounces of effervescing lithia water to be taken every four hours, iced milk in small quantities, and opium to be continued if necessary.

26th.—10 A.M.: Pulse 110; temperature 100·2°. Tongue clean and moist; has passed a quiet night; feels tired, but has little pain. The dressings, being soiled, were removed under the spray, and the part redressed. The wound looked well, the edges being united. Light-brown serum was flowing freely through the tube and by the side of the ligatures. During the night about two ounces of olive-green urine had been drawn by the nurse. 9 P.M.: Pulse 104; temperature 99·6°. The urine drawn during the day was of the same character, and about three ounces and a half in quantity.

27th.—10 A.M.: Pulse 110; temperature 99°. The patient looks well, says she feels better, has no pain about the abdomen, but her head feels queer. Three ounces of bloody urine had been drawn during the night. The bandages and pad under her were soaked with serum, slightly discoloured but odourless. Fresh dressings were applied under the spray. Lithia water to be continued, iced milk for nourishment, and no opium to be given unless the patient should be restless. 10 P.M.: Pulse 100; temperature 98·5°. The patient sleeping. About four ounces and a half of urine had been drawn since morning visit, and still some blood in it.

28th.—11 A.M.: Pulse 100; temperature 98·5°. The patient quite cheerful. She has passed five ounces of urine during the night without blood, and much lighter in colour. The flow of serum continues very abundant. Fresh dressings were applied. Lithia water to be continued, and for nourishment milk and beef essence alternately. No night visit made.

29th.—9 A.M.: Pulse 104; temperature 98·2°. Patient looks anxious, complains of pain all over the abdomen, which is much distended. On removing the bandages I found them but little soiled, and no serum flowing from the tube, and but little by the side of the ligatures. Upon withdrawing the tube, which was blocked with blood-clots, the serum spouted from the opening in a steady stream, carrying with it numbers of small clots. After the flow of serum had stopped, a shorter tube was introduced and fresh dressings applied. 4 P.M.: Pulse 104; temperature 98°. Patient is much easier, serum flowing freely. The nurse had drawn four ounces of urine, of a more natural appearance.

30th.—Noon: Pulse 100; temperature 98°. Patient is doing well; feels a desire for food. Bandages, pad, and bed soaked with serum. Every alternate suture was removed, and strips of adhesive plaster applied in their places. Raw eggs were ordered to be given in the beef essence, and some toasted bread allowed. Lithia water discontinued.

31st.—2 P.M.: Pulse 96; temperature 98·1°. During the last forty-eight hours the patient has passed, without the use of the catheter, nine ounces and a half of urine, natural in colour.

April 1st.—10 A.M.: Pulse 96; temperature 99·6°. The patient says she feels quite well. The remaining sutures were removed. Union was perfect. The abdominal wall was firmly supported by wide strips of adhesive plaster. The drainage-tube was removed, the ligatures being sufficient to keep the opening patent.

From this time onward the patient progressed towards recovery without one bad symptom. Occasionally there would be a slight elevation of temperature and an increase in the heart's action, but at no time sufficient to cause anxiety or necessitate treatment. The bowels were not moved until the sixteenth day, and then under the combined action of castor oil internally and repeated injections of tepid water. One month from the day of the operation she returned home. The abdominal opening was still patent and the ligatures firm. In accordance with the suggestion of Sir Spencer Wells, gentle continuous traction was kept on the ligatures by means of a rubber ring, to one side of which the ligatures were attached and the other side made fast to the abdominal wall by strips of adhesive plaster. At the end of eleven weeks they showed no signs of yielding. The continuous traction was making the part sore, so I determined to cut them off. I drew them out as far as I could without using too much violence, and pressing the abdominal wall inwards cut them off as short as possible. Undoubtedly the attached portions of the ligatures were encysted. In a few days the opening closed and the patient needed no further treatment.

Throughout the treatment of this case the strictest antiseptic precautions were observed. Neither of the gentlemen who assisted me or the nurse had attended a case of fever or been in contact with any contagious disease for two weeks. Instruments, sponges, towels, and everything used were rendered thoroughly aseptic, and no one but Dr. Bull, myself, and the nurse were permitted in

enter the room for ten days after the operation. One might naturally have expected that after so much violence had been done to the peritoneum some inflammation would have followed. There were twenty-three ligatures cut off short and left in the peritoneal cavity, and the stout ligatures around the pedicle, and eighteen ligatures cut off short and left embedded in the abdominal wall. The escape of so much cystic fluid into the abdominal cavity increased the risk, for, however carefully the cavity might be sponged, some portion would surely remain; but during the whole progress of the case the highest point of temperature reached was 100·2°, and the pulse never exceeded 116. A large amount of carbolic acid was necessarily absorbed during the operation; it undoubtedly caused some renal congestion and partial arrest for some days of the renal secretion; but, on the whole, it did much more good than harm, for I am firmly convinced that had not the strictest Listerism been observed in the treatment of this case, I should have lost my patient.

Rome.

CASE OF STARVATION AND SUSPENDED ANIMATION.

BY EDWARD BERDOE, M.R.C.S., L.R.C.P. EDIN.

I WAS called on April 29th, 1885, by an order from the relieving officer of my district, to see a man named Samuel B——, aged seventy-four, at the almshouses of the Parmiter Charity, Bethnal-green. I found him lying on the floor insensible and dying. His wife sat near him, and on being questioned admitted that he had been lying in the same position for six days without food, drink, or any attention whatever. It was only by information from a neighbour that the parish authorities got to know of it. On raising him to place him on the bed, part of the flesh of his face adhered to the floor and was torn off. The exact form of the patient was marked on the floor by the exudation from the skin. He was in a most filthy state, and though unable to swallow even liquids, lived about fourteen hours after my first visit. By the coroner's order I made a post-mortem examination. The body was fearfully emaciated, and all the parts that had been in contact with the floor were gangrenous. The organs presented the usual appearances of death from starvation, but the medical interest of the case was found in the condition of the heart. This was enormously hypertrophied and dilated; all the vessels were atheromatous, and there was a large aneurysm of the arch of the aorta. The cardiac condition seemed to satisfactorily clear up some of the difficulties of the case. From the evidence at the inquest it is probable that the wife's statement was correct, that he had fallen down "in a fainting fit" six days previous to my visit, and had not moved or spoken since. The heart presumably beat with just sufficient force to keep the respiratory organs going; this was, of course, favoured by the recumbent position. The case is interesting from a medico-legal point of view, as showing how long a person may live in a state of syncope.

Victoria-park-gate, E.

A NEW SPLINT FOR THE TREATMENT OF COMPOUND INJURIES AT OR ABOUT THE ELBOW-JOINT.

BY ROBERT JONES, M.R.C.S.,
HONORARY ASSISTANT-SURGEON, STANLEY HOSPITAL, LIVERPOOL.

I HAVE found the annexed figured splints very useful amongst the out-patients of the Stanley Hospital. One form (Figs. 1 and 2) is composed of two very flexible sheet-iron splints covered with felt, and connected by means of a firm iron rod, so twisted as to extend beyond the elbow, leaving ample freedom for easy change of dressings, without interfering with the immobility of the joint. This is of great advantage where perfect rest and free drainage are requisite. For comfort's sake the forearm support is extended beyond the wrist—a detail which should on no account be neglected. The connecting bar must be sufficiently strong to admit of no movement at the elbow. Where the wound is unusually large and extends up the arm, I use a modified splint (Figs. 3 and 4), the flexible sheet-iron support being substituted by small wings, which are quite easily bent and can be moulded to the arm without any trouble. The splint is made at any angle which the

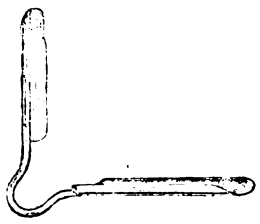

FIG. 1

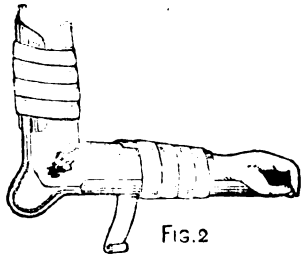

FIG. 2

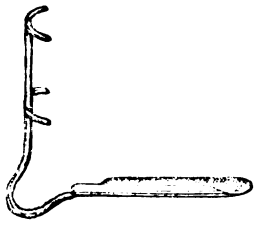

FIG. 3

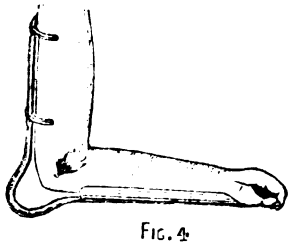

FIG. 4

surgeon, regardful of the possibility of ankylosis, may suggest. This will vary according to the patient's vocation. Generally speaking, a right angle gives the most useful result.

The splints may be procured at a moderate cost from Messrs. Krohne and Sesemann, London; and from Mr. J. Critchley, Upper Pitt-street, Liverpool.

Liverpool.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prœmium.

KING'S COLLEGE HOSPITAL.

A CASE OF EMBOLISM OF THE RIGHT MIDDLE CEREBRAL ARTERY SIMULTANEOUSLY WITH EMBOLISM OF THE RIGHT BRACHIAL; GANGRENE OF THE RIGHT THUMB AND LITTLE FINGER; RECOVERY.

(Under the care of Dr. JOHNSON.)

IT is rare to have embolism of a cerebral vessel and simultaneous embolism of one of the large systemic arteries. The most common source of such embolism is the detachment of granulations from one of the valves on the left side of the heart. This condition of the valves is usually accompanied by a murmur or other indication of the disease, but it is possible to have disease sufficient to produce embolism of more than one vessel without any murmur. Under such circumstances, until a post-mortem examination has been made, such source cannot be decidedly negatived.

For the following notes we are indebted to Mr. T. Sydney Short, medical registrar.

E. W ——, aged thirty-nine years, was brought in by his wife, and carried on an ambulance stretcher. He could answer questions, but was incoherent and dazed. His wife said that on the night of March 11th, seventeen days before his admission, which took place on March 28th, he had a fit when apparently asleep, and she found him out of bed and trying to get into bed again. He was completely dazed, and could only just understand what was said to him. She

noticed that he had lost the use of his left arm, and that the face was drawn to the right side; and on attempting to feel the pulse could not obtain any beat on the right side at the wrist, but easily felt it on the left side. The forearm and hand were quite cold on the right side, and she also noticed that as they became warmer the end of the little finger and the thumb became black. The paralysis of the left leg came on more gradually, and was complete in a few days. For a day or two after the seizure he had some incontinence of urine, which then passed off. As far as she could say, the sensation of the left side was lost from the first. His memory for all events just before and at the time of the attack was very dim, and although his speech was thick there was no aphasia.

The patient was a healthy-looking and well-made man, with perfectly white hair, which, it was stated, had turned so when he was nineteen years of age; this and a large black beard made him look much older than thirty-nine years. It appeared that from the early part of the year he had been overworked as a clerk, and, besides being very anxious about his work, had been doing some hours overtime. One day he had fainted, for the first time in his life, from sheer fatigue. His family history was good. His parents were both alive, and his mother was getting about fairly well, in spite of a paralytic stroke when sixty years old. He himself had a good history. He had had scarlatina eighteen years ago, but never any rheumatism, and never suffered from anything except from an occasional severe headache when especially worried.

On admission, he had complete paralysis of the left arm and leg, with partial left facial paralysis; on the same side there was total loss of sensation to touch, but he could feel pain as such, not, however, being able to localise it at all. The whole of the paralysed side was bathed in perspiration. At about the junction of the upper with the middle third of the right upper arm a soft plug could be distinctly felt in the brachial artery; there was a pulse above this point, but none below. The greater part of the thumb and the end of the little finger were black and shrunken, and the line of demarcation had commenced in both. There was no evidence of past or present cardiac mischief. The urine was at first passed unconsciously, was ammoniacal, but contained no albumen. Arteries not rigid nor thickened. During the first week his temperature was rather above the normal. He soon regained command over his bladder and moved his left leg slightly. The right hand caused him a great deal of pain, and was relieved by opium fomentations. It was found he could not detect the difference between hot and cold substances, unless they caused pain. For about a month he was sleepy and dull. The progress of the case was briefly as follows:—During April and May he steadily improved, his mind became clearer, and the movement of the left leg increased. On May 7th he was seen by Sir Joseph Lister, and the gangrenous parts were dressed with salicylic wool and bathed daily with a carbolic acid lotion from that day. Rigidity in the paralysed limbs gradually showed itself, and tendency to ankle-clonus was seen during June, and became well marked in July. The sensation of the face improved rapidly, but that of the limbs was absent for touch at this time. On Sept. 12th, and again on Nov. 14th, he had an epileptiform fit; the spasms were most marked on the right side, but commenced on the left, and he was reported to have moved his head towards the right side. The rigidity in the meantime was gradually increasing, and a wrist-clonus was developing on the left side. During January of 1885 he had two more fits, both beginning with left-sided twitchings. The second one was preceded by much headache, and was the last fit he had in the hospital. At the end of January he could not stand on account of his left leg giving way at the knee and ankle; none of the muscles had wasted. The left knee-jerk was only slightly in excess of the right, and the attempt brought on convulsive movements of the leg. Ankle- and wrist-clonus and elbow-jerk were easily obtainable. No abnormal sensations anywhere. Sensation to touch still much impaired in the left limbs, especially in the foot and hand, and improving in passing upwards along the limb from these parts, enabling him to appreciate the difference between heat and cold, which he was unable to do in the hand and foot. He could tell the difference between a knife point and pencil anywhere. The sensation over the left side was nearly normal, being slightly duller than the other. The rigidity is worse after any movement of the limbs, but he thinks himself it is much less. The gangrenous part of the thumb was removed by Sir Joseph Lister on Aug. 15th, and on Oct. 30th the end of the little finger was removed. Both places healed up perfectly, leaving him with a small piece, about half an inch, of metacarpal bone of the thumb projecting, with fair movement; he had an artificial thumb fitted to this.

The patient was discharged on May 1st, 1885; and on June 3rd he wrote the following account of himself with the help of the artificial thumb. He is still unable to stand and thinks there is no increase in the power of the left arm and leg, but that the stiffness in both limbs has decreased. He has had no more fits, but could send no information about the pulse on the right side.

Remarks by Dr. JOHNSON.—The chief points of interest in this case are the simultaneous occurrence of the left hemiplegia and the embolus in the right brachial artery, making the diagnosis of hemiplegia from embolism almost certain. At the same time there was no clue as to the origin of the embolus, and the point whence it had originally started could not even be guessed at, since the heart was normal as far as could be ascertained.

KENSINGTON INFIRMARY.

A CASE OF OVARIOTOMY; RECOVERY; REMARKS.

(Under the care of Mr. H. P. POTTER, Medical Superintendent.)

THE patient was a single woman, aged fifty; the catamenia were regular; the duration of the swelling two years. This was situated to the right of the umbilicus; it was globular, smooth, and fluctuating with distinct thrill, measuring five inches in diameter. Potin's aspirator evacuated nearly three pints of clear, limpid albuminous fluid, sp. gr. 1010. This was done eight weeks before the operation. On March 27th, as the fluid had re-collected and the cyst appeared tense, ether was given and an incision three inches long was made immediately below the umbilicus and the cyst exposed. This was found to have many adhesions to the surrounding parts—viz., to the abdominal wall, intestine, and mesentery. All these were torn away, excepting two firm adherent cords which required ligature. The bleeding was so slight that no vessel was tied or twisted. Limpid, dark-coloured fluid was drawn off; a small quantity escaped into the peritoneal cavity. The pedicle was secured with a double stout silk ligature and the collapsed cyst withdrawn from the abdomen. It was unilocular and connected with the right parovarium. Four deep silk sutures were introduced from within outwards, and five superficial catgut stitches joined the edges of the incision, which was covered with antiseptic gauze. Drs. Travers and Atkinson assisted at the operation. Ice-water was alone given for twenty-four hours. The patient had a little vomiting (due to the ether). The temperature on one occasion rose to 99·3° F., with this exception it was normal throughout, and the progress during convalescence was undisturbed. The patient left her bed on the fourteenth day, and gradually regained strength until April 21st, when she was certified for a convalescent home.

Remarks by Mr. POTTER.—The importance of rest following capital operations is fully recognised. And in no operation are rest and position more necessary than in ovariotomy. Although this case is by no means peculiar, the special feature I wish to point out shows and tends to prove that in some complicated cases, at any rate, absolute and continuous rest in the horizontal dorsal position and the prohibition of movement, however slight, favours early cicatrisation, and counteracts peritonitis and other serious sequelæ. Mortality after ovariotomy is influenced by the severity of local conditions, the state of the kidneys and other viscera, the health, disposition, and temperament of the patient, the care with which she is prepared, the after-treatment, and nursing. These points are doubtless more worthy of consideration than age, size of tumour, mechanical effects of the swelling, variety of the dressing, and the presence or otherwise of strict antiseptic precautions. In conclusion, I venture to think the instrument usually employed for tapping these cysts is too large, especially in cases where the contained fluid is known to be limpid; it is apt to make a rent in the cyst-wall through which fluid may escape by the side of the cannula. It is found in practice that the abdomen can invariably be emptied in ascites with the pocket-case trocar and cannula. If some material could be found to adhere to the cyst so that the fluid may be carried away clear of the abdomen during the

process of tapping, similar to the impervious apron which is commonly applied in these operations to the skin of the abdomen, I apprehend that by the prevention of the escape of fluid into the abdominal cavity, we should obviate a risk against which we have at present no infallible remedy.

ROYAL SOUTHERN HOSPITAL, LIVERPOOL.

CASES OF STRICTURE OF THE URETHRA, WITH COMPLICATIONS; REMARKS.

(Under the care of Mr. PAUL.)

THE cases of stricture of the urethra which we publish are of interest, each of them being complicated and requiring special treatment. Wheelhouse's operation, which was performed in one case, was described by him in 1876; but, as Mr. Paul observes, it is not necessary to use the special instruments then brought forward, success being equally obtained with instruments which are in almost daily use.

CASE 1. *Old Stricture; Perineal Abscess; Urinary Fistula, becoming epitheliomatous.*—Josiah C——, aged fifty-four, a seaman, had suffered many years from stricture (he says thirty), but had never been treated for it. He sought admission on account of a perineal abscess. Under ether the abscess was opened, the stricture divided, and a full-sized gum-elastic catheter passed and tied in. On the third day the catheter came out and was not reintroduced, a Lister's bougie being passed daily instead. At the end of two months he was discharged almost well, but warned to attend as an out-patient for some time to get the bougie passed, as the stricture showed a strong tendency to contract again. He was an extremely nervous man, and once out of the hospital had not the pluck to continue treatment, the result being that in the course of a few months he had another urinary abscess worse than the first. He kept away from the hospital until he found that he was getting in a very bad way, when he returned in the following condition: the scrotum and the whole of the perineum and neighbouring parts were brawny and tender. Just behind the former was a ragged, foul-smelling sore, eating deeply into the perineum along the tract of the original fistula. Its edges were hard and epitheliomatous in appearance, and upon scraping the surface of the sore the characteristic "nest cells" were found in abundance. The disease was too far advanced to permit of any attempt at removal, and came to a fatal end in about three months, the actual cause of death being cellulitis. At the post-mortem the growth was found to be limited to the perineum and neighbouring glands, involving all the parts down to the arch of the pubis and spreading freely into the scrotum. The prostate and bladder were quite free.

Remarks by Mr. PAUL. I believe that this is a very rare sequence to a urinary fistula, and it is very unfortunate that there were no means by which the exact origin of the epithelioma could be determined. It is difficult to distinguish microscopically epithelioma of the bladder from epithelioma of the skin, and the same holds good with the urethra. The whole case lasted only ten months. When first seen, the skin of the perineum was unbroken, it was quite free from growth two months later, and then, at the end of another five months, was the site of a large and very deep epithelioma. Under these circumstances, I inclined to the opinion that the growth commenced in the urethra, and was excited by the prolonged stricture; just as simple syphilitic stricture of the œsophagus sometimes ends in epithelioma of that structure.

CASE 2. *Stricture; Cystitis; Wheelhouse's Operation.*—James P——, aged thirty-four, had gonorrhœa when a lad and had suffered from stricture for the last sixteen years. He had often been under treatment at the various hospitals in the town, but had never had anything larger than a No. 6 or 7 passed, except on one occasion when Mr. Harrison ruptured the stricture with Holt's dilator. After this he learnt to pass a catheter for himself, but had only used the smaller sizes, and came to the hospital, as he could get nothing more in and was scarcely able to pass his urine. On admission, he was in good general health. There was a cartilaginous stricture in the perineum which would just admit the smallest soft bougie. The urine was foul and contained a quantity of mucus. At the end of three days no dilatation had been effected with catheterism, and the bladder symptoms were becoming more urgent; Wheelhouse's operation was therefore performed at once. The patient was placed in the lithotomy position, and a long silver probe passed down to the stricture. An incision was then made on to the end of the probe, which was pushed out of the wound and bent into a hook. The sides of the urethra were held open with artery forceps, a grooved probe insinuated through the stricture, which was divided, and the probe passed on into the bladder. It was now quite easy to pass a full-sized Lister's bougie from the penis to the bladder; so the patient was sent back to bed without having a catheter tied in. At the end of a week the urine was quite clear and all irritation of the bladder had ceased; so, instead of the daily passage of a bougie, a large gum-elastic catheter was tied in. While the catheter was kept in all the urine came by it, and the wound healed rapidly. It was removed in ten days, and the patient taught to pass a No. 12 Lister's bougie, and discharged a few days later. Altogether he was in the hospital only from Jan. 12th to Feb. 7th.

Remarks by Mr. PAUL.—I send this straightforward case for publication because I have so often felt the advantage of an early operation of this nature in stricture cases, and because I often notice that my surgical friends, while they laud the method advocated by Mr. Wheelhouse very rarely seem to adopt it. In the hands of specialists internal operations upon the urethra are much in vogue; at present I have never either split or divided internally a stricture, except in the penis, preferring in all cases where an operation is necessary to do perineal section. I think it is a pity that Mr. Wheelhouse recommends special instruments for his operation, as it is quite as easy to do it with those always at hand; and, with all due deference to his opinion, I do not find his sound and gorget of any material assistance, while their absence might influence some to attempt a different method of giving the necessary relief to the patient. In this case a catheter was not tied in at once on account of the cystitis; and at the conclusion of the treatment I adopted my usual practice of teaching the patient to pass a large metal sound for himself. It is the only permanent cure for most strictures, though but few, of the hospital class at any rate, are wise enough to adopt it.

CASE 3. *Stricture; Retention; False Passage; Relieved by Puncture per Rectum.*—James F——, aged twenty-seven, had gonorrhœa some years ago, but passed urine in a full stream until about twelve months back, when he had his first attack of retention of urine after a drinking bout. Since then, under similar circumstances, he has had three or four more attacks of retention, and at the same time the stream of urine has been steadily diminishing in volume during the intervals. On Feb. 2nd he was drinking, and on the morning of the 3rd was again attacked with sudden and complete retention. Relief had been attempted by catheter, and he bled profusely, but no urine was drawn off. He was admitted with the bladder moderately distended in the afternoon, and was in great pain. A metal catheter was passed into the urethra, but opposite the bulb left it for a false passage, and on withdrawing the instrument he at once strained away about an ounce of blood. Under these circumstances a morphia injection was given, and he was ordered to have a hot bath shortly, to be followed by hot fomentations to the abdomen, and further morphia if necessary. In the evening, though the treatment had given some relief, not a drop of urine had been passed, and it was therefore deemed advisable to puncture per rectum. The next day he was perfectly comfortable, and the urine was draining freely through the cannula.

On the 5th, after plugging the tube, he was able to pass urine by the penis, and it was consequently withdrawn.

6th.—Had a rigor, with nausea, headache, and diarrhœa. Temperature 104°. Ordered five grains of quinine every four hours.

7th.—Temperature fell below 100°, and became normal in a few days. The quinine was stopped on the 9th.

12th.—Soft bougies passed. No. 3 was the first to be gripped by the stricture, which was dilated to No. 6.

24th.—The patient was discharged with the stricture fully dilated.

Remarks by Mr. PAUL.—In a case of this kind, I think the choice lay simply between aspiration of the bladder and puncture per rectum. I chose the latter entirely on account of the false passage. In acute retention, when, though the urethra is uninjured, no instrument can be passed, aspiration is called for, and will almost invariably not have to be repeated, since the relief afforded by it, together with other suitable treatment, will permit the swelling and spasm of the urethra to subside, and in the course of twelve

hours either the patient will have passed urine naturally, or it will be possible to introduce a catheter. But when a false passage is present, and it is extremely unadvisable to interfere with the urethra for at least a week or ten days, the better plan is certainly to adopt puncture per rectum, and retain the cannula *in situ* until the power to micturate has returned. The pyrexial attack on the 6th I believe to have been due to some urine filtering into the false passage and permitting septic absorption, as no instrument was passed until the 12th, and no trouble of any kind appeared in connexion with the rectal puncture. I am a strong advocate for early operation in all cases of obstruction to the outflow of urine, when that obstruction cannot be easily overcome by catheterism. We ought to remember that the kidneys are the only part of the urinary tract of vital importance, and, sooner than permit their structure to be damaged, a clean incision should always be made into the urethra or bladder, as the case may require. Sadly too often, while we are wasting time over a cartilagenous stricture with small bougies, pyelitis is grafted on to cystitis, and suppurative nephritis may develop at any moment, and show too late the danger of delay.

Medical Societies.

THE ABERNETHIAN SOCIETY.

SIR JAMES PAGET ON ST. BARTHOLOMEW'S HOSPITAL AND SCHOOL.

A SPECIAL meeting of the above Society took place on Monday, June 8th, Mr. W. T. H. Spicer, President, in the chair.

Sir JAMES PAGET, Bart., gave an address on "St. Bartholomew's Hospital and School fifty years ago." A large number of the members were present, together with about 120 of the nursing staff, who were invited as guests. Sir James Paget began by describing first the exterior of the hospital, saying how much more classical it was in appearance than now, and how all the four blocks which surround the square were then connected together by arches or gateways, which led into the neighbouring streets. A great improvement had taken place since then in that the square was now much quieter, for then it was almost as noisy inside as outside, where a cattle fair was held every week. In fact, it was a public thoroughfare. In some respects it was more rural, for attached to the vicar's house was a garden in which a mulberry tree flourished, and of which the vicar was very proud. Dr. Hughes was accustomed to say that he had heard the nightingale singing there. He (Sir James Paget) then went on to speak about the school buildings, and showed what great alterations had taken place lately, and how entirely changed was the whole locality. The operating theatre was what is now called Sitwell Ward. In the neighbourhood was a students' club situated over a baker's shop; here the students were accustomed to congregate and spend a good deal of their time in playing cards. He next spoke of the teaching, and mentioned how the majority of students had been apprenticed to general practitioners for three or four years before coming up to the hospital. Here they spent about eighteen months, which was quite sufficient time for them to obtain a very fair knowledge of medicine, considering the time they had already been at it. There was then only one examination at the College of Surgeons for the diploma. This consisted of about twenty-five minutes' *vivâ voce* before a number of the Fellows, all of whom sat at the same table. The teaching was entirely by lectures, the most eloquent of which were those given by Sir William Lawrence. Mr. Stanley used to lecture on Anatomy. This lecturer was remarkable not so much for the minute details as for the comic manner in which he delivered them, and for the curious so-called "tips" which he gave to the students to help them to remember their work. Dr. Hume, senior physician, lectured on Chemistry, which included Light, Heat, and Electricity; and, in addition, on Botany, Medicine, and Materia Medica: seven different subjects. He mentioned this in order to show how impossible it would be, in the present advanced state of these sciences, for any phyiscian to teach properly so many subjects. There was very little clinical teaching; in fact, at this time the school was in a rapid state of decay as far as the teaching was concerned. With regard to the hospital staff, Sir James Paget said that the quality was excellent, but that the number was much smaller than it is now. There were three physicians and three surgeons; each had an assistant. In addition to this there was an apothecary. The junior staff consisted of one house-surgeon and five dressers to each surgeon. The house-surgeons lived together over King Henry VIII.'s gateway, facing Smithfield Market. The dressers were appointed from six to twelve months. There were no special departments, such as the ophthalmic, aural, and orthopædic departments. The great treatment at that time was bleeding, and he remarked that it would be difficult to say in what cases bleeding was not used. To everything which was acute bleeding was applied. It was used as a means of producing muscular relaxation, and was also used as an anæsthetic. Twelve to thirteen ounces of blood were frequently extracted from a man before a dislocation was reduced. Yet, notwithstanding, it was very rare for any mischief to arise from this practice. The large majority of patients recovered from the loss of blood, and in certain diseases he had no doubt a number of people benefited by it. Mercury and sarsaparilla were the only remedies used for syphilis at that time. Potassium iodide was just being introduced by Dr. Robert Williams, and was only commencing to gain reputation. Sir James Paget then went on to say that he thought diagnosis should be the future study of students to a much more minute extent than it was even now, and they should notice how the personal character of a patient influenced the disease, and also the action of the drug. He next referred to the surgical operations of the day, and remarked that not only was the number smaller, but the method of operating also differed greatly. Swiftness, simplicity, and brilliancy were the chief qualities of a good surgeon. These were essentially necessary, as they might very well understand if they remembered that anæsthetics at this time did not exist. For the same reasons surgical instruments were far less elaborate than now. The patient was placed on a lowering diet, and purgatives were administered for some days before the operation. Organic defects in the kidney, heart, &c., were not looked for, and hygienic treatment was very defective, so that it was not surprising if the mortality of operations was greater than now. The lecturer then referred to the nursing staff, and said that the sisters in those days, as now, were very practical women, but that the nurses were very far inferior, both in their capabilities and their social position, to what they are now. Finally, Sir James Paget made a few remarks on the medical students of fifty years ago, and said they were certainly not so refined, perhaps, as nowadays; but at the same time we should remember that society in general was also less refined. On the whole they were a hard-working set of men. In conclusion, he thanked the Society for having honoured him by asking him to address them, and said what great pleasure it had given him to lecture to a body of students again.—Dr. MATTHEWS DUNCAN then in a few words proposed a vote of thanks to Sir James Paget for his interesting lecture, remarking at the same time that he thought it would be very satisfactory if the Society were to ask Sir George Burrows to relate to them the curious manner in which patients were examined in those days.—Dr. NORMAN MOORE seconded the proposal in a few appropriate words, which was carried unanimously amidst much applause.

Reviews and Notices of Books.

Selected Monographs. 1. Albuminuria in Health and Disease, by Dr. H. SENATOR. 2. Some Considerations on the Nature and Pathology of Typhus and Typhoid Fever, by the late ALEX. P. STEWART, M.D. 3. Movable Kidney in Women, by Dr. LEOPOLD LANDAU. London: The New Sydenham Society. 1884.

THIS volume is composed of three essays, differing as widely in their style and character as they do in the subjects of which they treat; but they were all worthy of reproduction, as they are of careful perusal. Dr. Senator's monograph on Albuminuria may be taken as the latest utterance of science upon this obscure and difficult subject, to the elucidation of which the author has contributed so much. His views are based upon a theory of urinary secretion

(which is more explicitly dealt with in a lecture appended to the essay) that differs to some extent from any that have hitherto been adopted. Thus, he regards the physiological process as made up of two components -a filtration or transudation by the agency of the glomerular tufts, and a true secretion by means of the glandular epithelium of the convoluted tubes. In some respects this is a reversion to the teaching of Bowman; and it differs from that of Heidenhain, who considered that secretion occurs through the glomerular epithelium as well as the tubular. Senator, however, believes that in the glomeruli we have to do merely with a transudation obeying the ordinary laws of that mechanical process, modified it may be by the special peculiarity of the vascular arrangement. He does not therefore hold that only the urinary water escapes by the tufts, but that there is an exudation of all blood constituents. A certain amount of serum-albumen and globulin must therefore transude, limited probably by the epithelial lining of the capsules. Sufficient, however, escapes to justify the belief in "physiological albuminuria," varying in degree according to circumstances of diet, exercise, and the like. The addition of more water and of the peculiar secretory products as the urine passes down the tubule reduces the percentage of normal albumen to a minimum, and this may still further be diminished by absorption. He quite discards the notion that any considerable amount of albumen normally transudes to be taken up by the epithelial cells, as was once maintained. The interesting subject of peptonuria and of propeptonuria, where the albumen is non-coagulable by heat, is alluded to, these conditions being attributed to the presence of such modifications of albumen in the blood under certain conditions. The essay deals in turn with the influence of alterations in blood pressure, in the renal epithelium, and in the condition of the blood, in inducing albuminuria. As to the first point, it is shown that the various forms of congestion produce albuminuria, but in various ways. Thus, temporary ligature of the renal vein causes exudation of albumen chiefly into the medullary tubules; cutting off the arterial supply is followed at first by this exudation into the Malpighian capsules, and later into the tubules; occlusion of the ureter leads to great dilatation of the tubules and of the interstitial lymphatic spaces, which become filled with albumen before this appears in the capsules. In degeneration of the renal epithelium albuminuria is to be attributed in part to the débris of the epithelial cells, and in part to increased transudation from the blood. Lastly, morbid conditions of the blood may induce albuminuria by increasing the transudation capacity of the glomerular tufts, whilst abnormal albuminous substances in the blood probably pass out more readily than the normal. In febrile and inflammatory states the condition becomes more complex, for in the latter there is the additional factor of inflammatory exudation, and especially the involvment of the glomeruli in this process. Besides the lecture on urinary secretion, there is also appended an essay on the Hygienic Treatment of Albuminuria, in which milk diet, baths, the avoidance of chills and of muscular exertion, and a sojourn in dry warm climates, form the chief recommendations. The translation is faithfully rendered by Dr. T. P. Smith, and the monograph is one which requires to be carefully studied, for it is full of closely reasoned argument.

The reproduction of the late Dr. Stewart's memoir, which was read before a Paris Medical Society in 1840, serves to remind us that a great share was taken by this physician in establishing the distinction between the two great continued fevers of this country. The essay shows how thoroughly Dr. Stewart had grasped the notion of the two different types of fever, which he had ample opportunity of studying at Glasgow; and yet, influenced doubtless by the *force majeure* of British opinion, he hesitated to do more than suggest that a case was made out for further inquiry. For Dr. Stewart's sake, it is to be regretted that he did not possess the energy to follow up his researches; but then perhaps we might not have had the masterly exposition of Jenner nine years later, which clinched the question beyond dispute. It is right, however, to bear Stewart's work in mind, for it was much in advance of the orthodox teaching of this country, and it shows that he possessed remarkable clinical acumen as well as independence of thought. The essay has been edited by Dr. Cayley, who appends a memoir of the author.

The essay of Dr. Leopold Landau on Movable Kidney in Women fills a gap in medical literature. It deals with the subject in the most thorough manner, but space forbids our attempting any analysis of the work, for the translation of which we are indebted to Dr. Champneys. It may be noted, however, that a considerable part in the production of hydronephrosis is assigned by the author to this interesting condition.

Operative Surgery in the Calcutta Medical College Hospital: Statistics, Cases, and Comments. By KENNETH MCLEOD, A.M., M.D., F.R.C.S., Fellow of the University of Calcutta; Surgeon-Major, Indian Medical Service; Professor of Surgery, Calcutta Medical College; and First Surgeon, College Hospital. London: J. and A. Churchill. 1885.

WE have read this book with great interest and pleasure. Dr. McLeod has tabulated all the operations performed by him in the Calcutta Medical College Hospital during his five years' term of office as first surgeon in charge. But he has done far more than tabulate his cases, for, in addition to a short description of each case, he has contributed comments upon each group or class of operations. In this way the dry details of statistics have been clothed with living interest, and the reader is made to realise in no imperfect manner the conditions of surgical practice in Calcutta, and the actual scientific and practical outcome of the entire operative work of five successive years. In discussing the mortality after operations in general, Dr. McLeod lays stress upon the importance of septic poisoning, and shows that patients in this hospital are specially prone to the ravages of all septic diseases. Suppuration occurs in the natives with great rapidity and frequency, and their lack of stamina—at any rate in Calcutta—leaves them an easy prey to exhaustion and blood-poisoning. The state of the hospital was formerly very bad; and, as shown by Sir Joseph Fayrer in his "Clinical Surgery" and "Clinical and Pathological Observations in India," erysipelas and osteo-myelitis used to be endemic in the wards. Much has been done to improve this state of things, and the success of these efforts was quite observable. But Dr. McLeod shows conclusively that the introduction of a careful aseptic treatment of wounds has been a far more powerful weapon against the evil results of operations and wounds. He confesses himself to be—and not without good reason—a warm admirer of Sir Joseph Lister's plan of wound treatment; and it is noteworthy that he found himself unable to carry out the treatment with full success until he had carefully studied it as practised by Sir Joseph Lister himself. This is but another proof that the reported failures of many surgeons who profess to practise antiseptic surgery are to a large extent due to their failure to carry it out efficiently. Although fully alive to the predisposition among his patients to the development of septic diseases, Dr. McLeod states: "I have never seen septic disease of any sort arise in a patient whose wound was in an aseptic condition; and, on the other hand, in those cases in which I have had the misfortune to witness the development of constitutional septic disturbance, this has always been preceded or accompanied by manifest signs of local putridity." Full as the book is of interest-

ing matter in every part, most readers will be specially interested in the chapters devoted to the treatment of elephantiasis scroti and the radical cure of hernia. In each operation Dr. McLeod has had considerable experience. He is a strong advocate for the direct operation for hernia, including ligature of the neck of the sac, removal of its fundus, and suture of the fibro-muscular walls of the inguinal canal. He gives in full detail his method of operating, which is the best we are acquainted with. The almost total absence of strumous diseases of bones and joints and allied affections, and the frequent occurrence of tetanus, are striking to an English surgeon. In view of the attention which is just now being given to the alleged increased frequency of malignant disease in England, it is important to note that Dr. McLeod shows that this disease is very common among the native population in India. This is no new fact, but the statistics before us fully demonstrate it. Surgical scarlet fever is an affection which has recently excited a good deal of attention, and at the close of last year an important discussion upon it occurred at the Medical Society of London. It was then shown—we think conclusively—that there are cases which may truly be called surgical scarlet fever. But more than one speaker referred to cases of erythema coming on after operations which could hardly be included under this category. We notice that Dr. McLeod incidentally affords us some interesting evidence on this point. He states that he has observed "several instances" of "surgical scarlatina," but adds, "as scarlet fever is an extremely rare disease in India, it is quite certain that surgical erythema is a distinct malady from scarlatina." We have no space to refer to many other points of interest dealt with more or less fully and directly by the author, but we must add that while writing of the results of his own work he has rendered his book remarkably impersonal, and the reader is but rarely reminded of a fact which too many authors never fail to obtrude.

New Inventions.

THE HOLLOW EYE SPECULUM AND DOUCHE FOR THE TREATMENT OF GONORRHŒAL OPHTHALMIA.

THE two chief obstacles which are met with in the treatment of gonorrhœal ophthalmia are—the rapidity with which the discharge re-forms after its removal, and the difficulty of applying astringent or antiseptic solutions to the inflamed conjunctivæ on account of the swelling of the lids. So great is this difficulty that the external canthus has often been divided to remedy it, and the late Mr. Critchett even divided the upper lid through its centre and stitched its halves apart. The hollow eye speculum and douche is an instrument which Messrs. Weiss and Sons of the Strand have made for me to overcome these two difficulties. It consists of an ordinary spring speculum, the two limbs of which are hollow and prolonged separately for about a quarter of an inch beyond the spring; these are each connected by means of indiarubber tubing to the two arms of a Y-shaped piece of metal tubing; the foot of the Y-shaped piece is joined by another piece of tubing to the tap of an irrigator. The outer borders of the portion of the limbs of the speculum which pass beneath the lids of the patient are each perforated by four holes, the lower part fitting into the upper so as to facilitate its introduction between the inflamed lids. The patient lies on his back on a couch; the speculum, having been connected to the irrigator which hangs above the patient's head on the wall, is introduced, and the tap turned; the fluid then circulates from the irrigator down the tubing to the Y-shaped piece, through its two arms to the limbs of the speculum, and out at the holes into the conjunctival sacs; the patient holds a kidney-shaped tray close to the side of his head to catch the waste fluid. In this way the accumulation of the discharge can be prevented and antiseptic and astringent solutions efficiently applied to the whole of the conjunctival surface. Mr. Edgar Brown has published a description of an instrument of his invention which consisted of a hollow elevator. The advantages I would claim for the hollow speculum are:—First, it does not require to be held in; once fixed, the patient can manage it himself. Secondly, it irrigates both conjunctival sacs at the same time. Thirdly, it can be used as a speculum and the condition of the cornea investigated, and any medicament that is necessary applied to it. E. TREACHER COLLINS.

Royal London Ophthalmic Hospital, Moorfields, June 9th, 1885.

RUSSIAN EXPERIENCE IN THE TREATMENT OF VARIOLA.

DR. REIMER, in a paper read before the St. Petersburg Medical Society, summarises his experience of the various methods of treating variola that have been recommended of late years, an experience extending to 1300 cases. These methods are as follows:—

Weidenbaum's ointment (cinereum with soap and glycerine). The pustules developed rapidly, but distressing itching followed, and the course of the fever was not shortened.

Caoutchouc solution.—With children a burning sensation was complained of. Four of these cases died of septicæmia.

Nitrate of silver appeared to have no effect on the result, except that the scars were unusually deep.

Hebra's iodine application.—Great pain was experienced, and the pustules ran together into a large scab, which fell off somewhat quickly; but this had but little influence on the formation of the cicatrix.

Corrosive sublimate was tried in forty-six cases, with careful watching on account of its poisonous properties. A solution of 1 to 500 was employed, a mask being saturated with it and applied four times a day, for ten minutes, to the face. The development of the pustules seemed to be hastened somewhat, but the scars were much the same as when other treatment was adopted.

Schwimmer's carbolic oil paste.—Schwimmer said the patients liked this method, as it reduced the feeling of tension, and that no case of serious suppuration of the face had occurred; also that the drying up generally occurred on the ninth to the eleventh day, instead of from the thirteenth to the fifteenth, and always taking place several days earlier on the face than other parts of the body. Reimer found considerable difficulty in employing this treatment with children who could not be got to keep on the mask; he therefore substituted a powder in which carbolic acid was made up with talc, starch, and chalk. He did not find the powdering, which was carefully done four times a day, a very agreeable operation, owing to the repulsive mixture formed with the pustular secretion, or, indeed, very advantageous, as he could not observe that in any of the seventy-seven cases in which it was used the suppuration was perceptibly modified. The same may be said of the forty-eight cases in which he used the paste. Under the microscope there was certainly a diminution of micrococci chains and pus corpuscles. Under the carbolic treatment thirteen children showed symptoms of carbolic poisoning; in three of these life was with difficulty preserved. Nephritis occurred in twenty-six cases, seven of these having hæmaturia.

Under *Burkhard's and Zülzer's xylol treatment*, fifty-two cases were observed, but the formation of the cicatrix was but little modified.

Afterwards, Dr. Reimer tried a number of highly commended methods of treatment, without any satisfactory result. Happening to make use of *salicylic acid* in a case of hæmorrhagic small-pox with the hope of reducing the temperature, he was struck with its remarkable effect upon the disease, and then remembered that Schwimmer in 1875, and subsequently Claridge, had recommended salicylic acid. The acid was given in five-grain doses every two hours in fourteen cases with marked effect, the course of the disease being in all cases shortened. Microscopic examination of the blood of patients in the early stage showed that with a single day's treatment the rod-shaped bacteria which had been distinctly visible had completely disappeared.

THE LANCET.

LONDON: SATURDAY, JUNE 20, 1885.

THE election of members of the Council of the Royal College of Surgeons of England, which will take place on the 2nd of July next, will be one of the last conducted on the old lines. Not only may the mode of election and the conditions of eligibility of candidates be altered before another year comes round, but it is in the highest degree improbable that after this year any candidate will deliberately stand forth as the acknowledged and accredited champion of the character, constitution, and traditions of an unreformed Council. Reform is in the air, and reformers are in the ascendant. Whether the latter will determine to make their influence prevail this year or not will perhaps depend rather upon sentimental considerations than upon a rigid adherence to political convictions. In some respects the issue is a simple one. Three members of Council are retiring by rotation. Two of these, Messrs. ERICHSEN and HOLMES, are known to have steadily and consistently endeavoured to effect some amendment in the Council, and to bring this body into harmony with those whom it nominally represents. On the other hand, the third retiring candidate, Mr. SAVORY, is equally well known to have opposed and resisted most of these endeavours. Unfortunately, this gentleman is the only one of the retiring candidates who seeks re-election; so that Mr. SAVORY seeks re-election not only as one who has notoriously voted against the adoption of some of the recommendations of the Association of Fellows to which the Association attaches very great importance, but he comes forward as the representative of those traditions of the Council which many believe to be in the highest degree inimical to the interests not only of the College itself but also of surgical science and art. Elected to an examinership in 1870, Mr. SAVORY continued to hold this coveted post after election into the Council in the year 1877, and resigned it only a few months ago, after having held it for a period of nearly fifteen years, and in spite of an existing resolution of the Council disapproving of anyone holding the office for more than a maximum period of ten years. It is impossible to predict what influence these considerations may have upon the voting next Thursday week. It need, however, occasion no surprise if many Fellows decide that Mr. SAVORY'S great administrative abilities and his experience in the affairs of the College more than compensate for these grave disqualifications. It is a striking testimony to the forbearance and moderation of the Association of Fellows that it has resolved not actively to oppose Mr. SAVORY'S re-election. To expect the Association to promote his election would be to look for a loving-kindness almost more than human.

The contest for the other vacant seats will be unusually keen. The candidates are, in their order as Fellows, Messrs. GANT, MASON, ROUSE, COWELL, MACNAMARA, and PEMBERTON. Four of these gentlemen have not only been candidates in former years, but they are otherwise known to take an abiding interest in all matters relating to medical education, ethics, and politics. The two other gentlemen, Messrs. MASON and ROUSE, have not, we believe, hitherto manifested any such interest, and until they do assume a distinct political character it is scarcely likely that they will have a substantial following. The contest, therefore, may be expected to be carried on between Messrs. GANT, COWELL, MACNAMARA, and PEMBERTON. Considering that the last-named gentleman was only five votes behind a successful candidate last year, his election this year may be deemed almost certain. Mr. PEMBERTON is a provincial surgeon of deservedly high repute, and he has proved on more occasions than one that his political convictions are clear and strong, and, what is more to the purpose, that he has the courage of his convictions; and if the pitiable lapses of some recently elected members of Council are called to mind, moral courage must be welcomed as by no means an insignificant qualification for a seat in the Council. Of the remaining candidates, Mr. GANT and Mr. MACNAMARA are both known to be strenuous advocates of educational and collegiate reform. The latter gentleman has quite recently, in the part he has taken in promoting a University improvement scheme, given practical proof of his anxiety to improve medical education in England, and to remove some of the grave disabilities which embarrass metropolitan students. His candidature therefore cannot fail to be acceptable to all who consider that amelioration of medical education and medical status is intimately bound up with the reform of the Council of the College of Surgeons.

THE International Sanitary Conference at Rome has suspended its sittings, and will not again meet until the latter part of the year. We may therefore at this stage briefly review its proceedings, and learn something of its views from the decisions at which it has already arrived.

The Conference began its business by appointing in the first instance a Technical Commission of all the medical members to consider and report on those points which required professional knowledge. Our columns have contained accounts of the proceedings of this Commission, which have shown that, although the old belief in quarantine has not yet altogether departed, its end is not far distant. It is, indeed, difficult for countries which have made little or no effort to improve their sanitary condition at once to abandon any method which has about it the semblance of protection. For them the introduction of disease means disaster, and it is only when they have absolutely appreciated the uselessness of quarantine that they will fully consent to seek other means of safety. Nevertheless, the decisions to which the Technical Commission have come show distinctly that opinion is gaining ground in favour of the system of medical inspection which in this country has replaced quarantine. At an early meeting of the Commission quarantine measures by land were voted to be impracticable, and therefore useless; and it was only as regards maritime quarantine that a different view was taken.

Thus it was decided that every vessel passing from the Red Sea into the Mediterranean should be inspected by an officer appointed by an International Commission, and that he should have authority to determine whether the vessel was "suspect" or not, and that it should only pass through the Canal if this point were decided in the negative. If cholera

were suspected on board the vessel, the passengers and crew were to be landed and the vessel detained five days, to see if any further cases occurred. Some of the delegates—the Spanish, for instance—would gladly have seen this time doubled, but the longer period was not acceptable to the majority of the Commission. The shortness of the time of detention may indeed be regarded as the best indication that quarantine is becoming less trusted, and although it is impossible not to regret the decision of the Commission on this important point, there is yet room for some satisfaction at the result. The arguments of the representatives of Great Britain and India went to show that there would be no risk to any European country from ships sailing from India, and the experience of Australia was quoted in this respect by Dr. LEWIS, who explained that in no single instance had that country suffered from cholera, although in free communication with India. Again, Dr. THORNE urged the unfairness to Egypt of landing vast masses of passengers and crews on the coast of the Red Sea; while Sir JOSEPH FAYRER pointed out the proper course, of giving, through local officers at Suez, to the representatives of European countries information of the condition of ships with regard to the health of those they carried; but without avail. The Commission could not free itself from the idea of maintaining this remnant of quarantine, and the five days' detention was approved by a majority. There can be no doubt that, but for the efforts of our own delegates, the decisions of the Commission would have been still more at variance with those views which are accepted in this country. It was indeed recommended by a subcommittee, that while a certain class of vessels, even from suspected ports, should have free admission at ports of arrival, provided medical inspection showed there had been no illness on board, the healthy should be detained for a period of from one to five days in the event of sickness occurring during the voyage. It is probable that this would have been carried, had not the absurd recommendation been introduced that these persons were to be also bathed and douched! Sir GUYER HUNTER was able at once to cast ridicule on such a proposition by showing its impracticability when the two thousand persons conveyed in our large troopships came to be dealt with, and the recommendations of the subcommittee were wisely rejected.

As the outcome of the various meetings there remain besides certain reasonable proposals as to disinfection, the acknowledgment by the Turkish delegate that the Mussulman creed would not be affected by the requirement that no pilgrim to Mecca should be allowed to start on his journey unless he can show that he possesses adequate means for this purpose—a very distinct gain in preventing the loss of life which has hitherto resulted from the omission of this precaution; and there remains, moreover, the acceptance of the principle, that each country should be allowed to act on its own views as regards arrivals in its own ports. Other resolutions were also passed of a satisfactory nature as to the cleansing, ventilation, and disinfection of ships either when suspected only, or when having on board persons actually suffering from disease.

As yet, then, with the exception of the decisions concerning passage through the Suez Canal, no objection can be taken to the results of the Commission. It has gone so far as definitely, by resolution, to accept the doctrine that the prevention of cholera was above all things to be secured by the sanitary development of a country and means of isolation, all of which should be ready in advance; and it has enabled those who represent other countries to learn more accurately the means upon which the experience of England has taught her to rely.

MR. VICTOR HORSLEY'S address on "The Motor Centres of the Brain, and the Mechanism of the Will," delivered at the Royal Institution in March last, has just been printed. It does not require the apology with which its author introduces his remarks. There is nothing incongruous in a surgeon discoursing on psychology—that is, such psychology as falls within the province of the medical scientist.—but, as a matter of fact, even viewing the question from the physician's standpoint, it must be freely admitted that in proportion as he is acquainted with surgery—in short, a surgeon,—and in that proportion only, can the physician be capable of studying the physiology of mind. Mr. JONATHAN HUTCHINSON has aptly remarked that "a surgeon should be a physician who knows how to use his hands." We should like to add that the physician who does *not* know how to use his hands, and who is not well versed in anatomy—yes, "descriptive anatomy," and something more than the so-called surgical regions—is not a safe scientist, and cannot possibly be a trustworthy practitioner, let his "learning"—in the cant of the day—be what it may. It is in the domain of the anatomist and the surgeon that the brain with its function—that is, mind—must be studied, if we are ever to acquire any precise knowledge and to accumulate facts concerning it. Mr. HORSLEY need not therefore, as we have said, apologise.

It would be impossible to epitomise the interesting paper before us to any useful purpose in the limited space at our disposal, and we will not attempt to do this. Suffice it to commend the study of the original to our readers. A noteworthy characteristic of the production is the evidence it affords of the desire of the writer to do justice to the energy and success of English investigators. We are glad to encounter in one of the earliest paragraphs of the *résumé* a recognition of the undoubted fact that the "Pacinian bodies" ought really to be called "Marshall's corpuscles," for they were discovered and described by Mr. JOHN MARSHALL before PACINI lighted upon them. Meanwhile, why must these and all other particles of organic material which baffle the powers of the physiologist to penetrate their constitution be dubbed "protoplasm"? Surely the inscrutable might be left undesignated rather than technically endowed with constructive attributes. It is almost the *reductio ad absurdum* of the scientific method to describe a "nerve-ending body," that is, the part of the nervous organism which lies at the periphery and receives impressions from without, as "protoplasm!" With every respect for the physiologists who are using this term to designate the ultimate—that is, what they *at present* regard as the ultimate—or primary, form of living matter, we cannot help protesting against this use of what is really a very definitive form of expression for that which is confessedly beyond comprehension. The peripheral endings—or *beginnings*—of nerves may be so constituted

that we cannot define their structure, but we have no right to affirm that they are structureless; and even if they were certainly so, this would not necessarily imply that the material of which they were composed was protoplasmic. Nor is it wise, even if it should chance to be correct, to assert concerning the Marshall corpuscle that "pressure, or any form of irritation of this body at the end of the nerve fibres, causes a stream of nerve energy to travel through the spinal cord to the brain, and so we become conscious that something is happening to the fingers." Until we know much more than is yet known about the nature of "nerve-energy" it is better to adhere to the older form of phraseology, and simply state the fact that impressions are received , or produced on, the peripheral nerve bodies and thence propagated by or through the nerves to the spinal cord and brain. The importance of being content with simple recitals of the known in this connexion will be apparent when it is remembered that to speak of a stream of energy travelling from the Marshall corpuscles to the brain-cells implies a hypothesis of energy peculiar to organic matter which science as a whole will not warrant, although the exclusively physiological scientist may be anxious to adopt it. It is, of all considerations, most important just now that the unity of science shall be recognised, and that no class of specialists should employ terms incompatible with the doctrine of the—more than correlation—unity of the forces in nature, at least until the truth of that doctrine which is so rich in promise of further light and knowledge in the future has been disproved.

Mr. HORSLEY'S paper abounds with interesting facts. The faults of his statement, such as they are, are faults of method, not indeed of description, but of inquiry. Some of his processes are remarkable for the failure to recognise the development of a third force whenever and wherever two seemingly separate forces act upon the same subject in converging lines. If the method of Mr. ROMANES could be combined with that of Mr. HORSLEY, the outcome would be something better than either apart or the two studied side by side. There is not much, if anything, that is absolutely new in this paper. It will not greatly advance the inquiry concerning "the mechanism of the will," but it should certainly tend to elucidate the study of this most interesting subject for those who have not made it a topic of special research.

THE most generous support of our public medical charities is consistent with the most decided opinions in favour of the working classes being self-helpful and independent in their arrangements for medical attendance on themselves and their families. These are two points of the same subject. It is the Divine plan to help those who help themselves, and we cannot do better than follow it. There are great calamities in the way of sickness which overtake often the most meritorious and industrious families. A disabling accident; a prolonged illness; a diathesis—"that long disease, my life,"—affecting not one, but perhaps many members of the same household; a heavy incidence of common zymotic diseases. All these occurrences are of the nature of calamities in any family, but especially so in the family of a working man. They disable; they depress. They exhaust the creditable but the scanty deposit at the savings bank, and they often reduce the most provident working man to a condition of straitness that entitles him to the pity and the help of all his more fortunate fellow citizens who have health or means left. If such a working man, so pressed with calamity, is not to meet with the sympathy of the rich, if there is no kindly hospital for his reception and his help, then indeed he must collapse at once in spirit and in circumstance. He must become a veritable pauper, and he must henceforth lose that saving sensation of an afflicted man that there are charities of life—that rich men are, after all, but the brothers of poor men, and have no luxury greater than that of helping them. An England without hospitals for the generous treatment of the poor overtaken by such kinds of sickness or accident as we have described will be another England than that which we have known or care to know.

But all the sickness of a working man's home is not to be described as a calamity. Much of it is to be expected and anticipated. It is to be provided for. Much of the gout and rheumatism even which so extensively affects the working classes is produced either by bad habits or by radically ignorant notions of what is wholesome and what is not, which a little confidential consultation with a family doctor would remove. And this class of disease is very laming and hindering. A plumber or a carpenter's right hand may be easily spoiled for work at the very crisis of the working season of the year. The various diseases of the seasons, summer and winter catarrhs, are not calamities. Neither can the ordinary zymotic diseases be so considered in their lighter forms. The birth of a child in a well-ordered working man's household is no calamity. These things can be predicated, and they ought to be provided for beforehand. The great benefit societies have only partially grasped this truth. They have provided for the ordinary sickness accruing to the man, but not to that larger amount accruing to his wife and family. Henceforth a working man should take the occurrence of common diseases into his calculations, and insure both himself and his family against it on independent and honorable terms by the payment of a weekly sum. For the calamities give him ample and generous admission to a hospital. For common diseases let him have his own doctor, whose pay is insured by systematic weekly sums. The great benefit societies have lately been making further mistakes in this matter. Instead of entering into generous arrangements with a number of medical men, giving their members a variety of choice, and paying their doctors liberally, they have been exacting an unconscionable amount of work on the lowest terms, from a single member of the profession whose inexperience or even impecuniosity may have induced him to accept terms which he has soon found to be not only undignified, but inadequate and absurd. The working classes will do well in this matter of medical providence not to lose themselves in a crowd and take what they can get of the time of an overworked and an underpaid man, but to club together in moderate numbers to offer reasonable terms to established practitioners in their own neighbourhood. Let the terms be generous, so as to allow for the cost of good and wholesome drugs, as well as for the cost of sound and educated opinion, which is of more value than many

drugs. The medical profession is the indispensable profession of all classes. It will never be found exacting or ungenerous in its dealings with the poor; but it must, for the very poor's sake as well as for its own, claim its rights. The present political discussions on the disfranchisement of electors for receiving medical relief are very important. A sound law on the subject may give an enormous stimulus to independence and self-help. On the other hand, it will be a public misfortune if the exigencies of mere party politics lead public men to make light of improvidence in medical matters.

Annotations.

"Ne quid nimis."

A TEACHING UNIVERSITY FOR LONDON.

ON Monday last another meeting of the delegates from the medical schools and the Executive Committee for promoting the formation of a Teaching University took place at the Society of Arts, and a draft report, which we publish on page 1143, was agreed to. The outline of the plan for a Teaching University, so far as the Medical Faculty is concerned, may therefore be looked upon as complete; but we understand that the Faculties of Art and Science are lagging behind in organisation, whilst the scheme of the Faculty of Laws is altogether in abeyance. If the project as a whole is to survive, it will be necessary for the promoters to lose no time in consolidating the other Faculties. With the ground plan which is suggested in the report for the University, but little fault can be found, and the sequence and relation of its constituent elements seem to be quite right and proper, but we question whether it will be wise, supposing the University ever to be founded, to deprive graduates of all share in framing its regulations and its management. The present report makes no mention whatever of graduates, so that they will be given a degree only. The oldest graduate will have less to say about the proceedings of the University than the youngest teacher, whose degree may have been obtained elsewhere, or who may not have a degree at all. Again, has not too much power been given to the governing body?—for the Boards of Studies are merely to recommend, and there is no security that the governing body will act on such recommendations, and if it does not, the Boards of Studies can do nothing. The proposition for the concentration of the scientific teaching in the medical schools is a very good one, and has frequently been urged by us, but we question very much whether the practical solution of the difficulties involved is within the power even of the Teaching University. The Colleges and medical schools are sure to regard with great jealousy the suggestion to establish chairs in connexion with the new body; for, unless very carefully guarded against, a new teaching body will be added to those already existing, which are now too numerous. But probably these criticisms are premature and of little real importance, for the scheme has a very difficult future yet before it, and we welcome it rather in its bearings on the present University than in view of a possible second university in London. The Special Committee, under the chairmanship of Lord Justice Fry, is summoned for Friday next, to consider the report of its subcommittee, so that the centre of interest has again shifted to Burlington-gardens.

AN EARLDOM FOR MR. GLADSTONE.

WHATEVER may be thought of Mr. Gladstone's foreign policy, there can be but one opinion of his conspicuousness as a public figure and his high qualities as a public man. No State can afford to do otherwise than hold such a man in honour, and it would bode ill for Parliament if it ever ceased to include at least one such man, and to regard him with more reverence than has occasionally of late been awarded to him. The offer of an earldom by Her Majesty is a fit tribute to one of the greatest servants that has served one of the best of Queens. We have often urged Mr. Gladstone's elevation to the peerage. We well know that such a sphere has not greater attractions for him than the House which he has so much adorned, and the fame of which he has so well sustained. But the atmosphere is calmer, and the hours are more reasonable, and—a benevolent motive will weigh more with the illustrious statesman—his acceptance of an earldom would be kind to the Upper House, and supply the material it wants to make it what it must be if it is to remain a veritable House of distinguished men.

ANNUAL REPORT OF THE REGISTRAR-GENERAL FOR ENGLAND.

THE issue of the Registrar-General's 46th Annual Report gives the detailed vital statistics of England and Wales for 1883, supplementary of the briefly summarised statistics of that year published in the Quarterly Return for the fourth quarter of 1883, and in the Annual Abstract presented to Parliament early in 1884. The main features of the statistics of 1883, as well as those of the more recent year 1884, were a continued depression of marriage- and birth-rates, mainly the result of the prevailing commercial depression, and the maintenance of the remarkable reduction in the national death-rate which dates from the year 1876, when the Public Health Acts of 1872 and 1875 may be presumed to have come fully into operation. During the first thirty-three years of civil registration the English death-rate was practically stationary at 22·4 per 1000, whereas in the five years 1876-80 it declined to 20·8, and in the first four years of the current decennium it has further fallen to 19·4. This result in the face of steadily increasing urban aggregation affords the most triumphant reply to the race of sanitary sceptics, if it be not yet extinct. The analysis of causes of death in the Registrar-General's last annual report, however, affords abundant evidence that the "rest and be thankful" stage of the sanitary crusade against preventable death and disease has not yet been reached. In proof of the fact that a remunerative field for further health progress still remains we need only point to figures in the report under notice showing that the recorded death-rate in 1883 in Lancashire and in Monmouthshire, was equal to 22·3 per 1000, while it did not exceed 16·6 either in Oxfordshire or in Berkshire; and, further, that those recorded rates considerably understate the real excess of mortality in Lancashire and Monmouthshire during 1883.

THE BLOOD IN SCURVY.

SEVEN cases of uncomplicated scurvy, three of which proved fatal, were last summer under the care of F. Stazevich in the military hospital at Moscow. The blood examined by Lavdovski's osmic acid solution (1 per cent.) showed irregular red corpuscles of dissimilar magnitude, also more or less atrophied corpuscles adhering together. After recovery this irregularity disappeared. Two cases died of intestinal hæmorrhage, one of hæmorrhagic pleuritis. The blood in these was found at the autopsy to be dark and fluid. In the cardiac cavities and large vessels there were either no coagula or they were of a light colour, and easily torn. In

two cases extravasation was found in the pleura, the surface of the heart, and the aortic valves. The spleen was enlarged, light coloured, and easily broken down; the liver enlarged; the cortex of the kidney increased in thickness. The intestinal mucous membrane was soft, swollen, and contained extravasated blood; the solitary glands were only enlarged in one case, and there was likewise ulceration of the colon only in one case; the peritoneal glands were invariably enlarged, and the brain was very anæmic. Under the microscope some of the preparations of the muscles of the buttock showed small extravasations of blood between the fasciculi; the liver cells were enlarged and cloudy, also the epithelium of the urinary passages; the alveoli of the peritoneal glands were much enlarged, and filled with round cells of the size of white blood-corpuscles. The mucous membrane of the small intestine could scarcely be recognised under the microscope, and the epithelium could not be seen at all. The commencements of the lymphatics were filled with finely granular detritus; the vessels of the mucosa were much distended, and surrounded by extravasations of blood. In places the mucous membrane was detached from the muscular coat, which had a cloudy appearance.

A HISTORY OF CRIME.

A REMARKABLE trial has just been concluded in Paris, a trial which brought to light a long series of murders perpetrated in cold blood, and with no other apparent motive than the acquirement of a comparatively paltry number of francs. The convict Pel, aged thirty-six years, a watchmaker by trade, seems to have begun his nefarious practices as far back as 1872, at which date his mother died under circumstances which leave but little doubt that her decease was owing to other than natural causes. The next fatality that befell the unfortunate family was the death of Pel's wife, soon after her marriage. From the symptoms observed by the doctor consulted in the last hours of her life, there appears every reason to believe that she succumbed to the action of an irritant poison; moreover, the recent chemical analysis of the exhumed remains, conducted by MM. L'Hôte and Brouardel, supports the theory that the drug employed was some form of arsenic. These eminent chemists detected an appreciable quantity of the mineral—about one milligramme in 200 grammes of the liver and kidneys. The brother of Madame Pel suspected foul play at the time of his sister's death, but after consultation with some relatives the evidence of Pel's guilt was not deemed sufficiently conclusive; and from the natural desire to avoid a public scandal no further steps were taken to investigate the matter until just recently, when it transpired that Pel was charged with having poisoned his mistress, Elisa Böhmer, and disposed of her body by burning it in a stove. In the interval between these alleged crimes Pel had married again and had parted from his wife after the latter, together with his mother, had shown signs of severe gastric disturbance. Nor did his evil practices end with this record, for he is reported to have attempted the lives of two servants, one of whom has been missing since she was last known to have been in Pel's company, the general belief being that she fell a victim to foul play. It was proved in every instance that Pel would have benefited by the death of the women with whom he was intimately connected, and that in more than one case he actually became possessed of a sum of money. He was charged only with the murder of his first wife and last paramour, and was found guilty, without extenuating circumstances, on the second count of the indictment. In defence he urged that his mother died a natural death; that his wife succumbed to arsenical poisoning which she had administered to herself, as a remedy, in the form of Fowler's solution; and that his paramour, Elisa Böhmer, had left his domicile without telling him of her destination. The prosecution met these statements either with a direct denial or by showing that there was circumstantial evidence of their falsity. It was further proved by experiment at the Morgue, that a human body could be consumed by fire in a stove similar to the one found in the convict's room in the space of forty hours. In all probability the prisoner would have been acquitted had he been charged with only one offence, but the accumulated evidence proved too strong even for the proverbial sympathies of a French jury. The case confirms the belief—if confirmation be needed—that nothing is too horrible to deter a man imbued with the instinct of crime from carrying out his fell designs. Mother, wife, mistress, and servant were sacrificed by intent or act to the all-engrossing passion of a criminal nature. The foregoing history is replete with interest and information. It will serve to illustrate the pages of "legal medicine," but we doubt if it will act as a deterrent to others who possess the same promptings to murder which Pel inherited, developed, or acquired. Fortunately for society, such monsters are few in number, and yet the contemplation of their existence is enough to make the strongest shudder and grow pale.

THE CROONIAN TRUST.

THE decision of the College of Physicians, to dispose of the increased funds accruing from the Croonian Trust, by instituting lectureships on anatomy and physiology in relation to pathology and therapeutics, can hardly be regarded with unmingled satisfaction. Although in this way the difficulties of adhering to the original Trust may be surmounted, it is questionable whether the money could not have been utilised to greater advantage; for there is no disguising the fact, that the collegiate lectures are attended by comparatively few members of the profession at present, and if the number and extent of these lectures are to be greatly increased, the audiences will, we fear, diminish even more. We fully recognise the difficulties which the College had to overcome, especially as the sum in question would hardly suffice to endow a professoriate, the only reasonable alternative; but we could have wished that some other means of encouraging research and advancing medical knowledge had been conceived than the extension of the lectureship system, which seems to be amply enough provided for at present. Nevertheless, the adoption of this plan may lead to a more liberal remuneration of the Croonian lecturers, of whom two might be appointed annually to deliver a course of six lectures each—the one in pathology, and the other in therapeutics.

CHOLERA IN SPAIN.

CHOLERA is undoubtedly spreading in Spain. It is no longer limited to the province of Valencia and to Madrid, but is becoming diffused in adjoining districts. Castellon is now invaded, and twenty-seven persons have succumbed, while not only the villages on the border of the province of Murcia are suffering, but the city of Murcia is itself the seat of a serious outbreak of the disease, which threatens to equal in severity some of the more serious local disasters of last year. Altogether the last official bulletin announces the deaths of seven persons in the city of Valencia, forty-one deaths in the city of Murcia, and seventy-one deaths in the province. As yet we have no further confirmation of the report that cases have again occurred in Marseilles, but it cannot be anticipated that Southern France will much longer escape from a return of the epidemic. To prevent this invasion a decree has just been published, prohibiting the importation into France of bedding across the Spanish frontier. That the appearance of cholera in France has been

already so long delayed is probably due to the cooler weather which has prevailed during the present season, but we may expect before many days have passed to hear of certain suspected cases, which will come to be acknowledged as soon as they are sufficiently multiplied to make concealment no longer a possibility.

TREATMENT OF ILEUS.

THE value and expediency of washing out the stomach in cases of intestinal obstruction, recently advocated by Kussmaul and Senator, have been discussed at the Berlin Medical Society (*Deutsche Med. Wochensch.*, Nos. 21, 22). Dr. Bardeleben had pursued the practice in cases of ileus, without in any instance obtaining a cure, and was impressed rather with the risk it gives of encouraging delay in resorting to laparotomy owing to the marked alleviation of symptoms which follows the measure. He also instanced the fact that symptoms of ileus frequently arise from conditions other than those of intestinal constriction, quoting a case of traumatic rupture of the bowel with peritonitis, and three cases of cancer, one of the pylorus associated with a large scrotal hernia, and two of the peritoneum, in which operations were undertaken for the relief of supposed strangulation. Such cases of course could not be benefited by washing out the stomach. Nor did he think it of much avail in true ileus. A man had a small inguinal hernia which he had reduced himself. Symptoms of internal strangulation arose, and in six days they became urgent. Treatment by opium, washing out the stomach, and enemata alleviated the symptoms for a few days; but on the sixth day laparotomy had to be resorted to. A constricting band was found and divided; but death ensued from peritonitis in five days. Bardeleben thought that a more favourable issue might have occurred if the operation had not been delayed owing to the amelioration produced by washing out the stomach. In another case, in which the symptoms were severe and the abdominal distension great, the constricted gut was found to be gangrenous. The necrosed part was excised, and the divided ends of the bowel sutured; but the patient died the next day. In a third case, marked by great distension, the seat of strangulation could not be detected on laparotomy. The bowel was opened at its lowest part, and much fæces escaped. This patient succumbed in two days from peritonitis and collapse. Dr. Schmid showed a specimen from a woman who had been ill for six weeks before admission into the Augusta Hospital. There had been complete obstruction for six days, and for two days fæcal vomiting. The stomach was washed out five or six times, with transitory relief; but death occurred in twenty-four hours. The cause of the obstruction was found to be the inclusion of a coil of ileum in a loop formed between the large intestine and the uterus, which were firmly adherent to each other. There was commencing gangrene, and, owing to the adhesions, it was clear that an operation could not have given relief. Dr. Kuester related three cases simulating ileus. A woman had suffered a long time from vomiting, which became fæcal. Washing out the stomach checked the vomiting, and nutriment could be taken; but the general condition not improving, laparotomy was performed, when the gall-bladder was found to have been perforated by a gall-stone. This was extracted, the rent in the viscus sutured, and the peritoneal cavity cleansed of extravasated bile; but peritonitis was already present, and the patient died next day. Another case of gall-stone leading to peritonitis was also submitted to laparotomy without avail. In a third case, where vomiting had lasted for six days, the obstructing cause was found on examination to be a massive parametric exudation. The stomach was repeatedly washed out, and the patient recovered. Whilst agreeing that the measure entailed delay in operating, Dr. Kuester thought it useful in doubtful cases as an adjuvant to expectant treatment. Further, the ill success of laparotomy is often due to the great distension of the bowel; and the general condition of the patient is an index to its performance. Dr. Hahn had performed laparotomy in twelve cases of ileus, and in no case could washing out the stomach have given permanent relief. Where the procedure was of use was in cases of fæcal accumulation, which could be just as well treated by ice-water enemata. Dr. Henoch, on the contrary, thought the palliative effect of the method a gain, and instanced a case where washing the stomach had succeeded when enemata had failed. He recommended its use in doubtful cases, and the resort to operation if the general condition was not thereby improved. Dr. Senator held that in cases where washing out the stomach palliated the symptoms, and in some of those in which a cure was obtained, there was not invariably obstruction from fæcal accumulation in the large bowel; and he confirmed the statement that this measure had succeeded when enemata had failed. He still adhered to the opinion that it was a procedure of great value. Dr. Wolff would employ it not only to possibly remove the obstructing cause, but because by relieving the stomach from its faeculent contents it places the patient in a more favourable condition for operation. Dr. v. Bergmann instanced the danger in fæcal vomiting of secondary gangrenous pneumonia from inhalation, which washing out the stomach would obviate. In reply, Dr. Bardeleben admitted the difficulties in laparotomy, but insisted upon its being done early. He was not opposed to washing out the stomach, for he had done it in many cases. The main difficulty in these cases lies in the arrival at a clear diagnosis and the impossibility of formulating any general rule of treatment.

SCARLET FEVER CONVALESCENTS.

THE problem of dealing most effectively and wisely with convalescents from scarlet fever cannot yet be said to be solved, though too much praise cannot be given to Miss Mary Wardell for her brave attempts to settle it. The magnitude of the question may be gathered from Sir Rutherford Alcock's statistics, showing that while in ten years, 1870 to 1879, 57,423 people died from small-pox in England and Wales, no less than 173,124 died from scarlet fever. Miss Wardell's Home at Brockley Hill, Stanmore, is still in need of funds to complete the arrangements and furnishing contemplated, and even to continue the present scale of work. In a well-ordered household it is easy to prevent the occurrence of a second case of scarlet fever. The problem which benevolence has to solve—whether personal or State benevolence is a grave question—is how to place the poor man in this respect at a similar advantage. Meantime those who are benevolently disposed will do well to assist Miss Wardell.

MONSTROUS SPERMATOZOA.

Gaillard's Medical Journal for May contains a short paper by Dr. Ephraim Cutter of New York, on "Variations in the Form of Human Spermatozoa." He figures some examples of two-headed and three-headed spermatic filaments which were observed by Dr. G. H. Salisbury in 1861, and gives a second figure containing examples of these deformities observed by himself in human semen, as well as two-tailed and three-tailed spermatozoa. Dr. Salisbury's specimens were obtained from pure semen; Dr. Cutter obtained his from semen mixed in the urine. The latter writer suggests that certain congenital deformities may depend upon monstrosities of the sperm, and seems to hint that a double-headed monster may be the offspring of a two-headed spermatozoon.

NEW TESTS FOR SUGAR IN URINE.

SOME years ago Dr. George Hay pointed out, as others have done, the unreliability of Trommer's test for sugar in the urine. An article has recently appeared in the *Therapeutic Gazette* by Dr. Hay. It gives an account of an experimental investigation of the reactions of various cupric salts with grape sugar. Experiments have been made with cupric chloride, sulphate, nitrate, acetate, oxalate, citrate, tartrate, and acetate followed by tartrate, also with zinc sulphate followed by copper tartrate, zinc acetate followed by cupric tartrate, sulphate of aluminium followed by cupric tartrate, acetate of aluminium followed by cupric tartrate, protochloride of tin followed by cupric tartrate, acetic acid and acetate of lead followed by cupric tartrate. The tests are said to be much more reliable than any that have hitherto been proposed. Dr. Hay strongly recommends some of the tests for quantitative purposes. One general idea pervades the whole of the tests, and this is the separation of substances which interfere with the reactions. We shall describe two of the methods most strongly recommended. Thirty drops of a saturated solution of cupric acetate are added to two drachms of urine containing one-fifth of a grain of grape sugar. The mixture is heated in a bath of boiling water for ten minutes, and then cooled by immersion in cold water. A bulky precipitate results. The whole of the contents of the tube are turned on to a filter; a few more drops of the acetate of copper are added to the filtrate, with a view to removing everything precipitable. If the fluid remain clear, a grain and a half of cupric tartrate is added, and then potash in excess so as to form an intensely blue solution. Heat is next applied, then the suboxide of copper is precipitated. Here is another method: Ten drops of a strong solution of chloride of tin are added to two drachms of urine containing one-fifth of a grain of grape sugar. An abundant pink precipitate results. The test tube and contents are heated and afterwards cooled by immersion and filtered. The filtrate must then be retested with a few drops of the solution of chloride of tin. If it remain clear, a solution of carbonate of soda is added till a faint alkaline reaction is obtained; heat is applied, and a yellowish-white precipitate of oxide of tin is thrown down; then filter whilst hot; the filtrate should contain no salt of tin. Tartaric acid is added to the filtrate until a faint acid reaction is present; then a grain and a half of cupric tartrate is added, and next potash in excess, with the production of a clear blue solution. Heat is applied. In five minutes the fluid becomes yellow; in ten minutes an orange-yellow precipitate forms of suboxide of copper. There can be no question of the neatness and cleanliness of these methods of testing for sugar, but they would involve too much labour and take too much time for ordinary clinical purposes.

THE CONTAMINATION OF CLOTHING.

ONCE more the dangers of home work in the tailoring trade have been brought before the public. At the Worship-street Police-court, a woman was convicted of having covered her child over with the military trousers she was making while the child was suffering from small-pox. In spite of the warning given, the trousers, eighteen pairs in all, were taken to her employers' shop without previous disinfection. The woman was fined £1. But for one case which is thus discovered scores remain concealed. The difficulty of earning even the most meagre subsistence in the tailoring trade is so great that we can well understand the efforts made to deny the existence of such infectious diseases as may stop the supply of work. It is not fair or politic to expect persons on the verge of starvation to risk the little they do earn for the sake of preserving the health of others. Either home work must be entirely abolished, or else all who work at home must be certain of receiving ample compensation when such work is stopped by the outbreak of fever. Otherwise the great majority of workers will never consent to voluntarily reveal what may incapacitate them from earning their living. At a recent meeting of working tailors, convoked for the purpose of founding a co-operative clothiers' manufactory, one of the speakers frankly confessed that he had used the clothes he was making as bedding for his children when they were down with scarlet fever. In the street of Spitalfields, where he lived, small-pox had visited a number of houses inhabited almost exclusively by tailors who worked at home. No precaution had or would be taken while the dread of starvation was the uppermost thought in the mind of the unfortunate East-end tailors. In such quarters public workshops under official supervision, where neither Factory nor Sanitary Acts could be defied, would render a great service. The public would also do well to inquire before purchasing whether the clothes came from a workshop under the Factory Act, and thus bring some pressure to bear upon the master tailors.

NEPHRECTOMY IN LEYDEN.

PROF. VAN ITERSON of Leyden reports a case of nephrectomy in a female patient aged twenty-six. For many years she had suffered more or less from renal colic; a tumour then appeared in the left lumbar region, which after a time was opened by free incision, a considerable quantity of pus being discharged. The urine, which had previously contained pus, now became free from it, and, though strongly acid, it at no time contained calculi. When she was admitted, two years later, under the Professor's care, the fistulous opening was still discharging pus; there was a certain amount of infiltration of the skin in the neighbourhood; the urine contained a few pus-corpuscles, vaginal epithelium, and mucus, but no albumen, the solids being 3·1. About 800 cubic centim. were passed per diem. On consideration of the history of the case, it was thought probable that the cause of the suppuration of the kidney was a calculus, but that, after free exit had been made for the pus, nothing had passed through the left ureter, the right kidney probably alone performing the secreting function. It was decided to operate, performing nephrotomy or nephrectomy, according to circumstances. An incision was made from the eleventh rib to the crest of the ilium. On examining with the hand, an opening was found leading to a cavity in the kidney, which was much enlarged and freely movable. An aseptic ligature having been firmly fastened round the pedicle two fingers' breadth from the organ, this was severed and removed. The wound was dressed with iodoform and iodoform gauze. The patient rapidly recovered. The kidney, which was examined by Herr Siegenbeck van Heukelom, demonstrator of pathological anatomy, was bean-shaped, elastic to the touch, rather less hard than fibrous tissue, and measured in length 150 millimetres, and in breadth 45 millimetres below and 60 millimetres above the hilus, the upper part being lobed. An irregular aperture admitting two fingers existed above. On section the substance of the kidney was found to be riddled with cavities, the walls of which varied in thickness from 4 to 12 millimetres; their structure was seen under the microscope to consist of highly degenerated renal tissue. No calculi were found. The cause of the renal suppuration could not with any certainty be determined, but Professor van Iterson thinks it probable that the origin was due to lithiasis, the attacks of colic being perhaps caused by the passage through the ureter of small calculi, which escaped observation when voided. Ulceration and sloughing may also have been induced. He

considers that in cases of pyonephrosis and paranephritis operative measures should usually precede the external bursting of the abscess, as the results of subsequent nephrectomy are not favourable; still where, as in this case, the adhesions are easily broken through and the kidney can be readily removed, this operation may fairly be undertaken in preference to that of nephrotomy, which, though it may result in a cure, requires a long time to effect it, and is besides very uncertain, its risks, too, being scarcely counterbalanced by the chances of a few of the glomeruli and pyramids being rendered capable of resuming their functions.

THE ST. ANDREWS GRADUATES' CONVERSAZIONE.

THE conversazione of the St. Andrews Graduates Association, held on Wednesday evening in Chandos-street, was largely attended, and was in every way a marked success. The guests—who were received by Dr. Richardson, F.R.S. (President), Dr. Paul (Treasurer), Mr. Menzies (Honorary Secretary), and Dr. Christie—included Mr. J. T. Wood, the explorer of the Temple of Diana at Ephesus, Dr. John Lowe, Mr. Hyde Clarke, Sir James Cockle, Dr. Ord, President of the Medical Society of London, Major Childs, Dr. Crichton Browne, F.R.S., Serjeant Robinson, Sir Patrick Colquhoun, Dr. Hack Tuke, Col. Brabazon, Mr. A. Wynter Blyth, Dr. Spencer Cobbold, F.R.S., and a very large number of graduates and their ladies and friends, who filled the rooms and took part in the enjoyments of the evening until a rather late hour. The chief feature of the evening, and a novel one, was an address by the Rev. Dr. Lansdell, D.D., the well-known Siberian traveller, on Bokhara and Khiva. The lecturer, who put on the grand Oriental dress which had been presented to him by the Ameer, gave some extremely curious and interesting facts about the nomadic tribes whom he had visited, and about some of the diseases to which they are subjected; and after speaking for nearly half an hour and answering many questions, received a most hearty vote of thanks on the motion of the president, who added a message from Dr. Schliemann, regretting that absence from England prevented him from being present.

A CASE OF TRAUMATIC ANEURYSM.

IN the *New York Medical Journal* for May 23rd Dr. Theodore McGraw of Detroit relates an interesting case of traumatic aneurysm of the subscapular artery. The patient was a Pole twenty-seven years of age, who received three stabs about the shoulder in December, 1881, one of which was followed by an enormous extravasation of blood that was in due course absorbed. Three years later he came under Dr. McGraw's care with a rapidly growing pulsating swelling in the axilla, which had all the usual characters of an aneurysm. There was no alteration of the radial pulse. Its increase in size was so rapid that treatment had to be resorted to at once. The first step of the operation was to make an incision above the clavicle, through which the subclavian artery could be compressed. A free incision was then made over the tumour, and carried through the pectoralis major muscle, and attempts were made to detach the thick sac of the aneurysm from the surrounding structures. When this step of the operation was about half completed, the sac ruptured, and thinking that the attempt to isolate it must be abandoned, the sac was freely laid open, and the mouth of the artery controlled by the finger; but after many efforts it was found quite impracticable to free the mouth of the artery and to throw a ligature around it, for the sac was formed of very dense tissue, and was firmly adherent around the wounded artery. Dr. McGraw thereupon returned to his original plan, and with ease separated the fundus of the sac from the ribs and the anterior and posterior walls of the axilla, and then ligatured its neck. After this the axillary artery was with comparative ease freed and tied above and below the origin of the subscapular branch, which was found to open into the aneurysm within half an inch from the parent trunk. Arguing from this case, Dr. McGraw advises that while Syme's operation is suitable for cases of ruptured artery, it should not be adopted for traumatic aneurysm where there is a well-formed sac. It is pointed out that it may be impossible from the interior of an aneurysm to free the artery sufficiently to ligature it without imperilling contiguous arteries, veins, or nerves, while the detachment of the sac may be a comparatively easy and rapid procedure if done systematically. A ligature can then be tied round the neck of the tumour, and all danger of hæmorrhage avoided, and if the fundus of the sac be cut away the field is comparatively clear for the final steps of the operation. It is undoubtedly a dangerous and difficult matter to clear an artery from the inside of the sac of an aneurysm, and where the sac is sufficiently dense to permit of it, the plan of operating prepared by Dr. McGraw offers decided advantages.

STATISTICAL SOCIETY.

THE Statistical Society intends to hold its Jubilee Festival on Monday next and the two following days. The meetings will be held in the theatre of the London University in Burlington-street, and, it is expected, will be attended by a considerable number of the most distinguished statisticians of Europe and America. The first meeting will take place on Monday at 3 P.M., when the president's address will be delivered, and papers read by Dr. Mouat, Mr. Giffen, and M. de Foville. On Tuesday the subjects of the papers will be "Uniformity of Statistics, and the Numerical and Graphic Methods," and on Wednesday Professor De Neumann Spallart will give a *résumé* of the results of the International Statistical Congresses, and sketch of a proposed form of International Statistical Association. From the names of the distinguished members and visitors by whom the papers are to be read we are justified in anticipating that they will be of high quality and likely to give rise to interesting discussions. The annual anniversary meeting of the Society and the jubilee dinner take place on Tuesday, and the Society gives a jubilee conversazione at the South Kensington Museum on Wednesday evening. The Lord Mayor has invited the council of the Society and the foreign visitors to luncheon at the Mansion House on Monday previous to the meeting at Burlington House.

STRAPPING THE TESTICLE.

AT a recent meeting of the New York Surgical Society Dr. Post mentioned a case of gonorrhœal epididymitis, in which he had employed strapping the testicle in the subacute stage. The President of the Society, Dr. Weir, opened the discussion on the case, and expressed an opinion adverse to the value of this means of treating swelled testicle, and in this opinion he was supported by several subsequent speakers. Dr. Post, however, strongly contended for the value of this old-established treatment. We believe that, were the subject raised at any of our British Medical Societies, a similar difference of opinion would be found to exist. There is no doubt that it is not an easy matter to strap the testicle well; even the preliminary process of shaving the scrotum is not a simple matter, as anyone who for the first time attempts to do it thoroughly quickly learns. The circular turn of strapping round the spermatic cord is liable to cut into the thin skin, and eczema of the scrotum is not an infrequent result when strapping is placed next the skin. When lint is placed between the skin and scrotum, it is apt to be thrown into folds by the firmer strapping and to lessen the equable pressure of the latter. However, by care and the skill obtained by practice, it is quite possible to get over all

these difficulties, and, either by the use of a thin elastic bandage or of a linen bandage beneath the strapping, to apply firm and equable pressure to an enlarged testicle. The advocates of this plan of treatment may fairly attribute some of the opposition to it to the difficulties met with in carrying it out and to the failure to overcome them. But they must not imagine that this explains it all. There is no doubt that in the great majority of cases of epididymitis strapping the testicle is neither required nor advantageous. As soon as the acute inflammation subsides, the inflammatory products are for the most part rapidly absorbed and leave but a trifling induration behind. It is only in cases where this does not occur, and where the epididymis continues considerably swollen, that circular compression is of real use, and in these cases it is very valuable. But it is particularly indicated in subacute inflammation of the body of the testicle itself. The treatment is most easily carried out where the organ is considerably enlarged, and it is in these cases that it is most useful. It cannot, of course, be attempted in acute inflammation; and in other cases we should say that the greater the swelling of the organ—the larger the amount of inflammatory exudation to be absorbed—the greater is the value of strapping the testicle. In other words, the easier to apply, the better the effect.

UNAPPRECIATED THRIFT.

AT the recent annual meeting of the Medical Benevolent Society at Birmingham, the President made some remarks which deserve the attention of a wider circle than those who chanced to be present. After an existence of sixty-four years the Society has accumulated an invested capital which amounted to £10,705 on Dec. 31st last, and is steadily increasing. Registered medical practitioners within fifty miles of Birmingham are eligible as members of this Society, and within that radius upwards of 900 practitioners are included; yet at the close of last year only 264 members were on the books. Cases not unfrequently come to the knowledge of the Court of Directors urgently requiring assistance, when it cannot be rendered legally because membership had not been sought in due time; yet the subscription is at the utmost £22 1*s*.,—£1 1*s*. a year for twenty-one years, or £16 16*s*. if paid in one sum on admission. As, happily, only a small minority of members, or their families, come upon the funds, the Court is able to deal liberally with those who do; and the cases are not few in which sums varying from £20 to £40 a year are given for a great number of years. The excess of total income over total expenditure has for the last five years averaged £248 per annum; and the records prove that the widows of three members, whose collective payments were only £38 7*s*., received from the Society's funds no less an aggregate than £2927 10*s*. The radius of fifty miles from Birmingham, within which practitioners have a right to claim membership, includes nine county towns—viz., Derby, Hereford, Leicester, Lichfield, Northampton, Shrewsbury, Stafford, Warwick, and Worcester; also such industrial centres as Burton-on-Trent, Coventry, Dudley, Newcastle-under-Lyme, Walsall, and Wolverhampton. It is computed that over this wide area something like 700 additional practitioners might claim admission to the Medical Benevolent Society, which is conducted on such principles as to allow of wide expansion in its operation, with the most perfect safety. The Society is registered under the Friendly Societies Act, and the secretary, Dr. Thomas Savage, of Newhall-stret, Birmingham, will be happy to supply the fullest information to all candidates for membership. It being a point of honour with the directors and officers to observe the strictest confidence as to the name and position of the persons relieved, the Society cannot claim sympathy for special cases. Were it otherwise, the process of recruiting members might be easier. It is difficult to imagine in what apparently unlikely cases the funds of the Society become urgently needed for relief. When that becomes known, not an hour is lost in giving the necessary instruction to the treasurers, and they never lose a minute in giving it effect. These facts fairly entitle the thrifty Midland Medical Benevolent Society to a wider appreciation than it has yet enjoyed.

LYMPHO-SARCOMA OF TONGUE.

THE paper which Mr. Hutchinson contributed to the Royal Medical and Chirurgical Society on Tuesday last was one of much clinical and pathological interest. The case was that of a medical student who had had a morbid condition of the tongue, if not from birth, at all events from early life. The morbid condition would appear to have been one which, with Mr. Hutchinson, we may regard as a "congenital mole," having a tendency also to a nævoid condition. Such hypertrophies of lingual tissues are not in themselves of very rare occurrence, but they are nevertheless of much importance as clinical objects of study in addition to their pathological relations, and the remarks on their structure by Mr. Butlin and Mr. Barker were of much value. The chief point raised by the paper in question would appear to be the development of a sarcomatous tissue in the ordinary course of the life of this hypertrophic condition. To all appearances the case which formed the chief part of Mr. Hutchinson's paper was one in which, in the first period of its existence, the disease had no malignant characters. And even later on, when the patient was first seen in London, there was nothing except the size of the tumour to excite much alarm about it. There was no ulceration and no glandular affection. The removal of the very large if not the largest tumour of the tongue on record (weighing seven ounces), could only be effected by a division of the lower jaw and preliminary tracheotomy. The operation was successfully accomplished, and the patient enjoyed the next two years of his existence apparently in the best of health. The microscopical examination alone caused any ground for alarm, for such skilled microscopists as Dr. Klein, Mr. Butlin, Mr. Godlee, and Mr. Eve all testified to its sarcomatous nature. And they were right. At the end of two years the growth recurred at the cicatrix, and caused death by its rapid development. The case is one of much interest on account of the great size of the tumour, the great rarity of sarcoma of the tongue, and also as an illustration of the occurrence of malignant disease on the top of a congenital and apparently innocent hypertrophy of certain of the lingual tissues.

LUNACY CERTIFICATES FOR CLUB PATIENTS.

THE practice of club surgeons with regard to certificates required by members for purposes unconnected with the club or with their ordinary employment differs considerably, for while some surgeons are willing to give any number of certificates to enable a man to draw sick pay from other clubs with which the surgeon has no connexion, others make a practice of charging a small sum for such services. It would certainly be better if some common system were agreed upon regarding payment for club members' certificates, or if a definite agreement were made with clubs at the time of taking office. A case illustrating the importance of this has just come before Judge Pitt Taylor at the Woolwich County Court. A family had been entered many years ago as medical aid members, paying a penny a week each to one of the large industrial insurance companies. When the company gave up its medical aid branch, a private arrangement was made with the surgeon and the agent to continue it on the same terms as before; this was understood to entitle the

members to attendance and medicines except during confinements. Recently one of the daughters became deranged, and it being necessary to send her to an asylum, the club surgeon filled up a form, another practitioner doing the same. The latter gentleman's fee of a guinea was paid without hesitation, but when the club surgeon sent in a claim for a similar amount, it was refused on the ground that the weekly payment covered it. As the surgeon took a different view, it was arranged in a friendly manner to test the case in the county court, with the result that the judge held that the medical officer of a club is bound to give *any* certificate required by a member, even a certificate in lunacy. He believed, however, that this was the first time the question has been raised. As this is not the view taken by medical men generally, it would be well to have the judgment of a superior court, but we understand the medical man concerned has no intention of appealing.

THE ÆSCULAPIAN SOCIETY.

ISLINGTON has long had a good Medical Society, founded by its best local practitioners, Cattlin, Clifton, Jackson, Kesteven, and others, and to which they and their younger neighbours brought the best of their experience; and this Society continues still to thrive. Perhaps not the least proof of its vitality is the appearance of a very vigorous offshoot of the old tree, yclept "The Æsculapian"—differing from the older Society in meeting in other than private houses, where the severities of the drawing-room need not hinder the odour of the morbid specimen or the more attractive odour of the "weed," whose devotees claim for it that it loosens the tongue, sharpens the brain, and makes a society ever so much more social. The Æsculapian has justified its existence in more ways than by the innovation of smoking, notably by a volume of Transactions containing some very excellent contributions on subjects in every department of medical practice. The annual dinner of the Society was held on the 5th inst., in the Holborn Restaurant, under the most genial presidency of Dr. Lough, when the Society showed a wonderful richness in musical and social qualities, and gave to guests the impression that it was a very creditable representation of the body of general practitioners, of which it boasts to consist almost exclusively.

INFECTIOUS DISEASE AND SCHOOL ATTENDANCE.

ONE of the chief considerations in the working of a general and compulsory system of education is its adaptation to the case and circumstances of particular scholars. Proof that some degree of pliancy is necessary is furnished by the evidence brought forward some time ago of the unequal pressure of a common method in teaching, and this has paved the way for certain measures of reform. Another difficulty which has to be allowed for, but might be thought too obvious for regulation, presents itself in the very frequent prevalence in childhood of infectious fevers. It would seem, however, that some recognised rule for such cases is still wanting. Thus, in an instance lately reported the mother of a family, several of whom had measles, felt herself obliged to send one of her children to school out of the infected house in consequence of repeated notices from the School Board officers. The latter, we presume, were imperfectly informed as to the facts. Let us now recall the usual surroundings of such a child. His home very frequently consists of one room, the hospital for the time being of sick brothers and sisters. If the family be large, it may occupy a flat. The rest of the house is probably tenanted by another family or more than one, healthy or not. In any case, the amount of house-room will vary with that somewhat uncertain quantity, the father's work. Disinfection, fortunately far more common and more easy than formerly, gives no absolute immunity, nor, indeed, is it always resorted to. Then we have to remark the danger to others implied in the vagueness of the symptoms of invasion. During this period infection is mustering its forces almost unobserved; and it is then that measles in particular is most infectious, though still obscure. The mere statement of these facts should convince one that the apparently sound member of an infected family cannot safely mix with other children unless he live separately while at home. We have shown how difficult it is to obtain this separation. It has accordingly been long recognised by other than Board schools, that where isolation of the sick is impossible the healthy children cannot attend school. Without a provision of this kind, schools in general, and especially the National and Board schools, must become in a greater degree than they now inevitably are starting-points for many cases of contagious and infectious disease.

TAXATION OF BEER OR TEA.

MR. JOSHUA FIELDEN is at serious variance with Mr. Gladstone and Sir Charles Dilke in reference to the amount of the existing taxes on beer and tea respectively. We cannot pretend to decide when such doctors disagree; but we must express our decided preference for increasing the taxation on beer and spirits as compared with that on tea. The plain facts on this subject are the best for purposes of guidance. The present taxation of beer is not enough to hinder the consumption of an amount of it altogether in excess of the physiological or dietetic requirements of the body. It stiffens the joints and besots the intellect of the labouring classes, who are now to acquire such momentous functions in the State. To talk of taxing the poor and not the rich with an income tax of eightpence in the pound is slightly suggestive of uncandour; but in the interest of the working classes and of the State alike, let us tax articles that can well be spared, and not articles of refreshing diet.

SUCCESSFUL PORRO'S OPERATION.

La Gazzetta degli Ospitali of the 7th inst. reports that Professor G. Calderini performed Porro's operation on the 10th ult., in the Gynæcological Institute of the University of Parma, on a woman greatly deformed by rickets. The operation was performed several days before the labour period, and Porro's method was slightly modified. On exposing the uterus, a small transverse incision was made into it, and the uterine tissue torn in the same direction with the fingers. The pedicle was constricted with an elastic ligature, and fixed to the abdominal wound by long intersecting needles. The superficial sutures were removed on the fifth day, and the deep ones on the eleventh, union by first intention having resulted. The third dressing was renewed on the eighteenth day, and the fourth on the twenty-first; the pedicle, not having then become completely detached, was divided. The patient's highest temperature was 37·5° C. The child is alive and well.

TAPEWORMS AND HYDATIDS.

AT the soirée of the Royal Society held last week this subject was pretty fully illustrated by a series of preparations exhibited by Dr. Cobbold. Amongst the most interesting specimens were a set of slides of Tænia echinococcus, kindly lent for the occasion by Dr. J. Davies Thomas, in illustration of his paper "On the Rearing of this Tapeworm by feeding Dogs with Human Hydatids." Specimens were shown of thirty-two and forty-two days old respectively. To compare with these, Mr. Edward Nettleship's Tæniæ, forty-seven days old, reared by feeding

with hydatids from a sheep, were also shown. Dr. Cobbold supplemented these by exhibiting three other kinds of canine tapeworms, which he reared by experiment from their appropriate scolex forms. Several varieties of hydatids, such as Echinococcus hominis, E. veterinorum, and the rare E. multilocularis were included. The completeness of the series will be better understood by the enumeration of the other canine and feline tapeworms shown—Tænia marginata, T. serrata, T. litterata (often called T. canis lagopodis), T. cucumerina, and also the variety known as T. elliptica, T. cœnurus, T. crassicollis, Bothriocephalus latus, B. cordatus, B. dubius, and B. felis. Several of the slides were originally contributed by Professor Leuckart of Leipsic and Dr. Krabbe of Copenhagen. The last parasite on this list was only recently identified from amongst a set of entozoa contributed by Dr. Bancroft of Brisbane.

LEUCOMAINES.

IN the *Bull. Soc. Chim.*, A. Gautier, writing on the action of bacterial ferments on albuminoids, by which certain poisonous alkaloids are produced, says that these seem to be identical with those commonly known as ptomaines; and proposes that, as they are constant and necessary principles in the normal excretions of living organisms, and have been detected in the saliva, urine, muscular juices, sweat, and also in numerous glands, they should be called "leucomaines" (λεύκωμα, the white of egg). They are mostly poisonous, crystalline, and give crystalline platino-chlorides.

EMETICS IN CASES OF FOREIGN BODIES IN THE AIR-PASSAGES.

A. HACKER mentions in the *Vrach* some cases of foreign bodies in the air-passages. In one of them the patient, a child of five years of age, had been given a powerful emetic by a "feldsher" (a hospital sergeant), and when Dr. Häcker arrived the child was almost moribund. He thinks that, as a rule, emetics do no good in these cases, and may produce serious mischief.

SOME OF THE CHEMISTRY OF CHOLERA.

AN investigation of the changes which epidemic cholera produces in the bile and alvine dejecta has been conducted by M. Gabriel Pouchet. The author has made six analyses of bile collected from the gall-bladder very soon after death from cholera. A large proportion of albumen was found in the gelatinous fluid. The albumen forms, with the mucin, the greater part of the residue resulting from evaporation. The bile was very watery. In every case the presence of leucin, tyrosin, glucose, and fatty globules mixed with fatty acid and cholesterine was detected. After separation of the albuminoid matter by strong alcohol, the colourless liquids precipitated by acetic acid become slowly coloured of a brownish-green. The precipitate produced by acetic acid is formed of cholic and choloidic acids and dyslysin, which shows that a decomposition of biliary salts may take place in the gall-bladder. The alvine excreta were almost colourless, very watery, and contained a considerable proportion of urea and chloride of sodium. The vomit frequently contained the elements of bile. Ptomaine extracted by exhaustion with chloroform presented itself as a colourless liquid having the characteristic odour of pyridic bases, oxidising in air and light with great rapidity, and acquiring at first a rose colour, and afterwards a brown. A marked alkaline reaction is given, it forms a chlor-hydrate which is easily dissociated by elevation of temperature or in a vacuum. Attempts to purify the alkaloid were made, but the purified product had but little toxic effect when injected under the skin of guinea-pigs, though the original alkaloid killed a frog in less than two hours.

IT is stated that Lord Shaftesbury, in view of the extreme improbability of the Lunacy Acts Amendment Bill (to certain clauses of which it will be remembered he strongly objected) becoming law during this session, has consented to resume his position as chairman of the Lunacy Commission. As regards any future proposed legislation on the subject, his lordship is understood to have reserved to himself complete liberty of action.

THE outbreak of small-pox which has taken place at Burslem has spread to other districts, and serious alarm is experienced in the other towns of the Potteries, which are all grouped together. The Sanitary Committee of the Burslem Town Council, recognising the special importance of isolation, have ordered two more hospital tents, to contain twelve beds.

WE learn that, a memorial having been recently forwarded to the Home Office from medical practitioners of Derby praying for the release of Dr. Bradley, Sir Wm. Harcourt has replied to the effect that, having considered all the circumstances, and consulted with the judge who tried the case, he does not see ground for interfering on the prisoner's behalf.

THE members of the United Faculties' Club of the University of London dined together on the 17th inst. at the Star and Garter Hotel, Richmond. Dr. Langdon Down occupied the chair, and was supported by Sir John Lubbock, Dr. Storrar, Mr. Cooper Forster, Dr. Bristowe, Mr. J. G. Fitch, Mr. Magnus, and others.

THE patient from whom Sir Henry Thompson recently removed by the supra-pubic method a calculus composed of pure uric acid weighing 14 oz. avoirdupois, as recorded in our issue of May 2nd, has made, we learn, an excellent recovery. Full details of the case will be published in our columns in due course.

THE *Revista de Pharmacia e Drogaria* of Rio de Janeiro states that a free school of pharmacy has been founded by the Pharmaceutical Institute of that city, and is to be maintained at its expense.

DR. MOROCHOVEZ, prosector in the University of Moscow, has been appointed Lecturer in Physiology in the Forest Academy of Petrovski.

THE HOSPITAL SUNDAY FUND.

THE total amount received on behalf of the Metropolitan Hospital Sunday Fund up to the time of our going to press is £13,450 13*s.* 5*d.* Many amounts are less than those paid from the same places last year, but there are on this occasion several new contributors.

The following are the principal contributions which have so far been received on behalf of the Fund:—St. Michael, Chester-square (Canon Fleming), £951 4*s.* 6*d.*; St. Jude's, £702 4*s.*; Westminster Abbey, £195 7*s.* 8*d.*; St. Paul's Cathedral, £161 6*s.*; Union Chapel, Islington, £100 17*s.* 8*d.*; Metropolitan Tabernacle, £200; Great Synagogue, £240; St. Mark's, North Audley-street, £218 5*s.* 2*d.*; St. Margaret's, Westminster, £172 19*s.* 6*d.*; The Temple Church, £172 14*s.* 5*d.*; St. Barnabas, Kensington, £100 7*s.* 2*d.*; Quebec Chapel, £256 7*s.* 3*d.*; Messrs. Reid and Co. (a further donation), £200; St. Andrew's, Wells-street, £110 12*s.* 2*d.*; St. Mary's, Bryanston-square, £108 10*s.*; St. James's, Piccadilly, £120 10*s.* 3*d.*

A correspondent calls our attention to the case of St. Peter's Church, Vere-street, where the annual collection now averages more than £200, whereas when the present incumbent (the Rev. W. Page Roberts) took office the sum contributed by the congregation was only about £30.

REPORT
OF
The Lancet Special Sanitary Commission
ON
MARSEILLES AND TOULON.

No. I.

FROM Toulon and Marseilles the cholera has menaced all Europe. The public opinion of England, as well as of France, has therefore some right to urge the duty of adopting measures likely to prevent these towns becoming once more a source of special danger to the entire European community. While the epidemic lasted it could not be expected that the authorities would undertake any important public works. To nurse the sick, to observe, as far as possible, the cause and history of each case, and to disinfect in a wholesale manner, sufficed for the moment. Now, however, a year has elapsed since the first outbreak of cholera at Toulon. A long winter afforded the necessary time to select and enforce the sanitary improvements most suited to meet the risks of the present summer. Already two cases of cholera are reported from Marseilles. This would be a matter of little importance if, in the interim, energetic precautions had been adopted. The lesson to be derived from last year's epidemic was sufficiently severe to justify the hope that it would not remain unheeded. Unfortunately at Marseilles, internal strife and factious divisions within the ranks of the municipality seem to have paralysed the authorities. They display more eagerness in denying the evil than in seeking its remedy. Nor is local public opinion sufficiently enlightened on sanitary matters to bring a wholesome pressure to bear upon the administration. The town still remains in a deplorable condition. Little or nothing has been done. Faith in the efficacy of quarantine regulations survives the late deplorable experiences, and yet the means taken to purify infected ships are altogether untrustworthy.

We carefully inquired from the port sanitary authorities what system of disinfection was enforced, and ascertained that the purification of ships was left very much to the discretion of the captain. In many cases it simply meant a good wash down, with the use of a little disinfectant solution. Thus there is no security whatever that the disinfection is absolute and capable of killing every known living organism. When fumigation is practised on board ship it seems to be the custom to wash first and fumigate afterwards, thus exposing the operators to considerable risk of contagion. On the other hand, the quarantine station formed by the union of the Pomègue and Ratoneau islands is better organised than was reported at the time. Contrary to what was then said, the new arrivals did not have any intercourse with those who were about to leave; while the general installation of the quarantine station, which the courtesy of Dr. Marrion enabled us to visit carefully, offers many and great sanitary advantages. The site is most healthy and beautiful, and the accommodation ample and economical.

With regard to the town of Marseilles itself, it should first be noted that the water-supply is exceptionally abundant. Strange as it may seem, however, this very abundance has given rise to a danger on which we cannot insist too strongly. The amount of water distributed being more than sufficient to fill the cisterns, these latter were supplied with overflow pipes that communicate with the drains. In many cases the cistern is placed uncovered in the closet, and such connexion with the drains offers more than usual risk. It is needless to say that traps are utterly unknown. At the bottom of the soil-pipe there should be a *tinette* to retain the solid material, but as a rule this is not used. The pipe continues under the house till it reaches a sort of catchpit placed under the causeway of the street; here the water deposits more than a cubic metre of solid matter, while the liquid from the surface of this little cesspool overflows into the sewer. There is no dip-stone in this catchpit, so that it does not act as a syphon, but the emanations from the sewer, from the catchpit, and the huge insufficiently flushed drain-pipes travel back unhindered into the apartments and into the cistern that holds the drinking water. Thus is the excellence of the Marseilles water-supply compromised. Surely the overflow pipes from the cisterns could be trapped with but little difficulty or expense. The catchpits might also be abolished, and as a temporary measure *tinettes* or movable pails employed in their stead. The fear of solids reaching the sewer is sufficiently obviated by the wire filter of the *tinette*.

These remarks, however, only apply to the more modern and wealthier parts of Marseilles. In the old town and poorer districts there are no such innovations as closets, catchpits, *tinettes*, or soil-pipes. It is doubtful whether there existed a single closet in Marseilles before the Revolution of 1848. It was and still remains the custom for the inhabitants to empty their vases into the gutter, though some throw everything from the window into a back yard, where it forms a foul manure heap till such time as it attracts the attention of a particularly bold and conscientious scavenger. Altogether Marseilles possessed at the time of the epidemic 48,000 metres of sewers, but the streets of Marseilles reached the total length of 225,000 metres. M. Guérard, the port engineer, has carefully dotted on a large map of the town every known case of cholera. The sewers are also drawn on this map, and we are thus able to realise at a glance that all the roads where sewers existed were remarkably exempt from cholera. This rule does not only apply to the large and well-ventilated streets, but also to narrow, poverty-stricken thoroughfares such as the Rue de la Guirlande, which runs through the old town from the Hospital to the Mairie, and is the only street in this part of Marseilles that possesses a sewer.

From these striking facts we cannot, however, conclude that sewers suffice to prevent cholera. The absence of sewers did not alone contribute to facilitate the outbreak of cholera. It was also noted that the disease prevailed with greater intensity in the streets paved with round knobbly little stones that readily allowed the moisture to sink into the earth. As the soil is either thrown directly into the streets or finds its way to the gutter after filtering through a *tinette*, which only retains a portion of the solids, it will be readily understood that the more porous the road the more thorough the infection of the ground. Also all private wells are not yet abolished, and, being dug in ground which has received the filth of ages, their water is highly contaminated. The marked decrease in the death-rate of Marseilles when the purer water of the Durance was first introduced is a clear proof of the dangerous nature of private supplies, and the abolition of wells should not be allowed to remain an optional matter. Not only in the town, but also in the suburbs, it will be found that most cases of cholera come from streets or districts that presented special sanitary defects. Thus, at the lunatic asylum Dr. Pons, who was in charge of the male wards, failed to trace any case of direct transmission. Every suspicious case of diarrhœa, &c., was transmitted to a ward of observation. Nearly all whose symptoms developed into true cholera came from the epileptic wards, where, apart from the naturally uncleanly habits of the patients, the drainage and ventilation are exceptionally bad. Others coming from more wholesome parts of the building, which contains altogether 1100 patients, soon recovered, and did not contract the cholera from the true cases with which they had mingled.

A little further on, in the suburb of the Capelette, nearly all the cases seemed connected with a little stream that winds in and out of the village. This stream, about a yard wide, is quite clean on entering the village, but on leaving the village we measured more than a yard deep of greasy, black, foul mud at the bottom of its bed, and the water was of an inky colour. The habits of the inhabitants of the village are filthy in the extreme. In some houses, where the brook passed under the kitchen or basement, a little hole was made in the floor. This served as the family closet, and was proclaimed a convenient and cheap way of getting rid of all soil, slop-water, and other refuse. In a rambling building, subdivided into sixteen tenements, where twenty cases and fifteen deaths occurred, we observed that the only accommodation consisted of a large masonry box or tank capable of holding four cubic metres of soil. This receptacle was wholely uncovered, was infested with thousands of flies, stank abominably, and its fæcal contents were constantly stirred up as each tenant came to empty his vase into this

substitute for a watercloset. Crossing the main street, we visited a house where the brook ran down the side of the back garden. Here there were two wells; one within a yard and a half of the brook supplied the drinking-water, though it sometimes "smelt nasty"; the other well, a little farther off, and perhaps less contaminated, was not used because a dead baby had been found in the water. Two deaths from cholera were noted in this house. In the middle of the garden, and touching the brook, was a wooden donkey-shed and what was called the closet. It simply consisted of a hole about a foot deep dug in the earth, where the soil remained exposed to the sun, the liquid portion filtering through the earth into the brook. At the farther end of this back yard or garden we entered a sort of barn, where eighteen Italian labourers were allowed to sleep on straw. Among these latter there were two more deaths from cholera. Another house, which had been specially visited by M. Clemenceau, and in which nine cases and seven deaths are stated to have occurred, disposed of its sewage in a sort of well dug in the middle of the first out of two back yards. The soil being porous absorbed whatever was thrown down. In the second back yard two little wooden huts were built, measuring each two metres. They were just big enough to hold a bed, and were separated from each other by a foul midden. Here, exposed to the rain, the foul stenches, the damp from the saturated and poisoned soil, protected only by a few slender boards, wretched people slept, sometimes three in one bed. This abominable state of affairs is all the more reprehensible, as it is due solely to the supineness of the authorities. Without any extra expenditure of money or the enactment of any new law, it could at once be abolished. A regulation already exists to the effect that every house that is not provided with a cemented and ventilated cesspool shall employ a *tinette* or movable pail. To carry out this regulation, a contractor is ready to supply a clean, empty *tinette* every week, removing the pail that is full, for the very moderate charge of sixteen shillings per annum. Yet, in spite of this facility, the proportion of houses at the Capelette provided with *tinettes* amounts to only 44 per cent. of the total number.

During the epidemic the greatest courage and devotion were displayed. A help committee was constituted that penetrated every centre of infection and rendered practical assistance to those who were suffering. The members of this help committee were modest, simple, brave men, unknown to fame, and who have had little or no share in the decorations and honours showered upon the town by the Government. At the Capelette, M. Vaud, a working builder, was foremost in doing whatever was most unpleasant yet most necessary. But now that the epidemic is over these men have retired from the scene, and matters have relapsed into the same abominable condition which so favoured the outbreak of cholera. A huge sewer, projected five years ago, is now being constructed at the Capelette; and in the town, at the cost of £12,000, three thousand metres of sewers are being added to those that already exist, yet this is all done without any general scheme of drainage. Pending the adoption of some definite system, and the gathering together of the enormous sum necessary for its realisation, it would be more practicable to enforce the due observance of such regulations as do exist. What we term the pail system is actually applied to a large number of houses in and about Marseilles. It is a method that affords many advantages; some hygienists even go so far as to consider it the safest of all systems, and its application is susceptible of rapid extension. By closing the overflow allowed in some of the *tinettes* we have perfect pails, and their removal every two or three days will secure the town against a continuation of the present wholesale contaminations.

One sewer at the Joillette, another at the Prado, have their outfalls into the sea; all the rest flow into the old port, and bring so much refuse down that the harbour has to be dredged every year, and something like 70,000 cubic metres of solid deposit taken out. The water is foul in the extreme, and both typhoid and cholera among the sailors sleeping on board in this old port was the natural result. The gutters, which contain the greater part of the house drainage of Marseilles, likewise empty into this basin. M. Guérard, in his able report, proposes to construct a large main sewer round the port, but at a sufficient distance and elevation from the water to enable its contents to run eastward and empty by gravitation into the sea outside the town. On the port itself a much smaller sewer would receive what came from the lower portion of the town situated below the projected main sewer. At a given point the contents of the smaller sewer would have to be pumped up into the main sewer. These two sewers would cost about £48,000, and would, in any case, prevent the contamination of the port. Unfortunately, even this partial reform is not yet adopted.

THE TEACHING UNIVERSITY FOR LONDON: CONFERENCE OF MEDICAL DELEGATES.

THE third and concluding meeting of the Conference consisting of the Sub-committee for the Faculty of Medicine of the Association for promoting a Teaching University for London and the delegates of the various medical schools was held on Monday last, when the subjoined report was agreed to. After enumerating the members of the Conference the report runs thus:—

"The outline of the plan for a Teaching University was submitted to as follows: That it should be founded on (1) Faculties as constituent bodies; on (2) Boards of Studies representing the Faculties; and on (3) a single Governing Body.

"We approve of this plan, subject to the following observations:—

"1. The Faculty of Medicine should consist substantially of the teachers in the recognised schools of medicine, whether lecturers or clinical teachers, and whether in the strictly professional or scientific subjects. Some points of detail arising out of the special circumstances of schools may be left for settlement hereafter, it being understood that the intention is to put a liberal construction on the qualification for the Faculty in regard to those actually engaged in teaching. The examiners appointed by the University should also be members of the Faculty, whether actually engaged in teaching or not. The power to appoint additional or extraordinary members of the Faculty should be reserved to the Faculty. We consider that this power would be especially beneficial in the case of retiring members of the teaching staffs.

"2. The Board of Studies should be appointed by election, and not by nomination. There exists among us some difference of opinion on the question whether all elections to it should be by the whole Faculty collectively, or whether it is desirable to provide for some special representation on the board of the several recognised schools of medicine. We are agreed, however, to recommend that each school shall be entitled to return one member to the board, to be appointed by those members of the Faculty who belong to the school. Those of us who most strongly feel the need of keeping the elections as open as possible, consider that the existence of a desire for this amount, at least, of separate representation is a sufficient argument for conceding it; and, on the other hand, those who consider that under the existing conditions of the schools some separate representation is necessary, are content that the rest of the elections to the board should be open to the whole Faculty without restriction. The representation of particular classes of studies will, it is thought, be sufficiently cared for by the Faculty in electing. It is, however, very important to the successful working of the system that the board should have the power, and should use it freely, of formal consultation with other members of the Faculty in regard to special matters and particular studies. The benefit of the presence of examiners in consultation when the arrangements for examinations are under consideration is an instance of this; but provided they are regularly summoned to consultation on these occasions, we do not think it necessary in view of the difficulty of including them all, or of satisfactorily providing for a representation of them, that they should be *ex officio* members of the board, or be separately represented on it. The number of the board should be not less than twenty or more than thirty. Power should be reserved to boards of studies to consult, when necessary, with those of other Faculties.

"3. Of the governing body it is essential that at least one-third should be representatives of the Faculties, elected by their boards of studies, or, perhaps, in part by the Faculties direct. If any are elected by a Faculty direct, they should also be members of the board of studies of that Faculty.

Supposing the number of the governing body to be fixed at from twenty to thirty, not less than three elected members should be appointed from the Medical Faculty. It is very desirable, with a view to the union of the examinations of the University in one system with those of the Royal College of Physicians and Surgeons, that room should be found in the governing body for representatives of these Colleges; and that arrangements should be made by agreement between the University and the Royal Colleges for the joint conduct of examinations under a common administration, so far as they deal with the same subject matter and with students at the same stages of their career.

"All seats on the governing body and on the Board of Studies should be held for a term of years only.

"In reference to the functions and work of the proposed Teaching University, we desire to call attention to the following points:—

"1. We think it desirable, in regard especially to the scientific branches of medical education, that arrangements should be contemplated whereby, under the guidance of the Board of Studies of the Medical Faculty, without impairing the autonomy of the several schools, some concentration may be effected of the teaching in particular studies, but subject always to the provision of a sufficient number of centres to meet the circumstances of the case.

"2. It appears to be desirable to contemplate the foundation of chairs in this University (whether attached or not to any existing institution) with a view particularly to the prosecution of the higher and more specialised studies, adapted to those who have already taken their degree, and supplementary to the instruction provided by existing institutions."

Similar conferences are being held in connexion with the other proposed Faculties, and the result of their deliberations, with the action taken thereon by the executive committee, will probably be brought before a general meeting of the Association in the autumn, when doubtless a definite scheme of the University will be submitted.

THE SANITARY CONFERENCE AT ROME.

THE delegates to the Conference having returned from a visit to Naples and its neighbourhood, where they received an unbounded hospitality both from the Government and the local authorities, the sittings of the Plenary Conference were resumed on Friday, the 12th inst. Whether owing to the difficulty of securing sufficient unity of opinion amongst the different nations, or whether, as was alleged, with a view of enabling the several Governments to consider the conclusions of the Technical Commission, it was at once decided to ask the Italian Government to adjourn the sittings to a later date. Several important statements and documents were handed in to the President, and these will doubtless appear in the published Proceedings, but for the time being no opportunity has occurred for their discussion.

At a sitting on Saturday, the 13th, it was announced that the Government had assented to the proposed adjournment and had suggested that the sittings should be resumed on Nov. 16th. This was unanimously acceded to, and the Conference then came to an end.

So far the only proceedings registered are those of the Technical Commission, and they have certainly succeeded in eliciting the different opinions prevalent in Europe and other parts of the world as to the value of the several measures advocated for the prevention of cholera. Whether opinions so much at variance can ever be sufficiently reconciled to make it worth while to attempt the compilation of an International or even of a European code, remains to be seen. The British and Indian delegates left Rome during the course of the present week.

MARINE BIOLOGICAL ASSOCIATION.—A meeting in furtherance of the objects of this Association was held on the 13th inst., at Oxford. The aim of the Association is to establish one or more marine laboratories for naturalists on the coasts of the United Kingdom, such as exist at Naples and elsewhere. The fund already subscribed amounts to £8000, and £2000 more is needed. Cambridge University has subscribed £500, and Oxford is appealed to for a similar sum.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Builth Rural District.—Dr. Herring gives a satisfactory account of the progress made in improving the sanitary condition of this district. During 1884 the death-rate was 12·28 per 1000, only three deaths being attributed to zymotic diseases. Of three cases from typhoid fever which occurred during the year, one was that of the sanitary inspector, who unfortunately lost his life. Water-supply has been provided to the village of Erwood, and steps are being taken with regard to other villages where the supply is deficient.

Middlesex and Hertford Combined Sanitary Districts.—An interesting chapter at the beginning of the annual report of these districts discusses conditions which are common to all. After referring to the manner in which cholera is known to spread in this country, Dr. Saunders points out the risks which are caused by the use of open privies and the ease with which a remedy can be found by the substitution of pails. A strong objection is taken to the exclusion of storm-water from sewers, this exclusion being done on the recommendation of engineers whose sole object is to bring schemes of sewerage within such limits as would be acceptable to sanitary authorities. On this point Dr. Saunders writes that "water-carriage sewage will soon be a misnomer, and already the effect of the removal of this natural cleanser and carrier is that sewers stink, and that open ventilators, which are the most rational and the best method of ventilating a clean sewer, are objected to." Attention is directed to the unsatisfactory closet accommodation in parochial schools, in several instances the health of the children having suffered in consequence. Of epidemic diseases, small-pox has been specially rife in Rickmansworth, where, during the epidemic, 1100 persons were vaccinated. Reference is also made to the increased prevalence of diphtheria in the kingdom; two severe epidemics of this disease occurred at Totteridge and South Mimms, and in both the disease first appeared in children attending schools where the closets were seriously at fault. In several districts enteric fever made its appearance, certain cases in the neighbourhood of Bernard Heath, near St. Albans, being due to a contaminated milk-supply from a farm which had given rise at the same time to an outbreak in the city of St. Albans, and in the previous year in the London parish of St. Pancras. The report contains evidence of careful inspection of all the districts and of steady progress in the improvement of their sanitary condition. The recommendations which are made for this purpose are well considered, and if adopted by the local authorities will do much to add to the healthiness of the various localities. The population of these combined districts is 91,051 persons, and the death-rate for 1884 was 15·7. The number of infants dying under one year of age was 25·5 per cent. of the total deaths, and the zymotic death-rate was 7·8 per cent.

Borough of Preston.—The report of the medical officer of health for this borough records the high death-rate of 25·3 per 1000, being slightly below the average of the previous ten years. The deaths from all causes under the age of one year form 34 per cent. of the mortality; as regards other large towns, the infantile death-rate of Preston is higher than that of all towns but one—viz., Leicester. Mr. Pilkington points out the effect which burial clubs have had upon infantile mortality in other towns; he does not, however, express any opinion as to whether Preston has been affected in a similar manner. The mortality from diarrhœa occurred mostly amongst the children of the operative and labouring classes, those of the Irish being comparatively exempt, a result which Mr. Pilkington believes to be due to the fact that the latter are almost always at the breast. Bronchitis added largely to the death-rate of infants, and this he attributes to their removal in the cold of the early morning from warm and ill-ventilated rooms where they had slept, to houses in which they are nursed while their mothers are at work. The zymotic rate of mortality was 5·15 per 1000 of the population; small-pox

was almost absent, but measles was very prevalent in the latter part of the year, and the diarrhœal death-rate was as much as 2·91 per 1000. During the year a house-to-house inspection was made in a number of streets, and the necessary improvements of houses carried out. It has been decided to commence a destructor for the consumption of dry ashes and market garbage, and it is expected that it will overcome one of the difficulties with which the town has to contend. Special attention was given to the ventilation of the sewers, and the question of the erection of a public abattoir is receiving the attention of the sanitary committee.

Preston Port District.—Dr. Fisher reports that the attention of the authority was directed by the Local Government Board to the need for the inspection of shipping in view of the prevalence of cholera on the Continent, and Dr. Blaxall visited the Port for this purpose. There was, however, no importation of an epidemic or infectious disease during 1884.

Lytham Urban District.—This district has a population of 4373 constantly resident in the town, and during the year 1884 there were eighty-one deaths, giving a death-rate of 18·5 per 1000. The rate of mortality from zymotic diseases was only 1·1 per 1000, calculated upon five deaths from this class of disease. This is perhaps fortunate, for Dr. Fisher reports that the town is still without a disinfecting chamber for the purpose of disinfecting beds and bedding after infectious diseases. Only six cases of scarlet fever came under observation, and all occurred amongst visitors, and in all cases, as far as could be ascertained, the disease was imported. During the latter part of the year an epidemic of measles prevailed, but no deaths resulted. Houses and cottages, slaughter-houses and bakehouses, have been inspected, and an improvement effected in the drainage of one portion of the town where the sewer was specially defective.

Tendring Rural District.—It is estimated that the population of this district is 25,141, and during last year there were 411 deaths, giving a death-rate of 16·3 per 1000. The infant mortality is greater owing to an increased number of deaths from pulmonary affections and diarrhœa. This increase is attributed by Dr. Cook in part to improper feeding. A list of cases of zymotic diseases is given so far as they were known, but the zymotic death-rate is not calculated. Reference is made to five cases of typhus which occurred at Frating. These were, however, related to others which showed themselves in the previous December, and were fully commented on in the report for that year. The two diseases most prevalent in the district were measles and whooping-cough. The report points out the need for a system of sewers in several parts of the district, particularly at Bradfield and Parkeston; at Brightlingsea, where the sewers are also very defective, Dr. Cook recommends the tub system, so as to prevent injury to the oyster beds. At Clacton-on-Sea the new sewers are now completed, and satisfactory arrangements have been made for flushing them, Dr. Cook, however, does not regard their ventilation as perfect. The water supplied by the Clacton-on-Sea Water Company was found on analysis to be of very good quality.

Belper Rural Sanitary Authority.—In the Alfreton sanitary district there are 17,000 persons in thirteen different parishes, the death-rate in the total number is 12·96 per 1000, and varies in the different parishes from 4·17 to 18·91. In several villages efforts have been made to improve the water-supply by deepening the wells and protecting them from surface pollution. In one village typhoid fever occurred, and the locality of the disease is described as "a very unhealthy one by reason of the general filth and squalor of its surroundings." In this outbreak two persons died. There were but three other deaths from diseases of the zymotic class in the whole district. Mr. Gaylor reports that there is no hospital or means of isolating infectious disease, and that a portable disinfector is much needed. Mr. Allen, medical officer of health to the Belper district, points out the need of a system of notification of infectious disease, and for a central infectious hospital or cottage hospitals in different parts of his district. The water-supply to South Wingfield is described as scanty, and at the present time the inhabitants of the hamlet of Overthorpe are drinking water which is liable to contamination from the overflow of a brook which receives sewage from the town of Alfreton. The condition of the outfall at the sewage tank at Delves has caused much anxiety, attempts at purification having failed, and it is now proposed to change the position of the tank so that the effluent should be conducted over an osier bed. The death-rate during the year is 13·7 per 1000, calculated upon a population of 17,625. The mortality of children under five years of age is considerably more than one-third of the total number of deaths. The zymotic disease during the year which has been most fatal was whooping-cough.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5563 births and 3168 deaths were registered during the week ending the 13th inst. The annual death-rate in these towns, which had been equal to 21·1, 21·0, and 20·5 in the preceding three weeks, further declined to 18·6 last week, a lower rate than has prevailed in any previous week of this year. During the first ten weeks of the current quarter the death-rate in these towns averaged 21·4 per 1000, against 22·3, the mean rate in the corresponding periods of the nine years 1876-84. The lowest rates in these towns last week were 10·5 in Derby, 13·7 in Sunderland, 14·2 in Halifax, and 14·5 in Wolverhampton. The rates in the other towns ranged upwards to 23·7 in Sheffield, 26·5 in Manchester, 28·1 in Plymouth, and 35·4 in Newcastle-upon-Tyne. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 486 and 520 in the preceding two weeks, declined to 429 last week, a lower number than in any week since the beginning of March. These 429 deaths included 177 from measles, 102 from whooping-cough, 37 from diarrhœa, 32 from "fever" (principally enteric), 27 from small-pox, 27 from diphtheria, and 26 from scarlet fever. No death from any of these diseases was recorded during the week in Norwich, in Wolverhampton, or in Halifax; while they caused the highest death-rates in Manchester, Sheffield, and Newcastle-upon-Tyne. The greatest mortality from measles occurred in Manchester, Sheffield, and Newcastle-upon-Tyne; from whooping-cough in Oldham, Birkenhead, and Plymouth; from scarlet fever in Leicester and Sunderland; and from "fever" in Brighton and Blackburn. The 27 deaths from diphtheria in the twenty-eight towns included 17 in London, 2 in Portsmouth, and 2 in Liverpool. Small-pox caused 51 deaths in London and its outer ring of suburban districts (exclusive of 16 London residents recorded in the metropolitan asylum hospitals and camp at Darenth), 2 in Hull, 1 in Manchester, and 1 in Sheffield. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had been 1389 and 1201 in the previous two weeks, rose again to 1221 last week; the admissions to these hospitals, which had been 282, 272, and 180 in the previous three weeks, rose again to 204 last week. The Highgate Small-pox Hospital contained 67 patients on Saturday last, 14 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 302 and 290 in the preceding two weeks, further declined to 231 last week, and were 29 below the corrected weekly average. The causes of 66, or 2·1 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Portsmouth, Bradford, and in four other smaller towns. The largest proportions of uncertified deaths were registered in Wolverhampton, Nottingham, Oldham, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 20·5 and 21·8 per 1000 in the previous two weeks, declined again last week to 20·6, but exceeded by 2·0 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 10·0 in Perth and 17·0 in Dundee and in Aberdeen, to 23·9 in Glasgow and 24·0 in Greenock. The 502 deaths in the eight towns included 22 which were referred to whooping-cough, 13 to measles, 13 to diarrhœa, 7 to "fever" (typhus, enteric, or simple), 5 to diphtheria, 3 to scarlet fever, and not one to small-pox; in all 63 deaths resulted from these principal zymotic diseases, against 59 and 74 in the preceding two weeks. These 63 deaths were equal to an annual rate of 2·6 per 1000, which exceeded by 0·1 the mean rate from the same diseases in the twenty-eight English towns. The deaths referred to whooping-cough, which had been 27 and 23 in the preceding two weeks, further declined last week to 22

of which 12 occurred in Glasgow, 6 in Edinburgh, 2 in Greenock, and 2 in Leith. The 13 deaths from measles showed a decline of 2 from the number in the previous week, and included 7 in Glasgow, 3 in Greenock, and 2 in Edinburgh. The 13 deaths attributed to diarrhœa were also fewer than those in the previous week, and scarcely differed from the number in the corresponding week of last year. Of the 7 deaths referred to "fever," showing an increase upon the exceptionally small number in the previous week, 4 occurred in Leith and 3 in Glasgow. The fatal cases of scarlet fever and diphtheria were considerably below the average, and showed a decline from recent weekly numbers. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 87 and 126 in the preceding two weeks, declined again to 94 last week, and were 7 below the number returned in the corresponding week of last year. The causes of 67, or more than 13 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had declined in the preceding four weeks from 35·0 to 23·1, rose again to 29·1 in the week ending June 13th. During the first ten weeks of the current quarter the death-rate in the city averaged 30·6 per 1000, the rate during the same period not exceeding 20·1 in London and 18·5 in Edinburgh. The 197 deaths in Dublin last week showed an increase of 41 upon the number in the previous week, and included 24 which were referred to the principle zymotic diseases, against numbers steadily declining from 34 to 15 in the preceding four weeks. These 24 deaths were equal to an annual rate of 3·5 per 1000, the rate from the same diseases being equal to 2·8 in London and 1·9 in Edinburgh; they included 11 from measles, 7 from "fever" (typhus, enteric, or simple), 3 from scarlet fever, 2 from whooping-cough, 1 from diarrhœa, and not one either from small-pox or diphtheria. The fatal cases of measles, which had been 17, 13, and 9 in the preceding three weeks, were 11 last week; and the deaths from "fever" showed an increase upon the recent weekly numbers. Seven inquest cases and 10 deaths from violence were registered, considerably exceeding the numbers in any recent week. Nearly a third of the deaths were recorded in public institutions, The deaths both of infants and of elderly persons showed a marked increase upon those returned in the previous week. The causes of 25, or nearly 13 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

Surgeon-Major F. Ferguson has arrived at Cairo, sick, from the Nile.

WAR OFFICE.—Grenadier Guards: Surgeon-Major Henry J. H. Lawrence to be placed on retired pay, with the honorary rank of Brigade Surgeon.

ARMY MEDICAL STAFF.—Surgeon-Major John Kinahan, M.D., is granted retired pay, with the honorary rank of Brigade Surgeon; Surgeon Richard Henry Stewart Sawyer, M.B., from half-pay, to be Surgeon, vice Robert Lesly, M.B., deceased. The undermentioned Surgeons on probation to be Surgeons:—Samuel Hickson, M.B.; Henry James Fletcher, M.B.; Sidney Herbert Lindeman; Edward Davis; Simpson Powell, M.B.; Frederick William Caton Jones, M.B.; James Meek, M.D.; Arthur Edward Morris, M.D.; Eugene Cormack, M.B.; Claudius O'Donel, M.D.; William Alexander Carte, M.B.; Arthur Ormsby Fitzgerald; Frederick Dundas Elderton; Edward Nodin Sheldrake; Robert Everard Molesworth; John William Francis Long; Charles Langford Josling; John Francis Bateson, M.B.; William Travers Swan, M.B.; Joseph Bulfin, M.B.; Robert Lockhart Ross Macleod, M.B.; James Henry Curtis; Gofton Gee Adams; James M. F. Shine, M.D.; William Bullen Day, M.B.; David Rogerson Hamilton, M.B.; Robert Geo. Thompson, M.D.; Charles T. Blackwell; Robert Ignatius Power; Charles Randolph Kilkelly, M.B.; William Henry Bean; Nicholas Charles Ferguson, M.B.; Samuel Richard Wills; Michael Leo Hearn; Stephen Lawson Deeble; Richard Harris Hall, M.D.; William Hallaran Bennett, M.B.; John Henry Greenaway; Richard George Hanley, M.B.; William Howard Bell; Gerald Cree; Samuel Cowell Philson; John Michael Nicolls, M.B.; Frederick William Henry Davie Harris.

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of 1st April, 1881, Fleet-Surgeon Frederick Augustus Brice has been placed on the Retired List, with permission to assume the rank and title of Deputy Inspector-General of Hospitals and Fleets.

The following appointments have been made:—Surgeon Alexander Gascoigne Wildey to the *Medina:* Surgeon James M'Cardie Martin to the *Duke of Wellington:* Surgeon Alexander Gordon Andrews to the *Medway;* and George R. Moore to be Surgeon and Agent at Jersey.

ARTILLERY VOLUNTEERS.—2nd Northumberland (Percy): James Henry Davidson, Gent., M.B., to be Acting Surgeon. —2nd East Riding of Yorkshire: Thomas Bowes Shaw, Gent., to be Acting Surgeon.

RIFLE VOLUNTEERS.—Lieut.-Colonel Commandant Pearson Robert Cresswell, F.R.C.S., commanding the 2nd Glamorgan Rifle Volunteer Corps, is granted the honorary rank of Colonel.

THE VOLUNTEER MEDICAL STAFF CORPS.—Surgeon John H. Casson, from the 2nd Derbyshire Rifle Volunteer Corps, to be Surgeon. Surgeon William Henry Platt, from the 1st Tower Hamlets Rifle Volunteer Corps (the Tower Hamlets Rifle Volunteer Brigade), to be Surgeon. The undermentioned gentlemen to be Surgeons:—John Edward Squire, M.D.; Samuel Walter Sutton, M.D.; Edgar William Willett; William Edmund St. Michael Raw.

Correspondence.

"Audi alteram partem."

THE COLLEGE ELECTION.

To the Editor of THE LANCET.

SIR,—Although I think it would be very undesirable, as a precedent, that any candidate for election to the Council of the Royal College of Surgeons should be called upon to state precisely his views upon any question, as a test of his eligibility for an office wherein he should be able to exercise an unfettered judgment, in accordance with the confidence reposed in him and in his honesty of purpose by the electoral constituency of Fellows, yet it seems to me that the present occasion is quite exceptional with regard to that principle.

Certain matters of vital consequence to the rights of the Fellows, and the future welfare, or perhaps the existence, of the College, have been so freely and fully considered, so threshed out by discussion, that it is simply impossible for any eligible candidate for the College Council not to have arrived at a definite conclusion thereon. Accordingly, I proceed to state my convictions, and the course therefore I should be prepared to take in the event of my being honoured with a seat in the Council.

There is one positive wrong which underlies all other forms of exclusiveness, and the mal-influence of which paralyses the hands of that section of the Council who are still bound by tradition—I mean the restriction of the office of examiner in surgery almost exclusively to members of Council. Other positions of emolument have been thrown more open to the Fellows and to the Members generally, but the chief source of emolument yet remains restricted to members of the Council. The injustice and the inconsistency of this exclusiveness are obvious, seeing that many Fellows may be highly qualified for the office of examiner in surgery who are not on the Council, and that members of Council may possess the capacity for administration rather than special fitness for the office of examiner. The two positions are not convertible. Let the conjunction of these two offices be broken up, and then the Council will see the desirability in their maintaining the present *status*. Other things would follow. Who can doubt that the President of the College should not be elected necessarily in the order of rotation from members of the Council, that at the yearly meeting the report of the Council should be submitted to the electoral constituency, and that no vital change in the constitution and relations of the College should be undertaken by the Council without the knowledge and concurrence of the Fellows and Members constituting the College? In all these respects the College should stand upon the same basis as that of any other Society—say, the

Royal Medical and Chirurgical Society, which is quite analogous in its relations to the general constituent body.

Well, these are the conclusions at which I have long since arrived after mature consideration, and to which I should be quite prepared to give effect in the Council of the College. In private circles I have freely acknowledged my convictions; and as the present crisis seems to demand a public statement of them, may I ask you to disseminate them through the medium of THE LANCET?

I am, Sir, yours obediently,

FREDERICK JAMES GANT.

Connaught-square, June 17th, 1885.

AURAL EXOSTOSES.

To the Editor of THE LANCET.

SIR,—The first case in which Mr. Field removed an aural exostosis with a dentist's drill occurred in 1877. He says he "got the idea of the operation from Dr. Matthewson's paper." This paper was read at the first Otological Congress held in New York in the autumn of 1876, and was afterwards published. My article appeared in THE LANCET of Jan. 22nd, 1876. Mr. Field says of me: "He has not published any cases for our guidance describing the details of the operation." But in the article referred to I mentioned that since 1874 I had used a dentist's drill to remove aural exostoses, and maintained that they arose from a local irritation of the external meatus, dismissing as quite untenable the theory of their gouty origin. I noted that I had observed as many as fourteen cases (exclusive of hospital patients) in one year. The conditions under which they should be operated upon, and, what is of equal or more importance, when they should not, are there most definitely stated. Besides this, in my article in "Holmes' System of Surgery" the pathology of these growths is discussed; the method of operating, the difficulties met with, the conditions under which they should be removed, and when not, are all most carefully described. The same may be said of the last edition of my lectures, in which five pages are devoted to the subject. In regard to the International Medical Congress, the words I actually used (and they are reported in the Transactions) were: "Another point which also bears out the theory of a local cause to these growths is one which I have constantly observed (*and it has been recorded by others*). It is that, when enlargements are found in both canals, patients have been much addicted to sea-bathing."

I am, Sir, your obedient servant,

London, June 13th, 1885. W. B. DALBY.

*** This controversy must now end.—ED. L.

CHLOROFORM *v.* ETHER.

To the Editor of THE LANCET.

SIR,—I confess to a certain feeling of disappointment that my letter on this subject, which appeared in your journal of March 7th, has not produced more expressions of opinion than it has. In THE LANCET only two have appeared, but I have had sent me from the States a reprint of an article in the *Boston Medical and Surgical Journal* of April 13th, 1882, entitled "Homicides by Chloroform," which in its condemnation of this drug goes further than Messrs. Braine and Buxton. Mr. Braine, after quoting my contention "that in the production of complete anæsthesia there is little or no difference (in danger to life) between chloroform and ether, whilst in the after-effects, especially as regards vomiting, nausea, and depression of spirits, chloroform is much superior to ether," and saying that this is exactly contrary to what he has been endeavouring for years to demonstrate, begs to point out to me that whilst ether is a cardiac stimulant, chloroform, on the other hand, is a depressor of the heart's action; that the former never kills by stopping the heart, whilst, on the contrary, the principal cause of death in fatal chloroform cases is the sudden cessation of the heart's action.

Now, is not this too bad? I write a letter in which it is manifest that I take for granted that chloroform kills by depressing the heart's action, and show how this can be remedied, and then am addressed in the *du haut en bas* fashion of "May I point out," &c. I may say further that when I first began giving chloroform, now some twenty-four years ago, I unconsciously came to the conclusion that the heart is the organ on which it tells first, for I found myself always keeping one hand on the pulse whilst giving chloroform with the other, long before I had formulated the opinion in so many words. Next, he acknowledges that dangerous symptoms occasionally arise during the administration of ether; but when these do occur the respiratory organs are affected, and there is plenty of time for the proper application of remedies, these symptoms being rarely followed by death. Surely this is begging the whole question, to elucidate which my letter was written. Are these symptoms rarely followed by death? Let us see. Mr. Braine asks me to consult the statistics of fatal cases, in which I shall find that the proportion of deaths under the administration of chloroform is about 1 in 4500, whilst that under ether is only 1 in 20,000! Where are these statistics? I challenge them at once as false and absurd. I have seen, I believe, at least 10,000 cases of chloroform administration with only one death, and that in a woman who, as we found afterwards, had been drinking heavily for a fortnight. But I have got some statistics, compiled for the Registrar-General, who has kindly furnished me with them. I asked for a return of the deaths from the various anæsthetics for the past ten years, but was informed that they could not be given separately; however, a return of the deaths from chloroform and ether (1874-83), in which probably are included those from other anæsthetics in England and Wales, was sent.

Before giving this, let us consider how stand matters bearing on these statistics. First of all, population has increased, but not in so great a degree as to affect materially the comparatively small number of deaths from these drugs. Secondly, there are many operations done now, or done in greater number than were done formerly; but, on the other hand, there are many operations done now without anæsthesia which formerly were done nearly always with it—such as for cataract, &c. I speak of the days before the introduction of cocaine, and without any reference to it whatever. Thirdly, I believe that there is more care bestowed upon the administration of anæsthetics than formerly; and, fourthly, if what the advocates of ether say is true, there is much greater safety in this drug.

From the first three of these considerations we may fairly draw the conclusion that we ought to expect only a slight increase of deaths owing to the increase of population, the other causes balancing each other, but when we add the fourth, we ought to find a great decrease indeed. Mr. Braine says ether is 4444 times as safe as chloroform! Now what are the facts? In 1882, when ether was much used, the deaths of men from chloroform and ether were more than twice as great as in 1874, when ether was scarcely used at all. In women in 1882 there were exactly 75 per cent. more deaths than in 1874. In the second half of the decade, in both sexes, the numbers are 150, as against 104 in the first half.

Ought not these facts to make us pause before we assume that there is the much vaunted safety in ether? Is it not the fact that all anæsthetics universally used are equally fatal, for you cannot abolish all the outward manifestations of life, save those of respiration and circulation, without coming perilously near to the extinction of these. By "equally fatal," I mean this: that if one anæsthetic were used exclusively for all cases through a certain period of time, and another anæsthetic were used exclusively for all cases through another like period of time, the rate of mortality would be the same in each.

I am told by a friend on whom I can rely implicitly that in a ten years' connexion with a large hospital there have been two deaths from anæsthetics, of which one was from chloroform and one from ether. I believe that during the past year, in the United Kingdom the deaths from chloroform and ether have been about equal.

So far I have confined myself to Mr. Braine's letter, inasmuch as the "safety" point is the principal one. As to the other letter, as Mr. Buxton agrees with Mr. Braine, I need not enter further into this point, nor need I dilate much on the sequelæ point, as Mr. Buxton agrees with me in considering that the after-effects of ether are far worse than those of chloroform. I think few doubt this. When the ether wave came from the West I made an experiment on myself, and in consequence obtained an accurate idea of what I should think must be the prodromata of suicide. Later, when I tried the drug on patients, I found that whilst the symptoms preliminary to complete anæsthesia were no less

terrifying than those of chloroform, the symptoms succeeding were far worse and more prolonged. One old gentleman on whom I operated for cataract had a profound melancholy for several months, which he attributed to ether; and I was repeatedly asked by the matron of St. Paul's Eye and Ear Hospital not to give ether, as the patients were so much more sick and ill, and longer in recovery.

Since writing the above I have received from the Registrar-General a return of the deaths from chloroform and ether—practically of chloroform alone—for the ten years 1864–1873. The numbers are: males 106, females 24, total 130. The lowest year was 1866, with 4 males to 1 female; the highest year was 1872, with 19 males to 4 females.

The following is the copy of the Report furnished me by the Registrar-General.

"ENGLAND AND WALES.

'*Deaths from Chloroform and from Ether registered in England and Wales in each of the years 1874 to 1883.*

Year.	Males.	Females.	Persons.
1874	13	6	19
1875	16	5	21
1876	20	6	26
1877	12	7	19
1878	13	6	19
1879	14	9	23
1880	17	9	26
1881	24	7	31
1882	27	10	37
1883	24	9	33
Total in the 10 years	180	74	254"

I am, Sir, your obedient servant,

Liverpool, May 5th, 1885. GEO. E. WALKER, F.R.C.S.

A DANGER FROM DRAIN VENTILATION.

To the Editor of THE LANCET.

SIR,—Not long ago, when attending a young lady with ulcerated throat, I heard of a family several members of which were for a long time ill with troublesome ulceration of the throat, the cause of which was for a time a mystery. It was at last found out that the ventilating pipes in connexion with the drains of an adjoining building were not carried up above the roof, the result of this arrangement being that sewer gas found its way into the dwelling of the patients by the upper windows. Now, when so much is being done in the way of drain ventilation, it becomes obviously a most important matter for the ventilating shafts to be carried well above all windows that may be in proximity. In the heavy air of a town it is especially important to let the gas escape at an altitude where there is some air current to blow it away.

I am, Sir, yours obediently,

Welbeck-street, W., June, 1885. JOHN C. THOROWGOOD.

COCAINISATION OF THE BLADDER.

To the Editor of THE LANCET.

SIR, I see that you refer in your issue of May 30th to an interesting case of litholapaxy, rendered painless by the injection of cocaine into the bladder, the operation being performed by Professor Bruns. Permit me to point out that the complete anæsthesia induced in this case is not obtainable in all. From the startling success of the first cocaine litholapaxy, performed at St. Peter's Hospital for Stone soon after the introduction of the drug, it was expected that cocaine would partially supersede the ordinary anæsthetic in operations upon the vesico-urethral tract. Subsequent experience, however, has clearly shown that it cannot always be relied upon to produce anæsthesia. I would quote two cases illustrating the extremes.

A. S——, aged nineteen, had suffered from difficulty in micturition for twelve years. Passed blood at onset of symptoms; none since. Had been treated for the last three years for gleet. Applied at the out-patient department at St. Peter's in January; stone detected. Eight grammes of a 4 per cent. solution of cocaine were injected into the bladder, and the stone crushed and evacuated without pain. The stone weighed fifteen grains.

D. G——, aged forty-five, had suffered for two years from stone, classical symptoms being present. Sixteen grammes of a 7 per cent. solution were injected. On attempting to crush the stone much pain was experienced, and the operation had to be completed under ether. The stone weighed eighty-five grains.

Upon what does this resistance to the action of the drug depend? Deficient knowledge of its properties, probable sources of error in its application, great chances of adulteration, and all combine to prevent a correct answer being given. A careful consideration of unequivocal cases of cocaine resistance will prove of great value, for I do not doubt that a thorough microscopical examination of the pathological condition of such will afford a clue to some of the many, and at present inexplicable, neuroses of mucous membranes.

I am, Sir, yours truly,

E. HURRY FENWICK, F.R.C.S.

George-street, Hanover-square, W., June, 1885.

LUNACY AMENDMENT ACT.

To the Editor of THE LANCET.

SIR,—The workhouse medical officers appear to me not to have awakened to the serious manner in which their interests are threatened by the above Bill. In the first place, they will, in country places, be subjected to great inconvenience by the disqualification of officiating clergymen, as a magistrate is not to be found always within a reasonable distance, and, when found, his superior intelligence is not always to be reckoned upon. It appears to me that this clause is instigated by the judicial mind, which is unable to free itself from the old-fashioned idea that lunacy is in some sort a crime, and should be dealt with by a justice.

By the amendments of May 13th it is provided that "an alleged lunatic may be received into a workhouse and detained for not more than forty-eight hours." This ought to be three days, for obvious reasons: very many cases cannot be decided upon at one interview; often friends should be communicated with, facts ascertained and verified; and when a Sunday intervenes the relieving officer and magistrate cannot be communicated with and distances traversed all within the short period of forty-eight hours.

Clause 10, subsections 4 and 5, provides that "no person shall be detained in a workhouse for more than fourteen days without an order under the hand of a justice; and this order must be made on the application of a relieving officer supported by a medical certificate in Form 6 under the hand of a duly qualified medical practitioner, *not being an officer of the workhouse*, and by a certificate under the hand of the medical officer of the workhouse in the Form 7 of the schedule." This is followed by a penal clause imposing a fine not exceeding £10 on the medical officer for every day, or part of a day, during which he omits to perform the preceding duties.

Now, as some medical officers have entertained doubts as to the purport of the above—and I have read the Act through with a solicitor, a barrister, and a stipendiary magistrate—I give its meaning and effect. A medical officer will not have the power to detain any lunatic in the workhouse without sending the case before a magistrate and another medical man with a certificate from himself. This duty imposed upon him as part of his duty as workhouse medical officer, he will not be able to claim any payment for it. This is confirmed by a clause in the amendments of May 13th which runs thus: "The guardians of the union to which the workhouse belongs shall pay such reasonable remuneration as they think fit to the medical practitioner who, not being an officer of the workhouse, examines a person under this section." Thus, it is beyond all doubt that the workhouse medical officer, having had the trouble and care of the case, is defrauded of a fee and placed in a subordinate insulting position. It will also be harsh and injurious to the unfortunate lunatic, as the medical officer will not be able, as he is now, to grant permission to the friends to take the patient out for a few days' holiday, and readmit the case without further trouble; but after it is decided upon by the magistrate and the outside doctor, he or she will be virtually a perpetual prisoner in the workhouse.

Every one of the 17,330 cases now in the workhouses

must, within fourteen days of the passing of the Act, be proceeded with under Clause 10; that is, the unfortunate medical officer must fill up a form of notice to the relieving officer and a certificate according to Form C in each case, and without any payment.

I am, Sir, yours faithfully,

June, 1885. THOMAS J. VALLANCE, M.D., F.R.C.S.Exam.

THE TITLE OF "DOCTOR" FOR LONDON MEDICAL STUDENTS.

To the Editor of THE LANCET.

SIR,—Will you kindly allow me to correct one or two impressions which my letter of the 30th ult. seems to have conveyed to Mr. Rayne? In his letter of the 6th inst., Mr. Rayne takes exception to the terms "*considerable extra expense*" which I said was incurred by those who, like myself, had taken a university degree *in addition to the membership of the Royal College of Surgeons*, and he further informs me that this "extra cost exists only" in my "imagination." How this can be the case I cannot understand, as surely, when a man first goes through the full four years' curriculum at one of "the great London schools" (in my case at Guy's), takes the M.R.C.S., and the L.R.C.P. or L.S.A. in London, and then, in addition to this, spends two more years in Aberdeen, having to pay for board and lodging, additional courses of lectures, dissections, practical courses, and for examination fees, this naturally entails considerable extra expense.

With regard to the "easy curriculum" which leads to Scotch graduation I do not think that those conversant with these examinations will agree with this statement; the experience of myself and of most of those from London schools who were in Aberdeen during my time proved the contrary. I only refer to those who like myself had already passed the College of Surgeons in London and some who, in addition, had also the L.R.C.P. Lond. or L.S.A.

Mr. Rayne refers to "men like Mr. Wright and his compeers who have experienced so comparatively easy a curriculum." Not having the honour of knowing him, I am unable to form so ready a judgment as to the curriculum of "men like Mr. Rayne and his compeers," though I believe the curriculum of one London hospital is much the same as that of another.

I fully agree with Mr. Rayne that something should be done to protect the London students from being in any way overshadowed by the licentiates of the Scotch corporations; I pointed this out in my first letter, and I suppose no one doubts that "the student at the great London schools has unrivalled opportunities for clinical and surgical work;" but from personal experience of the "teaching" both in Aberdeen and London, the former certainly holds its own, and this is the opinion of many more able to judge than I was, and certainly more fit to do so than Mr. Rayne, who has not experienced it.—I am, Sir, yours faithfully,

C. ST. JOHN WRIGHT, M.B. Aberd., &c.

St. Mary's Infirmary, Islington, June, 1885.

LIVERPOOL.

(*From our own Correspondent.*)

CITY IMPROVEMENTS.

IT has been proposed to spend £100,000 in city improvements, and in furtherance of this an inquiry was held on the 10th inst. at the Town Hall before Major Phipps Carey, R.E., the inspector appointed by the Local Government Board to receive evidence. The Town Clerk, in opening the proceedings, quoted the resolution passed by the City Council on April 15th last, which was as follows:—"That the sum of £100,000 be borrowed under the provisional order of May 31st, 1854, confirmed by the Local Government Board's Provisional Orders Confirmation Act, 1884; and that application be made for the requisite sanction of the Local Government Board. Dr. Stopford Taylor, the medical officer of health, in the course of his evidence said that under the original Act six presentments were made dealing with 635 houses, 615 of which were demolished, and 20 partly demolished. Under the amended Act of 1882, 382 houses were reported. In 1881, 18 houses were demolished; and in 1884 he reported 353 houses, which the Council referred to the Insanitary Property Committee to be dealt with; 386 houses, which were referred to the clerk of the peace, and were brought to the notice of the grand jury, made the seventh presentment; and 734 houses which were similarly referred became the eighth presentment. The number of houses that he estimated required to be still dealt with was near upon 10,000, which, taking the low figure of five inmates to each house, would make a displacement of something like 50,000 people. This must, in order to meet the requirements of business and the comforts of the people themselves, be spread over a lengthened period. After hearing all the evidence, the inspector promised to report to the Local Government Board.

NEW MEDICAL MAGISTRATES.

Mr. Charles White and Dr. John Hankinson Gornall, both of Warrington, have been placed on the commission of the peace for that borough. Dr. Gornall is medical officer of health for Warrington, and was a distinguished student of the Liverpool School of Medicine more than twenty years ago.

THE HEAT AND SUNSTROKE.

From being comparatively cold it became intensely hot last week, the increase of temperature being remarkably sudden. On Saturday, a man while loading a cart was seized with what was believed to be sunstroke, and removed in the ambulance to the Northern Hospital, where he was pronounced by Dr. Fisher, one of the resident staff, to be in a very critical condition.

MORE "CANNIBALISM."

In spite of severe sentences, the disgusting offence of biting still continues to be frequently practised here. In two recent cases the victims were city constables, and in each case the assailant was awarded three months' imprisonment with hard labour. In a recent case, the prisoner, a young woman, was committed to the sessions for trial for biting severely another woman, whom she also dragged to the ground and beat.

MEDICAL PRACTITIONERS AND LIFE INSURANCE.

From time to time most heartrending cases occur of the widows and orphans of deceased medical practitioners being left very slenderly if not totally unprovided for, rendering necessary appeals to the generosity of their medical brethren. In most of these cases there has not been any life assurance effected, or the policy has been allowed to lapse. With every disposition to be generous, it is felt by many practitioners, especially the younger ones, that these appeals come hardly upon those who are striving by prudence and thrift to avoid falling into similar errors. The proverbial uncertainty of any individual life applies particularly to busy medical practitioners, and a more general adoption of assurance, against accident as well as death, would go far towards making a provision to many an otherwise destitute widow and orphan.

Liverpool, June 17th.

NORTHERN COUNTIES NOTES.

(*From our own Correspondent.*)

CHOLERA PRECAUTIONS IN THE NORTH.

THE prevalence of cholera in Spain has caused no little anxiety to our authorities, for the Tyne is in direct communication in the way of commerce with Spanish ports. It is satisfactory to know that the Local Government inspector the other day expressed himself as being well satisfied with the steps that have been taken by our sanitary authorities to deal promptly with any case occurring in Tyne-bound vessels. At the meeting of the Tyne Sanitary Authority last week, however, our medical officer of health, Mr. H. E. Armstrong, stated that a rather singular procedure was sanctioned by the authorities at an adjacent port, Seaham Harbour, which is also in constant communication with Spain—i.e., directions were given that any vessel approaching the harbour with infection was not allowed to enter, but was to be warned off. Our medical officer of health very properly stated that this was a singular and very objectionable way of meeting infection, and it was in fact unfair to shift danger, as it were, from your own to your neighbour's door. It appears, however, that the port in question is

private property, and as such has rights not possessed by an open harbour; yet surely, in a case of this nature, if property has its rights, it also has its duties.

DR. DAVID DRUMMOND.

Dr. David Drummond, one of our lecturers, and a physician to the infirmary, who had, to the great regret of his many professional friends, the misfortune to be laid aside from work for several weeks, suffering rather severely from some accidental septic absorption, has now, I am happy to say, quite recovered, and has in consequence resumed his hospital and general duties. Some other cases, although not so severe, have been noticed here of late, giving rise to the view that there must be at times some peculiar tendency to this affection, so full of peril to practitioners, and which so often occurs at what may be termed the "fag end" of the session.

POISONING BY NITRATE OF LEAD AT SUNDERLAND.

An inquest was held last week at Sunderland upon a German captain, who died rather suddenly at sea off Sunderland. It appeared from the evidence that the deceased, not feeling well, had taken some medicine supposed to be Epsom salts, which immediately gave rise to vomiting and purging, with collapse, ending in death. On analysis, it was found that the unfortunate captain had taken in mistake nitrate of lead, and a verdict was returned in accordance with the circumstance.

THE SURGEON TO DURHAM GAOL.

At the conclusion of an inquest held on a late prisoner last week in Durham Gaol, the coroner took the opportunity of paying a graceful tribute to Dr. Boyd, the prison surgeon, who is now retiring. The coroner stated it was the last occasion on which they would have Dr. Boyd's services, and he referred to the great assistance he always had from that gentleman. "He had now been prison surgeon for sixteen years, and never at any time had they the slightest difficulty or doubt with respect to the evidence that the Doctor had given with regard to the nature or treatment of the cases coming before them in that prison, and he hoped the Doctor would retain that good health in the future which he had enjoyed in the past." Dr. Boyd feelingly replied in a few well-chosen words to the compliments of the coroner.

MEASLES AT JARROW.

The subject of payment to practitioners at Jarrow for certifying measles came up for consideration by the Jarrow authorities last week. This town, as I have told you, has suffered very severely from measles, and in consequence the profession was asked to certify cases to the medical officer of health. The disease lately abating, exception was taken to the cost of certificates, which were stated to be useless; but, on the other hand, the medical officer of health (Dr. A. C. Munro), while admitting the great difficulty of isolation in workmen's houses, pointed out that in every case certified disinfectants had been used, and with marked results, the disease now subsiding, no doubt to some extent owing to these precautions.

UNIVERSITY OF DURHAM.

The Easter term examinations for degrees in connexion with the Newcastle College of Medicine affiliated to the University of Durham commenced yesterday in the Assembly Rooms, Newcastle-on-Tyne, the existing Medical College being inadequate for the purpose. Upwards of fifty candidates came forward, the largest number ever presented for the final degree in the history of the College.

Newcastle-on-Tyne, June 17th.

EDINBURGH.

(From our own Correspondent.)

THE LATE PROFESSOR FLEEMING JENKIN, LL.D., F.R.S.

LITERARY and scientific circles in Edinburgh have sustained a heavy loss in the sudden death of Professor Fleeming Jenkin. He had been in delicate health for some months, but was much restored by a holiday in the south of England, where he left Mrs. Jenkin when he came to Edinburgh a few days ago to undergo an operation for the radical cure of varix. All went well after the operation till towards the end of the second day, when symptoms of septic absorption made their appearance. Still his condition was not considered dangerous; and it was not till the early morning of the third day that any serious mischance was apprehended. On that morning, however, a rapid aggravation of the symptoms occurred, and at noon he succumbed to the virulence of the septicæmic attack. On Monday night the remains were removed by rail to Stowting Court in Kent, the family seat, where the funeral arrangements were subsequently carried out. His death has caused universal regret in Edinburgh, where he was highly esteemed in his public capacities, and much loved in the large social circle in which he moved. Professor Jenkin was a man of true genius, and scarcely any branch of science, natural or mechanical, has failed to profit largely by the results of his labours. In sanitary science this was pre-eminently the case; for here, in addition to the large number of technical modifications and improvements which are associated with his name, his energy is illustrated by the strenuous way in which he urged the claims of sanitation upon communities at large; and it was as an outcome of two lectures on this subject, afterwards published under the title of "Healthy Houses," that the Edinburgh Sanitary Protection Association was formed; an institution which has proved a great boon to this city, and to several others where its working principle has been reproduced.

UNIVERSITY FINAL MEDICAL EXAMINATION.

The final examination for the degrees of M.B. and C.M. will take place on Monday and Tuesday, June 22nd and 23rd. The candidates' names on the list amount to over 240, a larger number than have appeared for examination here in any recent year.

ROYAL EDINBURGH ASYLUM.

The annual report of the Edinburgh Asylum has just been published, and is well worthy of perusal. In the portion contributed by the Physician-Superintendent, Dr. Clouston records the results of the year's work, illustrating them by notes of cases of special interest. His report contains also several valuable suggestions for improvement, amongst others advocating that incurable pauper lunatics who are easily managed should be kept in the hospital wards of the poorhouses with suitable nursing, instead of overcrowding the wards of the asylums as at present is the case, and masking their true character of hospitals for the cure of the curable insane.

Edinburgh, June 16th.

IRELAND.

(From our own Correspondent.)

THE Council of the Royal College of Surgeons will this week elect a second examiner in the departments of physics, chemistry, and medical jurisprudence.

CORK SOUTH INFIRMARY.

In a recent number (p. 1015) I drew attention to the dispute which existed between the trustees and the profession generally in Cork as regarded the election of the medical staff for a period of only five years, when a re-election became necessary. On the 12th inst. a meeting of the trustees took place, to elect for a period of five years as required by Rule 1, several members of the medical staff. One of the trustees spoke in high terms of the services performed by the medical officers, and proposed the following resolution, which was carried unanimously:—"This meeting of the trustees of the Cork South Charitable Infirmary and County Hospital desire to express their regret that the medical and surgical staff of this hospital, as also a large number of the medical profession in the city of Cork, should have taken offence where none was intended at the advertisement issued by the trustees in order to carry into effect Rule 1." Drs. Curtis, E. R. Townsend, C. K. D. Tanner, and H. R. Townsend were then re-elected to their respective appointments without opposition.

ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

In the forty-third annual report of this Society the committee express their regret that the number of subscribers to the fund remains so limited that the grants in many instances are far below the requirements of the cases. During the past year £1272 was distributed, leaving

balance of upwards of £200 to meet the working expenses. Of the amount distributed £215 was to medical men, £973 to widows, and £84 to orphans. It is satisfactory to learn that an increase has taken place in the amount collected from the students in some of the hospitals and schools, and the committee trust that the other institutions may be encouraged to do something to bring students more into sympathy with the Society than heretofore. Dr. Cruise, in moving the adoption of the report at the recent annual meeting, referred to the apathy of a large number of the profession with regard to assisting the Society. As he very properly pointed out, it was the poorer members of the profession who would require the assistance of the Society, and they therefore ought to subscribe, no matter how small the sum. I may add that the poorer members will *not* subscribe, and their indifference to their own interests is followed by a considerable section of practitioners who decline to help those who refuse to help themselves.

A GRIEVANCE.

A matter of importance to dispensary medical officers was recently drawn attention to by the Council of the Irish Medical Association at their annual meeting. It appears that until recently medical practitioners when called to attend persons in custody of the police applied to the Under Secretary at Dublin Castle for their fees, which were promptly paid. Lately, however, the Lords of the Treasury decided that to avoid these fees the police officers should procure tickets, when necessary, so as to obtain the services of the dispensary medical officers. In several instances, owing to the urgent nature of the cases and the difficulty or delay in procuring tickets, the police called in dispensary medical officers, who claimed the fees as heretofore, but were refused them on the ground that "in urgent cases the dispensary medical officer was bound to give his services gratuitously pending the procurement of a ticket." The attention of the Treasury Remembrancer for Ireland was directed to the regulations of the Local Government Board, which define the duties of dispensary medical officers, in the hope that the fees claimed would be paid, but that official upheld the course recently adopted, so that the matter will have to be decided in a court of law.

Dublin, June 16th.

PARIS.

(From our Paris Correspondent.)

CONVICTION OF PEL FOR POISONING BY ARSENIC.

THE clockmaker, Pel, whose case I reported in THE LANCET of Jan. 31st, and again in that of April 11th, appeared before the Court of Assizes of the Seine on Thursday, Friday, and Saturday last, on two specific charges brought against him—viz., for having, in the first instance, poisoned his first wife, Eugénie Buffereau, in 1880; and secondly, making away with his servant, Eliza Bœhmer, with whom he was on intimate relations. The trial was most perplexing, owing to the mysterious demeanour of the accused, for throughout it he never betrayed the slightest emotion, nor could the Court obtain any clue from him as to his guilt either by word or deed, for he could hardly have been more impassive if he were witnessing the trial of another person for whom he had no concern whatever. After having weighed the evidence on both sides, the jury returned a verdict of guilty of the second charge only—viz., the poisoning of Eliza Bœhmer—and the accused man was condemned to death. It is not for me to plead the cause of this unfortunate culprit, but I cannot refrain from remarking that the man evidently acted under some morbid (psychopathic) influence, and that he appeared irresponsible for the series of murders he is believed to have committed, for he was always an eccentric character, and it was stated in the preliminary part of the accusation that in 1877 his conduct was such as to necessitate his being removed to the Ste. Anne Lunatic Asylum, where he remained five weeks, and yet, strange to say, no allusion whatever was made to this circumstance in the defence.

PROFESSOR GERMAIN SÉE ON ASTHMA.

According to Professor Germain Sée, the only curative means against nervo-pulmonary asthma is "iodo-therapy"—that is, ioduration of the lungs and of the nervous respiratory system. But this method is not always tolerated, and patients are often induced to resort to the empirical remedies in vogue, all based on the combustion of certain substances and the inhalation of vapours thus produced. These vapours always contain a special substance to which the name of "pyridine" has been given. This substance is met with in all the products of the dry distillation of organic matters, of coal tar, of the principal alkaloids, in the fumes of tobacco, in nicotine, and in the animal oil of Dippel, from which it is ordinarily extracted. It is a colourless liquid, very volatile, of a strong penetrating odour, miscible with water in all proportions, forming, with mineral acids, soluble bases, but unstable. Professor Sée endeavoured to determine, experimentally, the physiological effects on patients suffering from asthma and from disease of the heart. The following are the conclusions of his work on the subject, which he lately presented to the Academy of Sciences:—1. Whatever the form or origin of asthma, ioduration constitutes the veritable curative method. When iodism intervenes, pyridine should be resorted to, but only during the fits. It is the best palliative, whereas iodine is the most efficacious remedy. 2. Pyridine is superior to the injection of morphine; its action is more durable and much more inoffensive. 3. In simple nervo-pulmonary asthma the fits cease completely. When the asthma is complicated with permanent pulmonary lesions, the duration of the treatment should be continued beyond eight or ten days to ensure relief. In cardiac asthma, with or without renal and dropsical complications, pyridine would render the greatest service in combating the most persistent and painful of the phenomena which accompany heart disease. The best mode of administering pyridine consists in pouring four or five grammes on to a plate, which is placed in a closed room, containing about twenty-five cubic metres of air. The patient, placed in a corner of the room, breathes the air impregnated with the vapours of pyridine. This treatment should be repeated for about twenty minutes three times a day. The absorption is immediate, and the pyridine can at once be detected in the urine.

Dr. Gibier has been charged by the Minister of Commerce to proceed to Spain to study the cholera, and the method of "cholerisation" practised by Dr. Ferrán of Valencia.

Paris, June 16th.

THE CHOLERA IN VALENCIA.

(From our Special Correspondent.)

THE great question at the present moment agitating all Valencia, if not a great part of Spain, is that of Dr. Ferrán and his experiments in inoculation for cholera—the disease which has now fairly got hold of this fair province. In the train, in the streets, the stranger is struck by the frequent mention of the words "cholera" and "Ferrán." Dr. Ferrán is a native of Tortosa; he is about thirty-six years of age, and received his medical education at Barcelona, where he obtained a special prize for his essay on Microbiology, and numerous other prizes connected with professional subjects. During the great cholera outbreak last year in Marseilles, he was sent as special commissioner from Barcelona to study the disease, which was then raging. There he spent three months at the Faro Hospital, enjoying the advantage of frequent communication with the celebrated Dr. Koch. On his return to Valencia he devoted much thought and study to the subject, and on the appearance of cholera in this province in March, he commenced a series of inoculations, first at Tatira, and next at Alcira, where he soon began to exercise a powerful influence. His system may be briefly described as follows: Regarding himself as following in the legitimate train of Koch and Van Ermengen, he considers the comma bacillus of Koch as only one stage of the micro-organism; he (Ferrán) declares that it passes through several, and, utilising his micro-organism as finally developed by him, he injects it (suspended in a medium, such as chicken broth or beef-tea) into the human being, and so secures the individual against an attack of cholera, or, at all events, if attacked at all, a very mild one will ensue. On arriving at this town some days back, I at once proceeded to see Dr. Ferrán, and

found him at home, with two assistants, busily engaged in inoculating various people. There were quite fifty done whilst I was there, of all ages and sexes. The operation is a very simple one. About half a cubic centimetre of the fluid containing the micro-organisms is placed in a small hypodermic syringe and injected into the back of the arm about four inches above the elbow. It is usually done in both arms. Many of those present would only be done by Dr. Ferrán himself, having a kind of superstitious faith in him only. I was told that in about six hours the constitutional symptoms set in, and lasted from four to as many as forty-eight hours, the violence of the symptoms varying in different individuals. I called the same evening at the house of a newspaper editor, who, with three of his family, I had seen inoculated in the afternoon, and found only one of them complaining of any unusual symptoms; but his brother, who lived close by, was taken so seriously ill as to be alarmed, and sent for his medical adviser; however, he eventually regained his normal state of health. On asking Dr. Ferrán if in all his inoculations, now some thousands, he had seen or heard of anyone having suffered ill effects, either constitutionally or locally, he declared most emphatically, "No." He subsequently showed me over his laboratory, his preparations and cultivations in their various stages under the microscope, and about 100 bottles containing his redoubtable micro-organisms. He favourably impresses one in conversation when explaining his views and ideas. He is a quiet, gentlemanly, and I should say very self-reliant man, and gave me the idea of one who is much worried, and to whom a period of rest would be an intense boon. He showed me letters he had received from many distinguished men in Europe encouraging him in his work, and seemed particularly anxious that the English Government would institute an extended inquiry into the whole matter.

The Royal Commission of Spain is at present here and in the neighbourhood investigating Dr. Ferrán's method and the epidemic on behalf of the Government. The president is Dr. Alonso Rubio, of the Royal Household; the other members are Dr. Mendoza, a chemical professor in Madrid University, and Professors Maestre San Juan and Dios Benitez, with Señor Castellote as secretary. Events in Spain move slowly, and the Commission moves slowly, and when its report will see the light it is hopeless to speculate, and whether it will be of any value when it does see the light is a very moot question, as things in Spain, and more particularly this epidemic of cholera, are so mixed up with private interests and political movements that it will lose much of its value from a scientific point of view. Ferrán's disciples have already secured a strong partisan in the eloquent Castelar, whose republican proclivities are so well known, and whose support may injure their cause more than anything else. There is also a Portuguese Commission here of three members from Lisbon, Coimbra, and Oporto respectively, highly intelligent and scientific gentlemen, and from them I expect much useful and trustworthy information on the subject, as they are well qualified to deal with it and will be totally free from all local and political prejudices. So far they are very reticent, and beyond the usual Continental shrug nothing is to be got out of them. There is also a delegate from Brazil, and a representative from the Parisian paper *Le Temps*, besides hosts of local celebrities.

With regard to the cholera itself, so far as a painful Indian experience will allow me to judge, it is undoubtedly Asiatic, and of a virulent type. Last evening I went out to the cholera hospital, and saw many cases with the medical man in charge. There were about twelve women and seven men; the former seemed much the worse cases, three of them were then *in extremis*, and one, a young girl, had only been brought in at eleven o'clock in the morning. They seemed well cared for; the good sisters glided quietly about and anticipated every wish of the poor sufferers. There was an abundance of medicines and disinfectants. The doctor appeared to be well up to his work, showed no nervousness, and, a very unusual thing in Spain, was a good linguist, speaking both French and English. The building is situated about two miles from the town of Valencia, in a poor quarter. When first established the officials had to run the gauntlet of storming, and some were seriously injured—so annoyed were the people at having a pest-house established in their midst. But now they are becoming more reconciled. With regard to Dr. Ferrán's statistics, which have already been published in several English newspapers, they read well; but I may as well state, on the authority of several English men long resident in Spain, that statistics in this country are utterly worthless, and can be made and twisted so as to suit any purpose. With reference to the actual value of Dr. Ferrán's inoculation, its one established value up to the present is that amongst the credulous and ignorant it has done much to allay panic. In Alcira especially the populace have in him the most absolute faith; but with an enthusiastic and fickle race like the Valencians, the man who is their idol to-day might be stoned to-morrow. It is right also to state that, on the authority of Dr. Jelly—an English physician whose word is unimpeachable—some very sad effects in the shape of phlegmonous ulcers and blood-poisoning have resulted to several of those who have been inoculated. Into the scientific aspects of the question I have not entered. Should any good result to medical science (which I very much doubt), it will take a long time, much research, and a careful table of statistics, which I fear are not to be obtained in Spain, before anything worth placing before the English public can be obtained, and I will close this letter by stating that I have endeavoured to give a plain and simple and unbiased narrative of what I actually saw, or heard from authorities who can be thoroughly depended on.

Obituary.

JOHN THORBURN, M.D., F.R.C.P.

DR. THORBURN died at his residence, Moss House, Rusholme, Manchester, on May 26th, after an illness of ten days. He was attended by Dr. Dreschfeld and other friends with unremitting care, though the nature of his illness, pulmonary embolism, gave almost no hope of recovery. Dr. Thorburn was born at Huddersfield in 1834, his parents afterwards removing to Manchester. Educated at the Edinburgh High School, he entered the Edinburgh University in 1849, and graduated there as Doctor of Medicine in 1855. His graduation thesis on Surgical Fever was awarded the mark of distinguished merit. At an early stage of his career as a student he was elected President of the Royal Medical Society. After taking his degree he held the posts of house-surgeon and house-physician in the Edinburgh Royal Infirmary, and house-surgeon to the Royal Maternity Hospital. Among his friends and colleagues were Sir Joseph Lister and Dr. Wilson Fox, and he had the good fortune to number among his teachers Alison, Christison, Syme, Goodsir, Hughes Bennett, and Sir James Simpson.

After leaving Edinburgh he was for some time resident assistant in the Brompton Hospital for Diseases of the Chest. Thus, thoroughly equipped, he settled in Manchester in 1858. His first public appointment was that of medical officer to the Chorlton Dispensary. In 1860 he was elected to the staff of the Clinical Hospital. Dr. Thorburn's energy and ability were soon manifested in the active part which he took, along with Dr. Henry Simpson and others, in the founding of the Southern Hospital for Diseases of Women and Children in 1866. Here he obtained opportunities for work in that department of medical science to which he thenceforward more especially devoted his attention; while the charity has owed no small share of its success to his ability and tact. In 1873 he was appointed obstetric physician to the Royal Infirmary, being the first to hold that appointment. In the same year he commenced his duties as Lecturer on Midwifery in the Royal Medical School. The amalgamation of the Royal School of Medicine with Owens College, and the subsequent constitution of the Victoria University, were attended almost as a matter of course with the appointment of Dr. Thorburn to the chair of obstetric medicine. His teaching was distinguished by the characteristics pervading all his work, clearness combined with moderation and justness of judgment.

In 1878 he took the diploma of Member of the College of Physicians of London, and in the beginning of May of this year was elected a Fellow. Throughout his long and successful career, Dr. Thorburn found time to show his interest in all progressive medical movements, and in matters affecting the physical well being of the community. He acted as secretary for three years of the Medical Society, and was subsequently elected president. He was also pre-

sident of the Medico-Ethical Association. Of the Manchester Edinburgh University Society he has been annually elected president since its foundation. His interest in the public welfare is shown in his pamphlets on "The Mode of Admission to our Medical Charities," and in his little work "On Vaccination" for general readers. Amongst other short papers written by him we may mention "The Power and Place of Art in the Treatment of Disease," pregnant as it is with valuable advice to the young practitioner, "Suggestions as to the Medicinal Treatment of the Unborn Child," and his thoughtful essay on "Female Education in its Physiological Aspect." Dr. Thorburn took an active share in the foundation of the *Medical Chronicle*, and the measure of success which it has attained is in no small degree due to his efforts. For the last two years Dr. Thorburn was engaged in the preparation of a "Practical Treatise on the Diseases of Women."

To the additional strain thus imposed on one fully occupied in other pursuits, there is but little doubt that we must attribute his untimely death at the early age of fifty-one, just when he was beginning to reap the full reward of an honoured and honourable career. To all who knew his genial and kindly disposition and the straightforward manliness of his character, his death has brought a sense of personal loss. Dr. Thorburn leaves a wife and five children, of whom one, Dr. William Thorburn, is a member of the profession which his father adorned.

Medical News.

COLLEGE OF PHYSICIANS, IRELAND.—The diploma of Physician and Licentiate in Medicine was conferred on the 12th inst. upon the following gentlemen:—

*W. E. Dawson, L.S.A.L.; *C. J. Faulkner, L.R.C.S.; J. H. Foley, L.R.C.S.; G. B. Flanagan, L.R.C.S.; F. S. Gramshaw, L.R.C.S. Ed.; E. Lambkin, L.R.C.S.; B. Lane, L.R.C.S.; *A. J. Luther, L.R.C.S.; J. H. Maguire, L.R.C.S.; J. J. Norton, L.R.C.S.; D. M. O'Callaghan, L.R.C.S.; M. P. O'Donovan, L.R.C.S.; C. J. Penot, L.R.C.S.; * R. C. Thacker, L.R.C.S.

* Received in addition the Diploma in Midwifery and Diseases of Women.

SOCIETY OF APOTHECARIES.—The following gentlemen passed his examination in the Science and Practice of Medicine, and received certificates to practise, on the 11th inst.:—

Cook, Alexander, L.F.P.S. Glasg., Argyle-place, Edinburgh.
Stericker, Frederick W., M.B. Camb., M.R.C.S., St. Saviour's, Jersey.

Mr. William Henry Bowes, of Guy's Hospital, M.R.C.S., has been elected to the Surgical Scholarship of the Society of Apothecaries, of the annual value of £100. The examiners, Sir William Mac Cormac and Mr. Bryant, report that Mr. William Alexander Bowes McCabe, of University College, M.R.C.S., obtained a number of marks nearly equal to those of the successful candidate.

AFTER-CARE OF MENTAL CONVALESCENTS. — The anniversary meeting in connexion with this praiseworthy movement will, with the permission of Dr. Savage, medical superintendent, be held at Bethlem Hospital, on Thursday, July 2nd next.

AT the seventh annual meeting of the Home Hospitals Association for Paying Patients, held on the 10th inst., it was stated that through the greater part of last year there had generally been at least three applicants for each available bed.

AT the Aylesbury County Court on the 10th inst., Dr. Frederick Keene recovered £20 for professional services from a patient who wished that the principle of "no cure no pay" should apply to the medical profession as it did to his own trade—viz., that of an ironmonger.

ST. THOMAS'S HOSPITAL.—The annual presentation of prizes to the students of St. Thomas's Hospital took place on Monday, June 15th, in the Governors' Hall. The Lord Mayor, who presided, alluded to the ancient ties between the Corporation of the City of London and the hospital. He expressed himself as much gratified at the highly satisfactory reports given by the dean, Dr. Ord. The examinations showed that a remarkably large proportion of the students had attained a high degree of proficiency in the various subjects. Subsequently, a meeting of the old and present students of St. Thomas's Hospital was held in the library of the medical school, in order to present a testimonial to Mr. Charles Stewart. Dr. Ord, who spoke with much feeling, expressed for himself and for the school the deep affection in which Mr. Stewart was held. He alluded to Mr. Stewart's well-known capabilities as a teacher, his labours in comparative anatomy, and his success as curator of the museum. Dr. Ord went on to say that, much as his loss was regretted, a loss still acutely felt, all his old friends were pleased to see him in the important position of conservator of the museum of the Royal College of Surgeons. The fact that there were as many as 244 subscribers to the testimonial showed the widespread feeling of esteem entertained for Mr. Stewart. The list of prize-winners will, as usual, be published, along with those connected with other hospitals, in our Students' Number.

SANITARY INSTITUTE OF GREAT BRITAIN. — The autumn congress will be held at Leicester from September 22nd to 26th. A Health Exhibition, including sanitary apparatus and appliances in connexion with the Congress, will be held from September 22nd to October 10th.

PARLIAMENTARY ELECTIONS (MEDICAL RELIEF) BILL. In the House of Commons on the 15th inst., Mr. J. Collings obtained leave to bring in a Bill to provide that no person shall be disqualified from voting at Parliamentary elections by the receipt of medical relief for himself or his family. The Bill was read a first time.

WESTMINSTER HOSPITAL MEDICAL SCHOOL.—We understand that the new medical school in Caxton-street will be ready for opening by the commencement of the ensuing winter session (October 1st), and that the senior surgeon of the hospital, Mr. George Cowell, has been appointed to deliver the introductory lecture.

THE Lyons Society for the Protection of Children has offered prizes of gold medals for the years 1886 and 1887 for the best paper on the following subjects:—1. The different methods of vaccination; the age at which vaccination is best performed; and the prejudices to be combated in reference to the operation. 2. The study upon the influence of occupation upon pregnancy in women, the progress of pregnancy, and the vitality and health of children.

PRINTERS' PENSION CORPORATION.—At the fifty-eight anniversary festival of the Corporation which was recently held, it was stated that the needs of the Corporation were increasing rapidly, and that at the recent election of pensioners only twenty-one could be elected out of sixty-three deserving and necessitous candidates. The expenditure in pensions alone was £1900 per annum, a sum which was divided between nearly 150 pensioners, while the almshouses at Woodgreen afforded habitation for twenty-four inmates. During the evening subscriptions to the amount of £1018 were announced by the secretary.

NORTH-WESTERN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—The usual monthly meeting of the members of this Association was held on the 11th inst., when Mr. Lawrence Booth read a paper on "Some Suggestions as to the Arrangement and Construction of Hospitals for Infectious Cases," illustrating his remarks by a series of drawings of an infectious hospital connected with Whittingham County Lunatic Asylum, now in course of erection, and of which he is the architect. A vote of thanks having been accorded to Mr. Booth for his paper, it was resolved to appoint a committee of five to confer with the London and other associations of the country with the view of improving the status of the medical officer.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BLACK, WM. GLAHOLM, M.R.C.S., has been appointed Honorary Surgeon to the Children's Hospital, Newcastle-on-Tyne, vice Mr. Page, whose term of office has expired.

CROPLEY, H., M.R.C.S., has been appointed Clinical Assistant to the Surgical Out-patient Department, also the Skin Department, of the London Hospital.

HARTT, CHARLES HENRY, L.K.Q.C.P.I., L.R.C.S.I., has been re-appointed Medical Officer of Health for Greenwich.

LAWSON, THOMAS CORNELIUS, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Middleton Cheney District of the Banbury Union, vice Thompson.

LEAK, HECTOR, L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer for the Winsford District of the Northwich Union, vice A. P. Leak.

LIMONT, JAMES, M.A., B.Sc., M.B., has been appointed Honorary Physician to the Newcastle-upon-Tyne Infirmary.

LYLE, ROBERT CHARLES, L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer for the Dunmow District and Workhouse, Dunmow Union, vice Clapham.

MCMURRAY, JOHN, M.D., M.Ch., M.A.O. Roy. Univ. Irel., has been appointed Assistant Medical Officer to the Parish Infirmary, Liverpool, vice J. G. Barns, L.R.C.P.Lond., M.R.C.S., resigned.

PITT, GEORGE NEWTON, M.A., M.D., M.R.C.P., has been appointed Medical Registrar and Demonstrator of Practical Medicine to Guy's Hospital.

ROBERTS, HENRY WILLIAM, M.R.C.S., L.S.A.Lond., has been re-appointed Medical Officer of Health for the Deptford District, Greenwich.

SMITH, D. CHADWICK, M.D., B.Ch.Dub., has been appointed Medical Officer of Health for the Lowestoft Urban and Rural (Joint) Sanitary Authorities.

STACPOOLE, ADAM RICHARD, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Government Medical Officer and Vaccinator for the District of Corbar, New South Wales.

STEWART, G. ELAND, M.R.C.S., L.R.C.P., has been appointed Resident Medical Officer to the Hospital for Diseases of the Throat, Golden-square.

TAYLOR, MOSES, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Cannock District of the Cannock Union, vice Blackford.

TIBBITS, WALTER HUGH, M.R.C.S., has been appointed Government Medical Officer and Vaccinator for the Districts of Manly and Pittwater, New South Wales.

WELSH, R. C., M.B., has been appointed House-Surgeon to the North Dispensary, Liverpool, vice John McMurray, M.D., elected to the Liverpool Parish Infirmary,

Births, Marriages, and Deaths.

BIRTHS.

BENTON.—At Bennett-street, St. James's, the wife of Samuel Benton, M.R.C.S., of a son.

BOURKE.—On the 10th inst., at Longridge-road, South Kensington, the wife of Surgeon Ulick J. Bourke, Army Medical Staff, of a son.

CÆSAR.—On the 13th inst., at Minster in Sheppey, Kent, the wife of Julius Cæsar, L.R.C.P. &c., of a daughter (still-born).

EMERSON.—On the 23rd ult., at Hampstead, the wife of P. H. Emerson, B.A., M.B.Cantab., of a daughter.

HALLOWS.—On the 13th inst., at Doncaster, the wife of H. Pinnington Hallows, M.B., C.M., L.R.C.S.E., of a son.

LLOYD.—On the 5th inst., at Ty'ncoed, Barmouth, the wife of H. J. Lloyd, L.R.C.P. &c., of a son.

MACDOWELL.—On the 15th inst., at Otter Holt, Carlow, Ireland, the wife of Charles Macdowell, M.D., F.R.C.S., of a son.

NICHOLLS.—On the 23rd ult., at Dominica, West Indies, the wife of H. A. Alford Nicholls, M.D., F.L.S., of a son.

SMITH.—On the 14th inst., at Russell-road, Kensington, the wife of W. Towers Smith, M.R.C.S., of a daughter.

MARRIAGES.

GIBB—ADAMSON.—On the 10th inst., at Ava Lodge, Magdalen-green, Dundee, William Gibb, L.R.C.P.Ed. &c., to Annie, second daughter of John Adamson, Esq.

HARPER—SUTCLIFFE.—On the 3rd inst., at the Parish Church, Burnley, Robert Russell Harper, L.R.C.P.Lond., M.R.C.S., L.S.A.Lond., of Littlebury House, Holbeach, only son of R. Harper, Esq., J.P., of Holbeach House, Lincolnshire, to Marian, only daughter of Edward Sutcliffe, Esq., of Holme View, Burnley.

MACDONNELL—BARLOW.—On the 11th inst, at the Church of St. John the Evangelist, Montreal, Richard Lea Macdonnell, M.D., son of the late Dr. Robert Lea MacDonnell, of Montreal, to Constance Anne, only daughter of the late Francis W. Barlow, Esq., of Bickley, Kent.

DEATHS.

BAILLIE.—On the 11th inst., at his residence, 87, Prince of Wales-road, Haverstock-hill, N.W., Dr. Benjamin Tillyer Blunt Baillie, aged 57.

BERNARD.—On the 10th inst., at Durrance House, Hemel Hempstead, suddenly, George Peterson Bernard, F.R.C.S.

CARVER.—On the 16th inst., at Fairlawn, Fulham, Mary, the dearly loved wife of Eustace John Carver, aged 36.

GRAY.—On the 6th inst., at Lansdowne House, Essex-road, London, Thomas Scott Gray, M.D., M.R.C.S., L.S.A.Lond., aged 59.

HOLTON.—On the 12th inst., at Randolph-gardens, Kilburn, Francis Holton, M.B., Surgeon-General (retired), Army Medical Service, aged 59.

LOBB.—On the 13th inst., at The Hermitage, Wyer Hall, Edmonton, William Lobb, M.D., in his 82nd year.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, June 18th, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
June 12	30·38	W.	56	53	92	76	50	...	Hazy
,, 13	30·21	S.E.	65	57	110	79	56	...	Hazy
,, 14	30·20	E.	75	62	112	82	55	...	Bright
,, 15	30·08	N.E.	59	55	104	71	54	...	Overcast
,, 16	30·06	E.	62	55	109	68	54	...	Cloudy
,, 17	29·86	E.	56	53	93	63	53	·13	Overcast
,, 18	29·99	W.	58	53	...	...	49	...	Hazy

Medical Diary for the ensuing Week.

Monday, June 22.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Charles Stewart: Inflammation.

Tuesday, June 23.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. Lady Brassey: Exhibition of Objects of Ethnological Interest from Polynesia.—Miss North: Exhibition of Ethnological Objects from New Ireland.—Mr. Carl Lumholtz: Exhibition of Australian Implements.—Mr. H. P. Guppy: On the Physical Characteristics of the Natives of the Solomon Islands.—Mr. Abraham Hale: On the Sakais.—Mons. Jean L'Heureux: Notes on the Astronomical Customs and Religious Ideas of the Chokitapia or Blackfeet Indians.—Mr. Hyde Clarke: Observations on the Mexican Zodiac and Astrology.—Mr. James Dallas: On the Primary Divisions and Geographical Distribution of Mankind.

Wednesday, June 24.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department: 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Charles Stewart: Inflammation.

BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens will be shown. Adjourned Discussion on Dr. More Madden's paper on Fibro-myomata.

Thursday, June 25.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Friday, June 26.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Charles Stewart: Inflammation.

Saturday, June 27.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

HONE STONES.

IT may be useful to some of our readers to have their attention directed to good and serviceable hones, specimens of which have been submitted to our inspection from the quarries of Mr. Montgomerie, of Dalmore, Stair, Ayrshire. The "Tam o' Shanter" hones are very neat in appearance, and for whetting delicate cutting instruments are decidedly useful and efficient. They may be obtained cased or uncased, and in different sizes.

Mr. Stretch Dowse.—We are not at present in possession of information beyond that given in our last issue.

Equality will be liable to duty for the whole of the vehicles.

THE TITLE OF "DOCTOR."

To the Editor of THE LANCET.

SIR,—To give the two London Colleges the power of granting a degree in Medicine, or the title "Doctor," would not only be a flagrant injustice to existing graduates, but would also be productive of much injury to all the universities, from Oxford downwards; and I cannot think that any one of the delegates from the Royal College of Physicians will be found so wanting in duty to his *alma mater* as to sanction any such gross violation of vested interests. It would practically be raising the status of the Colleges from licensing corporations to a university of one faculty only. Why should they be so favoured in being allowed to forego the responsibilities of faculties of arts, law, and science, without which there can be no *raison d'être* for any university? Let us suppose for a moment that every M.R.C.S. and L.R.C.P. will wake up some fine morning and have the right to dub himself "Doctor." Where will be the privilege when all distinction is abolished? Whose will be the benefit, if we except the door-plate engravers? In a word, the one reason for the present outcry is that the institution in Burlington-gardens has failed egregiously in its duty to the profession and the public. The true remedy for the grievances of non-graduates is the reform of the University of London; or its abolition, coupled with the establishment of a new body under a charter so framed that the lessons of the past fifty years should not have been learnt in vain.

I am, Sir, your obedient servant,

June 8th, 1885. L.R.C.P.Lond.

Mr. J. B. J. O'Meara must not be too much disturbed by the judgment of the lay press in such a case, especially after the expression of opinion of the Board. The patient had only to have requested a visit for one to be paid, and in the nature of the circumstances casual visits were not to be expected, though, of course, they would have been greatly appreciated.

Mr. George Duncan (Berlin).—The review has not escaped our notice.

"HEALTH ASSURANCE ASSOCIATIONS."

To the Editor of THE LANCET.

SIR,—Permit me to correct an error which occurs in my letter on this subject in your last issue. In the sentence, "The patient is brought into an intimate and friendly relation with his client," for "patient" read *doctor*.

I should just like to add explicitly that the way to nip these new associations in the bud is simply to adopt the system of health assurance in our practices; and lest there should be any of my professional brethren who do not know what health assurance is, or how it is practised, I may say that I shall be happy to send a copy of my pamphlet on the subject to any medical man who desires it, on receipt of a stamp for postage. Specimens of the printed forms employed in health assurance will be ready for distribution in the same way in about a fortnight. I am, Sir, yours very truly,

W. FLEMING PHILLIPS.

St. Mary Bourne, Andover, Hants, June 15th, 1885.

TREATMENT OF DIPHTHERIA.

IN reply to the request of "L.S.A." in our last issue for information on this subject, we have received answers from several correspondents.

Mr. Walther states that cyanide of mercury in small doses has been given with marked success. He has employed it in doses varying from gr. $\frac{1}{48}$ to gr. $\frac{1}{36}$, according to age, every six hours for the first few days, followed by the perchloride of iron. Sulphurous acid was applied locally at the same time.

Mr. Dixon recommends the administration of belladonna, and remarks that as an antiseptic remedy of great value benzoate of sodium doubtless ranks amongst the first. A remedy he has employed with success is a mixture of chlorate of potash, perchloride of iron, and glycerine.

Mr. T. H. Sawtell records the success which attended the administration of brandy very freely, emetics, and perchloride of iron (in milk, to cover the taste), and no interference with the throat.

Dr. Illingworth suggests the following prescription for children of from three to eight years:—Sodæ salicylatis, ʒss—ʒj; sp. am. aromat., ʒj—ʒij; syr., ʒss; aq. ad ʒij. M. et solve. Sig.: Capiat cochlearia parva secundis horis. He also expresses his intention of using in his next case of diphtheria a mixture of tannic and carbolic acids in glycerine, in the proportions of one part carbolic to twenty of glycerine and the usual one of tannic acid.

M.R.C.S.E. &c. suggests the use of the concentrated solution of pepsin as employed, and highly praised, by Dr. Edwin Rosenthal:—Jensen's pepsin, ʒj; acid. hydrochlor., gr. xx.; aquæ q. s. ft. ʒj. Apply to throat every hour. Support the powers of life by nutritious and stimulating liquid diet.

Mr. F. Porter Smith.—The case seems to be one of which the College ought undoubtedly to take notice.

Dr. H. M. Lawson (Cuthbert, Georgia).—We cannot promise insertion of the paper until the MS. is in hand.

FOR THE GOOD OF HUMANITY.

To the Editor of THE LANCET.

SIR,—Probably there is no class of men whose opinion is more generally sought and respected than that of the "family doctor"; and it appears to me that the subject whereupon that influence might have largest scope, and be the means of benefiting humanity to an almost inconceivable extent, is one which, except by a very few, is completely avoided. In a large and varied experience, it has appalled me to find how lamentably ignorant nine out of ten women are concerning the influence of the mother upon the fœtus. This is a subject upon which physiological research has resulted in an almost, if not quite, unanimous verdict, and it is barely conceivable that any physician who has conscientiously weighed the question can fail to see it his plain duty to use his influence and knowledge, justified by his profession, and probably by experience also, in one of the noblest causes for which men can toil—namely, the good of the race. In these days, when immorality is so rife and its consequences so inimical both to the individual and the State, it befits us to search deeply for the cause, and to ask ourselves what can we do, and, among medical men at any rate, the answer is not far to seek. It would be an easy matter to point out to mothers the absolute necessity of common-sense clothing and healthy exercise, for the perfect development of the child; the cultivation of lofty aims, and all we hold to be of the highest good, if they would wish to see them in the possession of their descendants; and just as they would avoid any depressing or frightful influence or sight, or any sudden surprise, so every other undesirable emotion is also to be guarded against, and the whole being brought into as perfect subjection to the will as possible. And there remains another even more important direction in which to urge the necessity of self-control. We all know too well the frightful results, among all classes, of juvenile vice, the hideous increase of juvenile prostitution. Where is the remedy? Education? It is too late! We must begin at generation. To go to the root of the matter. Who that has studied the question doubts for a moment that it is the violation of those laws which hold good throughout the whole animal creation, and which in the case of women only are broken, that it is the unrestraint of the sexual function during pregnancy that transmits to the fœtus abnormally developed tendencies in the organs of generation by the undue exercise of those organs in the mother when nature demands rest, thereby probably influencing the progeny to a greater extent than by the similar indulgence of any other moral or physical quality in proportion to the greater susceptibility of those organs to become exaggerated and abnormal in their action? It is even more important that these grave facts should be brought under the consideration of husbands; for in the case of the majority of women nature is a law to herself, and prompts abstinence. Doubtless the sin is one of ignorance, not intention; but the law remains, and the penalty also—"The sins of the fathers are visited on the children to the third and fourth generation." It is the everlasting choice between good and evil: whether man will transmit beneficial or baneful tendencies; whether his children shall be slaves to, or masters of, their passions; whether he will make it more or less easy for them to live virtuous and healthy lives, thus adding his quota towards the elevation of the race. No one has the same opportunity of pressing these considerations as those in the medical profession; therefore I take the liberty of begging that you will lay these suggestions before them by means of your valuable journal. I am, Sir, yours faithfully,

Eastbourne, June 15th, 1885. F. B.

THE PROVIDENT SYSTEM AND THE OUT-PATIENT DEPARTMENT.

X. Y. Z. would like to know if in any case the provident dispensary system has been adopted by the out-patient department of a general hospital, and with what result.

H. J.—1. The question has been repeatedly answered in our columns.—2. Application might be made to the Registrar.

Alp.—Next week, if possible.

"TREATMENT OF ACUTE PERITONITIS BY ABDOMINAL SECTION."

To the Editor of THE LANCET.

SIR,—In a letter under the above heading in your last issue Mr. Lawson Tait gives the credit of first opening the abdomen "under acute symptoms" to Dr. Wiltshire. Dr. Wiltshire's case occurred in May, 1868. In December, 1864, my father, Dr. Keith, removed an ovarian tumour from a patient suffering from symptoms of the utmost gravity, due to peritonitis and gangrene of the tumour. That he did so deliberately is shown by the following extract from the report of the case, which appeared in THE LANCET of July 8th, 1865, nearly three years before Dr. Wiltshire's operation: "Though the practice adopted seemed at the time to be rash, and scarcely justifiable, yet it saved the life of the woman." Again, referring to this case in the *Edinburgh Medical Journal* of February, 1875, Dr. Keith says: "The pain was not relieved, abdominal distension from flatus became excessive, and typhoid symptoms rapidly set in. Fearing a repetition of the slow death process—which those who saw will not easily forget—ovariotomy was this time performed during the semi-delirium of septic fever. This was probably the first time that surgery broke in on an inflamed peritoneum, &c."

I am, Sir, your obedient servant,

Edinburgh, June 16th, 1885. SKENE KEITH, F.R.C.S.Ed.

An Army Doctor.—Why do not the medical officers take the matter into their own hands? If inquiry be made into what has been done on former occasions in reference to the grievance, the remedy will become readily apparent.

F. C.—The method of announcement is certainly objectionable.

CHRONIC ECZEMA OF THE AURICLE.

To the Editor of THE LANCET.

SIR,—I have lately had several cases of inveterate eczema of the auricle. In all the disease had lasted for years, and had resisted all the ordinary modes of treatment. I do not think any of the patients were gouty or scrofulous. In each case a speedy and perfect cure was accomplished by blistering the affected surface. Two or three applications of a weak solution of croton oil in absolute alcohol will suffice. It appears to me that in these cases the disease has no constitutional origin, but is due to a local neurasthenia, and hence the failure of the usual applications and internal remedies.

I am, Sir, your obedient servant,

Wick, June 11th, 1885. A. G. AULD, M.B.

PORTER, GARDENER, *AND* DISPENSER.

To the Editor of THE LANCET.

SIR,—I enclose an advertisement which appeared in last week's *Pharmaceutical Journal*, which will show to what low degree the art of dispensing has fallen.

"A Porter and Gardener (one who can Dispense Medicines preferred), at the Grantham Cottage Hospital.—Apply, stating age, whether married, wages required, and other particulars, to G. W. G. Beaumont, Hon. Sec., Hospital, Grantham."

I am, Sir, yours obediently,

Marylebone-road, N.W., June 15th, 1885. JOHN WOODLAND.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Elder, Nottingham; Mr. Lawson Tait, Birmingham; Professor Buchanan, Glasgow; Dr. Cruise, Dublin; Mr. Dalby, London; Dr. Cobbold, London; Mr. Gardner, London; Mr. H. R. Davies, London; Mr. W. A. Ellis, London; Mr. Skene Keith, Edinburgh; Dr. Althaus, London; Dr. H. B. Baker, Lansing, Michigan; Mr. H. Hawkins; Mr. F. Fox, Strathpeffar; Dr. H. M. Lawson, Cuthbert, Ga.; Mr. J. Marshall, Glasgow; Mr. Auld, Wick; Mr. Bruce Joy, London; Mr. G. Duncan, Berlin; Dr. R. T. Cooper, London; Mr. Hopkins, London; Mr. T. H. Sawtell, London; Mr. J. Walther, Eastbourne; Dr. Roman von Baracz, Lemberg; Dr. S. Dowse, London; Mr. D'Orsey; Mr. Costes, Sirhowy; Mr. Williams, Much Hadham; Mr. Wood, Yokohama; Mr. George, Liverpool; Mr. Stilliard, Birmingham; Dr. Gamgee, Birmingham; Dr. Emerson, Southwold; Messrs. Waterston and Sons, Edinburgh; Messrs. Moir and Son, London; Messrs. Kilner Bros., London; Mr. Pratt, London; Mr. Thomas, Birmingham; Mr. Banks, London; Dr. Walker, Peterboro'; Messrs. Manlove and Co., Notts; Messrs. Lee and Martin, Birmingham; Mr. Earp, Notts; Dr. Hawks, Liverpool; Mr. Walsh, Cramlington; Mr. Meadows, Hastings; Mrs. Tillett, Dudley; Mr. Langdale, London; Baroness De Yreurs, Paris; Dr. B. Squire, London; Dr. Morelli, Naples; Mr. Wedmore, Queensland; Messrs. Christy and Co., London; Mr. T. Edwards, Harrold; Dr. Heywood Smith, London; Mr. Porter Smith, Shepton Mallet; Dr. Wood, Douglas; Mr. J. Dixon, Warboys; Mr. Berdoe, London; Dr. J. Fitzpatrick, London; Mr. Short, London; Mr. R. Jones, Liverpool; Dr. Dawson Burns, London; Mr. J. Woodland, London; Mr. Parker, Keighley; Dr. Thompson, Lightburne; Mr. Godfrey, Balham; Dr. Boyle, Cape of Good Hope; Mr. Phillips, London; Mr. H. Kimpton, London; Mr. Meade; Messrs. Beal and Co., Brighton; Mr. Cook, Lowestoft; Mr. Leaver, Stratford-on-Avon; Miss Sidney, Brighton; Messrs. Thomson and Co.; Mr. Scott, Manchester; Mr. Hunter; Dr. Robertson, Kimberley; F. J. H., Liverpool; Fiat Justitia, Ruat Cœlum; Equality; M. S. D.; Cantab.; An Army Doctor; J. H. H., Droitwich; Judex.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Samuel; Mr. Rainer, Ipswich; Mr. Wheeler, Whitley; Mr. Newsholme, Sheffield; Mr. Hallam, Middlesbrough; Mr. Glenny, Crobus; Mrs. Long, Mere; Dr. Gibb, Dundee; Mr. Lewis, Birmingham; Mr. Archer, Alnwick; Mr. Priestley, Ilfracombe; Dr. Yelf; Mr. Lloyd, Barmouth; Dr. Betts, Lincoln; Mr. Hallows, Doncaster; Mrs. Salvin, Haslemere; Mr. Ellery, Plymouth; Mr. Saunders, Bath; Mr. Hunt, Hull; Mr. Somerville, Edinburgh; Mr. Bowdige, Northampton; Mr. Atkinson, Rippenden; Dr. Langford, London; Messrs. Roberts and Co., London; Dr. J. Cæsar, Minster; Mrs. James, St. John's-wood; Dr. Burnes, Holloway; Mr. Peters, Lambeth; Dr. Spender, Bath; A. B., Tewkesbury; R. T. C.; J. H. A., Ware; June, Chester; A. B., Hemel Hemstead; W. L. J., Rhyl; A. G. W.; M.D., Draycott; M., Edinburgh; Medicus, Steeple Aston; Medicus, Newcastle-on-Tyne; Medicus, Exeter; F. C., Halifax; L.R.C.P., Manchester; Climax; Medicus, Notts; Medicus, Manchester; Medicus, Stockport; D. R., Stoke Newington; M.B., Rochdale; Medicus, Llandrindod; G., Stoke-on-Trent; B. D., Aberdeen; Medicus, Ebbw Vale; J. B., Liverpool; A. B. C., London; H. R., Birmingham; Beta, Carnforth; Gamma, Exeter; Medicus, Surbiton; The Secretary, Guest Hospital; S. S., Skipton; Cortex; S. A.; W. P.; Alpha, Brideside; Omega; A. A., Birmingham; X. Y.

Church of England Temperance Chronicle, Manchester Courier, Argonaut, Daily Alta California, Galloway Advertiser, Yorkshire Post, Berwick Guardian, Eastern Daily Express, Birkenhead News, Sunday Closing Reporter, Kimberley Diamond Fields Advertiser, Diamond Fields Times, Kimberley Daily Independent, &c., have been received.

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ABSTRACT OF TWO

Clinical Lectures

ON

INTRA-CRANIAL SYPHILIS.

Delivered in the Western Infirmary of Glasgow.

By DR. McCALL ANDERSON,

PROFESSOR OF CLINICAL MEDICINE IN THE UNIVERSITY OF GLASGOW.

LECTURE I.

GENTLEMEN,—We have at present in the wards three illustrations of intra-cranial disease which, while they present certain features in common, differ considerably from one another in respect to their symptomatology; and yet, as we shall see, they are but branches of one and the same parent stem.

But first of all let me refer to a case of a similar nature which some of the senior students had the opportunity of seeing, the patient having been admitted into Ward 9 on March 30th, 1882. This man—who was twenty-nine years of age, and a grinder by occupation—was then suffering from left-sided hemiplegia. He informed us that for six months he had been troubled with severe and steadily increasing headache, which was limited to the left side. Four days before he came to us he was, in addition, quite suddenly seized with paralysis of the left arm and leg, so that he was unable to walk, and the day following it was observed that he could not converse, but could only answer "Eh!" to every question that was put to him. The day before admission, however, this symptom had in great measure disappeared, although when he came into the infirmary he had a dazed and stupid look, and answered questions in few words or sometimes not at all, while the information which he vouchsafed was found afterwards to be quite erroneous. For a day or two also before admission the paralysis, which was quite complete at first, except as regards the side of the face which was only partially paralysed, became much less pronounced, so that he could move the arm a little and the leg with considerable freedom. On the 8th of April, nine days after he came under observation, he became insensible, the loss of consciousness lasting for about a quarter of an hour, during which time there were convulsive movements of the arm and leg. On recovering consciousness it was found that the paralysis was greatly aggravated, he being unable to move either the arm or leg. The sensation, too, on the same side of the body was rather defective as regards touch, pain, and temperature. Thus, when slightly pricked with a needle, he thought he was touched with the hand, and when hot and cold sponges were applied he could discriminate cold, but not heat.

The symptoms present in this case showed that the lesion was situated on the right side of the brain, so as to involve the motor, and to a less extent the sensory tract. As regards the nature of the lesion, embolism as a cause of the hemiplegia was very unlikely, because it is then generally right-sided; because of the absence of any evidence of deposits on the mitral or aortic valves such as most commonly yield emboli; and because there were no signs of embolism of other organs. The age of the patient, and the absence of symptoms of kidney disease or of degeneration of vessels, rendered a cerebral hæmorrhage improbable. On the other hand, the intense and long-continued hemicrania led to the suspicion that we had to deal with a cerebral tumour, and that it was of a syphilitic nature we concluded from the following facts. The hemicrania was markedly nocturnal in character, as we so often find in syphilitic cases; the skin had a dirty, earthy, pallid appearance; the inguinal and arm glands were distinctly enlarged; and a large white scar about the size of a sixpence, with dark edges, was discovered about the root of the penis, which we were told on inquiry was the result of a chancre which he had five years before. This view was further confirmed by the result of treatment, which consisted in the rubbing of a drachm of strong mercurial ointment into some soft part of the skin every day. It was commenced on April 2nd, omitted by mistake from the 10th to the 20th, and finally stopped on June 2nd. On June 23rd, when he left the hospital, he was a very different man. The intelligence, which was at first so defective, was perfect in every respect, the nocturnal hemicrania had long since disappeared, the paralysis of the arm was very slight, as he could move it freely in all directions, and the dynamometer, on which at first the left hand made no impression, registered thirty-five kilogrammes. The paralysis of the leg was likewise slight, although rather more pronounced than that of the arm, and he walked a little lame and rather stiffly. This last symptom, taken along with the existence of some tremor when the limb was manipulated, and exaggeration of the patellar-tendon reflex (the ankle clonus was not present), rendered it probable that secondary sclerosis of the lateral column of the cord had to a certain extent occurred. As this lesion, although secondary to the lesion in the brain, was of a non-syphilitic character, it could not be expected to be benefited by anti-syphilitic treatment.

We now pass on to the consideration of the cases at present in the wards. The first to be admitted (Feb. 10th, 1885) was a blacksmith, thirty-eight years of age. He complained chiefly of severe pain in the forehead and upper part of the head, which had been present for about four months. The family history was good. Twelve years ago he suffered from an attack of gonorrhœa, which lasted about three or four months, and did not appear to have left any bad results. About eight years ago he had what he calls rheumatism, describing it as constant pains in the bones and joints, becoming very bad on movement and markedly worst at night. Three years ago he had a painful affection of the throat lasting for about a year. With the above exceptions he had always been a healthy man previous to the onset of the present illness. About four months ago he was suddenly seized, while sitting at the fire, with a violent pain in the forehead above the left eye. It lasted several hours, and he was then free of it for about a fortnight. After that he had repeated attacks, and noticed that the intervals between them gradually became shorter, and since the beginning of the year they had been almost constantly present, although with occasional great exacerbations. It was worse at night. The pain above described was often very intense, so much so as altogether to prevent sleep, and frequently to produce delirium. About the beginning of January his eyesight became somewhat impaired, so that he was unable to read as well as he used to do. On looking at anything steadily for a time, his vision became dim, as if a "scum" was before his eyes, and sometimes there was a feeling of pressure in them, especially on attempting to read. He professed never to have had any eruption on the skin or falling out of the hair. During the three months previous to admission he had lost flesh very much, having become, as he thought, about three stones lighter than formerly. A few scars were observed on the legs, which he said were due to the application of croton oil. The scar on the right leg, a little above the outer malleolus, was distinctly coppery in tint. There was a rounded and depressed cicatrix on the glans penis a little above and to the left of the frænum. This he attributed to a burn from a piece of live coal. The foreskin was adherent to the glans at the sulcus. There were no scars at the angles of the mouth. There was no paralysis of the muscles of the face or eyelids, save a slight drooping of the left upper lid. The eyeballs were slightly prominent, especially the right, but this condition, he said, had been present since childhood. The tongue, on being protruded, appeared to be slightly drawn to the left side. On tapping all over the head two spots were found about two inches and a half above the outer angle of each eye, which were distinctly tender. He could hear the ticking of a watch better when placed opposite the ear than on the temple. The greatest distance he could hear the watch with the left ear was eighteen inches, with the right twenty-four. The smallest type he could read on admission was a double small pica, whilst before the illness he could read the ordinary type of a newspaper, which is only half the size of the above (see Dr. Reid's report [1]).

[1] "Aided by eight-inch convex, he is able to see the smallest print at twelve inches with either eye. The area of the field of vision is complete in both eyes, there being no defects to be found in the lateral parts of the field. The power of distinguishing colour is perfect, with the exception of deep purple, which he mistakes for black. Ophthalmoscopic examination:—Hypermetropia of $\frac{1}{2}$ found (left pupil only dilated). The left optic nerve seems rather prominent, tissue consolidated, and slight signs of effusion along the course of the vessels as they leave the optic

Smell and taste seemed to be normal, and the dynamometer registered 105 kilogrammes with each hand.

A consideration of the history and symptoms present in this case led to the conclusion that we had to deal with intra-cranial syphilis. Before his admission into the infirmary he had been under the care of half a dozen medical men in succession, and appears to have been treated for the most part by means of quinine and other anti-neuralgic remedies. His last medical adviser, however, evidently suspected the syphilitic nature of his complaint, and gave him iodide of potassium. He took it at first in doses of ten grains three times a day, but for a week before his admission the dose was increased to thirty grains. This had not the slightest effect upon the pain or other symptoms. Accordingly, on the 12th of February, he was ordered to rub into the skin daily one drachm of Shoemaker's mercurious oleate ointment, while thirty minims of paraldehyde were prescribed at night to procure sleep. In a few days the pain had completely disappeared, and up to the present date (April 1st) he has remained perfectly well. The mercurial treatment is, however, being continued as a precautionary measure.[2]

WHY DOES SALICYLIC ACID CURE RHEUMATISM?

By P. W. LATHAM, M.A., M.D., F.R.C.P.,
DOWNING PROFESSOR OF MEDICINE, CAMBRIDGE; SENIOR PHYSICIAN TO ADDENBROOKE'S HOSPITAL.

(*Concluded from p. 1121.*)

IF, then, as I assert, uric acid or its antecedent is the *materies morbi* which develops rheumatic fever, and if, as I have previously advocated, it is according to the accepted opinion the cause of gout, why should it in some individuals produce this disorder and in others rheumatism?

Let us in the first place consider what, under the normal state of things, is the effect of cold and heat applied to the surface of the body. The effect, as you know, is very different as regards cold-blooded and warm-blooded animals. External cold diminishes and heat increases the metabolic activity of the cold-blooded animal, acting like a mixture of dead substances in a chemical retort. But in a warm-blooded animal, within certain limits, cold increases and heat diminishes the bodily metabolism, as shown by the increased or diminished consumption of oxygen and production of carbonic acid as the temperature falls or rises. There is obviously a mechanism of some kind counteracting and indeed overcoming those more direct effects which alone obtain in cold-blooded animals. But under the influence of urari, which paralyses the end-organs of the muscular nerves, a warm-blooded animal behaves as regards its bodily metabolism under the influence of external cold and heat like a cold-blooded animal. "We can best explain these results by supposing that under normal conditions the muscles which, as we have seen, contribute so largely to the total heat of the body are placed, by means of these motor nerves and the central nervous system, in some special connexion with the skin, so that a lowering of the temperature of the skin leads to an increase, while a heightening of the temperature leads to a decrease, of the muscular metabolism. Further, though the matter has not been fully worked out, the centre of this thermo-taxic reflex mechanism appears to be placed above the medulla oblongata, possibly in the region of the pons Varolii. When urari is given the reflex chain is broken at its muscular end, when the spinal cord is divided the break is nearer the centre."[1]

How does this bear upon rheumatism? An individual is exposed to a cold draught or gets wet; the surface is chilled; the cutaneous vascular areas are constricted; by reflex action through the vaso-motor system the splanchnic vascular areas and the vessels of the muscular areas are dilated; the vaso-motor nerves distributed to these parts are paralysed, so to speak; with this paralysis of the vaso-motor nerves of the parts there is not only a dilatation of the vessels in the part, but there is also a weakening of the power by which the albuminous molecules are held together, and from both causes heat is developed. The normal change of the cyan-alcohols into cyanamides, and amido-acids with the ultimate oxidation of the latter, is modified. The molecules $CH_2\begin{cases}OH\\CN\end{cases}$ and $C_2H_4\begin{cases}OH\\CN\end{cases}$ become detached from the benzene nucleus, and more or less from each other, and by hydration (by which heat is developed) form substances – glycollic acid and lactic acid—which are more easily oxidised than the amido-bodies. The oxygen, though conveyed in larger quantities than normal by the increased blood-supply to the tissue, is completely used up in oxidising the glycollic and lactic acids which have been formed; the excess of lactic acid and the glycocine (which has also been formed) are unoxidised and pass into the circulation. Now, in a normal or healthy state of things, the irritating or stimulating cause acting on the skin being removed, reaction would be set up there, the cutaneous vascular area would dilate, and consequently the vessels of the muscular area would contract, and this latter contraction would be increased by the stimulating effect of the glycocine or resulting uric acid, which, being a morbid product, would stimulate, as in gout, that portion of the nervous system which controls the nutrition of the joints just in the same way as carbonic acid in the blood stimulates the respiratory centre. In this way less blood would go to the muscular area, and the albuminous molecules would again be held more firmly together and undergo the normal changes, the uric acid being meanwhile excreted by the kidneys and the lactic acid by the skin. I have here drawn you a picture of an ordinary feverish cold—the primary chill, the ensuing febrile condition, the elimination of lithates with the subsidence of the attack.

But suppose the individual who is exposed to damp or cold has been previously reduced in strength, is tired out or exhausted—that is to say, his vaso-motor system is in a weak state, the weakness either developed from the above causes, or it may be inherited. Then following the chill there would be the same effects produced as I have above described, but the vaso-motor nerves regulating the vessels of the muscular area would be more completely paralysed, and when reaction set in on the surface of the skin there would be less power in the muscular nerves to recover from that paralysed condition; and more than this, the central portion being exhausted, the stimulus of glycocine or uric acid produces not stimulation, but exhaustion.

Let me illustrate what I mean by reference to the sciatic nerve.

"Division of the sciatic nerve of a mammal causes dilatation of the small arteries of the foot and leg. Where the condition of the circulation can be readily examined, as, for instance, in the hairless balls of the toes, especially when these are not pigmented, the vessels are seen to be dilated and injected, and a thermometer placed between the toes shows a rise of temperature amounting, it may be, to several degrees.[2] But the dilatation so caused after a few days disappears; the foot on the side on which the nerve was divided becomes not only as cool and pale, but frequently cooler and paler than the foot on the sound side. If the peripheral portion of the divided nerve be stimulated with an interrupted current immediately or very shortly after division, the dilatation due to the division gives place to constriction: the sciatic nerve acts then quite like the cervical sympathetic, except perhaps that this artificial constriction cannot be maintained for so long a time, and is very apt to be followed by increased dilatation. If, however, the stimulation be deferred for some days, until the dilatation has given place to a returning constriction, the effect is not constriction, but dilatation; the nerve then acts, so far as its vaso-motor fibres are concerned, like a muscular nerve, and not like the cervical sympathetic.[3] So also with regard to the mylo-hyoid muscle. Section of the nerve produces dilatation, but the dilatation is transient. The vessels speedily return to their former calibre, and then it is found that stimulation, of whatever strength, of the peripheral portion of the divided nerve brings about not constriction, but dilatation. If then the vaso-motor fibres of the muscular nerves have been weakened, the result would be that the normal stimulating effect of uric acid on the motor nerves generally

disc; but no distinct evidence of there having been choked disc or engorged optic nerve, the disturbance not being more than is sometimes found in a high degree of hypermetropia. The defect of vision which he complains of is to be referred to deficient power of accommodation rather than to actual loss of accommodation. This deficient power of accommodation is sometimes seen to follow a shock to the nervous system."

[2] This patient was seen on April 27th, and was found to be quite as well as at the beginning of the month.

[1] Foster's Physiology, 4th edition, p. 467.

[2] Ibid., 4th ed., p. 199 [3] Ibid., p. 209.

would be transformed into a depressing or paralysing effect on the enfeebled nerves, the vessels of the muscular area would be still further dilated, the albuminous molecules would be loosened, hydration and oxidation would go on causing fresh development of heat, there would be the continuous formation of uric acid and lactic acid, the uric acid accumulating in the system, and producing its deleterious effect and modifying the function of the nervous system; the lactic acid dilating the smaller arteries [4] and stimulating the sweat centres, passing off in part by the skin. With increased stimulation of the paralysed centre of the muscular nerves complete dilatation of the vessels in the muscular area will take place, the albuminous molecules now fall completely asunder, the $CH_2\begin{cases}OH\\CN\end{cases}$ and $C_2H_4\begin{cases}OH\\CN\end{cases}$ being entirely hydrated into glycollic acid and lactic acid with the rapid production of heat, and the heat is further developed by the ready oxidation of these products. In this way the so-called hyperpyrexia of rheumatic fever is produced.

But whilst uric acid affects in this way the vaso-motor fibres of muscular nerves, it also affects the nutrition of the joints. We see that in gout; it stimulates and alters the nutrition of the part, and as the blood contains an abnormal substance, this is deposited about the joint in the form of urate of soda. Uric acid increases, too, the oxidation going on in the part, for there is increased heat. These changes are the result of the irritative effect of the uric acid upon the neighbourhood of the medulla oblongata and motor tract. Why I fix upon this as the part specially affected, I will explain presently. But at the age when gout appears, the sympathetic system and the vaso-motor fibres are less susceptible than in former years to irritative causes. Cold applied to the surface of the body in a person of advanced years does not result in increased heat or reaction, but produces internal congestion, pneumonia, hæmaturia, diarrhœa, &c. In gout the uric acid is the result of modified innervation of the liver, causing a paralysis of the hepatic vessels and lessening of the normal metabolic changes, and so there is non-transformation of the glycocine and the consequent formation of uric acid. In rheumatism the glycocine results from changes in the vascular area and in the metabolism of the muscles, and along with its formation there is also the formation of lactic acid by hydration, both from the cyan-alcohol $CH_2 . CH_2\begin{cases}OH\\CN\end{cases}$ and the cyan-alcohol $CH_3 . CH\begin{cases}OH\\CN\end{cases}$; the nutrition of the joint is modified, as in gout, by the stimulating effect of the uric acid on the centre of the muscular nerves, but the nutrition is further modified by the presence of the lactic acid in the blood, producing dilatation of the arterioles, more particularly round the affected parts. For both diseases therefore the treatment resolves itself into neutralising or getting rid of the glycocine, and so preventing the formation of uric acid and putting a stop to the irritating effect of it on the centre of the muscular nerves. This is effected in large measure by salicylic acid. The glycocine and some portion of the lactic acid in the muscular tissues is derived, as I have shown, from methene cyan-alcohol, $CH_2\begin{cases}OH\\CN\end{cases}$. The salicylic acid combines with this as it parts from the albuminous compound forming $CH_2\begin{cases}DH\\CN . OH\end{cases}$, $C_6H_4\begin{cases}\\COOH\end{cases}$ which produces no irritating effect on the nervous centre, and as it passes out of the body is transformed, as is previously shown, into $CH_2(NH . C_7H_6O_2)COOH$, or salicyluric acid.

But along with this remedy the judicious use of cholagogue purgatives will be of great benefit, by eliminating the bile from the intestines, and so removing a quantity of glycocine from the system. And, lastly, the proper diet to employ is one as free from glycocine as possible that is, one consisting chiefly or entirely of milk and farinaceous food. From what I have said it is also easy to understand how a number of blisters applied near the affected joints may often cure the disease—viz., by reflex action on the vessels of the muscular area, causing them to contract, and so diminishing the metabolism and lessening the formation of glycocine.

A word or two, lastly, with regard of the pathology of that form of diabetes which originates in the muscular tissue. In my previous paper I have indicated the way in which I think it probable that glucose may in the living body be derived from albuminous material—namely, by the separation of the molecules of $CH_2\begin{cases}OH\\CN\end{cases}$ from the benzene nucleus, their hydration into glycollic acid, $CH_2\begin{cases}OH\\COOH\end{cases}$, and their oxidation into CO_2 and methyl aldehyde, H . CHO, and water; the oxidation being arrested here, and condensation of six molecules of the aldehyde taking place, forming $C_6H_{12}O_6$, or glucose. Here we have, then, a condition resembling somewhat that associated with hyperpyrexia, except that the oxidation is in some measure inhibited. The vaso-motor fibres of the muscular nerve are paralysed, the molecules $CH_2\begin{cases}OH\\CN\end{cases}$ are detached and hydrated, but only *partially* oxidised; the tissue is, so to speak, partially urarised, the aldehyde is not oxidised, but condenses into glucose. In urari poisoning sugar appears in the urine, though "the exact way in which this form of diabetes is brought about has not yet been clearly made out."[5]

Now, you will find that in some forms of diabetes salicylic acid is of the greatest importance, whereas in others no good results from its use. The urine in the former cases contains often, in addition to glucose, an excess of uric acid, and the patients suffer from neuralgic pains in the joints and limbs. Their diabetes is said to be "gouty"; but it seems to me that the presence of the uric acid and *some* of the glucose in the urine is due to imperfect metabolism in the muscular tissue, in the manner above indicated.

Gentlemen, I have already trespassed upon your patience too long; I will, therefore, only very briefly indicate on what grounds I localise that portion of the nervous system which controls the nutrition of the joints, and the function of which is affected by uric acid, about the medulla oblongata and the motor tract.

1. Rheumatism not infrequently after a short interval follows tonsillitis. Now, we may assume either that the condition of the central nervous system in the individuals so affected is such that the slight injurious influences acting upon that portion of the central nervous system will produce an attack of quinsy, whereas more severe injurious influences will cause rheumatic fever; or we may assume that in quinsy the irritation of the nerves distributed to the tonsils not only affects the central nervous system at the origin of the roots of the nerves supplying the irritated part, but through the sympathetic nervous ganglia the irritation radiates to other parts of the nervous system which are in connexion with that ganglion. Either hypothesis will answer my purpose. The tonsillar nerves are derived from the fifth nerve—the middle descending branch from Meckel's ganglion—and from the glosso-pharyngeal portion of the eighth nerve. This branch of the fifth, to which I have referred, is derived from the larger root of the nerve which may be traced back to the lateral tract of the medulla oblongata immediately behind the olivary body, and is connected with the grey nucleus at the back part of the medulla between the fasciculi teretes and the restiform columns. The deep origin of the glosso-pharyngeal may be traced through the fasciculi of the lateral tract to a nucleus of grey matter at the lower part of the floor of the fourth ventricle, external to the fasciculi teretes. Both these nerves receive filaments from the superior cervical ganglion of the sympathetic.

2. In locomotor ataxy, associated with sclerosis of the posterior and lateral columns of the spinal cord, the joint affection known under the name of Charcot's ataxic arthritis sometimes presents itself. At the present moment we have in the hospital here a case of this kind, showing very conclusively the connexion between swelling of the knee-joint and irritation at the root of the fifth nerve, and in particular of the root of the anterior dental branch.

P. R——, aged fifty-nine, was admitted into Addenbrooke's Hospital Jan. 19th, 1885. At seventeen years of age he had pleurisy; during convalescence the right knee began to swell. Four years later the thigh was amputated owing to disease of the knee-joint. For twelve years after that he had good health, and then was suddenly attacked one night with sharp pain in the stump. In the morning he had neuralgia affecting the middle division of the fifth nerve. This came

[4] Gaskell: Journal of Physiology, vol. iii., p. 18.

[5] Foster's Physiology, 4th edition, p. 425.

on regularly for eighteen months at 11 A.M., and since then has been very nearly continuous, but with exacerbations. He had ague when thirty-nine years old. At intervals there has been pain in the stump. He has had all his teeth removed from the upper jaw excepting one carious stump, on account of the pain, but without any relief. For the last three years he has noticed that at times he could not pass water, and at others it would run away from him. He has had aching pains in the left tibia for four years, but never had any lightning pains. In August, 1884, he suffered from violent abdominal pain lasting three months, and attended with sickness. He complains now of great pain in the upper gum, and compares it to that produced by a red-hot iron passed along the upper gum from the centre to the back, the attacks coming on at intervals of a few minutes, and lasting about ten seconds. On March 2nd he complained of numbness in the left leg, pain at the lower end of the femur and outer side of the thigh. There is no patellar reflex, no ankle clonus. The leg and thigh subsequently became œdematous and brawny, the knee-joint became distended and contained fluid, the ligaments very lax, allowing very free lateral movement; no creaking; no bony outgrowth was discovered. As this swelling of the leg and joint developed the pain in the jaw declined. On May 22nd the junctions of the ribs with the costal cartilages became swollen and very tender, and the patient also complained from time to time of aching pains in the shoulders. The joint is less swollen; the ribs are less tender just now. I have referred to the case as a good illustration of what I want to prove—viz., that irritation about the root of the fifth nerve will also sometimes give rise to modifications of nutrition in the ends of the bones or about the joints.

Lastly, with regard to chorea. It is not difficult to see that, if the power of the vaso-motor fibres has been weakened, an irritation at the root of the fifth nerve may by radiating through the Gasserian ganglion or Meckel's ganglion, which are in connexion with the carotid plexus—a superior branch, that is, of the upper cervical ganglion—cause vascular dilatation and perivascular change in the track of the middle cerebral artery, and that these changes would produce the incoördinated movements of chorea. Dr. Dickinson has made out very clearly that it is in these parts and in the posterior and lateral parts of the grey matter and in the upper portions of the cord that vascular dilatation and perivascular change take place both in chorea and diabetes; and I venture to suggest that they are induced in the manner I have indicated.

NOTES OF VISITS TO CONTREXÉVILLE AND ROYAT-LES-BAINS.

BY F. R. CRUISE, M.D. UNIV. DUB.,
PRESIDENT OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

(*Concluded from page 1123.*)

BEFORE concluding, I should like to add some notes of a visit which I paid to Royat-les-Bains in June, 1884, and of the circumstances which brought me there.

One day, in the spring of last year, I happened to complain to my friend and colleague, Dr. Patrick Hayes, about the great annoyance I had suffered from eczema. This affection, presumed from many special symptoms to be of a gouty nature, had been treated in various ways, but with very partial success. Dr. Hayes told me that a patient of his, very similarly affected, had been sent by a London physician to Royat-les-Bains, and had been effectually cured. A few inquiries satisfied me that this mineral watering-place enjoyed a well-merited celebrity in the treatment of chronic forms of gout, and I felt that it was well worth my while to pay it a visit. Accordingly to Royat I went in June, 1884, and, to make a long story short, I was cured so completely that with a little attention to diet, and some other hygienic details, I have escaped ever since all annoyance from my troublesome ailment. It is but truthful to add that I have kept up the use of the waters, and observed the rules of life laid down for me. Many patients who are careless about these matters blame very unjustly the remedy which they unreasonably expect will cure them despite of themselves. Anyone who has undergone for years the indescribable worry of eczema will understand that I naturally feel very grateful to Royat, and am anxious to make known to the members of the Academy of Medicine in Ireland some details concerning it.

Leaving Paris by the Lyons Railway, a journey of some nine hours brought me to Clermont-Ferrand, the wealthy capital of the Auvergne district, and in ten minutes more I arrived at the picturesque village of Royat-les-Bains, one of the most celebrated mineral stations of France. Once settled in my hotel (Chabassière's), which it is but just to say combined every comfort with moderate charges, I sought the advice of Dr. Alexandre Petit, whose *brochure* on Royat I had already studied. Under his guidance I commenced the course, which lasted three weeks. The routine was much as follows:—At 7 A.M. I took a glass of the Eugénie water hot from the spring, then a reclining bath in the same water at a temperature of 95° F. After the bath I had another glass of the water. Then I returned to my hotel, and had coffee and strawberries. At one o'clock *déjeuner à la fourchette;* at 4 to 5 P.M. two glasses of the St. Mart spring, with fifteen minutes between; at 6 o'clock dinner. Thus I passed the days, spending the leisure intervals in exploring Royat and its environs, and in observing the use and effect of the waters. Day by day I improved in health and spirits, the eczema cleared off, and no new spots appeared. As already stated, I have remained well now just a year.

Royat-les-Bains is a village, consisting mainly of the *établissement* for the waters and baths, the hotels, boarding-houses and villas, which accommodate the visitors in the season, from May till the end of September. It is beautifully situated in the Auvergne mountains, about 1500 feet above the sea level, in a valley stretching from the base of the Puy-de-Dôme to Clermont-Ferrand, and following the course of a torrent of lava which at some remote age poured down from the neighbouring volcanoes, now completely extinct. The lowest portion of this valley conveys the Tiretaine, a mountain stream of some considerable size. All that a lovely country, an agreeable bracing climate, a wealth of interest, historical, geological, and botanical, combined with health-giving waters, can offer to satisfy the visitor will be found in plenty at Royat-les-Bains. To those who love mountain scenery as I do, no day spent there can feel irksome or tedious. It is right to add that it is a very quiet spot, to which the world of fashion has not yet penetrated; but its fame is of old standing, it is thoroughly appreciated by the medical faculty and people of France, and is yearly becoming better known to the world at large.

To prevent confusion about names, let me observe that Royat, the original village, is situated about fifteen minutes' walk higher up in the valley than Royat-les-Bains, and, though most interesting to visit, is not the mineral station known as Royat. The original village is evidently of great antiquity, resembling a miniature old Roman town. The photographs which I exhibit, many of which I took myself on the spot, show the curious old streets in which it abounds, and the castellated and battlemented church, a Romano-Byzantine edifice, dating from the twelfth century. There are clear evidences that the ancient Romans knew Royat well, and used its hot springs, both for separate baths and for the piscine or general swimming tank. Just below the railway bridge may be seen the remains of Roman baths and piscine, close to the St. Mart Spring, which were discovered in 1843. These are some of the many ruins which prove the Roman occupation of Royat in ancient times. The entire neighbourhood of this station abounds in interesting places, which serve to occupy the leisure hours of visitors to the waters.

Clermont-Ferrand, to which I have already alluded, is a little over a mile from Royat, and may be reached by omnibus in about ten minutes. Expeditions are made thither almost daily, and I know no more agreeable stroll than to wander through its beautiful Gothic cathedral, and then walk down to the Place Pascal, in which we find the statue of the great philosopher, so placed as to look to the distant towering Puy-de-Dôme, upon the heights of which he performed the experiments which led to such advance in barometric science. Selecting a clear day, a journey of some two hours and a half brings to the summit of the Puy, with its ruined Temple of Mercury, now replaced by an observatory, from which a magnificent view of the surrounding country stretches out on all sides. In every direction about Royat we find beautiful mountain passes through which to ride, drive, or walk; picturesque old towns and villages, and ruins of ancient castles

and châteaux. Not a day of the whole course of three weeks need pass without a pleasant excursion amid scenery lovely enough to please every eye, and monuments of the old feudal times, like Tournoël, grim and gaunt enough to make one rejoice that we do not live in such wicked and awful days of savagery. I shall not attempt to enumerate the various points of interest around Royat, as the local guide-books offer all needful information, and I only allude to them here to illustrate the attractiveness of the place.

Let us now see what the waters of Royat are, what is their nature, and in what diseases they may be used with benefit. There are four springs, which much resemble each other, though differing in certain details[1]—namely, the Eugénie, the César, the St. Mart, and the St. Victor.

Taking the Eugénie spring as the one both typical and most important, let us examine its constitution. I append M. Lefort's analysis:—

Eugénie Spring (Temperature 95° F.).

Bicarbonate of soda	1·349
„ potash	0·435
„ lime	1·000
„ magnesia	0·677
„ iron	0·040
„ manganese	traces
Sulphate of soda	0·185
Phosphate of soda	0·018
Arseniate of soda	0·004
Chloride of sodium	1·728
Iodide and bromide of sodium	traces
Silica...	0·156
Alumina and organic matters	traces
Chloride of lithium	0·037
Total solids	5·623
Free carbonic acid...	0·377

From the foregoing table it will be seen that this spring belongs to the class of alkaline-chlorinated waters, with the addition of salts of lithium, iron, and arsenic. The effects, used internally, may be surmised from its composition. It is stimulating to the circulation, diuretic, laxative, and tonic. The diuretic effect is the most manifest, often doubling the quantity of urine excreted, and at the same time raising the specific gravity one-third or more. In its diuretic properties I observed a strong similarity to our own mild sulphur water at Lisdoonvarna, which, although quite different chemically, is famous also for the cure of gouty and cutaneous affections. The laxative effect of the Eugénie water is mild, but unmistakable, the sulphate of soda mainly accomplishing this end. The tonic properties, due to iron and arsenic, are very pronounced, and, together with the chlorides, serve to mark the difference between Royat and the stronger and more purely alkaline springs, such as Vichy, Vals, Pongues, and others, indicating, moreover, their greater suitability for lymphatic and debilitated patients. In fact, for strumous subjects no waters, excepting alone those of La Bourboule, which is quite near, enjoy an equal reputation. At some future time I hope to bring La Bourboule under your notice. As already stated, the four springs of Royat, although resembling each other, differ in certain points. Thus we have seen the composition and effects of the Eugénie spring.

The César is the least mineralised of all these waters, but is very agreeable and piquant in flavour, and is found very useful in dyspepsia. It stimulates the mucous membrane of the stomach, improves the appetite, helps digestion, and increases the flow of bile and urine.

The St. Mart water contains a considerable quantity of chloride of lithium, and is particularly suited for gout and rheumatism and all allied affections.

The St. Victor spring is richest in iron, and is specially useful for anæmia, diseases of females, and for the weak and debilitated.

All these springs are used, according to the necessities of the cases, in three different ways: first, internally; secondly, externally—as baths, reclining or swimming (piscine), and douches; and, thirdly, by inhalation while in a state of pulverisation or minute division. It is easy to see that with such a repertory of potent agents as these various waters afford, a judicious physician wields immense therapeutical power.

[1] It is important to know that these waters bear carriage remarkably well, and suffer little loss in the process.

Let us now briefly enumerate the principal diseases in which they may be used with advantage. These may be divided, for practical purposes, into three great classes:—

1. *All forms of gout and rheumatism*, especially the atonic phases. It is almost needless to say that a mild alkaline water, modified by chloride of lithium and ferro-arsenical salts, is certain to benefit this class of ailments, and accordingly we find them improving from day to day at Royat, including gouty and rheumatic affections of joints, muscles, fasciæ, nerves, skin, especially eczema, gouty dyspepsia, gastralgia, asthma, and so forth.

2. *Anæmic and lymphatic affections.*—The combination of chloro-alkaline waters with iron and arsenic improves the appetite and digestion, and speedily reconstructs the blood in anæmia. It is found very useful also in atonic dyspepsia, and in all the nervous troubles appertaining thereto. For insomnia Royat enjoys a special and most favourable reputation.

3. *Affections of the throat, lungs, and uterus.*—The utility of the waters of Royat in this third class of ailments is what we might expect from the strong similarity between them and the waters of Ems—Royat being, in fact, the French counterpart of Ems, enjoying, however, the great advantage over the latter of a climate both bracing and tonic, in place of relaxing and debilitating. Accordingly, we find chronic affections of the larynx and pharynx, bronchial catarrh, asthma, and even the earlier stages of pulmonary phthisis, improving at Royat, and the crowds which frequent the inhaling rooms give proof of the beneficial results felt by all who resort to this form of medication. Chronic affections of the uterus are likewise found to derive immense service from these waters.

For myself, I am strongly disposed to believe that the efficacy of the waters of Royat are greatly augmented by the climate, which is, like all mountain air, revivifying in a marked degree. It is, moreover, temperate and dry, and its salubrity is proved by the abundance of fruit and flowers for which the whole district is celebrated. I shall not dilate further upon the virtues of Royat, trusting that I have already given a sufficiently clear outline to enable my hearers to select the cases best suited for the use of its waters.

I have to thank you, gentlemen, for the patience with which you have listened to me this evening. My earnest conviction of the great value of the waters of Contrexéville and Royat-les-Bains is the best excuse I can make for trespassing so long upon the attention of the Academy of Medicine in Ireland.

ON THE

TREATMENT OF BRONCHIAL ASTHMA AT MONT DORE, FRANCE.

BY DR. EMILE EMOND,

CONSULTING PHYSICIAN, MEMBER OF THE CLINICAL SOCIETY OF LONDON.

I PURPOSE in these few lines to extend to England the reputation of Mont Dore springs which has been long established in France, and to point out to the medical profession their powerful resources in the treatment of bronchial asthma.

Asthma is a capricious disease, having varieties and the most numerous forms, of which physicians have not yet given an accurate definition nor found out the medicine to cure it in spite of modern researches. We are amply provided with numerous remedial means, but the results are not always as precise as we could desire. "Asthma is an independent and essential disease, purely dynamic in nature, and not necessarily connected with any pathological lesion" (Thorowgood). It is spasmodic or catarrhal; but, whatever may be its form, G. Sée describes it as compounded of three elements: "a special intermittent dyspnœa, a bronchial exudation, and a secondary emphysema." Dyspnœa is the characteristic element; its form is always the same; its intensity only varies. On the contrary, catarrh may be of all forms; it appears in one with profuse running expectoration, clear, glairy, frothy, and pearly; in another the sputum is peculiar, scanty, viscid, thick, and yellow. The one has commencing catarrhal asthma; the other severe dyspnœa. Trousseau regarded asthma as a diathetic neurosis. G. Sée appears to have regarded it as essentially due to a

modification of blood or to a constitutional vice of nutrition of the tissues, as gout or dartre. Guéneau de Mussy believed the arthritic diathesis to be the essential cause of asthma. The seat of nervous spasm is not yet fixed. Trousseau thinks that it is laid in the Reisseissen muscles; G. Sée in the inspiratory muscles and diaphragm. There are only a few diseases that can be confounded with asthma, if we consider that it is distinguished from all dyspnœas, the organic diseases of the heart, and pulmonary tuberculosis by its characteristic signs, its periodicity, the form of its attacks, and the bronchial catarrh which accompanies it.

Whether caused by diathesis or inflammation, asthma is sometimes cured at Mont Dore. But the variety which is most often met with there, and is treated with the greatest success, is catarrhal bronchial asthma, or humid asthma. In this form, attacks, at first separated, meet; the dyspnœa increases and becomes continuous in consequence of the viscidity of bronchial exudation. But as soon as the particles of phlegm can be ejected and air begins to penetrate into vesicles, emphysema diminishes, hæmatosis takes its course and relief arrives. As to the spasmodic dry asthma, which is hereditary and met with in all ages, it obtains there a manifest relief and sometimes a real cure.

It is well known now how many therapeutical means we have at Mont Dore, and physicians are aware of their effects. They vary according to the constitution, age, and sex of the patient. We can modify dyspnœa, bronchial exudation, and emphysema. Our waters in a variety of ways can be sedative, excitant, derivative, even substitutive, according to the mode of application and the duration of the treatment.

First, water is taken as drink; it gives an increase of action to the nutritive functions and to circulation.

Next, the inhalation of vapour, the special action of which on the respiratory organs is a well-established fact. Experience has proved that it is the most valuable remedy for bronchial spasm; that mineral vapour has an effective sedative action on smooth and elastic muscular fibres; and that it affords an instantaneous relief. Invalids stay in the vaporarium during a time varying from fifteen to sixty minutes, according to the case.[1] I think that sedative action is due in great part to vaporised arsenic and carbonic acid.

After the half-baths of the Pavilion at 111° F. they are given according to the constitution of the invalids, and produce wonderful effects. On leaving this bath, which lasts from five to twelve minutes, a feeling of comfort succeeds almost immediately to the general excitement, the body is covered with perspiration, and the breathing returns to its normal condition.

At last, the spinal douche, which has been largely used at Mont Dore, stimulates the vaso-motor nerves, re-establishes the skin functions, and produces the best results.

A sedative influence, I dare say, is one of the most evident and immediate effects of the Mont Dore treatment. It is observed with the most irritable subjects, re-establishes the disorders of innervation, influences general circulation, and chiefly the respiratory apparatus. Nervous spasm is alleviated. These results are specially observed in essential spasmodic asthma, where neurosis seems to be attacked in its own origin—that is to say, in the morbid spasmodic element.

Mont Dore waters have a local resolvent action, chiefly upon the mucous membrane of the respiratory organs, which is modified by their direct contact. This first effect upon the lungs is particularly observed in catarrhal bronchial asthma. I compare it to the effect of digitalis on the heart. All these phenomena produce a reconstituent action of the organism, shown by the development of the appetite, re-establishment of the digestion, equalisation of the circulation, return of the skin functions, and increase in strength.

If, now, there be in the action of these waters something specific, it is necessary to try to point out, amongst their numerous mineral principles, that which may be the agent. I believe that it is mainly the arseniate of soda, notwithstanding the small proportion in which it enters into the composition of the waters of Mont Dore. This was Thénard's opinion, since he says in his note to the Académie des Sciences, "One cannot doubt that it is to the presence of arsenic that one ought to attribute the powerful action of this water upon the animal economy." A most valuable remedy for asthma is found in the various preparations of arsenic. Indeed, arsenic modifies powerfully the nutrition.

[1] These various processes are described in detail in my small work on Mont Dore and its Mineral Waters, published by Wyman and Sons, Great Queen-street, 1878.

To illustrate now what has been said, I relate the following two cases.

CASE 1.—Miss W——, aged about thirty, was sent to me last July at Mont Dore, from London, where she lives. No family history of asthma; her mother is gouty, father and sister healthy. Her face is pale and worn, no emaciation, but very reduced in strength; she cannot walk at all, and on arriving she had to be taken up to her bedroom by servants. In September, 1880, this lady had for the first time an attack of severe bronchitis; she passed through the winter at Pau, where she had a relapse. In the spring of 1882 severe spasmodic asthma associated with urticaria developed itself. She had once an attack of herpes. She has been troubled with fits of asthma during the last two years, and is worse in damp weather; always has some amount of dyspnœa, but the attacks come on in the evening with sense of tightness across the chest, and go off with cough and frothy expectoration. When in bed she is obliged to sit up. Many remedies appear to have been fully tried without any great benefit: iodide and bromide of potassium, arsenic, citrate of caffeine, and occasionally apomorphia, also some anti-asthmatic cigarettes whenever an attack was threatening. The fits of asthma come on in an ingravescent way at any time of day or night. On examination the chest was fully resonant under both clavicles, very feeble inspiratory murmur, with prolonged expiration over the chest; sibilant and sonorous râles are audible on both sides. The action of the heart is feeble but regular, pulse weak, tongue moist, no appetite. On July 24th she began treatment. I first advised her to drink every day half a glass of the Madeleine water, to stay a quarter of an hour in the aspiration room, and to take a foot-bath for six minutes at 4 P.M.—25th: Worse, fit of asthma next night, she could not continue the treatment the next day.—27th: Began again the same treatment; no asthma in the evening, she slept for a few hours. Continued every day increasing gradually the duration of inhalation of vapour; fit of asthma almost every night, but less severe. In a week's time the relief to all the symptoms was most remarkable. On Aug. 4th she could stay for forty minutes in the aspiration room, fits of asthma were less and less severe, expectoration easier. My patient began to eat and walk into her sitting room. On August 6th, I prescribed a spinal douche for six minutes at 94° F., no inhalation this day. A fit of asthma more severe next night.—8th: Two half glasses of water, another douche for six minutes; no asthma, she slept during four hours. I continued the douches every other day, alternating with inhalation of vapour and increasing the drinking with half a glass of water, and she had but one fit till the twenty-first day of the treatment. In this interval she got appetite, strength had returned, dyspnœa had improved: Miss W—— was able to get up by herself to her bedroom, and to walk in the park. She was allowed to rest for a fortnight, and afterwards began again another course of treatment of fifteen days. Every morning she stayed for forty-five minutes in the aspiration room, she took a half bath of six minutes at 104° F. at the Pavilion, alternated every other day with a spinal douche of five minutes. At the end of this treatment, my patient declared herself free from difficulty in the breathing, free from nocturnal fits, and cured. In fact, her strength had returned, she had gained in weight. In last February I saw her in London, looking stout and healthy. She had persevered, as I had prescribed, for some weeks with the Mont Dore waters, and she never got either cold or asthma, nor had she needed any treatment since she left Mont Dore last September.

CASE 2.—Mrs. B——, aged forty-five, living at Carlisle, came to Mont-Dore in July, 1884. Been liable to asthma for fifteen years; at times she was free for some weeks of all breath-difficulty. There is no history of gout or rheumatism in the family, nor any skin-disease. During the winter of 1883 Mrs. B——'s breath difficulty increased greatly; she went to Cannes to seek relief, but dyspnœa came on in an ingravescent way; she gradually got worse. On examination, patient has an extra-resonance of the chest; inspiration is difficult and noisy; expiration prolonged, with wheezy râles. Enlargement of liver; heart sounds weak and muffled; urine loaded with lithates; tongue moist. She complains of difficulty of breathing, cough, and copious glairy expectoration, obliging her to sit up at night. She is not able to move without suffocation. I prescribed as treatment every morning two half-glasses of the Madeleine water, thirty minutes of aspiration of vapour, a foot-bath, for six minutes, and a half bath of the Pavilion at 105° F.

every second day. This medication, well supported, was followed up for a week. Breathing appeared already easier, expectoration was less copious, and Mrs. B—— was able to walk a little in her bedroom. After a fortnight of the same treatment she persevered with three half-glasses and the half-bath of the Pavilion alternated with a spinal douche of six minutes. From this time oppression diminished greatly, strength returned, and Mrs. B—— felt well enough to go downstairs without help, and to be discharged. After a course of treatment of twenty-eight days she was able to walk a long time in the Park; dyspnœa had ceased; expectoration disappeared.

I think both these cases show the great importance of the aspiration of the mineral vapours, and of the use of the spinal douche in bronchial asthma.

ON A CASE OF THYROIDECTOMY.

BY THOMAS H. MORSE, F.R.C.S.,
ASSISTANT-SURGEON TO THE NORFOLK AND NORWICH EYE INFIRMARY, AND TO THE NORWICH JENNY LIND INFIRMARY FOR SICK CHILDREN.

THE subject of removal of the thyroid body having been lately under discussion, the following case which occurred in my practice may prove of interest.

The patient, a young woman aged twenty-two, six years ago first noticed a small swelling on the left side of the larynx, which gradually increased in spite of numerous remedies. From the time of its first appearance she suffered occasionally from attacks of dyspnœa. In 1881 she was in the Norfolk and Norwich Hospital, where, she says, the tumour was tapped, but no fluid came out; it was afterwards injected with iodine on several occasions. In the following year she was under the care of Mr. Hutchinson in the London Hospital. During all this time the tumour was gradually enlarging. In February, 1883, I first saw her, and from then till the date of operation it continued to enlarge, and the symptoms became more aggravated. In March, 1884, I sent her to London to consult Mr. Symonds of Guy's Hospital as to the advisability of removing the tumour; he recommended her to submit to the operation. The tumour at this time formed a considerable prominence below the chin, and extended from the level of the hyoid bone down into the chest behind the sternum; it occupied the whole of the centre and left side of the neck, displacing the various structures to either side; its surface was covered with a plexus of veins, and the omo-hyoid muscle from the left side was stretched obliquely across it. It was also partly covered by the lower attachments of both sterno-mastoid muscles, and the larynx was pushed over to the right side of the neck, so that the pomum Adami was situated close below the angle of the jaw. The left carotid artery could be felt pulsating quite superficially along the posterior border of the sterno-mastoid muscle. This displacement will be best understood if I mention that the distance between the thyroid cartilage and the left carotid artery, measured horizontally, was four inches. The upper part of the tumour was quite movable laterally, but its lower end was more tightly fixed in the upper aperture of the thorax. She could only walk slowly and had to keep stopping to get breath, as the least exertion brought on difficulty of breathing. On several occasions she suffered from attacks of dyspnœa lasting about an hour, during which time the face was livid, and she herself, as well as those around her, thought that death from suffocation was impending. Inspiration was prolonged even when sitting still. She also suffered from a constant dry laryngeal cough. The function of the œsophagus was not interfered with. Her general health was otherwise good, except that since I have known her she has been gradually getting thinner, her weight at the time of the operation being six stone and a half.

On April 4th, 1884, having made arrangements for the operation, I had the assistance of the following gentlemen: Dr. Firth, Mr. Donald Day, Dr. Doyle, and Mr. Pollard. Using the steam carbolic spray and other antiseptic precautions, an incision in the skin, five inches in length, was made from the hyoid bone to the sternum, over the most prominent part of the tumour. A plexus of veins covered the anterior surface of the tumour; these were divided one by one between two ligatures, notwithstanding which there was considerable loss of blood, and besides ligatures, six pairs of Sir Spencer Wells' artery forceps were in constant use. This part of the proceeding was somewhat tedious, as it seemed almost impossible to control the hæmorrhage. The tumour was enclosed in a more or less distinct capsule, which was not very easily separated in front, and appeared part and parcel of the tumour, doubtless owing to the iodine injections. The sides of the tumour were less firmly adherent and more easily separated with the finger. During all this time there was a general oozing of blood both from the capsule and from the surface of the tumour. Having first separated the upper end of the tumour, I was enabled by drawing it down, to tear it off from the pharynx and œsophagus, which formed the posterior boundary, the capsule being hardly distinguishable here. The lower end of the tumour extended down behind the sternum into the chest, and after its removal, the bottom of the cavity left was bounded on one side by the whole length of the innominate artery, on the other by the left common carotid artery from its origin upwards; these could be distinctly felt pulsating and apparently naked at the bottom of the wound. The left inferior thyroid artery was torn across, and severe hæmorrhage occurred from it. No distinct isthmus was seen, although from the situation of the tumour and the way in which the various structures were displaced I believe that the part removed represented the enlarged left lobe of the gland, in which case the right lobe was in all probability left *in situ*, not being abnormal in size. She had by this time lost a large quantity of blood, and was very faint. I therefore administered a subcutaneous injection of ether, after which the pulse improved. As many as twenty-four ligatures were used. The operation took an hour and a half. The parts returned easily to their natural positions; the wound was united with silver wire sutures, a drainage-tube having been inserted at the lower angle. The dressing consisted of green protective, iodoform gauze, Gamgee's absorbent tissue, a sponge compress, the whole being kept in position by a bandage. The tumour measured six inches in length, three and a half in breadth, and weighed fourteen ounces. It felt very firm, and was solid throughout except at one point, where was a small cyst containing about half an ounce of bloody serum. Mr. Symonds has kindly made a section of it for me, which shows the structure very beautifully. It consists of a stroma of fibrous tissue, containing large vesicles, lined with a single row of epithelium and containing in their interior a gelatinous so-called colloid material; some of these vesicles are larger than others. There are also to be seen a large number of small spheroidal cells of different sizes, which seem to be in a state of rapid proliferation; these, together with numerous bloodvessels, which can also be seen, would indicate a steady increase in size of the whole tumour, which corresponds with the clinical history.

The patient was much exhausted by the operation; her face and hands appeared perfectly bloodless, the pulse rapid and feeble; however, she slept at intervals during the night, and took a considerable quantity of liquid nourishment. For the first few days after the operation there was a large quantity of discharge, consisting chiefly of bloody serum. Twenty-four hours after the operation she complained of considerable pain when swallowing, and down behind the sternum, also in the back behind the shoulder-blades. At this time also the temperature rose steadily to 103°; the pulse was 120 per minute; she was extremely weak, and I began to fear suppuration in the mediastinum. During the following night an ice-bag was applied to the neighbourhood of the wound, and one of Leiter's leaden coils to the head; through this latter a stream of iced water was kept constantly running. She experienced the greatest relief from this treatment; the pain in swallowing diminished, and by the next morning the temperature had fallen to normal, and a severe throbbing pain in the head much lessened. By the third day her pain in swallowing had greatly diminished, and from this time her convalescence was uninterrupted. I never knew a patient to take such enormous quantities of liquid food, so much so that by the tenth day after the operation her diet had reached the following amount in twenty-four hours:—Twelve eggs, twelve pints of milk, three pints of beef-tea, half a bottle of port wine, two ounces of brandy, three oysters, and a small tin of Brand's essence. On the twentieth day after the operation she had so far recovered that I was able to move her into the country to complete her convalescence, as she was much worried by the constant noises in the town. The upper four

inches of the wound healed by primary union, but the remainder was not soundly healed until the end of seven weeks, as a deep sinus continued to discharge pus apparently from behind the trachea. By degrees the superficial veins began to appear and the colour returned to her face, and in two months from the time of operation she had gained in weight two stone, which she has maintained ever since, and is, I suppose, her normal weight when not interfered with by the presence of the tumour.

There is one very interesting point at the present time occupying the attention of surgeons, which is the probability of the occurrence of symptoms resembling myxœdema following the complete excision of the thyroid gland. Sir William Mac Cormac, in his address on Surgery, delivered at Belfast in 1884, has given a very complete summary of our state of knowledge up to that time on this subject.

The patient was exhibited before the East Anglian Branch of the British Medical Association in October, 1884, and also before the Norwich Medico-Chirurgical Society in March, 1885, up to which time she remained in good health, and showed no signs of any evil effect following the operation.

Norwich.

A CASE OF SO-CALLED CATHETER FEVER.

BY GEO. C. MACDONALD, M.R.C.S., L.R.C.P.,
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THE following case is of interest insomuch as it shows that some at least of these so-called cases of catheter fever are septicæmic in origin, and therefore, to a certain extent, capable of control.

James M——, aged fifty-five, a factory hand, was admitted into the Royal Edinburgh Infirmary for hæmaturia and frequent calls to micturate. His present illness commenced as a severe pain in the left lumbar region ten weeks before admission, for which he can assign no cause. The pain commenced on micturition, but subsided towards the close of the act. The desire was so great that he was forced to pass his urine, on an average, every hour and a half. The urine was clear, there being no blood or thickness noticeable. At times he would have a severe pain shooting down into the left groin and testicle, accompanied with a distinct rigor. This condition continued for fourteen days, when the desire to micturate became so aggravated that he was forced to seek relief every half hour. Eight weeks after his first attack of pain it suddenly left him, and he now, for the first time, noticed that his urine became tinged with blood towards the last few drops, accompanied by a severe scalding pain in the penis, but there was no pain on exercise. The blood now increased in amount until the urine became as black as porter. He had been under treatment for the last two months, but his medical man advised him to seek further advice. The family and personal history is good.

His present condition is as follows: Confined to bed, general development and muscularity fair; height, 5ft. 8½in.; weight, 10st.; temperature 98° to 99°; complains of slight sweats; skin soft and normal in colour; lungs normal for age. Genito-urinary system: Urine, dark, due to admixture of blood; reaction acid; sp. gr., 1009 to 1010; deposit of urates; amount varies from 90 to 100 ounces in the twenty-four hours; albumen present, due to the blood. The microscope reveals a great number of blood-discs and some amorphous urates; no germs or pus cells. Micturition is about every hour, accompanied with slight pain in the left lumbar region, where there is tenderness on pressure. The pain at times radiates to the testicle and end of penis. On rectal examination the prostate is found to be slightly enlarged. Diagnosis: Nephritic calculus probably passed into bladder.

March 8th (two days after admission): The hæmaturia is the same as when admitted. There are no casts nor any renal epithelium or organisms.—18th (twenty days after admission): The patient shows slight improvement, there being less blood. There is a little pus in the urine to-day; he complains of great pain at the end of the penis after micturition, also at the neck of the bladder; he cannot hold his urine longer than half an hour; no organisms.—19th: The patient was seen to-day by a surgeon, who thought perhaps the calculus from the kidney had been passed into the bladder; consequently he submitted the bladder to an exploration with Teevan's sound; but on attempting to withdraw the urine through the sound it was found that the plug was so fixed that it could not be removed. He therefore passed a red rubber catheter anointed with 1 in 20 of eucalyptus and olive oil. The patient was given immediately afterwards five grains of quinine and thirty grains of bromide of soda. No stone could be discovered.—20th: Temperature this evening went up to 99·4°; no rigor or any sensation of chilliness; pulse 60 (full); amount of urine passed sixty ounces; more pus and less blood than yesterday.—21st: This evening the temperature went up to 103·2°. The patient complains of great thirst; amount of urine passed fifty ounces; pupils normal; no nervous phenomena; pulse 96; micturition less frequent.—22nd: Temperature this morning 102°; at noon 102·8°; at midnight 101°. Urine examined at bedside, immediately passed into a clean vessel, shows as follows: reaction alkaline, smells fetid. By microscope a large amount of pus cells, a few red cells, and many rod-shaped bacteria. Ordered five grains of sulphate of quinine with fifteen grains of benzoate of soda, every four hours. Water removed from bladder by syphon action. Less urine has been passed to-day. Ordered fomentations over loins and bladder.—23rd: Temperature this morning 100°. Says he feels better; not so thirsty; urine not so fetid, and contains less pus. He, however, sweats profusely, but has passed a better night, being in less pain. No action of bowels. Ordered colocynth with hyoscyamus pill (ten grains) at bed-time.—24th: Temperature: morning 99·8°; evening 101·4°. Sweats continue. Urine still contains rod-shaped bacteria. Amount passed 100 ounces. Bowels moved three times.—25th: Temperature 97·4°, showing a marked fall; evening 99·4°. Amount of urine sixty ounces. Less pus; still fetid and contains bacteria. Sweats still present. Bowels moved once.—26th: Temperature 99°. Amount of urine 100 ounces.

April 3rd.—The state of the patient's urine is much improved as regards bacteria, which, however, are still present, the urine continuing to be alkaline in reaction. He still complains of the old pain in the left lumbar region under cataplasm liniment to loins.—4th: The old pain is still complained of this morning. In other respects he is *in statu quo*.

Remarks.—My term of office having expired, I lost sight of the patient, but I believe he left the hospital very much in the same condition as in the last report, the germs still remaining. The presence of the bacteria in the urine I believe to have been due to the employment of Teevan's sound, the interior of the instrument being probably dirty, and consequently loaded with septic germs. I think that this case plainly shows that the proper treatment of these septic bladder conditions is the drainage of the viscus by the syphon action, thus removing the major part of the bacteria, followed by large doses of quinine and benzoate of soda, in the hope of lessening the alkalinity of the urine, and with the hope of thus bringing about the death of the germs. Lastly, that fatal terminations may be looked for in such cases without probably much organic change in the kidneys, the cause of death not being uræmia, but septicæmia.

Duchess-street, W.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

COMMUNICATION BETWEEN SMALL INTESTINE AND BLADDER; TUBERCULOSIS; DEATH; NECROPSY; REMARKS.

(Under the care of Mr. CROFT.)

FISTULOUS communication between the bladder and the intestinal tract above the rectum is usually the result of malignant ulceration which has extended from the sigmoid flexure into the bladder. Tubercular ulceration rarely produces such a condition. In this case the local signs were very few and the absence of chest symptoms, although

extensive tubercular disease of the lungs, was found post mortem, rendered exact diagnosis difficult.

For the following notes we are indebted to Mr. W. F. Ward, dresser.

John R——, aged sixty, a wine cooper, was admitted under the care of Mr. Croft on February 4th and died on February 27th, 1885. Family history: Parents both died at the age of seventy-four, cause of death unknown. The father suffered from rheumatism. Three brothers and one sister healthy. No history of phthisis or malignant disease. Until six weeks before admission, when he first felt pain on micturition, he had always been healthy. He had not had gonorrhœa and had never passed gravel. Pain was felt at the commencement of the act of micturition. The stream of urine was smaller than formerly, and he says that it sometimes stopped suddenly. A month ago the urine became thick with sediment and of a port-wine colour. Lately micturition had been very frequent, about twenty times in the night. He had lost flesh rapidly, about two stone in the six weeks.

The patient, an emaciated man, with sallow complexion and dilated capillaries in the cheeks, complained of frequent and painful micturition. The abdominal walls were lax and there was no tumour to be found, percussion eliciting a tympanitic sound all over. There was tenderness in the region of the bladder but no pain. There was a small ventral hernia. Urine, sp. gr. 1019; slightly acid. It contained no albumen; it was thick, of a brownish-yellow colour, and deposited a copious sediment. Microscopically, pus, blood-corpuscles, and vegetable fibres were seen. Tongue was dry, and he was thirsty. Pulse about 80, full and compressible. Morning temperature 98·8°; evening 102·2°.

Feb. 6th.—The patient feels well, and has no pain except when passing urine. Appetite very fair. He does not sleep well.

9th.—He complained of discomfort in the abdomen, which disappeared after the administration of an enema. He was sounded under ether, but no calculus was found.

16th.—Feeling rather better and able to retain urine for a longer time. Urine, sp. gr. 1016; very offensive in odour; other characters similar to those found on admission. The abdomen had flaccid walls. There was no distension and no tenderness on palpation. No tumour could be felt on palpation.

18th.—A mixture containing dilute sulphuric acid, tincture of opium, tincture of perchloride of iron, and infusion of calumba was ordered.

20th.—Urine passed in smaller quantity. There has been an evening rise of from one to two degrees since admission, the morning temperature being usually about 99°.

22nd.—Diarrhœa; frequent, loose, yellow, and offensive motions commenced and continued until his death on the 27th. The bowels acted from six to eight times in the twenty-four hours, there was much hiccough and loss of appetite, and very little urine was passed. During the last few days he became restless and delirious, on the day of his death the skin becoming cold and clammy. Pulse 128; temperature 99·4°. After the 20th there was no rise of temperature above 100° nor fall below 98·4°. He had emaciated greatly. During the whole of this time there had been no cough or symptoms of lung disease.

Necropsy, made on the following day by Dr. HADDEN.—On opening the abdomen the small intestines were adherent to each other by organised lymph, but were separable on slight force. No tubercles were seen. At the points of contact there were longitudinal red streaks. There were dots and lines of pigment scattered over the peritoneum covering the small gut. On removing the viscera from the abdomen a fistulous communication was found between the ileum and the bladder, both parts being pretty firmly adherent. In the portion of ileum examined typical tubercular ulcers were found, fairly extensive near the ileo-cæcal valve. On the floor of some there were solitary miliary tubercles. The edges were raised and thick, and the ulcers did not extend apparently beyond the mucous coat, excepting in the neighbourhood of the bladder, where some had penetrated into a cavity situated near the summit of that organ, which again communicated with the bladder by a small opening. The cavity above mentioned was formed by intestine, bladder, and surrounding semi-organised lymph. Pleuræ firm and extensive; adhesions on both sides. In each lung mixed bronchopneumonic and tubercular disease, distinct miliary tubercles being visible. There were also old caseous nodules. Other organs fairly healthy.

Remarks.—This man was admitted under Mr. Croft's care for cystitis. A local cause for that condition was carefully sought for, but none was discovered. In the course of a few days feculent matter appeared in the urine, and the nature of the case became less obscure. As no consistent feculent material troubled the bladder or was perceptible, and as the starch and vegetable tissues when examined microscopically were not in an advanced stage of digestion, it was inferred that the small intestine had opened into the bladder. Whether this ulceration had been the result of a cancerous or tubercular new growth there was no positive evidence; indeed no tumour could be traced. Clinically and pathologically the case is one of interest, and worth recording.

DUNDEE ROYAL INFIRMARY.

MALIGNANT ENDOCARDITIS FOLLOWING A SLIGHT INJURY TO KNEE; DEATH WITHIN FOURTEEN HOURS OF ADMISSION; NECROPSY; REMARKS.

(Under the care of Dr. SINCLAIR.)

DURING the present year a great deal of attention has been given to the disease known as ulcerative endocarditis, and from time to time we have published cases in the "Mirror" (Jan. 13th and March 21st). We would refer also to the lectures by Dr. Osler published March 7th, 14th, and 21st.

For the clinical record of the following case we are indebted to Mr. W. Gibb, medical assistant; and for the notes of the post-mortem examination to Mr. A. M. Stalker, M.A., M.B., pathologist.

G. B——, aged twelve, was admitted at 5.30 on the afternoon of Jan. 10th, 1885, in a delirious and unconscious condition. No history could be obtained from anyone until after his death, which took place on the following morning, the patient never having regained consciousness. His uncle then stated that on Thursday, Jan. 8th (two days before admission), the patient came home from school complaining of pain in his left knee, caused by a fall in the playground; he took to bed and began to shiver, this was attributed to "cold." On the Saturday he became unconscious; and the case being certified as "typhoid fever," he was removed to the infirmary. On admission the temperature was 105·2°; cardiac pulse 168. Patient delirious, very noisy, arms and legs stiff, constantly changing his position, legs drawn up, and muscles hard; slight herpes on lower lips; no mark of external injury, and no typhoid spots.

Examination of chest showed dulness at left apex in front with harsh breathing. Apex beat of heart absent and no radial pulsation. Continually moaning and occasionally crying out loudly. Ordered nepenthe draught, and after three doses he became considerably quieter. At 10 P.M. the left pupil was observed to be enlarged, the right contracted; later on they were both enlarged and acting sluggishly to light. At 1.15 A.M. on Jan. 11th the temperature was 103·6°, and at 7.15 A.M. (fifteen minutes before death) it reached 104·8°. From midnight until his death the patient was comparatively quiet, expiring suddenly at 7.30 A.M.

Necropsy (Jan. 12th).—Body well nourished. The only external mark was a small scar on the left knee; on the dorsum of the right foot there was a small abscess about the size of a pea, just under the skin. On opening the thorax, the lungs were observed to be deeply congested, especially the left at the apex. The heart showed numerous luxuriant vegetations on the mitral valve, and some other slight vegetations on the aortic valve. There was freshly deposited lymph on the front of the epicardium; and at the intermuscular septum there was an abscess under the epicardium, about the size of a pea. There was about half an ounce of fluid in the pericardial cavity; some clear fresh lymph was deposited over both pleuræ, but very sparingly distributed. Abdomen: No evidence of peritonitis. Right kidney weighed four ounces and a half; numerous abscesses were seen under the capsule, about the size of a pin-head, consisting of a yellow spot in the centre, with narrow area of congestion around. About half a dozen abscesses, the size of a pea, were seen extending inwards into the cortex about half an inch. The left kidney weighed four ounces; there were numerous pin-head abscesses here, the same as in the right, but no larger ones. Spleen large and congested, with three or four forming abscesses, a quarter to half an inch in diameter. Liver normal. Brain normal to appearance. Ventricles dry.

Remarks by Dr. SINCLAIR.—Any well recorded case of this grave malady is always interesting and must be specially so

at the present moment, when we are all fresh from the perusal of the able Gulstonian Lectures of Dr. Osler of Philadelphia. It is matter for regret that this case was little more than twelve hours under observation, and that we were absolutely without any history until after the patient's death. It so happens, however, that he was seen shortly after admission, though at different times, by my friend Dr. Stalker and myself, and that we both expressed the opinion, quite independently of each other, that we should have pronounced the case as one of pyæmic infection had any cause been ascertainable. The cause, an injury to the knee, was obtained after death. It will be observed that here, as in most cases of malignant endocarditis, as Dr. Mitchell Bruce has well put it, "the phenomena of cardiac inflammation are comparatively subordinate to those of general infection."[1] It will be noted also that the patient was of an age at which the disease is comparatively rare. There were none of the antecedent sclerotic changes in the valves which have been so frequently observed. The lesions were of the vegetative and suppurative character, and, as is usually the case, were strictly limited to the left side of the heart. It is not difficult to understand the causation of the other pathological changes in the spleen and kidneys when the systemic circulation was being continually poisoned from the endocardial foci. I hesitate to express an opinion as to the possibility, or rather perhaps as to the probable frequency, of primary protopathic endocarditis, for which Dr. Osler pleads with great plausibility, because I have been so unfortunate as to have seen very little of malignant endocarditis. But I would venture to cast my opinion, whatever it may be worth, on the side of those who think the primary affection must be very rare. If in any case I could find no sufficient cause external to the heart, I would still hesitate to class it as primary, if I discovered any chronic valvular change, for the obvious reason that this of itself would form a starting-point which might, on very slight provocation, light up an acute destructive inflammation sufficient to inaugurate secondary pyæmic changes. Year by year, primary abscess of the brain—a somewhat analogous case in some respects—is becoming more rare, and is regarded by many as hardly existing, because careful inquiry usually discovers an antecedent disease or injury of the skull, most commonly of the temporal bone. In short, both ulcerative endocarditis and abscess of the brain usually owe their existence to some external cause, and the fault is usually ours if we fail to find it. Dr. Osler has, to some extent, lent the weight of his high authority to this view in his lectures. "Many of the cases occur after very slight injuries, as having a hangnail or corn; a sloughing pile; or the passage of a sound through a stricture."[2] Such a slight cause is only too apt to be overlooked. In the case above recorded, a comparatively trifling injury to the knee was sufficient to set up an attack which proved fatal in a very few days.

Medical Societies.

OBSTETRICAL SOCIETY OF LONDON.

Serous Perimetritis.

A MEETING of the above Society was held on Wednesday, June 3rd, Dr. J. B. Potter, F.R.C.P., President, in the chair.

The following specimens were shown:—By Dr. Gervis: Pessaries of Gelatine containing Glycerine and Boroglyceride. By Mr. Doran: A specimen showing Endometritis, Salpingitis, Oöphoritis, and Perimetritis, with Rupture of the Tube. By Mr. W. Griffith: A specimen of large Serous Perimetritis, producing complete intestinal obstruction, and evacuating itself by sloughing processes.

Dr. JOHN WILLIAMS read a paper on Serous Perimetritis. An account of three well-marked cases was given, and a description of the appearances after death in one. Dr. Williams concluded that the disease was due to extension of inflammation from the uterus; that it commenced in the peritoneum in the neighbourhood of the ovaries, and extended along the brim of the pelvis, matting the intestines to the fundus of the uterus, and converting the pelvic cavity into a closed sac. Into this sac serum is effused, which raises the uterus upwards and forwards, and depresses the posterior wall of the vagina so as to protrude through the vulva in some cases. The effused serum becomes coagulated at the upper part, where adhesive peritonitis is present, and forms in some cases a considerable mass. This mass fixes the uterus and is the hard swelling felt after tapping.—Mr. KNOWSLEY THORNTON had seen two cases of the disease, one of which had recovered after tapping and drainage, and the other (presumed to be a similar case) had died without local treatment and without an autopsy. He urged that the connexion of the onset of these cases with delivery, abortion, and sudden checking of the menses points to escape of fluid from the Fallopian tube. The fluid, however, is not septic, as would be expected; indeed, if it becomes septic (as after tapping), the case almost always ends fatally in the absence of a free opening and washing out the cavity. The disease is practically a separate disease from ordinary pelvic peritonitis and cellulitis, with which all are familiar. The material causing serous perimetritis is evidently very irritating, as shown by the dense adhesions. He inquired whether the same solid material described by Dr. Williams was the result of irritation or of secretion under pressure. The pressure is indicated by the great pain accompanying the disease. As to treatment, aspiration is inferior to free opening by a trocar and maintenance of the opening so formed, with washing out of the cavity. Nothing answers so well for this purpose as a Cock's trocar and cannula, with a Wells' retaining spring for the cannula.—Dr. GERVIS thought that cases of slight severity were not very uncommon. He differed from Dr. Williams in his explanation of the pushing of the uterus upwards and forwards, as also in hæmatocele. Dr. Williams thought this only occurred after the formation of adhesions, but Dr. Gervis had seen many cases in which this displacement occurred almost immediately after the effusion and before the fluid could have become encysted.—Mr. DORAN agreed with Dr. Williams as to the usual route of the extension of the inflammation—namely, from the uterine cavity and along the tubes. In Dr. Matthews Duncan's book of "Parametritis and Perimetritis" a case is related in which the sound could be easily passed through the left tube into the peritoneal cavity. The rarity of serous perimetritis is probably due to the necessity of a combination of factors—namely, patency of the tubes, a particular sort of inflammation producing the effusion of serum, and the formation of a closed cavity by adhesions. Perimetric inflammation may be of parametric origin, by way of extension, but this is probably rarer than its origin as above described.—Dr. GRAILY HEWITT pointed out the analogy between effusion into Douglas's pouch (serous perimetritis) and effusion into the broad ligament (parametritis); the only difference being that of position. He thought the diagnosis of serous perimetritis from hæmatocele very difficult.—Dr. GODSON believed serous perimetritis was not so rare as the author thought, and that its diagnosis from hæmatocele was often difficult. In Dr. Greenhalgh's time the ward at St. Bartholomew's had always several cases headed "Hæmatocele," and cases with the same characteristics were called by Dr. Matthews Duncan "perimetritis." As neither tapped these swellings, their pathology was so far doubtful. Dr. MATTHEWS DUNCAN esteemed highly this contribution to pathology, and especially the post-mortem in one of the cases. In Dr. Duncan's cases the fluid always ran off as in a perimetritic abscess, and he had no experience of the solid matter described by Dr. Williams. He had seen the serum set after it was drawn off, but he required full assurance as to its formation in the cavity containing the fluid.—Dr. CLEVELAND thought the use of the thermometer had not been sufficiently dwelt upon in the differential diagnosis between serous perimetritis and hæmatocele.—Mr. W. GRIFFITH thought that the great difference of opinion among the speakers arose from the want of a precise definition of serous perimetritis. Some, who thought the disease rare, limited the term serous perimetritis to cases with large effusion. He believed serous perimetritis to be the commonest form of perimetritis by the analogy of pleurisy with effusion of serum and that of other inflammations of serous membranes, and by the displacement of the uterus and its rapid subsequent retreat. The specimen which he showed illustrated the occasional sudden disappearance of the signs, the serum escaping by rectum, vagina, and bladder, and not showing its presence as pus would.—Dr. GALABIN had met with a fair number of cases in which encysted serous perimetritis

[1] Quain's Dictionary of Medicine, p. 609. [2] Lecture ii.

had been diagnosed, and the diagnosis confirmed by the gradual disappearance of the swelling and the recovery of the patient. In one case, the resemblance to an ovarian cyst had been very close, a fluctuating swelling in Douglas' pouch being felt as a tumour reaching above the navel. A diagnosis of serous perimetritis was made because of the acute inflammatory symptoms with which the affection began. It eventually disappeared completely. He had only once tapped a serous perimetritis, and that in consequence of an error in diagnosis. Tapping was generally inadvisable. His case illustrated the fact that these cases may sometimes have the rigors and high temperature usually thought to indicate pus. It was aspirated, and clear serum drawn off with antiseptic precautions. The patient became worse, showing septic symptoms, the swelling filled again; a free incision was made, a large drainage-tube kept in, and the cavity washed out with a weak solution of iodine. The patient recovered after a serious illness.—Dr. CHAMPNEYS had noticed the flakes of lymph described by Dr. Williams in fluid recently drawn from a case of serous perimetritis under his care. He had lately had a case in St. George's Hospital in which a pouch of clear serum existed side by side with an ordinary pelvic abscess. As regards the surgical treatment, it must be remembered that the walls of the cyst are dense and unyielding, and would not readily collapse; in this lay one of the dangers. If such a collection were opened, antiseptic treatment should consist of careful antiseptic cleansing of the vagina and of the instruments; and in addition, he believed that it was well to leave an iodoform pessary, which would melt slowly, in the vagina, as a precaution against any germs which might attempt to gain an entrance. He believed that a differential diagnosis without tapping was impossible more often than not. He would remind Mr. Griffith that a very small enlargement of a pelvic organ—such as an ovary—is sufficient to displace the floating uterus, and that displacement was not an absolute evidence of effusion.—Dr. WILLIAMS, in reply, said that his first case was improved by tapping; that she died from severe diarrhœa, for which there was ample cause other than sepsis, and the contents of the sac were quite sweet and antiseptic after death. The little serum at the bottom of the sac was clear and sweet. As to the rarity of the disease, Dr. Williams was surprised to hear from several speakers that they had seen several such cases. There were only about half a dozen cases on record, and the majority of the systematic writers on the diseases of women said little or nothing about it. The three cases recorded in the paper were the only three that Dr. Williams had seen and recognised. Mr. Doran's ingenious explanation of the extension of inflammation along the Fallopian tube to the peritoneum in some cases and not in others was deserving of attention and study. Dr. Williams thought it probably a correct account of what took place. Dr. Matthews Duncan asked if the solid serum was the result of post-mortem change. Dr. Williams thought it was not, because the solid mass was discovered by Dr. Hewitt and himself during life above the layer of fluid in the most dependent part of the sac, flakes of it were passed in the second case; and in the three cases a similar hard mass was discovered at the top of the sac during life, and Dr. Matthews Duncan had found the same physical signs after tapping—signs which the presence of the coagulated fluid fully explain.

Mr. WALTER GRIFFITH showed a specimen of Pseudo-osteomalacic Pelvis of Naegele. It was bought in Paris by Professor Humphry of Cambridge, and lent by him. It was obviously rachitic, but had some of the characteristic deformities of mollities, including a much-curved, instead of a flat sacrum, much-curved iliac fossæ, and a triangular in place of the usual flat brim; the posterior part of the ilia was moulded round the sacrum. The pubis, however, was not beaked, as was the case in other specimens of this type. It was suggested that the cause of this unusual deformity was a severe form of rickets occurring later in childhood than usual. References were given to other recorded specimens, and to papers on the subject by Smellie, Dr. John Burns of Glasgow, Naegele, Michaelis, Litzmann, and Spiegelberg. Photographs and detailed measurements were also given.—Dr. CHAMPNEYS regretted that the author had not adopted the plan which he had himself followed when he had brought abstruse pelves before the Society—viz., that of leaving the specimen on view with the paper at the library for the study of Fellows. Speaking from a cursory view of the pelvis, he thought the disease appeared to have attacked the pelvis unequally, the posterior parts being much more deformed, and bearing much plainer evidences of softening, than the anterior parts. The specimen was of great interest.

ACADEMY OF MEDICINE IN IRELAND.

AT a meeting of the Surgical Section, on March 20th,

Mr. WHEELER read a paper on Complete Excision of the Clavicle for Osteo-sarcoma, and on Partial Excision of the Clavicle for Necrosis. Both patients recovered, and he had seen the first nine years after the operation; he was in good health, and had admirable use of his arm.—The PRESIDENT suggested that the paper should have been entitled "Excision of Diseased Clavicle," instead of "Excision of the Clavicle." Excision of the healthy clavicle was of easy performance; but that of a diseased clavicle was an operation of great difficulty, according to the disease affecting it. The power preserved in the upper extremity was wonderful, as though the patient had some power of supplementing the want of the bone.—Mr. TUFNELL, having had the opportunity of witnessing both operations, called attention to the advantage of previous examination of the chest and kidneys. In the case of the man on whom Mr. Wheeler had operated, both were found sound, and but for the examination the operation would not have been performed.—Mr. WHEELER, in reply, said the reason he did not actually entitle his paper "Excision of Diseased Clavicle" was that at the outset he stated it to be a case of osteo-sarcoma.

Mr. WHEELER also read a paper on Excision of the Shoulder.—Mr. THORNLEY STOKER recognised the result of Mr. Wheeler's skill in the example exhibited to be almost beyond criticism. But he challenged Mr. Wheeler's statement that it was necessary to fall back upon military statistics for a knowledge of the success attained in dealing with gunshot injuries. There was no parallel in the conditions of operating for gunshot injuries in the field and operating in civil practice for disease, the circumstances and surroundings being entirely different, and also the fact of the well-known mortality attending operations in the field.—Mr. BARTON concurred with the author that the operation of excision of the shoulder was rare, but in the reasons for it the most important one was omitted—namely, that the shoulder-joint was subsidiary to the movements of the scapula on the ribs. The condition of an ankylosed shoulder was very different from that of an ankylosed elbow, which rendered the upper extremity useless, and therefore a recognised operation which every surgeon would perform. But an ankylosed shoulder-joint was by no means useless. The supplemental movement of the scapula on the ribs gave such a wide range of motion that it became unnecessary to operate. For his own part, instead of a straight incision through the deltoid muscle he preferred a U-shaped incision posteriorly, about the middle of the scapula, and taking in the posterior edge of the deltoid, as giving ready access to the joint, and natural drainage. He was not obliged to do more than scrape off the diseased cartilage from the glenoid cavity.—Mr. WHEELER, in reply, said Mr. Stoker had missed his remark that for comprehensive statistics they had to go to military surgery, because in civil practice the operation was comparatively rare. As to the well-known mortality in the field, the statement was open to exception, because in Larrey's cases all the first succeeded, whereas in the Schleswig-Holstein campaign there appeared to have been great mortality following amputations of the shoulders and legs; and, again, in the next serious battle cases of excision of the shoulder did very well. It was therefore unaccountable why there was great mortality consequent on operations on some fields of battle and very little on others.

Mr. SWAN read a paper on Condylotomy by the Osteotome for the Treatment of Knock-knee. He had practised Mr. Reeves' operation exclusively, but he had found it futile to avoid entering the joint. During the past four years he had operated on sixty-eight individuals, and 129 knees in all were operated upon. The ages ranged from nineteen to three years and a half. Nineteen had both knees operated on simultaneously. Suppuration occurred only twice, and all the cases recovered with useful limbs.—Mr. HAMILTON had witnessed a good many of the operations, and considered the Section indebted to Mr. Swan for his record and its successful character. Like the peritoneum, the surgery of the knee-joint had during his time undergone a revolution. The simplicity of the operation, as done by Mr. Swan, was

marvellous, and the results had been most satisfactory. It was a source of pride that Dublin was not behindhand in the great advance made by orthopædic surgery within the past few years.—Mr. THOMSON congratulated Mr. Swan on his valuable contribution to orthopædic surgery. Having seen several of the cases, he could testify to the skill with which the operation had been done, and to its apparent simplicity.—Dr. R. M'DONNELL also congratulated Mr. Swan, many of whose cases he, too, had seen. The results were amazing, and such as a few years ago none could have believed. He had himself learned a severe lesson, having lost a patient from the simple operation of aspirating, though it was done with the greatest care, and with an instrument which had never been used before. The result of that case, which he published as a warning to others, made him timid in meddling with knee-joints.—Mr. BARTON concurred as to the value of the communication in proving that the surgery of the deformity in question was on a basis of security. But it would be a mistake to conclude that, because Mr. Swan was able to bring forward so many cases with such a happy result, therefore Reeves' method was *par excellence* the best. He regarded Macewen's as superior to it, although he had not tried Reeves'. The results of Macewen's operation in fourteen or fifteen cases in which he had operated were exceedingly successful, as showing that it was free from danger, that recovery was rapid, and the condition of the limbs thoroughly satisfactory. Therefore, supposing Mr. Swan's sixty-eight cases to have resulted in perfectly straight limbs, if Macewen's method could turn out limbs quite as good it ought to be preferred, since the joint was not opened. Indeed, with proper precautions Macewen's operation might be performed on both knees at the same time without risk of rise in temperature, or of suppuration.—Mr. WHEELER considered it impossible to perform Reeves' operation without opening the joint.—The President pointed out that the operation performed by Dr. R. M'Donnell was for a joint already diseased, whereas Mr. Swan's operations were all in the case of healthy joints.—Mr. SWAN replied. Without expressing an opinion in favour of either operation, he was disposed to think that the freedom of the incision, the patulous condition of the osseous opening, and the easy escape of fluid, conduced to the immunity from risk. He used the spray as a concession to prejudice, but he had not used it in the last twenty or thirty cases. At the same time, he followed antiseptic surgery, and always dressed a case under the spray, thereby feeling confidence, and the method being useful in moistening the dressings.

Reviews and Notices of Books.

A Text-book of Pharmacology, Therapeutics, and Materia Medica. By T. LAUDER BRUNTON, M.D., D.Sc., F.R.S., Lecturer on Materia Medica at St. Bartholomew's Hospital, &c. &c. Adapted to the United States Pharmacopœia by FRANCIS H. WILLIAMS, M.D. Boston. London: Macmillan and Co. 1885.

IN a recent article in THE LANCET we pointed out that to the term pharmacology is no longer assigned the old significance which it bore as a synonym of materia medica. It is the science of the action of remedies, and deals with the modifications produced in healthy conditions by the operation of substances capable of producing modifications. It is essentially a branch of physiology, and is equivalent to the phrase "the physiological action of drugs." It constitutes, as has been very justly remarked, the chief basis for the application of remedies in disease, and is the connecting link between materia medica on the one hand and the art of medicine on the other. That it has hitherto been but imperfectly taught in our medical schools is generally admitted, and the explanation usually given is that it is impossible to teach it well because there is no trustworthy text-book on the subject in the English language. The appearance of Dr. Lauder Brunton's comprehensive work will save us from this reproach in the future. That its publication has been so long delayed is a subject for regret, but it is so complete, even to the minutest detail, that we cannot help feeling that we have not waited in vain.

The work opens with a chapter on the relations between the organism and substances by which it is affected, a subject which is dealt with in a manner possible only to one who is both a chemist and a physiologist. The second chapter, treating of circumstances affecting the action of drugs on the organism, is a masterly essay deserving careful study and consideration. From the outset it is seen that the work has little in common with the old-fashioned books on materia medica. It is not a mere collection of dry facts and technical details, but a scientific treatise worthy to be ranked with the highest productions in physiology, either in our own or any other language. The information is conveyed in a form in which it will be readily assimilated even by a first year's student. The author commences with the simplest facts, and gradually step by step leads up to the latest development of science. Everything is practical, the dry, hard facts of physiology being pressed into service, and applied to the treatment of the commonest complaints. It is a book of study for the scientist, and a work of reference for the practical physician. The information is so systematically arranged that it is available for immediate use. The index, which is divided into three parts, occupies considerably over a hundred pages, and is so carefully compiled that a reference to any special point is at once obtainable. The arrangement of the type is novel, and enables the reader to see almost at a glance in what cases, or under what circumstances; the use of any particular remedy is indicated. Dr. Brunton is never satisfied with vague generalities, but gives clear and precise directions for prescribing the various drugs and preparations which he recommends. Much of the work is the result of his own observation and mature experience; but where he has had to rely on the statements of others, he has been most careful to assign to them their full share of credit. The references to foreign literature are wonderfully complete, and will be of great assistance to original workers. There can be no doubt that the publication of this text-book will have an important influence in improving the status of pharmacology in this country. That materia medica as an educational agent is a thing of the past is certain, and it is equally certain that its place will be taken by a systematic study of pharmacology. The whole subject has of late years been undergoing a gradual but slowly progressive change. We congratulate Dr. Lauder Brunton on the appearance of his masterly work which will ever remain a monument to his genius and industry, and we congratulate students on being at last placed in possession of a scientific treatise on a subject of enormous practical importance.

Elementary Text-book of Zoology: Special Part. Molluscs to Man. By Dr. C. CLAUS, Professor of Zoology in Vienna and Director of the Zoological Station at Trieste. Translated and Edited by ADAM SEDGWICK, M.A., and F. G. HEATHCOTE, B.A. With 706 Woodcuts. London: W. Swan Sonnenschein and Co. 1885.

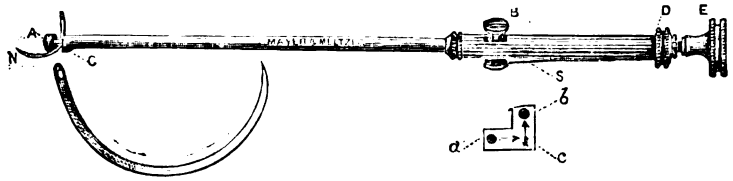
THE second volume of Mr. Sedgwick's translation of Claus' Elementary Text-book of Zoology has appeared very speedily after the first. It includes the Molluscs, Molluscoidea, the Tunicata, and Vertebrata. Though essentially a treatise on Zoology, the present work differs in an important respect from the older books on the same subject in giving not only the differential characters of the various families with their distribution, but a good, though short, account of their internal organisation. Thus, to give one example: in the Cephalopoda, which are defined as Molluscs, with well-defined head, "a circle of arms bearing suckers round the mouth, and funnel-shaped, perforated foot, dicœcious," the chief forms are lightly sketched, and a description given of the funnel, the chromatophores, the cartilaginous skeleton, alimentary canal, nervous system, sense organs, respiratory and circulatory systems, the sexual

glands, and finally of the development of the group. This section alone is illustrated by sixteen well-executed woodcuts. In the account of the other groups also illustrations abound of typical examples. With this work, a good museum at hand, and a set of dissecting instruments, the student might obtain a very fair and full knowledge of the animal kingdom, such knowledge as would prove serviceable to every medical student, and would give him such general information as would render the study of human anatomy extremely interesting. We must congratulate Mr. Sedgwick on having executed an excellent translation of a very useful book, and Messrs. Sonnenschein on the admirable manner in which it is got up, the type, and especially the woodcuts, being extremely clear and good.

New Inventions.

A NEW NEEDLEHOLDER FOR VAGINAL OPERATIONS.

THE needleholder shown in the accompanying sketch, though not apparently much like Hagedorn's, is really a modification of that valuable instrument. It was designed for using with Hagedorn's needles, and with the view of obviating certain inconveniences which had been noticed in using his holder. These defects were remarked upon some time back by Mr. J. W. Hulke, when, in the course of an operation for a vesico-vaginal fistula, in which it was necessary to reach the posterior fornix, he used Hagedorn's holder for putting in the sutures. The two principal objections which he raised to that instrument were the following: (*a*) The forceps handles of Hagedorn's instrument make the hand occupy so much space that it cuts off the view into the vagina, and cause inconvenience in other ways where the space is so limited as it is about the vulva. (*b*) When a considerable thickness of uterine tissue has to be included in a suture, the needle sometimes slips, the grip of this holder upon the needle being scarcely firm enough to hold against such resistance as is then encountered. In addition to these defects it was found that when Hagedorn's holder is held in some positions, it is difficult to get at the releasing apparatus without changing the position of the grip of the hand upon the instrument to a considerable extent, and in so doing running the risk of displacing the needle from the tissues into which it has penetrated. The instrument which is here shown meets these objections in the following manner. Regarding (*a*), the difficulty is overcome by doing away with the forceps-like form of the instrument, and by having instead a round handle about three-quarters of an inch thick. Regarding (*b*), the grip of the instrument upon the needle can be almost indefinitely increased, as the needle is grasped by means of a clamping screw. This screw is cut with a very fine thread, and being worked with a large milled head, can be made to take an exceeding firm hold. To obviate the remaining defect, in the new instrument the needle is released by a trigger-like action, the release being effected by pressing against a button with the thumb. There are two of these buttons on this instrument, and they are so placed that in whatever position the instrument might happen to be grasped, one of them would be presenting to the tip of the operator's thumb. The instrument has been made by Messrs. Meyer and Meltzer of Great Portland-street, and I am much indebted to them for the skill with which they have carried out my designs. The instrument has been used by Mr. Hulke for a case which presented about as much difficulty in reaching the fistula and putting in the sutures as would be likely ever to occur. He said after the operation that the instrument was the most efficient he had ever yet used for the purpose.



A and C are copper-faced pieces, between which the needle is grasped, A being pressed against C by a clamping screw (inside the shaft of the instrument) worked by the large milled head, E. D is another milled head fixed on the handle for the purpose of giving a firm grip when clamping a needle in with E. B is the pressure knob (there are two of them) for releasing the needle. It works in a rectangular slot in the handle shown on a larger scale below in the diagram. When the instrument is ready for use, with a needle clamped into it, B is in the position *b*. To release the needle, B is moved by the thumb from *b* to *c*, and it is then shot from *c* to *a* by a spiral spring inside the handle. To replace the needle for another stitch, E is slackened half a revolution, and then pulled on. By this means B is moved from *a* to *c*, and then shot from *c* to *b* by the small spring, S, when the needle can be replaced between A and C, and clamped there by means of the milled head, E. N is a needle clamped in the instrument, and ready for use.

Appended hereto is a sketch of the instrument, and a short description of its working parts and the method of using it.

ARTHUR E. NEVINS,
Middlesex Hospital. One of Mr. Hulke's late Dressers.

PATENT POSTAGE STAMP AFFIXER.

WE have had submitted to our notice a machine for affixing postage stamps which has been invented and patented by Mdlle. Victoria De Bunsen. By its use the injurious habit of wetting with the tongue the stamps and flap of the envelope is obviated, and as it is stated that 100 stamps can be affixed in five minutes by an experienced person with this machine, it is apparent that by its use a vast waste of time will be avoided by those who are in the habit of using stamps in any considerable number. Not the least merit of the apparatus is its simplicity and the absence of complicated movements in its employment. It is exhibited in the International Inventions Exhibition, where it may be inspected by those interested in such an appliance.

HOLLOW EYE SPECULUM.

To the Editor of THE LANCET.

SIR,—In a description of a hollow eye speculum (THE LANCET, June 20th, p. 1130) Mr. E. Treacher Collins does me the kindness to refer to my lid-irrigator described by me at the meeting of the British Medical Association at Belfast last year. As an illustration of parallelism in ideas, allow me to say that the first idea of my contrivance was a douche passed through the two limbs of a speculum. But a modification was made into the present lid-irrigator because (1) in severe cases, where there is much intumescence of the lids, the irrigator can be easily introduced where a speculum is difficult of application; (2) the stream can, with the irrigator, be readily directed to the angles of the conjunctival cul-de-sac; and (3) during the whole of the manipulations the upper lid can be held away from the cornea. The whole object aimed at is a lengthened and complete application to the upper cul-de-sac. There is no difficulty in treating the lower lid; the lower limb of the douche was found to be superfluous and to interfere with the movements of the upper jet. As a practical man, I should advise nobody to trust any instrument to the patient. If you wish cases of gonorrheal ophthalmia to be saved, see them yourself, and see them often. Mr. Collins, in modifying my instrument, has gone back to an earlier stage of its evolution, and I am constrained to say that I think my own simplified form is the better instrument for practical work.

I am, Sir, yours, &c.,

EDGAR A. BROWNE,
Senior Surgeon, Liverpool Eye and Ear Infirmary.
Liverpool, June, 1885.

THE LANCET.

LONDON: SATURDAY, JUNE 27, 1885.

THOUGH personal, social, and scholastic prejudices and predilections may never be entirely eliminated from the election of members of the Council of the Royal College of Surgeons, it is certain that they have not now the preponderance they once had. The political education of the electors is advancing—slowly, it is true, but surely; and the time cannot be far distant when the elections will be determined rather by political considerations than by personal sentiment or caprice. It will soon, we trust, cease to be regarded as a qualification for a seat in the Council that a candidate belongs to this or that hospital and medical school. The Council should represent the interests of the surgical profession, and especially those interests which more particularly affect the status and professional well-being of the Fellows and Members of the College. The only influence that the so-called representation of the schools ought to have upon the result of any election should be to prevent any school from being over-represented. The representation of particular schools has indeed been a glaring defect in most of the College elections; for although the Charter does not explicitly suggest such representation, it does so implicitly by requiring exclusive personal voting. By this provision the election of members of Council has been thrown into the hands of those Fellows who reside in or near London, and who are therefore more liable to be affected by the influence of the schools than those who reside in the provinces. When Fellows are allowed to vote either in person or by papers, it may be expected that not only will the constituency be enlarged, but its independence and intelligence will be proportionately increased. Meanwhile the election must take place on the old register, and to some extent on the old lines.

The questions before the electors are extremely simple. The Council is full of anomalies and abuses. Not only does the Council elect the examiners, but every member of the Council is himself eligible to be elected as an examiner. Until a few months ago every member of the Court of Examiners and one member of the Board of Examiners were also members of the Council; or, in other words, eleven of the twenty-four members of the executive annually appropriated an aggregate of £5000 from the revenues of the College. Again, the office of President has hitherto been conferred on the senior member of the Council in rotation, whatever his degree of fitness or unfitness. And lastly, the Council has always exercised the privilege, and still deliberately claims the right, to make whatever alterations it pleases in the constitution and relations of the College, without consulting the opinions or wishes of the Fellows and Members whom it nominally represents. Endeavours have been made to remedy these evils, but a majority of the members of the Council has repeatedly resisted every attempt, whether originating from within or without the Council. Of the candidates for election next Thursday, Mr. SAVORY, the retiring member of the Council, is known to have sided with the opponents to change; while two—namely, Messrs. F. MASON and ROUSE—have not as yet publicly expressed an opinion for or against. On the other hand, Messrs. GANT, COWELL, MACNAMARA, and PEMBERTON have identified themselves with the policy of a thorough and comprehensive reform of the Council.

Whatever be the result of the election next Thursday, it is to be hoped that those who do vote will not stultify themselves by resorting to the absurd system of plumping. Three members of the Council are to be elected, and those who have not the courage or capacity to give *three* votes, should at least preserve the semblance of intelligence so far as to abstain from voting at all.

THE curiosity which has so long prevailed as to the line of reform in the constitution of the University of London to be submitted to Lord Justice FRY'S Special Committee by its sub-committee will be satisfied this afternoon (Friday). The draft scheme recommends changes sufficiently radical to satisfy the most advanced reformer, and, if adopted by the Special Committee, will demand the gravest consideration by Convocation and the Senate. The scheme is so thorough and so practical that we can hardly believe it can be rejected by either of those bodies. By it the entire constitution of the University will be remodelled. Instead of being composed of two bodies only—viz., Convocation and the Senate—it is proposed that it shall consist of constituent Colleges, Faculties, and Boards of Studies in addition, and that the mode of election to the Senate and the period of senatorship be completely altered. The Senate will consist of thirty members, with a Chancellor, Vice-Chancellor, and the Chairman of Convocation, as at present; but the Crown nominees and the direct representatives of Convocation will be limited to six each, whilst each of the four Faculties of Arts, Science, Laws, and Medicine are to elect three, and the constituent Colleges six. The constituent Colleges named are—University College, King's College, the Royal Colleges of Physicians and Surgeons, the Council of Legal Education, and the Incorporated Law Society. Moreover, whilst the collegiate representatives may serve for three years, one-third of each of the other groups are to retire yearly, so that in this way an infusion of new blood may be steadily secured. The advantages of such a Senate over the present fixed body are self-evident, and must commend the scheme to all well-wishers of the University. Lest the existing members should consider the proposed change an infringement of their special privileges, the Faculty and College members are to be added to the present Senate, and no new members are to be appointed by the Crown or by Convocation until their representatives respectively fall below six. This is a very judicious method for securing the needed changes with the least disturbance of the existing arrangements. Convocation remains unchanged. The constituent Colleges are to be named partly by a joint committee of the Senate and Convocation and partly by the Senate, with the concurrence of the Faculty or Faculties interested. In this way it is hoped that a closer bond may be introduced between the Colleges and the University. The most important alterations, however, will be in the formation of Faculties and Boards of Studies in each Faculty. The Faculty will give instruction

to the Board of Studies, and this will in turn advise the Senate on all examinations and changes in regulations, and without such advice the Senate is not to act. As the Board of Studies will be composed almost entirely of teachers and examiners, the Senate will have a skilled body to appeal to for advice in any difficulty. At present an attempt is made to please everybody—teacher, student, and examiner—and of course neither is satisfied. Lord Justice FRY must be congratulated on the thorough manner in which he has gone to the root of the difficulty, and on the practical scheme he has devised for its solution.

UNTIL recently the treatment of palmar ganglion had been a reproach to surgery. The nature of the affection has been understood, and its ill effects upon the function of the hand have been well recognised, but in most cases only slight and unavailing measures for its relief have been taken, because the more radical modes of treatment have been fraught with much danger to life and limb. Treatment by pressure, by the application of counter-irritants, or even by tapping, has been almost universally unsuccessful, and injection of irritant solutions and incision of the synovial sac have been followed by failure, adhesion of the tendons, or even by death. Injection has failed probably from the presence of the "melon-seed bodies" so often found in these cysts. Whenever suppuration has been excited in the tumours, there has been great danger of blood poisoning in some form, and if this danger have been escaped, the tendons projecting into the sac have been firmly fixed as the cavity filled up, and a more or less useless hand has been the result. Our modern improved treatment of wounds has enabled surgeons to grapple successfully with these difficulties, and it is now possible to lay down definite rules for the treatment of palmar ganglion, and of similar synovial cysts in other situations. The first point of importance is to attempt the cure of the cases as early as possible. No good can come of delay, which merely leads to greater distension of the cyst, and is especially to be deprecated as endangering the adjacent tendons, which become stretched and even in some cases severed, by the pressure to which they are subjected. As soon, then, as the disease is clearly recognised, treatment should be undertaken. The second point is that any treatment to be successful must consist in the free evacuation of the cyst and the removal of all the "melon-seed bodies" it contains, whether these be free in its interior or adherent to its walls. For this purpose an incision about an inch and a half long, not a puncture, should be made in the most prominent part of the swelling, above the annular ligament, avoiding, of course, the radial vessels and the tendons, which can be felt through the skin. Pressure should be made in the palm to force out the fluid and as many of the loose bodies as will thus escape. Then a sharp spoon should be introduced, and the whole cavity scraped, to detach any "bodies" which may be still fixed to the synovial membrane. The "spoon" is much the best means of doing this. Some have trusted to injecting a full stream of fluid into the cyst, but this will not remove "bodies" which are still firmly adherent to the cyst wall. VOLKMANN passes a large drainage-tube through the cyst, and draws it sharply to and fro, and trusts to that to detach any adherent "bodies"; this is, however, an uncertain method, and if the cyst be old and large, with pouches extending from the main cavity, they escape the friction of the tube altogether. Having thus carefully removed all the contents of the cyst, whether solid or fluid, a solution of chloride of zinc, forty grains to the ounce, should be applied to the whole interior of the sac, the purpose of this being so to modify the nutrition of its lining as to prevent any recurrence of the dropsy. A solution of iodine has been used for the same purpose, and some surgeons may be inclined to use iodoform instead. The most important steps in the treatment are those to be taken to secure healing of the wound without suppuration—at any rate, without septic suppuration. As a preparatory step the parts must be thoroughly cleansed before the incision is made, and the operation should be conducted under an antiseptic spray or irrigation, and some efficient antiseptic dressing should be finally applied. Guérin's cotton-wool dressing has been used with success, so has iodoform wool; and, of course, the Listerian carbolic gauze dressing. A drainage-tube should be introduced into the wound and passed down beneath the anterior annular ligament, and only removed when the discharge through it is reduced to a minimum. The question of drainage has been much discussed. Some surgeons have contended that a second opening should be made into the cyst in the hand, and a tube be laid quite through from one end to the other, or two tubes used, one in each wound. Others have advocated several smaller incisions, or even one incision extending along the whole length of the ganglion. All these seem to be unnecessary, and Dr. WEISS has recently published in the *Revue de Chirurgie* two cases illustrating this fact, and in his excellent remarks appended to them he has argued out this point. He shows that if pressure be carefully applied over the palmar part of the cyst, all retention of fluid can be entirely obviated. The hand should be kept fixed on some kind of splint applied to the extensor aspect, until the wound inflicted is healed. As soon as that is accomplished, the fingers should be liberated and the patient be encouraged to move them. The results of this treatment are totally different from those formerly met with. When the antiseptic precautions are successfully carried ont, there is no danger whatever of blood poisoning or of profuse local suppuration, and the final result is the restoration of a thoroughly useful hand. The tendons are not bound down by cicatricial bands, and after a time it may be impossible to find any trace of the previous mischief beyond a linear scar in the forearm. In this way, therefore, surgery is now able to offer to these patients a thorough cure of their malady, and without serious risk, while formerly the cure was imperfect, and was attended with considerable danger.

An interesting question still awaits an answer. How is the cure of the synovial cyst accomplished? Is it by granulation, or direct adhesion of its surfaces? If so, why are there no adhesions to bind down the tendons and impede the free use of the fingers? Is the process of cure analogous to that obtained in a hydrocele by injection, or in dropsy of a joint treated by injection of iodine? This is the view held by WEISS and others. If so, it remains to be shown why the cases do not relapse, as so often occurs in hydrocele. At present no case of recurrence of the

ganglion after aseptic incision and drainage has been reported. Until post-mortem observations are available in cases which have been cured by this operation, it will be impossible to speak with any assurance upon this point. Meanwhile the success to be obtained, if only care be taken to observe all the necessary conditions, is so great that this operation may be practised with confidence, even although we may have to wait before knowing the exact pathological changes that take place.

IF there should be present to the consciousness of any one of our readers a sense of longing for greater intellectual activity than the calls of professional duty necessitate, we would commend to his consideration the study of the "Revised Instructions to Her Majesty's Inspectors of Schools." For ourselves, we must confess to being mentally prostrated by the endeavour to read the riddle of this mysterious paper aright. The general impression left on our mind is that Her Majesty's inspectors of schools must be a class of raging lunatics if only one-half of the "instructions" issued for their guidance are requisite. For example, they are expressly cautioned against trying to do two things at once, such as giving out dictation or sums while hearing the reading of another class. They are not to show their temper, &c. &c. In short, the suspicion of their mental soundness is irresistibly suggested by the remarkable general resemblance which these "Instructions" bear to those which the medical officers of well-conducted lunatic asylums are wont to issue for the benefit of patients discharged on probation or let out on leave. Nothing more calculated to make the public conscience uneasy as to the mind-misery inflicted on young children by the way in which the Education Act is carried out than these "instructions" can well be conceived. In one, and so far as we can see only one, respect have matters been mended by the recent agitation with regard to over-pressure. The responsibility will henceforth rest with school managers and teachers of the undue taxing of the powers of weakly children. The inspector is, however, still let loose on the school, in this respect in a manner his implied state of mind scarcely justifies, for he may insist on seeing the children who may be kept back because they are deemed "of feeble or slow intellect," and unless he—the man whom it is necessary to warn against himself trying to do two things at once, and being hurried and showing undue haste—is satisfied, the precaution of managers and teachers is to go for nothing. Surely this is a very perilous state of matters. It is not asking too much to demand that a *medical* examination should be made, and that the certificate of a qualified practitioner should suffice to reduce the inspector to order. No educational system can ever, we are convinced, be safely worked until it comes to be recognised that not the glorified pedagogue who now figures as "inspector," but a medical practitioner, is made the judge of physico-mental fitness to undergo, and survive, the brain-torturing process which the most enlightened Legislature of modern times has mistaken for education. We are so thankful for small mercies that it would be absolutely unjust to acknowledge that the poor little half-starved gutter child, whose knowledge of the science of music has hitherto been derived from an outside study of the peripatetic hurdy-gurdy, and whose acquaintance with the quality of musical time has been picked up while dancing with bare feet to the music ministered by the itinerant organ-grinder, is to be henceforth graciously excused from "naming the value of the notes rhythmically and in time without singing them." It will now suffice to sing them. If any father of a family desires to form a just estimate of the magnitude of the task remitted, let him call upon one of his own highly educated children, upon whose culture much money and time have been bestowed, and who is *supposed* to have "a taste for music," and ask Master or Miss Hopeful to give him a specimen of the exercise from which the poor little waif is at length excused.

Annotations.

"Ne quid nimis."

WELLINGTON COLLEGE AND RUGBY SPEECH DAYS.

THE annual gala day at Wellington College and at Rugby took place on Friday and Saturday of the past week. As is usual, the head-master of each school, Dr. Jex Blake of Rugby and Mr. Wickham of Wellington, made their respective addresses to the parents of their pupils, who on such occasions assemble in considerable numbers to witness the distribution of prizes and listen to the speeches of the boys and yearly statement of the head-master. These are not without interest to members of the medical profession. The two accounts are in curious contrast with each other. While at Rugby the head-master could congratulate the boys on their achievements both at the Universities and in the cricket field, the head-master of Wellington made apology for the paucity of honours gained by the boys at his school, small enough in the past compared with some other public schools, but smaller still in the present year. One advantage Wellington appears to offer is being able to send pupils straight to Woolwich without the intervention and aid of the system of private cramming, which of late years has grown so prevalent an adjunct to public school education. In this respect it competes with Cheltenham College. These two schools draw their students from very much the same spheres, possibly Wellington somewhat more from the *élite* of society and the army; but these should not be either intellectually or physically below the standard of the other school. What is it then which gives to Rugby the pre-eminence? The scholarship of the staff of masters is very much on a par at both schools. Boys destined largely for the army, as those at Wellington are, should not be inferior to those intended for civil callings in life either in intellectual culture or prowess in games. They should be in association with boys capable of successful competition at the universities to catch their spirit of culture if they cannot equal them. Yet, on the showing of the two head-masters, there appears to be a wide difference in this respect at the two schools. Wellington boys are behind Rugby boys in competition at the universities. Has the difference in locality anything to do with this? Rugby is situated on a high table-land where the wind blows with an invigorating force and braces to the fullest energy, while Wellington College is on a low-lying plain with adjacent hills which drain into the marshes below, rendering the air damp and enervating. In this country, and probably elsewhere, those who dwell on higher lands are less liable to disease than the dwellers on plains, especially marshy plains, and anything that predisposes to disease enervates the system and lessens the capacity for mental and physical energy. While the head-master of

Rugby could congratulate his school on having a system which enabled them to stamp out infectious illness, the head-master of Wellington had to acknowledge, in terms of affectionate remembrance, the sad death of the late bursar of the College, who succumbed to an attack of septicæmia in November last, making one of a series of deaths from this disease which had been fatal to several of the pupils in previous years. The head master of Wellington referred also to the early death of one of the former pupils of the College just as he had secured admission to the Engineers. It would be interesting to learn the proportion of deaths at all our public schools, among the pupils actually there and within ten years of leaving, to enable the primary cause of death in early manhood to be traced back, and we have good reason to believe this could often be referred to school life, little as parents suspect it.

CONVEYANCE OF SCARLET FEVER BY A THIRD PERSON.

THE *Medical Record* of New York contains the report of instances of this sort. It would be very remarkable if anything but communication of the disease had occurred. A lady stayed with her sister, who had five children ill with scarlet fever. She went home, twenty miles distant, and a daughter and a niece took the disease in five days. The niece died. There had been no scarlet fever in the neighbourhood for months. In the other cases doctors, of whom wiser things might have been expected, were at fault. One was the doctor in the above fatal case. He took the dying child in his arms, where she actually did die. In four days his boy took the disease, and in another four days a second boy. We should not omit to say that he allowed the first boy to climb into his lap and remain there an hour after returning from the final scene and service above referred to. Since this experience the medical man has always worn rubber clothing in the sick room of a scarlet fever patient. In another case the medical man held a little scarlet fever patient on his knee while he made an application to the throat. On his return home his son climbed up into his lap before he had time to remove his overcoat. Soon afterwards he took the disease, and other children followed. Surely, there is nothing astonishing in such facts but the utter obviousness of them. If the transmission of the disease had been intended, the devices could not have been more perfect. In this country many adopt the precautions of a long surplice for the sick room and washing of the hands, which are quite effective.

SCHEME FOR A MEDICAL SCHOOL IN DUNDEE.

EVER since University College, Dundee, was fairly equipped for its work, the hope has often been expressed in many quarters that a medical school would in time be attached to it; and since the appointment of Mr. D'Arcy Thompson, a distinguished graduate of Cambridge, to the chair of Biology last winter, the hope has taken more definite form. Mr. Thompson has already done excellent teaching and original work in Dundee on the lines adopted by the Cambridge school which recognises Dr. Michael Foster and the late Prof. F. M. Balfour as its two chief apostles. The professorial staff in Dundee are convinced that a medical school would give to the college more definite aims than it can aspire to at present. A town of the size of Dundee, with its 150,000 inhabitants and its splendidly-equipped infirmary, would in Germany hardly remain long without a medical school. The infirmary has 250 beds, an average of 150 in-patients, and a large out-patient department. The clinical material is ample and varied, and is drawn not only from the town and neighbourhood, but also from the shipping, which often supplies examples of tropical diseases. Several of the local medical men are very favourable to the scheme, and Sir Andrew Clark, Professor Gairdner of Glasgow, Professor Foster, Dr. Macalister of Cambridge, and many others have expressed their hearty approval of the enterprise. Professor Gairdner has gone so far as to consent to distribute the prizes and certificates, and to deliver an address on "Medical Teaching" at the closing ceremony of the college on Saturday, the 27th inst. Considering the crowded condition of the class-rooms and wards in Edinburgh and Glasgow, it is surely possible to attract students in sufficient number to make a respectable start, if only the money be forthcoming and the staff be carefully and wisely selected. The Universities (Scotland) Bill, 1885, contains a clause allowing St. Andrews University to affiliate colleges in other towns; and if Dundee can only show a good reason for the existence of its medical school, and good, honest work, the Executive Commission which will be appointed under the Act will hardly be able to pass over its claims to recognition. It may interest our readers to know that this is not the first time the scheme has been broached, and that it, or something like it, was suggested in the columns of the *Dundee Advertiser* by a retired Edinburgh surgeon, the late Dr. Watson-Wemyss, of Denbrae, St. Andrews, as long ago as 1872.

ANOTHER KIMBERLEY SQUABBLE.

WE have received from a correspondent a long series of newspaper reports and letters concerning the financial position of the Kimberley Hospital. A short time since "small-pox" and "pemphigus" were the daily pabulum with which the medical philanthropists nourished their personal friendships and antipathies. Now the scourge has vanished or abated, and fresh means of airing their grievances have been supplied to the "happy family." To an unbiased observer it is difficult to ascertain the exact truth where rival statisticians openly accuse each other of falsifying facts. "Pro bono Publico" says the average cost per head per annum at the Kimberley Hospital is £132. "Truth" puts it at £95 19*s*.– a greater difference than can be explained by what physicists term "errors of experiment." To our mind, it is scarcely possible to apply the working results of a British hospital such as the Royal Infirmary at Glasgow, as quoted by "Pro bono Publico," to the elucidation of the question of reasonable expenditure at the Kimberley institution. Distance may lend enchantment to the view, but it cannot be credited with enhancing clearness or accuracy of vision. The social and domestic circumstances obtaining in a distant colony, with which the paths of communication are difficult and few, are so widely different from what they are "at home," that no safe ground is afforded for comparison of the relative merits of apparently similar phenomena. It is not so much a matter of importance that the Kimberley Board of Management spends "four" or "two and a half" times as much on their establishment as suffices to liquidate the expenditure of a Scotch hospital, as it is to show that due attention is paid to economy and efficient administration. Hard times bring discontent, and Kimberley has during the last few years witnessed a rapid decline in her commercial prosperity. The hospital tax, which not long ago yielded something like £10,000 per annum, now provides only a little more than half that sum. But whilst the receipts have fallen short of the accustomed tale, the expenditure has not undergone a corresponding fall. There seems reason to fear, however, that certain abuses exist which might easily be remedied by zealous co-operation. If, as we are informed, the existing staff have the entire control over the medical and surgical appointments, we must enter a protest against the usage; but from our reading of the official reports we cannot convince ourselves of the accuracy of certain statements that have reached

us. There is one point, however, on which seemingly all parties are agreed—viz., that the visits of the consulting surgeons are extremely irregular. This arises rather from the nature of the appointments than from laxity of discipline or want of interest on the part of the honorary officials. Either a definite number of beds should be apportioned to each officer, or all the patients should be seen by the surgeons in rotation. As regards the death-rate, which at first sight appears appalling, allowance must be made for the fact that of 189 natives who died in the hospital in 1884 eighty-six were "moribund when admitted." We should like to see a tabulated account of the fatalities from preventable diseases before too severely criticising the existing sanitary arrangements. One circumstance narrated in the resident surgeon's report stands in glaring prominence—viz., the prevalence and severity of venereal disease among the male community. The females, presumably, do not go into hospital, but wander free, moving centres of infection, and yet no provision is made for isolation of the contaminated. Cases of gonorrhœa, and syphilis in all stages, are mingled indiscriminately with patients suffering from such injuries and diseases as are commonly met with in a well-appointed hospital. Nor does the evil end here; for the ordinary female nurses have to attend to the general wants of all alike, obviously exposing themselves and others to the chances of accidental inoculation; to say nothing of the moral degradation which such a vicious system entails. Kimberley wants lock hospitals and a rigorously enforced Contagious Diseases Act. Lastly, as concerns the custom of allowing ministers of religion to enter the wards of the hospital at all hours without let or hindrance, we cannot but offer a word of admonition and advice. We yield to no one in advocating and insisting upon the utmost freedom being accorded to patients in the choice of their religious advisers; but there is a season and a place for all things, and in this instance, as it appears to us, it is not wise nor expedient that a clergyman should be permitted to enter a sick chamber and find himself, perchance, in a situation that neither himself, the patient, nor the nurse would deem desirable, even though "the soul is more important than the body."

ERYSIPELAS IN PARIS.

A DEBATE upon erysipelas has been occupying several sittings of the Paris Academy of Medicine, and at the last meeting M. Verneuil summed up the conclusions arrived at. "In Paris, a few years ago, erysipelas was very common and very fatal, especially in surgical practice. The antiseptic treatment of wounds has considerably diminished in frequency and gravity, without, however, succeeding in causing its complete disappearance; the erysipelatous endemic remains, ever ready to reproduce its epidemics, brief and restricted no doubt, but still involving a certain number of victims. It occurs in two distinct foci, the hospital and the town, which reciprocally infect each other. Antisepsis, powerful and efficacious in the nosocomial area, is almost impossible to be applied as a prophylactic measure in the urban area, that is and will long be contaminated; so that, after having by every precaution purified a hospital or a ward, a single case imported from the town suffices to again introduce the poison. It would be easy to prove that every year in our hospitals a certain number of patients attacked with other affections, sometimes trivial, succumb from the contagion of cases of erysipelas admitted from outside. In spite of the immense value of antisepsis, it is not applicable to all cases, and cannot prevent the introduction, dissemination, and multiplication of heterocthonous erysipelatous germs. Nor can it prevent these germs, cultivated and multiplied in hospitals, being subsequently reproduced in the town. In order to prevent re-infection of insanitary places and the dispersion of germs, to destroy the evil at its root, there is only one serious plan—viz., the isolation of cases developed within the hospital or introduced from the town. The establishment of isolation wards for the erysipelatous is a necessary measure, strenuously demanded both by science and humanity. Consequently, the Academy of Medicine demands of the authorities the immediate formation of such institutions." After some discussion, MM. Verneuil and Trélat were authorised to bring up a further report to the next meeting of the Academy.

WOOLWICH REFUSES TO APPOINT A MEDICAL OFFICER OF HEALTH.

A COMMITTEE of the Woolwich Local Board has now drawn up an elaborate report in answer to the statements made some five months ago by the Local Government Board's inspector, Mr. Spear, who strongly advised that the local authority should appoint a medical officer of health. The committee entirely dissent from Mr. Spear on the question of the advantage that would be gained by the appointment of such an official; they point out that the town is as healthy as other neighbouring towns where, of course, there are medical officers, and that the drainage, both public and private, and the overcrowding are quite as well under control as in those localities. With regard to disinfecting arrangements, they mention triumphantly that though "they have caused inquiry to be made as to the methods adopted in parishes and districts where medical officers of health are engaged, the result of such inquiry is not such as to induce your committee to recommend any alteration of the existing system in this parish. The adjoining parishes, where medical officers are engaged, have availed themselves of the system adopted by this board, and have not suggested any alteration." They also say that they are strongly of opinion that by putting in force the powers which the board possesses in sanitary matters, with the valuable assistance which they have at all times derived from the medical practitioners of the town and district, they will be enabled to fulfil all the duties incumbent upon them without a medical officer—they are always ready to appoint one temporarily for a special purpose. If they can be shown that other districts are better managed than their own because of the existence of a medical officer, they will be happy to reconsider the question; but Mr. Spear's report has failed to carry conviction to their minds.

SECTARIAN SISTERHOODS IN HOSPITALS.

PUBLIC opinion is beginning to be offended with the encroachments of religious sectarianism in hospital management. The evil is not a new one, and, as might perhaps have been expected, it has manifested itself on more than one occasion in an acute form in the proceedings of nursing sisterhoods. Belief and propagation of belief very commonly go together, and the sisters who have sought at the bedside to inculcate their particular tenets have acted no doubt in accordance with the teaching of an over-mastered conscience. Among themselves, moreover, they have not been wanting in an intolerance which excludes from membership, even in the secular work of their essentially liberal calling, every qualified nurse who does not assent to their peculiar and often very incomplete views of religious truth. The term "sisterhood" would seem to imply the exhibition of two principles: one, that skilled nursing is valuable; the other, that its efficacy requires the presentation by nurses to the sick under their care of one particular form of religion, and no other. The sister's perception of divine light is to serve for the whole ward: it does not matter that the supporters

of hospitals or the patients represent every possible shade of belief, and that they in common desire that no restriction shall be placed on private judgment in such matters. Clergymen, lay teachers, friends, indeed, may enter and depart, but the constant spiritual atmosphere of the hospital must be maintained at a certain assumed purity, and that is to be regulated by the opinion of the nursing staff under their Sister Superior. If this is not the meaning of the doctrinal tests applied by these ladies, what is their meaning? The question, though extra-medical, is well worthy the consideration of hospital authorities and their supporters. The anomalous proceedings of such sisterhoods have long ago passed the bounds of our own approval. If they are persisted in, we can foresee only injury to the nursing body themselves, and difficulty, on other grounds most undeserved and regrettable, to the hospitals. Disease takes no note of creed; its treatment implies none, excludes none. We shall gain nothing by seeking to controvert the natural plan, or the law of liberty and of fairness, which distinguishes true Christianity above every other faith.

A CUBAN CURE FOR NEURALGIA.

DR. ANTONIO L. ESPERON reports in the *Crónica Medico-Quirúrgica* of Habana, Cuba, two cases of neuralgia treated with parthenin, a drug extracted from a plant known in Cuba as "bitter broom" (Escoba amarga). The first was a married woman, aged twenty-three, who, after an abortion, became subject to severe pain at the menstrual periods affecting the iliac fossæ. In one of these attacks, when the author attended her, he found morphia, chloral, and bromide of potassium useless, but that relief was afforded by quinine. In a subsequent attack, when there were rigors, headache, pyrexia, and furred tongue, ovarian neuralgia was diagnosed. A subcutaneous injection of morphia was given, and afterwards one-sixth of a gramme of parthenin every two hours was ordered. At the next visit it was found that after an hour the effects of the morphia began to pass off, and the pain had returned. The medicine had not been administered. After three doses of the parthenin the pain disappeared, and did not return. The second case was that of a coloured woman with severe coccydynia. Morphia only relieved this temporarily, but after a few doses of one-sixth of a gramme of parthenin in pills the pain permanently left her. The writer has also employed parthenin in many cases of facial neuralgia with great success. He believes that it is especially indicated in neuralgias of malarial origin.

THE TRAFFIC IN GIRLS.

THE *Pall Mall Gazette* of June 16th contains a report of a meeting held in Whitehaven to consider means for repressing the traffic in English girls. With the general purpose of such meetings no one who values the welfare of his kind can refuse to sympathise. The existence of the traffic we have referred to may be taken as proved by recent examples. Indeed, it is in the nature of the immoral commerce which it serves that such a traffic should flourish wherever it is allowed to do so. We must, however, in order to accomplish the removal of this evil, be sure first of all of the accuracy of our details respecting it. One statement in the report we have referred to is quoted from Mr. James B. Wookey, and bears absurdity on the face of it. It is gravely said that "in eight years, in three London hospitals alone, twenty-seven thousand children between the ages of eleven and sixteen have been treated for terrible diseases." This is an exceedingly vague statement. What are terrible diseases? Mr. Wookey does not appear to have defined his meaning. If he means by this term to describe venereal disease, the obscurity increases. Diseases of this class unfortunately do not as a rule present an aspect sufficiently terrible, otherwise there would be a more general and wholesome dread of them. Even when we allow that their insidious action ought to be deterrent, if it is not, we are no nearer the mark. We do not know the nature of that large body of cases, and we may say with certainty that acquired syphilis has no connexion whatever with the majority of them. The system of case registration at the London hospitals would probably not suffice to establish the accuracy of so large a statement with regard to out-patients, and it is known that no such number of venereal cases have been treated within the wards of any three hospitals. Those who would protect the youth of either sex from its most dangerous folly must be very careful of their facts and regular in their methods. They will then, but only then, carry with them the opinion of the country, and may be as unsparing as they have good reason to be towards the common enemy.

THE PRINCE OF WALES AND THE WORKING CLASSES.

THE Heir Apparent to the Throne is so worthily treading in the footmarks of his father that scarcely a week passes which does not supply some opportunity for an effort on the part of his Royal Highness for the public good. On Tuesday the Prince of Wales pleaded on behalf of an undertaking which is designed to supply the residents of Whitechapel with a popular place of resort for purposes of healthful exercise and improvement. There can be no question as to the need and value of this benevolent enterprise. Meanwhile we venture to hope it will not in any way clash with the undertaking in progress, at the instance of the Earl of Shaftesbury, in the same district. It can scarcely be possible that the two good and useful works promoted by philanthropists of all parties and schools should clash, but we venture to suggest that Sir Edmund Hay Currie should explain the facts more fully, especially after the letter of Mr. Charrington in *The Times* of Wednesday.

REMOVAL OF TUMOURS FROM SCARPA'S TRIANGLE.

M. KIRMISSON recently contributed a paper on the removal of tumours from Scarpa's triangle to the Société de Chirurgie de Paris. He points out that whatever be the nature of the tumour, the steps of the operation must be influenced by the anatomical relations of the part, and especially by the proximity of the tumour to the main vessels of the limb. He recommends the operator to free the tumour on its outer side first, and gradually to work towards the general sheath, leaving this part to be dealt with last; this is, of course, only a well-established surgical practice in all similar cases. When the tumour is closely connected with the main vessels, its removal may be complicated with one of three conditions—the vessels may be exposed, the vein may be wounded, or the vein and artery may both be divided. Wherever practicable, the sheath of the vessels should not be opened, but exposure of the vessels in the wound may be accepted as free from special danger if the wound be kept aseptic and devoid of inflammation. What line of practice is to be followed when the femoral vein is wounded? Some surgeons, among them Kümmel and Kraske, have advised that both the artery and vein should be ligatured; but such a practice is to be wholly condemned. To tie the artery is greatly to complicate the case and increase the danger of gangrene. Experience has proved the danger of lateral ligature of large veins, and the best practice is to put a double ligature on the vein above and below the puncture and divide the vessel between. Where the tumour is found to invade the vascular sheath to such an extent as to necessitate the division of both vessels, if it be entirely ex-

tirpated three courses are open to the surgeon—to remove the tumour partially, to ligature the vessels above and below, or to amputate the limb. Ligature of the femoral artery and vein above the origin of the profunda branch presents such great danger of subsequent gangrene of the limb that it is never justifiable. Should the tumour be situated lower down, so that the ligature would leave the deep femoral vessels to carry on the circulation, it should be excised completely and the main vessels tied. This may be done with greater confidence in young people than in those past middle life. Should gangrene come on, amputation must be performed. In the cases where this practice cannot be followed, the incomplete removal of the tumour—unsatisfactory as it is—is the wisest course to follow if any operation has been attempted. Amputation at the hip-joint is too dangerous an operation to be undertaken in circumstances which render recurrence of the growth, either locally, or, in internal organs, extremely probable. The best course to follow in such cases, if they be recognised before operation, is not to attempt removal, but to use palliative measures only.

THE FLOWER MISSION.

SOME months ago we published an appeal on behalf of the Flower Mission. At that time the flower season was just closing, and our remarks had therefore a somewhat retrospective meaning. Now we have reached the middle of a luxuriant summer, and it may be well, while the subject of hospitals is before the public eye, to place before it also the claims of this appropriate, inexpensive, and most acceptable form of contribution. The needs of the sick in hospital in their various degrees of suffering do not require to be pressed anew. That the gifts of flowers which they receive are appreciated there can be no doubt. They like the attention implied in such an act of kindness, as who would not? Probably they do not fail to note any care that may have been taken in selection on the part of those who bring these simple gifts. We do not mean that the choice of suitable flowers implies any laborious discrimination, but some taste, nevertheless, has to be used in avoiding extremes of odour and colour. In making presents of this kind, whether they come from the field, the garden, or the hothouse, it should not be forgotten that the simplest, and it may be the most usual and familiar, are often the most esteemed. There is also a necessary and inartistic method in giving. It is best to give without saying much. A word or two will go a long way, for the flower illustration speaks for itself, and has the advantage that it wearies no one.

RUPTURE OF THE PERINEUM.

WE have before us an interesting paper by Dr. W. P. Manton of Detroit, Michigan, reprinted from the *American Journal of Obstetrics*, advocating the practice of episiotomy, or the lateral incision of the perineum, for the prevention of perineal rupture. This operation has not been so favourably regarded by authorities in this country as by some German obstetricians. Dr. Lusk of New York, in his admirable book on the "Science and Art of Midwifery," while advocating various devices for regulating the passage of the head over the perineum, says that "when rupture seems inevitable," the physician is justified in making lateral incisions; but he adds that as every wounded surface in childbed is a source of danger (by risk of infection), episiotomy should never be performed so long as hope exists of otherwise preserving the perineum. He adds the somewhat severe remark: "It is essentially the operation of young practitioners, the occasions for its employment diminishing in frequency with increasing experience." We will leave Dr. Manton to settle this difference with his senior colleague in the obstetric art. He is young enough, perhaps, to feel the force of Dr. Lusk's criticism, but he does not speak without a large experience. He shows the great frequency of the occurrence of ruptured perineum. He denies that infection is more frequent after episiotomy. He has notes of 957 primiparæ in the Vienna clinic, and in only two of the cases did posterior laceration occur after episiotomy. These were both forceps cases. Professor Credé gives an analysis of 1000 cases of primiparæ, showing that only 2·9 per cent. were ruptured after episiotomy. We confess to still feeling a considerable objection to the operation, and to doubting the necessity for its frequent use. We can easily imagine it performed hastily and to the neglect of the ordinary methods of supporting and saving the perineum, which are tolerably effective, at least as against bad ruptures. In forceps operations especially, where, on Dr. Manton's own showing, episiotomy does not necessarily save from rupture, many perinea would be saved if the operator would seek the assistance of a neighbouring practitioner, whose chief duty it should be to support the perineum while the head is passing. It is very difficult for the accoucheur using forceps to execute the double duty of extracting with one hand and supporting the perineum with the other, and it is in these cases that the most serious lacerations occur.

THE METROPOLITAN ASYLUMS BOARD.

AT the usual fortnightly meeting of the Metropolitan Asylums Board, held on the the 20th inst., a letter was read from the Local Government Board authorising the purchase from the Admiralty of the ships *Atlas* and *Endymion*, the prices to be paid being £8400 and £6500. A report was also read from Dr. Birdwood, the medical superintendent of the hospital ships, on the subject of the non-alcoholic treatment of small-pox patients. He stated that, from being a firm believer in the treatment of small-pox patients by alcohol, he had, at the suggestion of his colleague, Mr. Bott, gradually reduced the administration of alcohol until now spirits and wine had been disused altogether, and, with a larger average number of patients, only 318 pints of beer were given in a week, whereas formerly, in addition to wine and spirits, nearly 9000 pints had been given. Dr. Birdwood added that he had proved alcohol to be injurious in the treatment of small-pox; hence he had ceased from prescribing it, except in moderation, for convalescents. The report was ordered to be be entered on the Minutes.

CORONER'S INQUEST IN WALES.

ON Friday, May 29th, an alleged murder was committed and suicide attempted at Aberystwyth. The facts relating to the event seem not to have been disputed, and we may at once say that the decision of the magistrates to send the case for trial on the capital charge was fully warranted by the evidence. At the request of the Mayor, Mr. Rees Davies repaired to the scene of the tragedy, where he found the victim quite dead, with blood issuing from the mouth and what appeared like a bullet wound in the left upper jaw. He did not make an exhaustive examination, for in truth he had no legal right to do this unarmed with a coroner's order, as the corpse was in the official custody of that functionary. At the inquest Mr. Davies is reported to have said that he believed "the wound in the face was enough to cause death." Before the magistrates he gave a less decided opinion, and it was at this juncture that there appears to have arisen the notion, that in the interests of justice a post-mortem was desirable—nay, even necessary. But the jury having delivered their finding, the coroner had lost his jurisdiction in the case, and the justices having no

power to issue the necessary instructions, an appeal had to be made to the Home Secretary for permission to reopen the inquiry into the mode of death. Curiously enough, the coroner (Mr. Rowland), who seemed to agree with the jury that a *sectio cadaveris* was not needed, himself conducted the investigation after his court had declared itself satisfied. Mr. Rowland, in his "true version of the case," published in the form of a handbill, seeks to justify his course of procedure by saying that Mr. Davies, in answer to a question by a juror, deposed that "the wound was enough to cause death," whilst afterwards he qualified the statement by adding the words, "if the bullet had pierced the brain it would do so." As yet, however, there was wanting proof that the brain had been injured by the missile. Presumably the wound was enough to account for death; probably it was the bullet that caused the wound; but surely stronger evidence would be required to obtain a conviction. In the first place, it was mere matter of speculation where the bullet was lodged, and, consequently, whether the wound inflicted by it was the cause of death. Mr. Rowland should have issued an order for a post-mortem examination before the inquest was opened, or, to say the least, before it was closed. It was scarcely in keeping with the dignity of his office to personally conduct the search for evidence which should have been placed before him for his judicial consideration.

DIAPHORETIC TREATMENT OF NEPHRITIS.

N. HESS, having made a number of observations on the treatment of nephritic patients by wet packs, hot baths supplemented by wrapping in blankets, and hot-air baths, draws the following conclusions:—(1) The least rise of temperature occurs with packs, the greatest with hot baths. (2) While the temperature is found to sink still further twenty minutes after the pack, it remains at the same height for an hour after both the other methods of treatment. (3) After water baths the temperature regains its original height more slowly than after air baths. (4) During the pack the pulse becomes slower; during both water and air baths, on the contrary, it is quickened for an hour afterwards. (5) Under the influence of the pack respiration is moderately quickened; during both water and air baths it is still more quickened, but subsequently returns to its normal rate more rapidly than after the pack. (6) The most powerful sudorific effects are produced by hot baths, the least powerful by packing. (7) Though the baths are more stimulating, packing soothes the action of the nervous system, brings the patients on better, and produces a subjective feeling of improvement afterwards. (*Vrach*, quoted in *St. Petersburg. Med. Woch.*)

SICK NURSING.

DR. DUCKWORTH'S admirable inaugural lecture on "Sick Nursing essentially a Woman's Mission" should be read by all women who aim at being nurses whether in private or in hospitals. The calling of the nurse is indeed a responsible one. It is growing rapidly in public estimation. Hitherto there has been much prejudice against regular nurses, founded chiefly on an impression that they are unsympathetic, that they require more attention than they give, that they are not to be always trusted alone and in the night with those disabled and helpless, and on the experience that many nurses are too fond of stimulants. These faults have certainly not always been absent in professional nurses who come to the sick house as if they came "to be ministered unto, and not to minister." The nurses who take Dr. Duckworth's address for a guide will obliterate all such impressions and raise their vocation to a high pitch of esteem among men whether rich or poor. He is plain-spoken as to the virtues and the qualities of a good nurse, and makes effective allusion to some of the old worthies of the calling in St. Bartholomew's: one to Sister Hope, who came in as a patient and had to lose a leg by amputation, but who survived and became a Sister and remained in faithful and untiring service for forty years. He also mentions Sister Elizabeth, of whom Dr. Jeaffreson once said to Dr. Duckworth, "I have only to say to Sister Elizabeth, 'That case is a bad one,' and she will never hold her hands day or night to save it if possible." The lecture is worthily dedicated to Sir Sydney Waterlow, who has the ambition to make Bartholomew's as famous a school for nurses as it has been for medical men.

SUPRA-PUBIC LITHOTOMY.

IN the June number of the *Revue de Chirurgie* M. Montprofit records a case of supra-pubic lithotomy successfully performed by M. Terrier early last year. The patient was a man twenty-nine years of age, who had had urinary troubles for six years. He was emaciated and very weak and exhausted when he came under treatment, and the stone was considered to be too hard and large for perineal lithotomy. The suprapubic operation did not present any difficulty, and an irregular stone 1½ in. (40 millimetres) in diameter was removed. The subsequent progress of the case was interrupted by a bad bedsore over the sacrum, by phosphatic deposits in the bladder, and by the formation of two scrotal abscesses just beneath the penis. In spite of these complications, the man ultimately made a complete recovery. No mention is made of the weight or composition of the stone, two serious omissions in the record of a case of lithotomy.

CHOLERA IN SPAIN.

THE King of Spain has yielded to the representations of his responsible advisers and has abandoned his intention to visit the cholera-stricken districts of the country, but the Government has decided that three members of the Cabinet shall proceed to Murcia, where, according to the last return of June 21st, there were the previous day 98 cases in the city and 39 deaths, the total number of cases and deaths in the whole province being 325 and 131 respectively. Cholera is still extending in Valencia, where in twelve hours there were five deaths in the city and three deaths in neighbouring towns. A few deaths continue to occur in Madrid, causing the greatest excitement to the tradespeople, who have draped their shops in black as a protest against the official declaration of the existence of cholera. The isolated cases which are reported in the villages adjoining the capital are doubtless the forerunners of local epidemics.

VARIX OF THE UPPER EXTREMITY.

AT a recent meeting of the Société de Chirurgie of Paris M. Bousquet exhibited a patient who had enormous varices of the right upper extremity. The veins had been enlarged since birth, and had not caused any functional disturbance of the part. There were no varices in the lower limbs or in the spermatic cord. Other examples of varix in the upper limb are recorded by various writers. Brodie refers to a case of considerable varix of the veins of the forearm which followed upon inflammation and obliteration of the median-cephalic and cephalic veins. These cases are analogous to many others recorded by himself and of almost daily observation, where, from the presence of an aneurysm or other form of mediastinal tumour, the superior vena cava or one of the innominate veins is obliterated. Three years ago Mr. Thomas Smith showed at the Clinical Society of London a girl who had considerable dilatation of the superficial veins of the hand and forearm. The varix had developed

after a burn, and was associated with a similar change in the arteries of the part. One of the most famous of these cases is that recorded by Petit. The varix was situated at the bend of the elbow, and Petit performed venesection upon it 150 times, as the patient was so fat that no other vein could be found for the purpose. Velpeau states that he had seen two persons with the arms, forearms, and hands covered with varicose tumours.

BRITISH DENTAL ASSOCIATION.

IT is intended to hold the annual meeting of this Association at Cambridge this year on August 27th, 28th, and 29th, under the presidentship of Mr. Richard White, of Norwich, and an ample programme is already provided. The university authorities have been most cordial in their recognition of the Association; the natural science class-rooms have been placed at the disposal of the committee, and the debating hall of the Cambridge University Union has been lent for the chief meeting place. This is the first time in the history of the Union that such a concession has been made, and the members of the Association will be, in addition, honorary members of the Union for the time of meeting, a most courteous and liberal acknowledgment on the part of the authorities. The Master and Fellows of Caius College have generously offered sleeping accommodation for some of the chief officers of the Association, and besides this, they have given the use of their large dining hall for the annual dinner. A garden party will be held in the grounds of one of the other colleges, and altogether the members of the British Dental Association may congratulate themselves upon the very advantageous circumstances in prospect for their meeting in this most interesting and quaint old town.

DR. FERRAN'S INOCULATIONS.

THE interesting account given by our correspondent last week of the inoculations for cholera now being so extensively practised by Dr. Ferrán, may be supplemented by the fact that the Spanish Government, acting upon the recommendation of the commission sent to report on the subject, has authorised the continuance of these "experiments." In a letter to M. Pasteur, whose views upon the protective character of inoculation with attenuated virus form the basis of the practice, Dr. Ferrán says that, although actual immunity may not be obtained, still his vaccinations will alleviate any attack which may occur subsequently. As a result of the official sanction, we may expect to hear of a very considerable increase in the number of inoculations.

THE TAIL OF THE HUMAN EMBRYO.

AT a recent meeting of the Paris Academy of Science, M. H. Fol gave an account of his investigations upon the tail of the human embryo. At an early period of development—about the fifth or sixth week—there are several distinct caudal vertebræ behind the sacrum. The embryo is then from nine to ten millimetres long, but when it attains a length of twelve millimetres the total number of vertebræ is already reduced from thirty-eight to thirty-five. At a later stage, when the embryo measures nineteen millimetres, only thirty-four vertebræ can be distinguished, the thirty-fourth being obviously made up by the fusion of the four terminal ones.

WE are glad to learn that the price of hydrochlorate of cocaine has been considerably reduced, and may now be obtained at the principal chemists for 1*s.* per grain. We are informed that there is a probability that in the course of a few days the cost of the anæsthetic may be still lower.

WRITING in the *Deutsch. Med. Wochenschrift* for the 18th inst. upon the Policlinic for Diseases of the Teeth and Mouth in the newly established Dental Institute of Berlin University, Professor Busch states that hitherto only two cases of death attributed to poisoning by nitrous oxide gas during inhalation for anæsthetic purposes have been recorded. Both occurred in 1884: one at the Dental Hospital in London—a man who was having a tooth removed preparatory to excision of cancer of the tongue. In this case a tumour was found post mortem growing from the skull and compressing the brain; therefore Dr. Busch does not think death can fairly be attributed to the gas. The other case occurred in the practice of a Paris dentist; but as no record was obtained of any post-mortem inquiry, Dr. Busch suspends his belief in this case being due to the gas. The mere fact of death during the narcosis is not sufficient to attribute the fatal result to that cause.

OUR contemporary the *Spectator*—which, by the way, is always liberal in its bestowal of praise on the medical profession—has lately been discoursing on the possible advent of cholera to this country. After indicating the probable path of transit, it proceeds to criticise the modes in which the disease spreads, ridiculing quarantine and sanitary cordons as "useless precautions." So far it follows closely in the groove of safety and accuracy; but when it comes to treatment, its enunciations are brief and a little startling to those who are accustomed to read in lay as well as medical periodicals of so many "tips" for cholera. Stimulants and astringents are all ignored, and expressedly cast on one side as useless, for "the only remedy as yet found efficacious is opium." Has the learned editor heard of "cholerisation?"—if not, we commend to his notice the experiments now being conducted by Dr. Ferrán.

FROM the report of the examination made by Colonel Sir Francis Bolton of the water supplied by the several metropolitan water companies during the month of May, it appears that the Thames water sent out by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies exhibited a further improvement as regards organic matter, the average proportion being even less than in any month of last year. All the waters were clear and bright on delivery. Of the water drawn from the Lea, that distributed by the New River Company was, as regards organic matter, second only to the best deep-well water; whilst the East London Company's supply contained rather more organic matter than the Thames waters. Both samples were clear and bright.

MESSRS. CROOKES, ODLING, and TIDY, in their report on the same subject, state that the character of the water supplied to the metropolis during the past month has been in every respect excellent.

THE German Imperial Board of Health is about to publish a journal every week for the record of sanitary statistics, reports, records, and papers connected with the department. The scientific "Arbeiten" will be continued, but in the form of supplementary parts of the journal, and issued from time to time. The journal is to appear next month, and will be published by J. Springer, Berlin.

THE Port of London Sanitary Committee, finding their hospital accommodation at Gravesend insufficient, have resolved, under the advice of their medical officer, Dr. Collingridge, to erect hospital tents for the treatment of cases of small-pox. One has already been put up by Messrs. Edgington and Co. within twelve hours of the receipt of the order.

IN the Medical Faculty of the Vienna University, Drs. Ultzmann, Wölfler, Mauthner, and Hofmokl have been nominated to extraordinary professorships. Dr. Ultzmann has made important contributions to surgery, especially in the subjects of lithotripsy and lithotomy; Dr. Wölfler, is well known as Prof. Billroth's assistant, and for his writings on "Excision of the Pylorus" and other surgical subjects. Dr. Hofmokl has also been engaged in teaching surgery for some time. Dr. Mauthner has done good work in chemical science. The *Allgemeine Wiener Medizinische Zeitung*, while stating that it does not as a rule approve of increasing the professoriate by extraordinary appointments, is bound to admit the justice of the present appointments, and he believes the promotions will be welcomed by the profession.

THE Chair of Helminthology at the Royal Veterinary College has, we understand, been vacated by Dr. Cobbold, F.R.S. It is not probable that any successor will be appointed in his place, as no inconsiderable part of the subject will naturally be held to fall to the occupants of the chairs of equine and cattle pathology respectively. The question of parasites, however, in relation to epizootics is of very great extent, and it is one to which Dr. Cobbold devoted a great deal of time and research. The destructive effects of the strongyloid worms in particular were thus brought very prominently into notice.

ON the motion of its President, Professor Guido Baccelli, the Royal Academy of Medicine in Rome unanimously admitted as honorary Fellows Sir Guyer Hunter, Dr. Thorne Thorne, Sir Joseph Fayrer, and Dr. T. Lewis, the representatives of Great Britain and British India at the recent International Sanitary Conference.

AT the University of Berlin the First Clinic, formerly under the charge of Professor Frerichs, is now relegated to Professor Leyden. For the other clinical chair the Faculty have nominated Dr. Gerhardt of Wurzburg in the first place, and Dr. Leube of Erlangen in the second.

THE Local Government Board has recommended to the Public Loan Commissioners a loan of £20,000 at 3½ per cent. interest for the purpose of the new drainage scheme at Romford.

THE Brentwood Sanitary Committee has decided to provide a hospital for persons suffering from infectious disease.

REPORT
OF
The Lancet Special Sanitary Commission
ON
MARSEILLES AND TOULON.

No. II.

AT Toulon the sanitary defects of Marseilles are repeated, and even considerably accentuated. The great maritime and arsenal town of France does not even possess an adequate water-supply. A large number of houses have private wells, where the water is constantly contaminated; and but very few can boast of a closet. The street is the sewer, and the water in the gutters serves the double purpose of carrying away the sewage and of cleansing the houses. Women can be frequently seen in the streets with mops and towels, dipping these into the gutter, and then employing them to scrub the floors or the walls of their homes. Here and there, in the recess of a wall, may be noticed a *tinette* placed on the same level as the pavement. This betokens that the house possesses the uncommon luxury of a closet. A carelessly closed rough door only partially conceals the pail from view, and underneath the door the overflow of the *tinette* may be seen and smelt as it slowly oozes out, and, like everything else, finds its way to the gutter. In one of the streets, after passing by two or three of these *tinettes*, we watched a woman come out of a house, which evidently had no closet, and empty the foul contents of her *passares*, or deep night-stool, into the gutter. At the same time, and barely twenty yards further down the street, another woman, singing joyfully over her domestic duties, proceeded to dip a house-cloth into this gutter. When it was well saturated with sewage, she took it in-doors, where she used the moist cloth to wipe over the entire surface of the dining-room table. In due course, bread, fruits, and other edibles were laid on the table, though it was still damp with what was literally the sewage of the street. In another thoroughfare a dam had been made across one of the gutters, and in the water thus accumulated the bricks employed for the building of a house were carefully soaked; every brick had therefore absorbed a certain amount of sewage matter before it went to build the walls of that dwelling.

The condition of the houses in the narrow crowded streets where the cholera made the greatest ravages is in every respect about as bad as can be conceived. In the Rue St. Claire, Rue Miséricorde, Rue des Bonnetiers, Rue Hoche, &c., we visited several houses, and in several instances the back rooms were devoid of light. Some of these served the triple purpose of kitchen, bedroom, and scullery, and remained in a perpetual condition of impurity. On the other hand, in the new and wealthy quarters of the town there is little or nothing satisfactory to note from a sanitary point of view. The houses have closets, it is true, and have even adopted the Parisian system of cesspools; but these are so badly built that they infect the surrounding subsoil, and we had pointed out to us one of the handsomest and most modern among the new houses which is never exempt from typhoid fever. Three separate outbreaks have already taken place in this stately and luxurious building, though several of the flats are not yet let. Next door there were two cases of cholera, and opposite a case of typhoid fever. Indeed, typhoid seems to be more frequent in the new portion of the town, where cesspools have been built. Probably the healthiest houses in Toulon are the better class, but older dwellings, where there are no cesspools, but only movable pails without overflow, and where none but the water of the town-supply is used. Nevertheless, absolute safety cannot be found anywhere, because the entire subsoil is impregnated, and it is impossible to ward off the dangers created by the uncleanly habits and ignorance of the native population.

In the face of all these and many other facts, which the exigencies of space prevent our mentioning, the outbreak of cholera is only remarkable in so far as it does not occur more frequently and does not prove more fatal. That cholera is likely to revisit Toulon again and again there can be no doubt. That the high annual death-rate, officially estimated at 33·8 per 1000, is in a great measure due to preventable causes is equally obvious. That something effective will be done to remedy this disgraceful and barbaric state of affairs is not so certain. It should be easier at Toulon than elsewhere to bring about the necessary improvements. As a great maritime station, the Portsmouth of France, Toulon has a distinct claim on the State, but this claim has so far been an impediment instead of a facility; the local authorities expect the State to do all, or nearly all, that for which under other circumstances they alone would be held responsible. While the dispute continues between the State and the town as to who shall pay the cost of the improvements, nothing is done, and there are no signs as yet of any solution to this vexed question.

This has not, however, prevented the elaboration of extensive projects, and the scheme, presented by M. Dyrion, engineer of the town, has been approved by the Special Governmental Commission appointed to inquire into the matter. This official report is signed by Dr. Brouardel, President of the French Consultative Committee of Hygiene, and M. Bruniquel, Chief Engineer of the Ponts et Chaussées. The report emanates from the Ministry of Commerce, and

proposes, in the first instance, that the waterworks of Toulon should increase their supply from 10,300 cubic metres to 17,000 cubic metres, and this under a pressure of 80 metres. At present the water reaches only the lowest levels. Then the report insists that each house should be supplied with trapped ventilated drains, provided with enough water to ensure their cleanliness. As Toulon is washed by an enormous quantity of storm-water heavily charged with sand, it would be difficult to build sewers capable of carrying away the rainfall. A surface drainage by gutters and the various rivulets of the district is best suited to this purpose; and, according to M. Dyrion's project, a separate canalisation of small pipes is proposed for the sewage matter. One pumping-station would suffice to deliver the whole sewage of Toulon with its 70,000 inhabitants at a spot situated near the Sablettes, to the west of the town. Here a sewage farm could be established, or else the outfall could be conducted straight into the sea. The pollution of various watercourses would then be prevented, for the neighbouring inhabitants would drain into the sewers. The sewers would be of iron, and the largest barely more than a foot in diameter. The foundations are so insecure that preference is given to iron, and it is proposed to use all the water coming from public fountains to feed automatic flushing tanks. On the whole, the scheme is an able combination of English and American systems of drainage, and would cost about £120,000. The further proposals to pull down some of the most insalubrious quarters, to build new broad streets, and, destroying some old fortifications, convert their sites into building land, involve a much larger outlay. All these schemes put together are estimated to cost £700,000, which is indeed a considerable sum for a comparatively small town.

Undoubtedly, if these schemes were fully applied, Toulon, now a focus of epidemic disease, would become one of the healthiest towns in France. If the financial difficulties were to be surmounted, there would, however, still remain the obstinate ignorance and indifference of the population. A system of house-to-house inspection enforced by Draconian bye-laws would be required to maintain the internal domestic cleanliness, which is the indispensable complement of a good system of drainage. In the meanwhile, Toulon is at least thus far in advance of Marseilles; it has submitted a complete scheme, and this project has been approved by the highest competent authority of France. The force of public opinion must now be exercised, so that these studies and projects may promptly lead to the fulfilment of promises long held out and as yet in no wise realised.

DR. RICHARDSON ON MEDICAL POETS.

IN the address on Medical Poets, delivered before the members and friends of the Students' Medical Society of Middlesex Hospital at their conversazione, on Thursday evening, Dr. Richardson claimed for medicine that she had produced three classes of poetic geniuses: the prose poets, the anonymous, and the actual. Like Apollo, who was God of Physic as well as of Music and Song, the followers of Physic had naturally and freely exchanged a common sentiment in both arts. It was impossible for men to go on for ages witnessing the griefs and joys of human life so intimately as men of medicine witness them without many being impelled to express themselves in song, and no single profession, consequently, had produced so many of the poet class. Claiming Virgil as belonging to medicine, and just touching with the lightest illustration on the exquisite melody of the Roman verse, the speaker observed that he should find in our country more material for his discourse than he could properly deal with in the brief period at his command, and should therefore refer to English poets only. We have had eleven poets of mark in this country; an unparalleled number as compared with the rest of the world. Treating of these by name, Dr. Richardson opened with Sir Thomas Browne, author of the "Religio Medici" who, in that immortal work, had not merely written one of the finest prose poems extant, but had given birth to and first modelled a sacred hymn, which was probably more frequently sung than any other in the English tongue. This was the evening hymn reconstructed by Bishop Ken from the hymn with which Sir Thomas Browne, after evening prayers, finished, he tells us, each day in preparation for sleep, and which, beginning with the stanzas,

> "The night is come: like to the day
> Depart not thou great God away,"

was read to the end from the "Religio Medici." Thence the transition was made to Sir Richard Blackmore, the voluminous poet, whose lines Dryden said were

> "Writ to the rumbling of his chariot's wheels,"

and on whom Pope in the "Dunciad" was even more severe. But, after all, Blackmore was a poet, and had he been content to compose one poem, "The Creation," instead of a dozen, he would have ranked very high amongst his class. From Blackmore the step was easy to Sir Samuel Garth, to whose life and character as poet and physician a tribute was paid beyond what has been usually accorded to him. The poem of "The Dispensary" and some translations from Ovid were warmly commended. From Garth the audience was led to Mark Akenside, from whose "Pleasures of Imagination" a quotation was culled; and from him to Armstrong, from whose poem on the "Art of Preserving Health" some special selections were given. After Armstrong the speaker came to dear old Oliver Goldsmith, one or two of whose lines and whose "Madam Blaise" were repeated with much animation. Following Goldsmith, Cotton of St. Albans, the author of the "Fireside" and other domestic pieces, was brought under notice, and after him Erasmus Darwin. On Darwin, the poet of all Darwinians and the poetic founder of all Darwinism, Dr. Richardson dwelt emphatically as on a man who, in every sense, was a gifted poet of the highest order as well as a philosopher, playing the same (or a better) part to Charles Darwin as that played by Plato to Aristotle. It is from this poet that the theory of the origin of species has its prime source. Erasmus Darwin shone better as a prose than as a rhyming poet. His poetic lines, long and monotonous, soon pall; but now and then, as in the little catch to "May," which was delivered in full, the facility for poetic music is well heard, so that possibly the poet rather failed from the character of the rhyme, the length of the poetic wave, which he usually selected, than from failure of genius. After Darwin, Crabbe was brought forward as a poet, bred to medicine and a faithful practitioner of it, and then a clergyman, equally faithful in that vocation. The poetry of Crabbe, always best when it is purely descriptive, shows the knowledge its author had gathered up in both of his professions, but in medicine most. The style—modest, forcible, musical—carries the reader along with it on the easiest and most graceful tide. In illustration, the speaker gave the audience the bright and well-told story of the boy who, found in a parish bound, was named by the sapient vestry Richard, because not one of the board rejoiced in that name, and Monday, because Monday was the day when

> "The unlucky peasant heard the stranger's cry,"

and who, sent to the workhouse to bear a youthful life of indignity, at last ran away, made a position in the world, and dying as Sir Richard Monday of Monday-place, immensely rich and honoured, left, in severe justice, to his native village

> "Two paltry pounds at every quarter day,
> At church produced for forty loaves to pay."

The last two poets brought on the scene were poets of our own century—John Keats and David Moir ("Delta" of *Blackwood*). To both warmest admiration was paid, and the incident of the two medical students, Keats and Stephens, sitting together when the famous first line of "Endymion"

> "A thing of beauty is a joy for ever,"—

flashed across the mind of Keats, was naturally a medical student's incident to the letter.

From what Dr. Richardson further told his audience, it is clear that we have poets still amongst us: a leading surgeon who has written a drama, a physiologist who has tried his hand at the same art, a general practitioner who has "a budget of pieces," and a physician who has received a bardic distinction from the oldest of the old fraternities of the "order of nature." For these and their ultimate fate we must wait, they are not yet declared to the world.

The address closed with the brilliant lines of Keats, "A Draught of Sunshine."

NORTH-EASTERN HOSPITAL FOR CHILDREN.—On the 24th inst. a bazaar in aid of the funds of this institution, situated in the Hackney-road, was opened at the Cannon-street Hotel by the Princess of Wales.

HONG-KONG.

THE annual report by the Colonial Surgeon on the health of Hong-Kong for the year 1884 contains some points of considerable interest. The death-rate of the European troops was 8·05, and of the Indian troops 24·24 per 1000 of strength. In the police force the mortality of the Europeans was 9·0, of the Indians 5·6, and of the Chinese 13·2 per 1000. In the Victoria Gaol the number of persons committed during the year was 4023, furnishing an average of 552 under confinement; among whom the admissions into hospital were in the ratio of 625, and the deaths of 5·45 per 1000—both very low. The weights of 87 habitual opium smokers were taken on their entrance and weekly for the first four weeks of their confinement in gaol, with the following results: 47 had gained, 28 had lost weight, and 12 had undergone no change at the end of the period. Mr. Ayres, the Colonial Surgeon, remarks, "I can find no special symptoms common to all opium smokers when deprived of the use of the drug; they are all ready enough to complain if there is anything the matter with them, and are all watched with the greatest care, and I find nothing to recall in anything I have stated in previous reports." One opium smoker died during the year, of general debility, being the first death among that class which has occurred in the gaol in a period of eleven years. In the Civil Hospital the death-rate among the cases admitted was of Europeans 3·15, of coloured persons 1·24, and of Chinese 6·08 per cent.; in the gaol it was only 0·95 per cent. In the Tung-Wa Hospital, which appears to be one for the Chinese sick poor, and to be under the care of "the so-called doctors of the Tung-Wa Hospital," the deaths amounted to no less than 51·2 per cent. of the admissions. No information is given as to the diseases by which this excessive mortality was caused, but of the 755 that died, 291 are reported to have been moribund on admission. We trust that in future reports some detailed information will be given on this subject. In calling attention to this want of information, we think it but fair to Dr. Wharry, the superintendent of the Civil Hospital, to quote his remark: "A hospital report should include something in the shape of scientific observation, and might be expected to contribute something towards a knowledge of the diseases of the locality. This is out of the question, however, with one medical officer in sole charge of a general hospital of ninety-eight beds, a small-pox hospital of ten beds, and medico-legal work to perform as well." Mr. Crow, the Government analyst, gives a good account of the work done in the Government laboratory. The water-supply at Hong-Kong is obtained from two sources—the Pokfulam reservoir, which is reported to be satisfactory, and various wells, many of which are unquestionably of a dangerous character. Some of them have been closed, but Mr. Crow is of opinion that this measure should be extended to a good many more of them. The analyses of bread and of milk afforded very satisfactory results. Four cases of suspected poisoning were examined: in two no trace of any poison could be detected; in the third opium was found; and in the fourth Mr. Crow was of opinion that the cause of death was the decoction of a drug known by the name of "Fooh-moon-keung," prepared from the Gelsemium elegans. "The Chinese have been aware of the poisonous action of this drug for centuries." The work done in the laboratory has been valuable, and we trust the Government may be induced to put the present temporary establishment on a permanent footing. It seems also very desirable that an addition should be made to the staff of the Government Civil Hospital, which under present arrangements appears to be decidedly overworked.

VOLUNTEER MEDICAL STAFF CORPS.

AT the Mansion House, on Friday, June 19th, the Right Hon. the Lord Mayor in the chair, a public meeting was held to promote the interests of this corps. After stating the object of the meeting and recommending the movement to those present, the Lord Mayor was called from his position in the chair, which was subsequently ably occupied by Dr. Crawford, Director-General, Army Medical Department. The first resolution—"That this corps deserves the support of all classes of the community" was proposed by General Gipps, C.B., commanding the Home District, and in a well-chosen speech was seconded by Sir James Hanbury, K.C.B., principal medical officer of the Home District, and supported by Mr. Furley. The second resolution—"That this corps is an essential part of the Volunteer force"—was proposed by Colonel Lumsden, London Scottish R.V., and seconded by Colonel Routledge, City of London, and supported by Sir William Mac Cormac. The third resolution—"That this meeting pledges itself to promote the interests of this corps, monetarily and otherwise"—was proposed by John Biddulph Martin, Esq., seconded by Sir Guyer Hunter, K.C.M.G., and supported by Colonel Shakespeare and General Lowry. All the speakers dwelt on the usefulness of the corps as a teaching element to young medical men, as well as a backbone and essential reserve to the Medical Staff Corps of the army. It was stated that the medical officers of the army had already grasped the importance of the movement, but that it would take a long time to educate the mass of civil practitioners to take their rightful places in public movements of this kind. Especially in this particular enterprise might it be expected they would come forward, as it is the first organised movement of the kind ever started by civil medical men in this or any other country.

The Volunteer Medical Staff Corps held its first church parade at St. Paul's on June 14th, being Hospital Sunday.

On Saturday, June 13th, the corps paraded at Woolwich Arsenal, when a course of instruction in loading and unloading ambulance waggons was gone through; as many as six waggons being available.

THE HOSPITAL SUNDAY FUND.

THE following is a list of the principal contributions which have been received on behalf of the Metropolitan Hospital Sunday Fund since our last issue:—

St. Jude's, South Kensington (Rev. Dr. Forrest), £702 2*s.*; Regent-square Presbyterian Church, £121; St. Peter's, Cranley-gardens, £175 9*s.* 9*d.*; St. Peter's, Vere-street (with additions), £215; St. Mark's, Hamilton-terrace, £200 1*s.* 7*d.*; Bromley (Kent) Congregational Church, £100 7*s.* 3*d.*; Parish Church of Holy Trinity, Sydenham, £100 3*s.*; St. Paul's, New Beckenham, £103 4*s.* 3*d.*; Union Congregational Chapel, Islington, £101 1*s.*; Holy Trinity, Paddington (with additions), £183 12*s.* 6*d.*; Delta (a further contribution), £200; St. Peter's, Bayswater, £112 13*s.*; St. Stephen's, Paddington, £117 12*s.* 11*d.*; St. Peter's, Eaton-square, £458 3*s.* 3*d.*; St. Paul's, Wilson-road, £114 1*s.*; Portman Chapel, £168 12*s.* 5*d.*; St. Paul's, Avenue-road, £100 18*s.* 3*d.*; St. Paul's, Knightsbridge, and St. Mary's, Graham-street, £300 12*s.* 3*d.*; Holy Trinity, Upper Chelsea (Rev. Prebendary Eyton), £133 13*s.*; Wimbledon churches (St. Mary's, Christ Church, St. John's, and St. Mark's), £223 16*s.* 2*d.*; Grosvenor Church, South Audley-street, £107 8*s.* 8*d.*; St. Stephen's South Kensington, £179 14*s.*; St. Mary's, Bryanston-square, £118 12*s.* 6*d.*; St. Mark's, North Audley-street, £220 5*s.* 2*d.*; St. John's, Paddington, £177 5*s.*

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5426 births and 3129 deaths were registered during the week ending the 20th inst. The annual death-rate in these towns, which had declined from 21·1 to 18·6 per 1000 in the preceding four weeks, further declined to 18·3 last week, a lower rate than has prevailed in any week since the beginning of this year. During the first eleven weeks of the current quarter the death-rate in these towns averaged 21·2 per 1000, against 22·1, the mean rate in the corresponding periods of the nine years 1876-84. The lowest rates in these towns last week were 10·5 in Derby, 13·6 in Portsmouth, 13·8 in Wolverhampton, and 14·2 in Halifax. The rates in the other towns ranged upwards to 24·2 in Newcastle-upon-Tyne, 25·5 in Manchester, 25·5 in Blackburn, and 31·7 in Cardiff. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 520 and 429 in the preceding two weeks, rose again to 454 last week. These

included 187 from measles, 104 from whooping-cough, 55 from diarrhœa, 34 from "fever" (principally enteric), 25 from diphtheria, 25 from scarlet fever, and 24 from small-pox. No death from any of these zymotic diseases was registered last week in Derby; while they caused the highest death-rates in Liverpool, Blackburn, Cardiff, and Newcastle-upon-Tyne. The greatest mortality from measles occurred last week in Salford, Liverpool, Birkenhead, and Newcastle-upon-Tyne; whooping-cough in Cardiff, Plymouth, and Blackburn; scarlet fever in Preston and Wolverhampton; and "fever" in Norwich, Portsmouth, and Cardiff. The 25 deaths from diphtheria in the twenty-eight towns included 16 in London, 3 in Liverpool, 2 in Sunderland, and 2 in Cardiff. Small-pox caused 32 deaths in London and its outer ring of suburban districts (exclusive of 16 deaths of London residents recorded in the metropolitan asylum hospitals and camp at Darenth), 2 in Hull, and 1 in Manchester. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had been 1389, 1201, and 1222 on the three preceding Saturdays, had declined to 1119 at the end of last week; the admissions, which had been 272, 180, and 197 in the previous three weeks, declined to 163 last week. The Highgate Small-pox Hospital contained 62 patients on Saturday last, 13 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had declined from 305 to 231 in the preceding four weeks, further fell last week to 196, and were 46 below the corrected weekly average. The causes of 82, or 2·6 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Blackburn, Bolton, and in five other smaller towns. The largest proportions of uncertified deaths occurred in Huddersfield, Sunderland, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 21·8 and 20·6 per 1000 in the preceding two weeks, was 20·8 in the week ending June 20th, and exceeded by 2·5 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 15·6 and 18·5 in Aberdeen and Paisley, to 22·8 in Glasgow and 28·9 in Greenock. The 508 deaths in the eight towns included 17 which were referred to measles, 16 to whooping-cough, 12 to diarrhœa, 10 to "fever" (typhus, enteric, or simple), 6 to scarlet fever, 2 to diphtheria, and 1 to small-pox; in all 64 deaths resulted from these principal zymotic diseases, against 74 and 63 in the preceding two weeks. These 64 deaths were equal to an annual rate of 2·6 per 1000, which was 0·1 below the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of measles, which had been 15 and 13 in the previous two weeks, rose to 17 last week, of which 9 occurred in Glasgow, 4 in Greenock, and 3 in Edinburgh. The 16 deaths from whooping-cough showed a further decline from recent weekly numbers, and included 9 in Glasgow, 3 in Greenock, and 2 in Edinburgh. The 12 deaths attributed to diarrhœa showed a decline of one from those in the previous week, and were 8 below the number in the corresponding week of last year. The deaths referred to "fever," which had been but 3 and 7 in the previous two weeks, further rose to 10 last week, of which 5 occurred in Glasgow, 2 in Edinburgh, and 2 in Dundee. Five of the 6 deaths from scarlet fever were returned in Glasgow. The fatal case of small-pox also occurred in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 126 and 94 in the preceding two weeks, were again 94 last week, which, however, exceeded by 4 the number returned in the corresponding week of last year. The causes of 82, or more than 16 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 23·1 and 29·1 per 1000 in the preceding two weeks, declined again to 27·5 in the week ending the 20th inst. During the first eleven weeks of the current quarter the death-rate in the city averaged, however, no less than 30·3 per 1000, the rate during the same period not exceeding 19·8 in London and 18·5 in Edinburgh. The 186 deaths in Dublin last week showed a decline of 11 from the number in the previous week, and included 20 which were referred to the principal zymotic diseases, against 15 and 24 in the preceding two weeks; 6 resulted from measles, 4 from scarlet fever, 3 from whooping-cough, 3 from diarrhœa, 2 from fever, 1 from diphtheria, and 1 from small-pox. These 20 deaths were equal to an annual rate of 3·0 per 1000, the rate from the same diseases being 2·7 in London and 1·9 in Edinburgh. The fatal cases of measles, which had been 13, 9, and 11 in the previous three weeks, declined to 6 last week, and were fewer than in any week since the middle of February last. The 2 deaths from "fever" were 5 below the number in the previous week, while those from scarlet fever, whooping-cough, and diarrhœa showed an increase. The fatal case of small-pox was the first recorded within the city since the beginning of the year. Seven inquest cases and 7 deaths from violence were registered, and 50 deaths were recorded in public institutions. The deaths of infants were 11 fewer than the number in the previous week, while those of elderly persons had increased. The causes of 31, or nearly 17 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

AMONG the officers who left Egypt for England, invalided, by the *Oregon*, on the 23rd inst., were Surgeon-Major F. Ferguson, Surgeon-Major P. R. Gabbett, and Surgeon K. S. Wallis. Surgeon W. Turner left Suakin, invalided, on the 16th inst., per *Lochard*.

The hospital ship *Ganges* has left Portsmouth for Suakin, where she will embark additional invalids for England. With the exception of a medical staff, consisting of forty-six doctors, nurses, and others, she went out empty.

ARMY MEDICAL STAFF.—Brigade Surgeon Nathaniel Norris is granted retired pay, with the honorary rank of Deputy Surgeon-General.

INDIA OFFICE.—The Queen has approved of the retire from the Service of the following officers of Her Majesty's Indian Military Forces:—Surgeon-General William Robert Cornish, C.I.E., of the Madras Army; Brigade-Surgeon Sarkies Michael Shircore, of the Bengal Army. The following officers are granted a step of honorary rank on retirement:—Deputy Surgeon-General William Peari, of the Madras Army, to be Surgeon-General; Brigade Surgeon William Henry Kirton, and Brigade Surgeon John Jones, M.D., of the Bengal Army, to be Deputy Surgeon-Generals.

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Fleet Surgeon John Cockburn Messer, M.D., has been placed on the Retired List, with permission to assume the rank and title of Deputy Inspector-General of Hospitals and Fleets.

The following appointments have been made:—Staff Surgeon Herbert M. Nash, to the *Thunderer;* Surgeon Harold R. Osborne, to the *Philomel;* Surgeon Myles O'C. M'Swiny, to the *Valiant;* Joseph Stephens, M.D., to be Surgeon and Agent at Brighton and Blackrock: J. H. Foley, to be Surgeon and Agent at Carnsore and Rosslare; and Edward Greeve, M.D., to be Surgeon and Agent at Bonmahon.

ARTILLERY VOLUNTEERS.—1st Cornwall (Duke of Cornwall's): Arthur Hodge, Gent., to be Acting Surgeon.

RIFLE VOLUNTEERS.—3rd Hampshire: Edward Thomas Crouch, Gent., to be Acting Surgeon.—1st Cheshire: Francis Peirce, Gent., M.D., to be Acting Surgeon.—1st Perthshire: Alexander Thom, jun., Gent., M.D., to be Acting Surgeon.

UNIVERSITIES OF EDINBURGH AND ST. ANDREWS PARLIAMENTARY REPRESENTATION.—A dinner has, we understand, been arranged to take place at the Holborn Restaurant on Friday, July 3rd, at 6.30 P.M., for the purpose of giving Conservative electors of the Universities of Edinburgh and St. Andrews an opportunity of meeting Mr. J. H. A. Macdonald, Q.C., LL.D., Dean of Faculty, and Lord Advocate for Scotland under the new Ministry, the Conservative candidate for the representation of these universities in Parliament at the next election. Mr. Æneas Mackay, advocate, Edinburgh, is spoken of as the Liberal candidate for the seat. It is greatly to be regretted that a member of our own profession does not aspire to the representation of this important constituency.

Correspondence.

"Audi alteram partem."

THE DETERMINING TENDON IN DORSAL DISLOCATIONS OF THE HIP.

To the Editor of THE LANCET.

SIR,—We have been in the habit in this country—and it is an error into which I believe all our text-books lead us—of conceding to Professor Bigelow the honour of pointing out the influence of the obturator internus tendon in separating the dislocation upwards and backwards on to the dorsum ilii from the dislocation backwards, or upwards and backwards, into the sciatic notch, for which cumbersome nomenclature I propose in future to adopt the terms *supersiliac* and *supersciatic*. Without doubt, we are much indebted to Professor Bigelow for his admirable work published in 1869, which has done so much to awaken a new interest in dislocations of the hip; but very difficult it is to know all that distinguished authors have written before our time, and Bigelow has clearly overlooked Malgaigne's observations. There is room in the world for all great men, and I am sure Professor Bigelow will owe me no ill-feeling for pointing out that the distinguished French surgeon, J. F. Malgaigne, had long forestalled his observations on the influence of the obturator tendon. Indeed, considering the emphasis with which Malgaigne insists on this point, it is curious that it should not have attracted the notice of subsequent readers and writers. I will transcribe Malgaigne's words as they appear on p. 837 of his work "Traité des Fractures et des Dislocations," tome ii., published in 1855:—

"Ce qu'il faut faire ressortir, c'est que, dans cette luxation, *la tête s'échappe toujours au-dessous de l'obturateur interne* qui occupe la petite échancrure sciatique, et des jumeaux qui sont en quelque façon ses satellites. Tantôt elle déchire seulement le carré qui est au dessous, tantôt seulement les jumeaux, tantôt les jumeaux et le carré à la fois, *l'obturateur interne restant comme une barrière pour empêcher la tête de remonter;* et enfin, dans le cas de Wormald, si l'obturateur était rompu, ce qui restait des jumeaux en faisait l'office. *Sans doute cette barrière peut être franchie, et alors la luxation devient iliaque;* mais quand elle est primitivement iliaque, c'est-à-dire quand la tête est sortie au-dessus du muscle obturateur interne, je doute qu'elle puisse redescendre au niveau de l'épine sciatique, à moins qu'elle n'y soit ramenée par les manœuvres du chirurgien. En un mot, *la tête sortant par-dessous l'obturateur interne est toujours luxée sur l'ischion*, et peut consécutivement remonter sur l'ilium; *la tête sortant par-dessus donne toujours une luxation iliaque.*"

The italics are my own, but nothing can be clearer or more emphatic than this statement of the influence of the tendon of the obturator internus in separating the supersciatic dislocation from the superiliac.

I am, Sir, yours truly,

R. CLEMENT LUCAS, B.S. Lond., F.R.C.S.

Finsbury-square, June, 1885.

"RENAL" PULSE ASSOCIATED WITH CHEYNE-STOKES' RESPIRATION.

To the Editor of THE LANCET.

SIR,—Professor M. Foster has been kind enough to afford me an explanation of the following observation made and inserted by me in my notes on a case of Dr. Whipham's in the York ward of this hospital. The professor was also kind enough to consider the observation sufficiently interesting for me to submit it to you for publication in THE LANCET.

"*Case of William S——, York ward, St. George's Hospital, May 28th*, 1885.— ..... The pulse at one moment is hard and full (renal), then it commences to slow down and grow weak, until, for a moment, it ceases entirely; again, after an instant's cessation, it recommences, growing slowly faster and stronger, until at the end of a few seconds it has become once more a pulse of the 'renal' type. Associated with this is the phenomenon known as 'Cheyne-Stokes' respiration.'"

But the most interesting part of the observation was, to use Professor Foster's own words, "that the heart and respiration alternated in rhythm, the heart being in full swing at pause of respiration, and being inhibited during height of respiratory period."

Professor Foster's explanation of this was that "apparently coincident with changes in the medulla oblongata leading to Cheyne-Stokes' respiration was a stimulation of the cardio-inhibitory centre in the medulla, occurring alternately with the former."

Being unaware that this state of the pulse has before been observed in conjunction with Cheyne-Stokes' respiration, I have ventured to submit this letter to you, in the hope that I may learn whether other observers besides myself have previously noted the fact. I may add, that on my calling attention to the above, it was observed in this case by others, and at the same time. Any excitement of the patient (he had been delirious for some days previous to, and was in a semi-comatose state at the time of, observation), such as moving him in his bed, &c., caused this double phenomenon to cease, only to return, however, when the patient was once again in his semi-comatose condition.

I am, Sir, yours faithfully,

HUGHES R. DAVIES,
Clinical Clerk to Dr. Whipham.

St. George's Hospital, June 17th, 1885.

THE COLLEGE ELECTION.

To the Editor of THE LANCET.

SIR,—Will you allow me to correct an important error in my letter which appeared in your impression of last week—an error which has just come to my knowledge, and which I am grateful for having had more accurate official information communicated to me, that now enables me at once to rectify it. I stated "that the office of Examiner in Surgery was restricted almost exclusively to members of the Council" of the College, whereas this is certainly not an absolute rule. As exceptions may be mentioned the present President and both the Vice-Presidents, each of whom was elected by the Council as an Examiner in Surgery before he became a member of Council, and the last two such Examiners elected are not on the Council.

I feel that I ought to have ascertained these facts, or have remembered the more recent exceptions, before making a statement which, however, had reference to the principle of generally combining the two offices of Examiner in Surgery and member of the Council.

Trusting you will insert this communication in your next impression, I am, Sir, yours obediently,

London, June 24th. FREDERICK JAMES GANT.

THE LATE MEDICAL OFFICER OF HEALTH FOR LEICESTER.

To the Editor of THE LANCET.

SIR,—My attention has been directed to your editorial note on the resignation of the medical officer of health for this borough, and I regret to find that you have been entirely misled by an article which recently appeared in a local paper. As a matter of fact, Dr. Johnston's resignation was due to the increase in his private practice preventing him giving that amount of time and attention to the duties of his office which his appointment required. This was assigned in his letter of resignation as the reason of his retirement, and in that letter he acknowledged the assistance he had ever received from the sanitary committee of this corporation. I feel it is due to my committee, to yourself, and to the medical profession generally—and I am pleased to say we have three members of the profession in the committee—that this explanation should be made; and its insertion will therefore oblige, Yours truly,

THOS. WINDLEY,
June 17th, 1885. Chairman of Sanitary Committee, Leicester.

CHESS. — Lord Tennyson and Mr. Ruskin, respectively president and vice-president of the British Chess Association, have, it is announced, each consented to give a copy of his works, with autograph, as prizes to be competed for in the tournament now proceeding. Lord Tennyson's prize is for the best two players in consultation, belonging to the professions of Medicine, the Law, Church, Army, or Navy.

MANCHESTER.

(From our own Correspondent.)

THE HOUSING OF THE POOR.

THE report issued by the Royal Commission on the housing of the poor is, to say the least of it, disappointing so far as suggesting any substantial remedy for the evils of overcrowding among the lower classes, the existence of which it emphatically demonstrates. In Manchester, some time ago, two experiments on a small scale were tried on a semi-philanthropic basis, but these have, up to the present, not been a financial success, though there is more prospect of this in the near future. The Town Council have not been inactive so far as demolishing whole districts in some of the worst neighbourhoods, but the failure has been in the lack of building houses in lieu of those destroyed, as the large vacant plots, especially in the neighbourhood of Deansgate, show. This subject is still occupying the attention of the municipal authorities; and in the last report of their medical officer of health allusion is made to this. He thinks that some attempt should be made to provide, outside the city, cottage dwellings to some considerable extent for the better-class artisans and operatives within a distance of two or three miles of the centre of the town, with tram and railway facilities for getting to and from their work. Probably some such arrangements as those on the Shaftesbury estate, near Battersea-park, London, might be found practicable, and he hopes that by thus removing the upper grades of the working class those lower in the scale would be able to use the cottages and houses set at liberty by others, and thus the lowest and worst class of property might more rapidly be got rid of. It is not unlikely that ere long some such scheme as this will be brought before the notice of the public generally and their help solicited, as it is admitted to be beyond the powers of the Corporation, even if they were willing to undertake the working out of such a scheme. There can be no doubt as to the benefit which would be derived by all concerned if such a project were carried out; those workmen and their families will benefit both physically and morally, whilst those remaining in the city would no longer be compelled to inhabit the slums and dens in which so many at present live.

THE SUPERVISION OF OUR MEAT-SUPPLY.

An interesting paper by Mr. Vacher was discussed at the last meeting of the Northern Association of Medical Officers of Health, the subject being the want of proper supervision of our meat-supply; he showed how very lax in many places are the regulations as to the proper control and arrangement of slaughter-houses and how easy it is for diseased animals to be put into the market as food. He advocated some such universal supervision and registration of all slaughter-houses and meat shops as now exist in regard to bakehouses and milk-shops and dairies, together with an official examination of all meat before being exposed for public sale.

THE COLLIERY EXPLOSION.

The columns of the daily papers will have informed your readers of the terrible catastrophe at Messrs. Knowles' colliery here last week. The scenes at the pit-mouth were heartrending in the extreme. It is known that moer than 170 lives have been lost. Within a very short time of the explosion a number of medical men were in attendance at the mine, but there was little to be done by them, as most of those who did not at once make good their escape were suffocated by the after-damp, or, as happened in many cases, sank half suffocated into the water which made its way into the workings, and were thus drowned. Some few of the injured who were got out alive were taken to the Children's Hospital, Pendlebury, and to the Salford Hospital. Surely, it does not seem too much to ask science that explosions such as this should be rendered almost impossible. If the ventilation were more vigorous, and the air swept through the workings with more force, escapes of inflammable gas might be so quickly diluted as to be rendered non-explosive. Great sympathy has been expressed throughout the land for the families of the sufferers, and the Lord Mayor of London has offered assistance. Our own mayor took immediate steps to open a relief fund, which has been promptly responded to, so that it is to be hoped that the sorrow and misery caused by this awful catastrophe will be to some little extent alleviated.

EXTENSION OF OWENS COLLEGE AND OF THE SALFORD AND THE EYE HOSPITALS.

The extensions of the Owens College are proceeding apace and the original block is now almost shut out of view from Oxford-road by the new wing. The College, like so many of the public buildings of Manchester, suffers architecturally by being so closely shut in on all sides that no good view of it as a whole is obtainable. The extensions, too, of the Salford Hospital are progressing rapidly, and the new Eye Hospital is now practically complete, and will soon be ready for opening.

COUNTRY HOLIDAYS FOR POOR CHILDREN.

The committee who last summer so successfully organised country holidays for poor children of two or three weeks are again pursuing their good work in this direction, and ask for increased help, that many more of our children from the slums may this year, for a few weeks, breathe the purer air of the surrounding country villages.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

THE MEASLES IN NEWCASTLE.

THE epidemic of measles still prevails, and shows little sign of abatement as to numbers attacked; but I would fain hope, from conversation with practitioners, that the type is undergoing some change for the better as regards severity. The weather has not been at all favourable these last couple of weeks, considering the season, for any bronchial affections, but has been characterised by considerable variation of temperature, with high and gusty winds; upon the whole the temperature has been low for midsummer, with an absence of bright sunshine. As usual, when we are troubled with any general illness our papers are crowded with letters and suggestions from writers who, no doubt with the best intentions, know very little about what they are writing. One writer to-day commences very well with good general directions as to isolation, certification, and disinfection, &c., then he makes the utopian suggestion that a policeman or sanitary officer should be stationed day and night before each infected dwelling to insist upon the production of a pass or permit from the medical officer of health from every person leaving the infected house. Medical men are to wear waterproofs on visiting each patient, these garments to be supplied at the cost of the town by the sanitary authorities.

FATAL ACCIDENT TO A SURGEON.

A shocking and fatal accident occurred to Mr. John Middleton, of Butterknowle, near Bishop Auckland. About nine o'clock on the night of the 15th, as he was riding home to Butterknowle from Woodlands, his horse stumbled and fell, throwing its rider with such force to the ground that on being picked up he was found to be unconscious, and to have sustained a fracture of the skull which caused death in sixteen hours. Mr. Middleton, who was in his thirty-second year, was a L.R.C.S., and belonged to a well-known family in Ireland, being a son of the late Dr. Middleton of Mullingar. Much sympathy is felt for his widow. The funeral was attended by crowds of friends and patients.

Newcastle-on-Tyne, June 23rd.

EDINBURGH.

(From our own Correspondent.)

EDINBURGH FEVER HOSPITAL.

THE rather anomalous system of charitable support by which the Edinburgh Fever Hospital has been maintained for some years will come to an end on July 1st, after which date the necessary funds will be provided from the burgh rates. It is nearly a year since Lord Shand, one of the directorate, drew the attention of the managers of the Royal Infirmary to the fact that they were supporting an institution the maintenance of which was by statute incumbent upon the Town Council. The managers subsequently passed a resolution not to provide for the support of the Fever Hospital after the end of this month; and at a meeting held on the 22nd inst., they decided to

offer the present buildings to the Town Council for a sum of £4000. These buildings are a part of the old infirmary, formerly known as the "Surgical House." They have been of late completely renovated; and as they, with the valuable site they occupy, are worth fully twice the sum named, it is scarcely possible that the civic authorities will decline the generous offer made to them.

GENERAL MEDICAL COUNCIL COMMISSIONERS.

The commissioners appointed by the General Medical Council to inquire into the system of teaching and examinations in the Scottish medical schools are at present in Edinburgh. They are attending the final examinations for the degree of M.B. and C.M. in the University, which are just now being held.

MOVEMENT OF THE ULNA IN PRONATION.

At the meeting of the Medico-Chirurgical Society held last week, Mr. C. W. Cathcart gave a demonstration of his views upon the causation of the lateral movement of the ulna which occurs in pronation. As the result of a series of experiments, he concludes that this movement is due to a rotation outwards of the humerus, which accompanies pronation, and which causes the inner condyle and the ulna to pass in a forward and outward direction. After demonstrating that the apparent lateral movement of the ulna does exist, he proceeded to show that it does not occur when the humerus is absolutely fixed; and to demonstrate this satisfactorily he made use of a case of complete ankylosis of the shoulder-joint, where any movement of the humerus was at once registered by corresponding movements of the scapula. When the whole of the shoulder girdle and the humerus were fixed, it was found that the lateral movement of the ulna did not occur, and it was hence concluded to depend upon the mobility of the humerus.

REMOVAL OF UPPER EXTREMITY.

Mr. Joseph Bell showed at the same meeting a patient whose whole upper extremity he had removed for sarcoma of the scapula. The recovery was a good one, and the general health had much improved since the operation.

Edinburgh, June 23rd.

PARIS.

(From our Paris Correspondent.)

CÆSAREAN SECTION.

AT the meeting of the Academy of Medicine last week Dr. Guéniot read his report on a work forwarded by Dr. Closmadeuc relative to the Cæsarean section. The author had performed the operation three times successfully as regards the mother, and twice with equal success as regards the child. These operations were performed in the country under circumstances comparatively unfavourable, and if the patients got well it was, in Dr. Guéniot's opinion, owing to the mildness of the weather (month of May) which permitted the room occupied by the patients to be thoroughly ventilated, to their robust constitution, and finally to the ability of the operator. Encouraged by the successful issue of these cases, Dr. Closmadeuc is disposed to rehabilitate the Cæsarean section in opposition to Porro's operation—that is to say, the complete ablation of the uterus, which tends to grow in favour at the present time. On this Dr. Guéniot remarked that without going so far as Dr. Closmadeuc, he would affirm that Porro's operation is not so devoid of danger as one would be led to suppose, as the mortality from it has been registered at 58 per cent. Moreover, the Cæsarean section, performed with all the modern improvements which have been made in abdominal surgery, is not attended with the same danger as formerly.

A NEW APPARATUS FOR THE ADMINISTRATION OF CHLOROFORM.

In reference to his experiments on the production of anæsthesia with a mixture of chloroform and atmospheric air, M. Paul Bert presented, at the last meeting of the Academy of Sciences, a very ingenious and convenient apparatus, invented by M. Raphael Dubois, by which the quantity of chloroform and air may be regulated at will. The apparatus is reported to have been employed in a great number of operations in France and Belgium. M. Bert states that, if the patient be not addicted to spirits, he should have a mixture containing ten grammes of chloroform to a hundred litres of air, and seven or eight minutes suffice to obtain anæsthesia; whereas an alcoholic subject would require ten to twelve minutes. As soon as sleep is obtained, by a special arrangement of the apparatus the strength of the mixture is reduced to six grammes to the hundred litres, which is sufficient to maintain the anæsthesia. In conclusion, M. Paul Bert brought to notice the successful results obtained by a Belgian surgeon in five operations under this method—two tracheotomies and three ovariotomies.

LIMITATION OF THERMAL TREATMENT AT AIX-LES-BAINS.

A ministerial decree lately published in the official journal has caused some discontent, and justly so, among the medical men of Aix-les-Bains, as the decree limits to twenty-one days the maximum duration of the thermal treatment accorded gratuitously to certain privileged persons. The medical men have protested against the officious and unwarrantable interference of the Minister of Commerce, from whom the decree emanated, concerning their professional duties. The protest has had the support of the municipal authorities and the Deputy of Savoy, the latter having personally addressed the Minister on the subject, and it is hoped that this functionary will see his error and annul the decree without delay.

OUTRAGES BY LUNATICS.

There is evidently some mismanagement in the lunatic asylums of this country, for within the last two or three weeks circumstances have occurred among the inmates that would justify this assertion. About a week ago a lunatic in the Saint Pierre Asylum at Marseilles, who was suddenly seized with hallucination, rushed out of his bed at night and, attacking another inmate with a saucepan, struck him a severe blow on the head, causing instantaneous death. Only a few days previously another sad occurrence took place in the same asylum. A keeper put two patients in separate baths and left them for a short time. During his absence one of them got out of his bath and turned on the tap of hot water into the bath of the other. When the keeper returned he found the unfortunate creature scalded to death. Last week another tragic scene took place in the lunatic asylum at Lehon, near Dinan, which is under the management of the Brothers of Saint Jean de Dieu. In this case one of the lunatics attacked a brother and struck him on the head with his wooden shoe, causing death after twelve hours of suffering. Another brother who had come to his assistance was severely bruised on the face by another madman, also with his wooden shoe. Both the patients got very much excited and made off for the doctor's residence with the intention of killing him, but, fortunately, they were prevented. The patient who murdered the brother had strangled his wife and attempted to kill his aunt, on which account he was sent to the asylum. Since his detention, however, which commenced some years ago, he appeared to be very quiet, and was considered almost cured.

Paris, June 23rd.

Obituary.

THOMAS PRETIOUS HESLOP, M.D., F.R.C.P.

ANGINA PECTORIS, the fatal ending of John Hunter Charles Bell, and many other illustrious lives, was the cause of Dr. T. P. Heslop's death at Braemar on the 17th inst. The son of a Scotch officer in the Artillery and of an Irish lady, Dr. Heslop was born in the West Indies in 1823. His boyhood was passed under the roof of his uncle, Dr. Thomas Underhill, the leading practitioner at Tipton, Staffordshire. Here was imbibed and cultivated a love for medical study, afterwards pursued with conspicuous success in Dublin, and in Edinburgh, where he graduated M.D. in 1848. A few months later, the governors of the Birmingham General Hospital resolved on dividing the work of their hitherto single resident officer, and Dr. Heslop was elected the first house-physician of that institution. It was not long before he gave evidence of that ardour of temperament which characterised him through life. The new appointment was soon vacated; but the young physician had already given such striking proof of uncommon aptitudes that he was not

long out of office. Successively Professor of Physiology in the Queen's College, and physician to the Queen's Hospital and the General Dispensary, he became the leader of the staff of the Children's Hospital, which he founded, as he did the Skin and Lock Hospital. He also contributed powerfully to the establishment of the Women's Hospital and of the Birmingham Medical Institute. He was a justice of the peace, a governor of King Edward's School, and a trustee of Sir Josiah Mason's Science College. Of the latter institution he was bailiff and President of Council at the time of his death; and he could not have left a more worthy and appropriate monument than the library of the College, which owes its chief treasures to his best impulses. Inspired by many noble sentiments, impelled by tumultuous energy, faithful to his life's work, without heeding the unerring warnings of anginal seizures, Dr. Heslop's was a great life. Poor in worldly means, like many other distinguished men, at the onset of his career, his rise to comparative affluence as a consulting physician was not rapid. When he realised it, unlike some successful men, he was most generous in the partition of his share of fortune's favours. He was unmarried; and so intense was his devotion to the institutions with which he was officially connected, that, for them, his loss is wellnigh irreparable.

D. MANSON FRASER, M.A., M.D.

DR. FRASER, whose untimely death in Borneo we recorded in our last issue, was born at Invergordon in 1857, and was educated at the Grammar School and University of Aberdeen. At the latter place he had a distinguished career, graduating as M.A. in 1876, with first-class honours in Mathematics and Natural Philosophy, and honours in Natural Science, besides being Boxhill Mathematical and Natural Science prizeman. He immediately followed on to medicine, and graduated M.B., C.M., with honours and thesis commended, in 1879. He received the degree of M.D. in 1881. In 1878-79 he was house-physician at Aberdeen Royal Infirmary; in 1879-80 he held a similar appointment in the Northern Hospital, Liverpool; and thereafter, for three years, was a medical officer under the Metropolitan Asylums Board, London, being chiefly engaged at the fever and small-pox hospitals of Homerton, Newcross, ship *Atlas*, and Hampstead. In September, 1883, he went out to Borneo as medical officer to the British North Borneo Company. Dr. Fraser was the author of numerous papers on medical and sanitary subjects, including one on the "State of the Prisons of England, and their Influence on the Diffusion of Small-pox among the English Population in the Eighteenth Century." For this paper he was awarded the Howard medal of 1882 from the London Statistical Society.

ROBERT RATTRAY, M.D., M.R.C.S.

THE death is recorded, at the advanced age of seventy-five, of Dr. Robert G. Rattray, late apothecary and medical superintendent of the Aberdeen Royal Infirmary. Dr. Rattray, who was a native of Aberdeen, went through the course of medical study common at the time in connexion with the university of that city. In 1831 he obtained the diploma of membership of the Royal College of Surgeons of England, and in 1845 took the degree of M.D. at Aberdeen University, being some years subsequently appointed lecturer in Materia Medica in King's College, Aberdeen. He received his appointment as apothecary in connexion with the hospital in 1840, having acted for some time previously as electrician; and in 1849 he was appointed resident medical superintendent, an office which he continued to fill till his retirement, on account of advancing years, in January, 1882, an allowance of £200 a year being then granted him in consideration of his long and faithful service.

CONSIDERABLE regret has been felt in Sheffield among Dr. Banham's medical *confrères* at his departure from that town. He goes to Reading, where he has received appointment as physician to the Royal Berkshire Hospital. This regret found expression in a dinner, which was held on Wednesday, June 17th, and was attended by many of his late colleagues at the Infirmary, Medical School, and Medico-Chirurgical Society, in addition to others from Sheffield and the neighbourhood.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone all the necessary examinations, were admitted Licentiates in Dental Surgery at a meeting of the Board of Examiners on the 24th inst.:—

Bardet, Paul Charles Albert, Geneva.
Campion, George Goring, Manchester.
England, Walter Joseph, Southill-park, Hampstead.
Gabriel, William Maurice, Gloucester-gardens.
Goffe, Frank Hampton, Birmingham.
Jones, Alexander John, Maida Vale.
Mackrell, Alfred Sextus, Queen Anne-street.
Mugford, George Henry, Exeter.
Peall, Frederick Snell, Brixton-rise.
Robinson, Arthur Bernard, Liverpool.
Smith, Charles Robert, Leamington.
Williams, Hugh Lloyd, Llanberis, N. Wales.

(Candidates referred, 4.)

UNIVERSITY OF OXFORD.—At a congregation held on the 18th inst. the following degrees were conferred:—

DOCTOR OF MEDICINE.—J. Price, Queen's.

BACHELOR OF MEDICINE.—F. Phillips, Balliol; R. Ward, Exeter; G. Buckmaster, Magdalen; A. Garrod, A. Greswell, A. Orr, Christ-church; L. Guilding, Worcester.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 17th inst. the following degrees were conferred:—

BACHELOR OF MEDICINE.—Samuel Herbert Habershon and Thomas George Stvan, Trinity; Patrick Cumin Scott, St. John's; Thomas Ernest Hillier and Frederick Charles Wallis, Gonville and Caius; Sidney Morton Pearson Roberts, Christ's; Edward Waymouth Reid, Cavendish.

BACHELOR OF SURGERY.—Frederick Charles Wallis, Gonville and Caius; Sidney Morton Pearson Roberts, Christ's.

UNIVERSITY OF DURHAM.—At the recent examinations for degrees in Medicine and Surgery the following satisfied the Examiners:—

DOCTOR IN MEDICINE, FOR PRACTITIONERS OF FIFTEEN YEARS' STANDING.

Batchelor, Ferdinand Campion, M.R.C.L., L.R.C.P., L.S.A.	Palmer, F. Stephen, M.R.C.S., L.R.C.P., L.S.A.
Harris, John Badcock, M.R.C.S., L.R.C.P.	Ransford, Gifford, M.R.C.S., L.R.C.P.
Morris, John Edward, M.R.C.S., L.S.A.	Simpson, Reginald Palgrave, M.R.C.S., L.S.A.

DOCTOR IN MEDICINE (Essay).

Eastes, Frederick, M.B., M.R.C.S.	Pruen, Septimus Tristram, M.B., M.R.C.S.
Prowde, Edwin Longstaff, M.B.	

MASTER IN SURGERY.

Aslett, G. Stratton, M.R.C.S., L.S.A.	Roberts, James Reid, M.R.C.S., L.R.C.P.
Caleb, Clement Cornelius, M.B., M.R.C.S.	Walker, Charles Pope, M.R.C.S.

BACHELOR IN MEDICINE (Second Examination).

SECOND CLASS HONOURS (in order of merit).

Roberts, James Reid, M.R.C.S., L.R.C.P.	Maynard, Frederic Pinsent.
Evers, C. John, M.R.C.S., L.S.A.	Richardson, James Nowell, M.R.C.S.

PASS LIST (in alphabetical order).

Aslett, G. S., M.R.C.S., L.S.A.	Jones, John Lloyd Thomas.
Aubrey, Alfred Reuben.	Mead, Francis Henry.
Boobbyer, P., M.R.C.S., L.S.A.	Moore, Walter Francis, M.R.C.S.
Bowden, Reginald Treacher, M.R.C.S., L.S.A.	Palmer, Sydney Joseph, M.R.C.S.
Hall, George Rome.	Plummer, H. Beddoes Wetherell.
Hillstead, Herbert J., M.R.C.S., L.S.A.	Proud, Frederick.
Hubbard, A.J., M.R.C.S., L.R.C.P.	Saw, Francis Albert.
	Tabor, Charles James.
	Walker, Charles Pope, M.R.C.S.

COLLEGE OF PHYSICIANS IN IRELAND.—At the June examinations the undermentioned gentlemen obtained the Licences in Medicine and Midwifery of this College*:—

MEDICINE.—W. E. Dawson, C. Faulkner, G. B. Flanagan, J. H. Foley, F. S. Gramshaw, E. Lambkin, B. Lane, A. J. Luther, J. Norton, D. M. O'Callaghan, M. P. O'Donovan, C. Penott, R. C. Thacker.

MIDWIFERY.—J. Bannon, G. Clarke, J. Moore, S. J. Moore, W. R. Parker, W. Rankin, W. E. Dawson, B. Lane, A. Luther, J. Norton, R. C. Thacker.

* The list given in our last issue was in some respects incomplete.

The following gentleman was admitted a Member:—

Henry Ivers Kirkpatrick.

The undermentioned obtained the Licence of the College at a special examination held on the 23rd inst:—

James Chambers.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following gentleman was admitted a Fellow on the 19th inst:—

G. B. White, A.B.

The Council has elected Mr. S. Webb an additional Examiner in Physics, Chemistry, and Medical Jurisprudence.

SOCIETY OF APOTHECARIES.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 18th inst.:—

Cones, J. Archibald, M.R.C.S., St. Bartholomew's Hospital.
Randell, Reginald Maurice Henry, M.R.C.S., Guy's Hospital.

On the same day the following gentlemen passed their examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise:

Bullen, Frederick St. John, St. Thomas's Hospital.
Warren, Sydney, St. Thomas's Hospital.

DR. JOSEPH SMYTH has been elected coroner for North Kildare.

ST. MARY'S HOSPITAL.—At a festival dinner in aid of the funds of this charity, which was held on the 24th inst., subscriptions amounting to £2200 were announced.

DURING the week ending the 13th inst. seven deaths were registered in Dublin from cerebro-spinal meningitis.

POISONING BY LAUDANUM.—The Hon. Mrs. Blake, who was on a visit to Viscount Monck, died last week from an overdose of laudanum.

METROPOLITAN FREE HOSPITAL.—The anniversary festival of this hospital was held on the 24th inst., when subscriptions to the amount of £3365 were obtained.

THE Austrian Government, it seems, has refused to authorise the establishment of private cremation societies, on the ground that they might encourage crime.

VACCINATION GRANT.—Mr. John W. Hayward, of the Whitstable district of the Blean Union, has received the Government grant for successful vaccination (second time).

LONDON FEVER HOSPITAL.—At a festival dinner in aid of the funds of this hospital, held on the 23rd inst., £2517 were subscribed.

THE Prince of Wales has accepted an invitation to visit Birmingham in the ensuing autumn, for the purpose of opening the Suburban Hospital, erected at Erdington by Mr. Jaffray of that town.

BEQUESTS AND DONATIONS.—The Rev. William Irwin has left £947 to Jervis-street Hospital, Dublin.—The Belfast Royal Hospital has received £100 from Mrs. Esther McKinistry.

AT Marlborough on the 20th inst., a man named Clark was remanded on the charge of attempting to poison, by means of oil of almonds, Dr. Burman, of Ramsbury, by whom he had been employed as groom and gardener, and by whom he had been threatened with dismissal.

THE annual meeting of the Victoria (Philosophical) Institute took place on the 17th inst., at the house of the Society of Arts, when the address was delivered by Dr. J. Leslie Porter, President of Queen's College, Belfast, the subject being "Egypt, Historical and Geographical."

EARLSWOOD ASYLUM FOR IDIOTS.—The annual report (which is printed by the inmates of the Asylum) has just been issued. During the year 642 patients have been cared for in the institution. The total receipts amounted to £36,643; and after payment of all expenses a sum of £9021 was transferred to the capital account.

MR. SYDNEY TURNER, coroner for the city of Gloucester, has intimated his intention of resigning his office, owing to his inability, by the Municipal Act of two years ago, to appoint a deputy to hold inquests on persons dying in the Gloucester Infirmary, of which institution Mr. Turner is an honorary surgeon.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY. At a numerously attended meeting held in the Athenæum, Glasgow, on June 17th, this Society, which has been in process of formation for some time, adopted a provisional set of rules and elected the following office-bearers:—Honorary President: Professor Leishman, M.D. President: W. L. Reid, M.D. Vice-Presidents: Samuel Sloan, M.D.; Abraham Wallace, M.D. Treasurer: Robert Pollock, M.D. Secretary: J. Stuart Nairne, F.F.P.S. Council: G. Halket, M.D.; R. Park, M.D.; Murdoch Cameron, M.D.; J. Turner, M.D.; J. Marshall, M.D.

PRESENTATION.—A very successful course of lectures, conducted by Dr. Rice Oxley, in the Institute, Lower Norwood, was recently brought to a close. The interest taken by the bodies of the district in the work of the class has been very encouraging, the attendance ranging from 140 to 150; and to show their appreciation of Dr. Oxley's lectures, they presented him with a handsome microscope.

VICTORIA HOSPITAL FOR CHILDREN.—The foundation-stone of a building to serve as a nurses' home and out-patients' department at this institution was recently laid by the Princess Louise. From 1866 to last December there have been treated at the hospital 295,710 out-patients, and 6861 in-patients, of whom 1281 have been sent to the convalescent home at Margate, all being under sixteen years of age.

ST. MARYLEBONE GENERAL DISPENSARY.—At the centenary festival dinner of this institution, which was held recently, it was stated that during the past year medical relief had been given to upwards of 4400 persons; and that in addition upwards of 2000 had availed themselves of a provident asylum, whereby patients were admitted to the benefits of the dispensary on payment of one shilling per week.

THE POLLUTION OF THE RIVER LEA.—The special committee appointed by the parishioners of Hackney and Clapton, to consider the subject of the pollution of the Lea, have addressed a letter to the Lea Conservancy Board, in which they beg the Board to use its influence to hasten on the erection of the works already sanctioned by the Local Government Board, so as to secure as effectual a remedy as possible for the existing deplorable condition of the river.

SURGEON J. W. DANIEL, of the Dorset Yeomanry, distinguished himself at the Military Tournament now being held at the Agricultural Hall, on the 24th inst., by taking the second prize in the lemon-cutting competition, value £15. Three times in succession he divided both lemons, a by no means easy feat, but at the fourth essay failed, being beaten by Riding-Master Browne, of the Commissariat and Transport Corps. Both received quite an ovation from the audience.

QUEEN'S COLLEGE, CORK.—The following prizes have been awarded in the Faculty of Medicine:—Practical Anatomy: 1st, J. W. Wolfe; 2nd, John Jackson; 3rd, P. P. Jennings. Certificate, J. V. Ryan. Chemistry: J. W. Wolfe. Zoology and Botany: J. W. Wolfe. The following prizes and certificates have been awarded in the classes of Practical Chemistry and Materia Medica, instead of those formerly awarded, which have been cancelled:—Practical Chemistry: 1st, W. J. O'Meara; 3rd, R. J. Duffin; 4th, E. R. Hennessy. Certificates of Honour: D. J. O'Mahony, M. J. O'Regan, and Francis John Perrott (equal). Materia Medica: 1st, R. J. Duffin; 2nd, Daniel O'Callaghan; 3rd, E. R. Hennessy. Certificate of Honour: John T. Walsh. The exhibition in Practical Midwifery has been obtained by Daniel Lane.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

ALDRIDGE, C., M.D., has been appointed Second Honorary Physician to the Plymouth Public Dispensary.

BAILEY, WILLIAM HENRY, M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon and Secretary to the Newark Hospital and Dispensary.

CLENDINNEN, JOSEPH GEORGE, L.R.C.S.I., L.A.H.Dub., has been appointed Medical Officer for the Third Sedgeley District of the Dudley Union, vice Gilbert.

DRAPER, JAS. WILLIAM, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Almondbury District of the Huddersfield Union, vice Abbott.

FINEGAN, ARTHUR, L.K.Q.C.P.I., Assistant Medical Officer to the County Asylum, Morpeth, has been appointed Medical Superintendent of the County Mayo Asylum, Castlebar, Ireland.

GRIFFITHS, WM. CHARLES, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Llanwinio District of the Carmarthen Union.

HERN, WILLIAM, M.R.C.S., L.D.S., has been appointed Assistant Dental Surgeon to the Dental Hospital of London.

LEIGH, WILLIAM WATKIN, L.R.C.P.Ed., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Gellygaer Lower District of the Merthyr Tidfil Union, vice J. Leigh.

MILLER, WILLIAM FRANCIS, M.B., M.R.C.S., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Health Officer for Carisbrook, Victoria.

MORRIS, CHARLES A., M.A., M.B., B.C.Cantab., M.R.C.S., has been appointed Resident Medical Officer to the Liverpool Royal Infirmary.

POTTER, J. H., M.R.C.P., M.R.C.S., has been appointed to act as Police Surgeon and Surgeon to the Coroner of Bombay, during the absence of Dr. Sidney Smith, on leave, or until further orders.

ROYDS, WM. A. S., L.R.C.P., M.R.C.S., L.S.A.Lond., has been appointed Surgeon to the Royal Berkshire Hospital, vice Moxhay, deceased.

STUDDERT, RICHARD CHARLES, M.D., B.Ch.Dub., has been reappointed Medical Officer of Health for the Erith Urban Sanitary District.

SWANSTON, CHARLES, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Government Medical Officer for the District of Mudgee, New South Wales.

Births, Marriages, and Deaths.

BIRTHS.

ALLEN.—On the 9th inst., at 41, Wellington-square, Hastings, the wife of Bryan Holme Allen, M.D., of a daughter.

CARTER.—On the 19th inst., at Savile House, Potter-Newton, Leeds, the wife of F. R. Carter, M.R.C.S., of a daughter.

CHILD.—On the 14th inst., at Vernham, New Malden and Coombe, the wife of Edwin Child, M.R.C.S., of a daughter.

HARRIS.—On the 11th inst., at Teignmouth, Devon, the wife of F. W. H. Davie Harris, Army Medical Staff, of a son.

HOAR.—On the 18th inst., at Maidstone, the wife of Charles Edward Hoar, M.D., of a son.

JOHNSTON.—On the 21st inst., at 2, Melbourne-street, Leicester, the wife of William Johnston, M.D., of a son (Frederic William Sinclair).

MACCULLOCH.—On the 19th inst., at The Touillets, Guernsey, the wife of W. Mansell MacCulloch, Esq., M.D., F.G.S., of a daughter.

PIGGOTT.—On the 21st inst., at Brookside, Clare, Suffolk, Frances Mary, wife of Edward A. Piggott, L.R.C.P.Ed., L.R.C.S.Ed., L.S.A.Lond., of a daughter.

SANCTUARY.—On the 15th inst., at Castle-street, Salisbury, the wife of Thos. Sanctuary, M.D., of a daughter.

TURTLE.—On the 19th inst., at The Poplars, Gascoyne-road, South Hackney, the wife of James H. Turtle, M.D., of a son.

MARRIAGES.

BEAUMONT—VOULES.—On the 23rd inst., at All Saints, Margaret-street, London, by the father of the bride, W. M. Beaumont, Esq., M.R.C.S., of St. James's-square, Bath, to Frances Elizabeth, daughter of the Rev. F. P. Voules, Rector of Middle Chinnock, Somerset.

COTTELL—MURRAY.—On the 18th inst., at Crouch-hill, by the Rev. A. C. Murphy, D.Lit., Arthur Bowdich Cottell, Surgeon Medical Staff, to Helen Mackintosh, daughter of William M. Murray, Esq., of Brambledown. Indian, China, and Australian papers please copy.

SANGSTER—SHEPHARD.—On the 17th inst., at St. Mary's, Lambeth, by the Hon. and Rev. Canon Pelham, Rector, Charles Sangster, M.R.C.S., of 158, Lambeth-road, S.E., elder son of the late Martin Sangster, of Stockwell, to Elizabeth Jane, only daughter of Mark Shephard, of Roupell-park, Streatham.

SHADWELL—WHITTINGHAM.—On the 17th inst., at Walthamstow, St. Clair B. Shadwell, L.R.C.P.Lond., eldest son of J. B. Shadwell, Esq., I.C.S., of Cherrapoonjee, Bengal, to Marion Alice, second daughter of W. B. Whittingham, Esq., of North View, Walthamstow.

STOKES—HUNT.—On the 20th inst., at St. Pancras Church, Arthur Samuel Stokes, L.R.C.P., M.R.C.S., of Weldon, Northamptonshire, to Helen Matilda, daughter of Hutchinson Hunt, of Caldecott, Rutland.

VOGAN—LEATHERN.—On the 23rd inst., at the Parish Church, Bromley, Kent, James Norman Vogan, F.R.C.S., to Emma Jane, eldest daughter of Lewis Leathern, Esq.

DEATHS.

BENDALL.—On the 18th inst., at Titchfield-terrace, Regent's-park, N.W., Howard Bendall, M.D., M.R.C.S., in his 32nd year.

BREDIN.—On the 23rd inst., at The Vines, Sutton Valence, Kent, Margaret Eliza, the beloved wife of John Noble Bredin, physician.

DANE.—On the 21st inst., suddenly, after a few hours' illness, at his residence, Finchley-road, South Hampstead, Thomas Dane, M.R.C.S., in his 52nd year.

HESLOP.—On the 17th inst., whilst travelling to Braemar, N.B., Thomas Pretious Heslop, M.D., F.R.C.P., of Birmingham.

OATES.—On the 19th inst., at Edinburgh, suddenly, Parkinson Oates, M.D., M.R.C.S., L.S.A.Lond., of Cambridge-street, S.W., and Lansdown-parade, Cheltenham, aged 67.

STACE.—On the 15th inst., at Abu Zatmeh, Soudan, of enteric fever, Arthur Frank Stace, Surgeon Army Medical Staff, grandson of the late Dr. Stace, of Southampton, aged 24.

WILSON.—At Cullen, Banffshire, James Wilson, F.F.P.S.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, June 24th, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min Temp	Rain fall.	Remarks 8.30 a.m.
June 19	29·84	W.	61	59	108	68	55	·06	Cloudy
,, 20	29·54	W.	65	57	109	66	57	·04	Cloudy
,, 21	29·62	N.W.	59	50	107	66	48	·17	Bright
,, 22	30·16	W.	60	55	111	68	51	...	Overcast
,, 23	30·08	W.	61	58	83	72	56	...	Overcast
,, 24	29·91	S.W.	72	61	121	84	60	...	Bright
,, 25	29·98	N.E.	59	57	65	59	57	·13	Overcast

Notes, Short Comments, & Answers to Correspondents.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."

THE TREATMENT OF DIPHTHERIA.

DR. ILLINGWORTH writes to complain that by the abstract of his letter on the treatment of diphtheria, which appeared in our last issue, his views are but imperfectly described. He points out that to say he recommends salicylate of soda and ammonia is but to state half of his prescription, for later on in his letter he advises the administration of steel and chlorate of potash. In addition, he gave his reasons for prescribing first the one and then the other, the insertion of which the crowded state of our columns prevented.

M.D.—It is not easy to foretell what view the Local Government Board would take of the subject with all the facts before them; but probably their reply to both questions would be in the negative.

Anxious Inquirer may refer to THE LANCET of Dec. 27th, 1884, and Feb. 14th and 28th, 1885, for information on the point mentioned.

Dr. Malins (Birmingham).—A notice was already in type when our correspondent's communication arrived.

"THE TITLE OF 'DOCTOR' FOR LONDON MEDICAL STUDENTS."

To the Editor of THE LANCET.

SIR,—In reference to Mr. Wright's letter under the above heading in your last issue, will you kindly allow me to call your correspondent's attention to the fact that the regulations of the University of Aberdeen require a professional curriculum extending over *four*, not six, years for the degree of M.B. and C.M.? If Mr. Wright spent the longer period in obtaining his degrees, then it was his own fault, and he cannot use the fact as a valid argument. As far as regards the relative cost of living, fees, &c., I am convinced that for most English students a two years' residence in Aberdeen in lieu of London would mean a considerable saving, and not a "considerable extra expense."

I am, Sir, yours faithfully,

Brighton, June 22nd, 1885. JAMES TURTON, M.R.C.S.

Dr. Mackesy.—As the controversy is now closed, we think it would be inexpedient to print our correspondent's letter.

Dr. Sinclair (Dundee) will oblige by sending a copy of the pamphlet.

FLUSHING SEWERS WITH SEA-WATER.

To the Editor of THE LANCET.

SIR,—Will some of your readers interested in sanitary matters kindly inform me if they have found any ill effects arise from partially flushing the public sewers with sea-water? If so, what the ill effects were?

I am, Sir, yours faithfully,

June 24th, 1885. M. O. H.

JEQUIRITY.

To the Editor of THE LANCET.

SIR,—Perhaps some of your readers would be kind enough to inform me through your columns of the result of treatment of rodent ulcer by jequirity, and if it has any power to check the spread of the disease.

I am, Sir, yours obediently,

June 22nd, 1885. A YOUNG PRACTITIONER.

RESPIRATION IN COMPRESSED AIR.

N. SUCHORSKY states (*Chem. Centr.* quoted in *Journ. Chem. Soc.*) that when compressed air is respired the absolute amount of oxygen inspired and of carbonic anhydride expired is diminished. The rhythm of the respiration remains unchanged. In all cases of mechanical hindrance (bronchitis), restriction of movement of the organs (pleuritis), or reduction of surface (pneumonia), the change of rhythm consists in a gradual disappearance of the pause after expiration, and the times of inspiration and expiration become equal. Compressed air acts on the circulation in a twofold manner—on the one side it compresses all the capillaries of the outer surface and of the respiratory organs, causing a more complete emptying of the veins, and on the other side changes the distribution of blood in the system, causing an accumulation in the abdominal organs. The therapeutic action of compressed air may be referred exclusively to its mechanical action on the organism, and to the increase of partial oxygen pressure. The latter produces no perceptible effect on the oxidation process in the body; on the contrary, in pathological cases where respiration is impeded it tends to reduce the absolute amount of oxygen taken up and the carbonic anhydride expelled, as the organism obtains the necessary amount of air with less difficulty, and so the muscular work of the respiratory organs is economised. Consequently the therapeutical application of compressed air cannot be considered as facilitating oxidation and support of the body in sick cases, but as a saving of effort. Nevertheless, it would be erroneous to conclude that compressed air might in these cases be replaced by air rich in oxygen, since the compressed air exerts a series of favourable influences on the sick organism, and especially on the respiratory organs. The pressures employed varied between 1045 and 1143 mm. of mercury.

J. W. D.—A notice of the death of the late Surgeon J. M. Young appeared in our impression of the 6th inst.

Mr. H. E. Pellereau.—We cannot depart from our rule.

Leeds.—Messrs. Gallais and Co., Margaret-street, Regent-street.

OSMIC ACID IN NEURALGIA.

To the Editor of THE LANCET.

SIR,—In reference to the annotation in your issue of last week upon Dr. Schapiro's list of neuralgic cases treated by Neuber's method, may I be allowed to draw attention to an "ill effect," though slight, that was produced, apparently by the osmic acid, in a case I attended about a month ago. The patient had a few weeks previously sprained a little finger, and complained when he consulted me of what he called "rheumatic pains" in the same. Having treated successfully a case of sciatica of two or three months' standing by the injection of a 1-per-cent. solution of osmic acid in five-minim doses, repeated four or five times at intervals of three days, I determined to pursue the same course with this case. I only used four minims, and in a few minutes the patient was delighted to find the pains had gone. The next morning, however, there was a painful and flushed swelling in the situation of the puncture—that is to say, between the extensor and abductor minimi digiti. This lasted for several days, and though the pain never returned in the finger, a feeling of numbness in it was complained of, while the point of entrance of the needle smarted occasionally for two or three weeks. I should add that the finger did not belong to the "horny hand of toil," and its balance of circulation was probably on that account the more easily upset. Should the amount injected not be somewhat less than four minims in parts richly supplied with nerves? The injection was not repeated.—Yours faithfully,

WM. ASHTON ELLIS.
Resident Medical Officer, Western Dispensary, Westminster.
June 17th, 1885.

HOME FOR EPILEPTICS.

To the Editor of THE LANCET.

SIR,—"M. G. E.," who is anxious to hear of an institution where a lad subject to epilepsy will be well cared for, will be glad to hear of Bearsted House Asylum, or School, near Maidstone. Let him write for a prospectus to Mr. A'Vard. At present he has but a very limited number of boys, but a better place for weak-minded children there cannot possibly be. The house is commodious, the grounds are extensive, fruit is plentiful, the management is characterised by great liberality and kindness, and the terms are very moderate. A personal visit has convinced me that many parents with afflicted children would be rejoiced to hear of such a home for them.

I am, Sir, yours faithfully,
New Thornton Heath, June 23rd, 1885. T. J.

A Provincial should consult a qualified medical practitioner.

Dr. Totherick's interesting paper will appear in an early number.

DR. TIBBITS MEMORIAL FUND.

To the Editor of THE LANCET.

SIR,—Will you allow me to acknowledge through THE LANCET, with many thanks, a donation of five guineas from J. Mitchell Clarke, Esq., for the benefit of the widow and family of the late Dr. Tibbits of Bradford. Up to the present date the total amount received through THE LANCET is £50 9*s*. I am, Sir, yours faithfully,

Bradford, June 23rd, 1885. JOHN APPLEYARD.

EXISTENCE OF WARTS AMONGST WORKERS IN CARBOLIC ACID.

To the Editor of THE LANCET.

SIR,—In the report of the meeting of the Academy of Medicine in Ireland (THE LANCET, June 6th, page 1037), I see that Dr. Ball, in his paper on cases of Cutaneous Epithelioma, mentions that "warts were numerous amongst the operatives who are employed in the manufacture of carbolic acid."

Last October, after some conversation with one of our travellers in Dublin, Dr. Ball wrote to me for information, to which I replied as per enclosed letter; and I am therefore much surprised that after the receipt of my letter such a statement should have been made. Further, I may say that our traveller, whom he saw and to whom he alludes, only worked a few months in the factory, and then was simply employed in our stores, where carbolic acid is neither made nor handled.

The occurrence of warts, even in a tar distillery, is probably not in any way due to handling the tar products, and I am informed by a large tar distiller in Manchester that warts are no more prevalent amongst his workpeople than amongst any other class of operatives.

I am, Sir, yours obediently,
Manchester, June 16th, 1885. R. LE NEVE FOSTER.

P.S.—I append an extract from a letter from the manager of the tar works in Dublin to whom Dr. Ball alludes:—"I beg to say, in reply to Dr. Ball's report in THE LANCET, that during the thirteen years that I am over these works only five cases of what Dr. Ball calls 'epithelioma' came under my notice, two of which we treated with caustic soda successfully, another was the man mentioned four years ago, one about six months ago (both these were treated by Dr. Ball), and the man who had the wart on his eyelid (under Dr. Storey's treatment), which latter case I am doubtful if it comes under this category. The man, eighty years of age, was employed at the neigbouring ammonia works, and not here. I believe if the men were a little cleaner, and washed themselves oftener, these cases would not occur. As you will probably conclude yourselves, we make not three, but six principal products—viz., crude naphtha, creasote oil, sublimed naphthaline, carbolic acid, anthracene, and, of course, pitch."

"Manchester, Oct. 8th, 1884.

"DEAR SIR,—In reply to yours of the 6th, our representative is labouring under some misapprehension, as during some nineteen years' connexion with the manufacture of carbolic acid I only know of two cases amongst our workpeople—and we employ over 100 hands—and both of them had warts before they came to us; they were brother and sister, and had previously worked at a blood albumen and catgut works respectively; the man only is in our employ, and the warts have gradually disappeared. The woman has left us some time, and I cannot say whether they improved or not whilst with us. Neither was attended by any medical man. With respect to our representative at Dublin, he was also afflicted with warts before he entered our employ, and as he has not had any inside connexion with the works for the past two years, I think his case can have little or no bearing on the matter.

"If there be anything further in which I can give you any help or information, I shall only be too glad to do so.

"Meanwhile I am, dear Sir, yours very truly,
"C. B. Ball, Esq., M.D., F.R.C.S." "R. LE NEVE FOSTER."

A Subscriber to THE LANCET *of Thirty-five Years.*—We do not think there would be any risk at the distance mentioned.

A REMARKABLE SUPERSTITION.

To the Editor of THE LANCET.

SIR,—In your issue of the 13th inst. there is a note on Hottentot pathology, in which it says that "the uterus is supposed after parturition to have a great tendency to fly upwards, and consequently after the second stage of labour the funis is carefully tied to one of the woman's toes." Now, it is curious that in this part of Ireland, within eight miles of Belfast, the lower orders have the same notion. In all cases when I happened to arrive after the birth of the child I found the funis tied to the woman's leg or thigh, "to prevent the after-birth going up about her heart." My own idea is that it has arisen from cases of post-partum hæmorrhage having taken place with retained placenta and the consequent feeling of fainting. It is remarkable how widespread is the idea. I am, Sir, yours faithfully,

GEORGE ST. GEORGE,
Lisburn, Ireland, June 17th, 1885. Surgeon, co. Antrim Infirmary.

CHAMPAGNE JELLY.

To the Editor of THE LANCET.

SIR,—During the illness of the late Lord Beaconsfield it was reported in the daily papers that he was much benefited by the use of champagne jelly—it being, in fact, the only nutriment he could take. Could any of your readers furnish the recipe for this, as I believe it might prove of service to a lady patient who during a somewhat protracted illness has tried nearly all the "triumphs" of the inventors of invalid foods, &c., and is "tired" of them all?—I am, Sir, your obedient servant,

June 23rd, 1885. PHYSICIAN.

A PRACTICAL SUGGESTION.

To the Editor of THE LANCET.

SIR,—As the General Medical Council seem somewhat perplexed as to what object they can legitimately apply their accumulated and increasing wealth, may I be permitted to suggest that they might very properly present every qualified medical man with a copy of their new Pharmacopœia—if only as a "small token of affection and esteem."

I am, Sir, your obedient servant,
French Hospital, W.C., June 16th, 1885. ALFRED S. GUBB.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from — Dr. G. C. Roy, Sooree; Mr. C. E. Paget, London; Dr. McCall Anderson, Glasgow; Professor Latham, Cambridge; Dr. Cruise, Dublin; Mr. Mayo Collier, London; Dr. Totherick, Wolverhampton; Mr. Bellamy, London; Dr. S. West, London; Messrs. Maw, Son, and Thompson, London; Dr. Prosser James, London; Mr. Ogier Ward, Tottenham; Dr. Jagielskie, London; Mr. Clement Lucas, London; Mr. A. E. Browne, Liverpool; Mr. Hormbrook, London; Mr. G. J. Mackesy, Waterford; Mr. C. F. Goode, Brighton; Mr. G. C. Macdonald, London; Mr. Martindale, London; Dr. Savage, London; Dr. G. A. Campbell, Garlands; Messrs. Thompson and Co.; Dr. T. Robinson, London; Mr. Kimpton, London; Mr. Windley, Leicester; Mr. Le Neve Foster; Mr. Sultzberger, Anerley; Mr. Thos. Jackson, New Thornton Heath; Mr. G. St. George, Lisburn; Captain Petril, London; Mr. C. Williams, Port Isaac; Dr. Maunsell, London; Mr. J. W. Downie, Glasgow; Mr. H. W. White, London; Dr. C. S. W. Cobbold, Earlswood; Mr. E. H. Fenwick, London; Mr. S. Phillips, London; Dr. S. West, London; Mr. J. Turton, Brighton; Mr. D. Richardson, Newhaven; Mr. Godfrey, Balham; Mr. Achyutakos, Mysore; Surgeon-Major McKennon, Cawnpore; Mr. Carpenter, London; Mr Rainer, Ipswich; Mr. Laurance, London; Messrs. Richardson and Co., Leicester; Mr. Aylem, Pelham; Mr. Barttan, Broseley; Mr. Monsero, Corunna; Messrs. Burgess and Co., London; Messrs. Abblin and Co., Wood Green; Mr. Higgin, Lancaster; Mr. Bredin; Mr. Sampson, London; Messrs. Beal and Son, Brighton; Messrs. Christy and Co., London; Mr. Cowley; Mr. Hand, Ben Rhydding; Mr. Appleyard, Bradford; Mr. Elkerton, London; Dr. Aveling, London; Dr. C. F. Knight, Dublin; Mr. Stuart Nairne, Glasgow; Dr. Jeffreys, Chesterfield; Dr. Harkin, Dublin; Dr. Nunes-Vais, Florence; Mr. Davies Pryce, Nottingham; Mr. F. R. Fisher, London; Mr. Snowden Smith, St. Austell; Mr. Cantlie, London; Mr. J. McG. Robertson, Glasgow; Mr. G. T. Hough, Upton; Mr. F. J. Gant, London; Messrs. Battle and Co., London; Dr. Gledhill, Manchester; Messrs. Robertson and Scott, Edinburgh; Messrs. Louner and Co., London; Messrs. Rigley Sons, Rochdale; Mr. Hine; Dr. Fraser, Salford; Mr. Avering, Paddington; Mr. Leaver; Mr. Doyle, Norwich; An Undergraduate of Victoria University; L.R.C.S.I.; Fiat Justitia; F.W.T.; Physician; R.; J. S., Manchester; M. O.H.; Leeds; B. D.; H. M. C.; J. S. M.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Wikeley; Dr. McCulloch, Jersey; Messrs. Mackay, Edinburgh; Mr. Emerson, Biggleswade; Mr. Woodland; Dr. Whitmarsh, Hounslow; Dr. Wood, Walsall; Dr. Jones, Leith; Mr. Mackenzie, Byapur; Mr. Brailsford, Buxton; Messrs. Ingram and Royle, London; Dr. Taylor, Draycot; Mr. Piggott; Dr. Johnston, Leicester; Mr. Williams; Dr. Griffith, London; Mr. Waters, Tenby; Mr. Coates, Tredegar; Miss Wade, Chorley; Mr. Bowser, London; Mr. Hankes, Liverpool; Mr. Wheeler, Manchester; Dr. Lumpkin, Lagos; Dr. Eberle, Thirsk; Mr. Gitturs, Canning-town; Mr. Bowdidge, Higham Ferris; Mr. Rawlins, Highgate; Mrs. James, St. John's-wood; Mr. Davies, Ruabon; Dr. Latham, Pembridge; Mr. McCarthy, Wellington; Mr. Burgess, Invergordon; J. S., Manchester; B. G. C.; R. A., York; Alpha; A. A.; B. W., Royston; F., Derby; B. H., Abergavenny; Matron, Bury; F. E. M., Oldham; E. G., Stamford-hill; A.; A. F., Liverpool; Pons; E. H., Banbury; B. L.; B. C.; R. H. B., Aberdeen; Alpha, Carnforth; P., Newport; Alpha, Manchester; Dr. F. L. N., Finsbury; Medicus, Tenby; Medicus, Brentford; Kent, Cardiff; A. C., Tyrone; Boniface.

Leicester Advertiser, Carlow Sentinel, Church of England Temperance Chronicle, Liverpool Review, Dundee Advertiser, Belfast Northern Whig, Kimberley Diamond Fields Advertiser, Kimberley Daily Independent, &c., have been received.

Medical Diary for the ensuing Week.

Monday, June 29.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

Tuesday, June 30.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Wednesday, July 1.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department: 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown. Dr. Priestley: Notes of a Visit to some of the Lying-in Hospitals in the North of Europe, and particularly on the Advantages of the Antiseptic System in Obstetric Practice.—Dr. Herman: On the Suppuration of Pelvic Dermoid Cysts.—Mr. Hine: Case of Obstructed Labour in which Spontaneous Version followed an unsuccessful attempt to Deliver by the Crotchet after Craniotomy.

Thursday, July 2.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Friday, July 3.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8 P.M. Living Specimens.—8.30 P.M. Discussion on the President's paper on Reflex Ophthalmitis.—Mr. Anderson Critchett: Case of Extreme Retinal Irritability.—Mr. J. B. Lawford: Tubercle of Choroid.—Messrs. Walter Edmunds and J. B. Lawford: Pathological Anatomy of Optic Neuritis.

Saturday, July 4.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
MIDDLESEX HOSPITAL.—Operations, 2 P.M.

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Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

INDEX.

Abbott, Mr. G., on antiseptic solutions of cocaine, atropine, and other alkaloids, 315
Abdomen, perforating bullet wound of, 248; bullet wound of the, with perforations of intestines, treated by abdominal section, 740; wound of, with protrusion of stomach and intestines, reduction of hernia after enlargement of wound, 1083
Abdominal aorta, aneurysm of, treated by distal compression, 705
——— sanguineous cyst, aspiration, recovery, 614
——— section, a case of, 888, 1035; acute peritonitis by, 1102, 1156; in the Bristol Royal Infirmary, 104; general summary of conclusions from 1000 cases of, 316
Abdy, Judge, on medical charges, 970
Aberdeen, enteric fever in, 219
———, University of, 634, 779
Abernethian Society, 593
"Academy headache," 1091
Aconitum ferox, tincture of, 280
Acrobats, unusual accidents to, 220
Actinomycosis, 808, 845
Adams, Mr. C., on small-pox breaking out after full development of vaccination, 92
———, Mr. C. E., on an apparently instinctive appetite, 234
———, Mr. M., on contagious disease cards, 877
Addison's disease, 488, 988, 1101; atrophy of adrenals with, 251; without tubercular degeneration of the suprarenal capsules, 1027
Admiralty, the explosion at the, 767, 813, 862
Adrenals, atrophy of, 251, 988
Adulteration Acts, 814
Advertisements, disreputable, in Methodist papers, 413
Æsculapian Society, the, 1140
After-care Association, 958, 1153
Agaricin in the sweating of phthisis, 1052
Agoraphobia, 93, 131, 783, 828
Aikman, Mr. J., on measles in Guernsey, 691, 735
Air passages, foreign bodies in the, emetics in cases of, 1141
Albumen, ferrocyanic test pellets for, 1071
Albuminuria in cats, 630
Alcira, cholera vaccination in, 960
Alcohol, is it a food? 743, 825
Alcoholism, 413
Aldridge, Mr. J., on intemperate advocacy of temperance, 450
Alexander, Dr. W., on a case of self-inflicted wounds causing death, 178
———, Mr. W., on the custody of lunatics, 868
——— prize, the, 492
Alexandria, the sanitary board at, 311
Alkaloids, detection of, 723
"All for the sake of a doctor," 368
Allbutt, Dr. T. C., and Mr. P. Teale, on Scrofulous Glands (review), 1088
———, Mr. H. A., on the Arabs wounded in the Soudan, 369
Allchin, Dr. W. H., on the diet of the febrile state, 418, 433; on the University of London, 586; on acute ulceration of colon, 750
Allen, Mr. A., on sweet spirits of nitre, 503
Allinson, Mr. T., on removal of superfluous hair by electrolysis, 502
Alnwick, the sanitary state of, 75, 635; and Canongate urban district, health of, 445
Alpine health resort, an, 1067
Althaus, Dr. J., on hemianæsthesia from congenital brain disease, 205, 272; on syphilitic disease of the brain, 846
Alveloz in cancer, 814
Amenorrhœa, 322; treatment of, 59, 235; treated by permanganate of potash, 189, 647; functional, 132;
America, adulteration in, 399
American Journal of the Medical Sciences (review), 299
——— Ophthalmological Society, Transactions of the (review), 804
Amylase, 77
Anæmia, progressive, 345, 374; and atrophic conditions, the therapeutic value of arsenic in, 653
Anæsthesia, death during, 316
Anæsthetics, the administration of, 226
ANALYTICAL RECORDS.—Ext. cinchonæ liquida liq., De Vrij, 114—Ergotinine de Tanret, ib.—Sanitary flake charcoal, ib.—The Pure Water Company, 624—Carnrick's peptonised cod-liver oil and milk, 805—King's wheaten flour for infants, ib.
Anatomy and physiology, the examination in elementary, 1008
Anderson, Dr. J. W., on the specific origin of general disease, 788
———, Mr. W., on a case of papilloma of the bladder, 999
———, Professor McCall, on intra-cranial syphilis, 1157
Aneurysm of the brachial artery, 147; chronic cardiac, 198; innominate, simultaneous double distal ligature for, 204; of splenic artery, 518; by anastomosis on the head, 608; inguinal, 799; in the lower extremity, treated by digital compression, cases of, 983; traumatic, 1138
Annandale, Mr. T., on bullet wound of the abdomen, with perforations of intestines, treated by abdominal section, 740
Anthropological Institute, 746, 874
Antipyrin, 34; death after use of, 382; Russian opinions on, 862; experimental researches in, 1051
Antiseptic, a new, 672
——— vapour dressing, a constant, 793
Anti-vaccination and its consequences, 27
Anti-vaccinationists, Mr. Leake and the, 370, 393, 449
Aorta, rupture of the, 663; anomaly of the arch of the, 754
Aortic stenosis, 755
Aphasia without lesion of Broca's convolution, 111
Apothecaries, a title for, 646
Apothecaries' Hall, 410
Apothecary, the titles of an, 94; ancient and modern, the, 812
Appendix vermiformis, ulceration of the, 333
Appetite, an apparently instinctive, 234
Appleyard, Mr. J., on the late Dr. Tibbits, of Bradford, 872
Archives Italiennes de Biologie (review), 804
Area Celsi, 575
Argentine Republic, medical practice in the, 279
Armstrong, Dr. L., on the University of Durham, 805
———, Mr. H., on the status of the medical officer of health as a criterion of sanitary progress, 160
Army, the promotion in, 47; recruiting in 1884 533
Army commissariat and transport services; 576
——— estimates, 435
——— Medical Service, 487; the revised schedule, 767
——— Medical School, 304, 680
——— and Indian Medical Service, 444
Arnott, Mr. J. M., death of, 1050; obituary notice of, 1108
Arsenic as an alterative, 670
Arterial compression, cases illustrating recent methods of, 12
Arteries and veins, obstruction of, extending over many years, 893
Asclepiad, the (review), 211, 755
Aseptic silk, 400
Ash, Mr. V., umbilical tumour, 48
Asthma, bronchial, treatment of, at Mont Dore, France, 1161
Astragaloid osteotomy in the treatment of flat-foot, 848
Astragalus, fracture of the, and case of separation of the upper epiphysis of the radius, 518
Aston rural district, health of, 494
Asylums for idiots, the admission of patients suffering from fits to, 413, 458
Ataxic arthropathy, case of, 890
Athetosis, case of, 369; before and after hemiplegia, 629
Atkin, Mr. C., on congenital coccygeal tumour, 210; on natural drainage in otorrhœa, 387; on osteo-enchondroma of cerebellum, 841
Atkinson, Dr. J. E., on acquired immunity from infectious diseases, 1103
———, Mr. J. M., presentation to, 410
Atlas and *Endymion*, the, 269
Auditory meatus, external; ligature of the common carotid artery for hæmorrhage, 346; removal of an ivory exostosis from the, 848
Auld, Mr. A. G., on chronic eczema of the auricle, 1156
Aural exostoses, 980, 1059, 1102
——— inflator, evacuator, and injector, new, 1031
Austrian medical statistics, 360
Auricle, chronic eczema of the, 1156
Autumnal stone, 829, 877
Aveling, Mr. J., on a new form of dilator for stricture of the urethra, 46
Avoidable illnesses, 119
Axis, displacement and fracture of the, 294
Aylesbury, health of, 819
Azygos bloodvessels, development of the, 754

Baby-farming in France, 441
Bacillary doctrine of phthisis, 213
Bacillus lepræ, the, 305
Balding, Mr. Charles Culledge, obituary notice of, 275
Ball, Dr. C. B., on melanotic sarcoma of the rectum, 65; on cutaneous epithelioma, 1037
Balneological congress, 676
Bancroft, Dr. J., on scleroderma in relation to filaria sanguinis hominis, 380
Banham, Dr. H. F., on otology in relation to general medicine, 335; on case of cephalalgia, 387; on aortic stenosis, 755
Banks, Mr. M., on the treatment of intestinal obstruction, 39, 131; on the treatment of gangrenous intestine in strangulated hernia, 750
Barbed wire fences, 189, 1007
Barcelona, proposal for a hospital for infectious diseases in, 412; prize subjects in, 644

Barford, Mr. J. G., on cocaine in operations for fistulous canals, 1033
Barker, Mr. A., on excision of the kidney for ruptured ureter, and urinary abscess in a child three years and eight months, 95, 141
Barling, Mr. G., on cerebral surgery, 970
Barlow, Dr. T., on atrophy of adrenals, 251
Barnstaple urban district, report on health of, 402
Barratt, Mr. A., Dental Surgery for General Practitioners and Students of Medicine (review), 623
Barton, Dr. J., on bowel obstruction relieved by operation, 478
Barwell, Mr. R., on simultaneous double distal ligature for innominate aneurysm, 204; on insanity after ovariotomy, 522; on pistol-shot wound, 618; on one hundred cases of varicocele treated by the subcutaneous wire loop, 978
Bastian, Dr. C., on thrombosis of basilar artery, 521
Bateman, Mr. A. G., on the prosecution of irregular practitioners, 965
Bath County Court, medical action at, 1049
Battle, Mr. W. H., on cyst growing from the wall of the intestine, 750
Baxter, Dr. E. B., obituary notice of, 181
Bedford, sanitation at, 780, 1012, 1055
Bedwelty, health of, 1012
Beer or tea, taxation of, 1140
Beetham, Mr. A., on the Coroners' Witnesses Act, 88
Beevor, Dr. C. E., on cases of paralysis agitans, 345; on choreiform movements of long duration, 566; on the localisation of motor centres in the spinal cord, 706
Belfast, health of, 679
Belladonna poisoning, 1047
Bellamy, Mr. E., on cocaine in chronic cystitis and irritable bladder, 315
Bengal, insanity in, 877
Benham, Dr. F. L., on case of aneurysm of abdominal aorta, 705
———, Mr. R. F., on the uses of sulphide of calcium, 64; on syncope and a method of averting it, 548
Bennett, Dr. W., on locomotor ataxy without disease of the posterior columns of the spinal cord, 430; on case of brachial monoplegia, 709; on excision of cerebral tumour, 891
———, Mr. E., on congenital dislocation of the hip, 314
Benson, Mr. A., on case of tuberculosis of cornea and iris, 567; on removal of an ivory exostosis from the auditory meatus, 848
Bentley, Mr. A. T., on the Victoria University, Manchester, 821
Benzole in rodent ulcer, 723
Bequests, 731
Berdoe, Mr. E., on Browning as a scientific poet, 805; on case of starvation and suspended animation, 1125
Berlin, hygienic exhibition at, report of the, 675; cholera conference at, 911
Bermondsey, anthrax in, 676
Bernard, Dr. F., and the Metropolitan Asylums Board, 530
Berry, Dr. J. B., on case of fracture of larynx, 936
———, Mr. W., on case of ilio-femoral aneurysm treated by instrumental compression, 472
Beverley, official report on the epidemic fever at, 491
Bickerton, Mr. T. H., on traumatic cataract, disappearance of lens, without operation, 514
Bicycle accident at Cambridge, 577
Biersted, C. H., street orderlies wanted, 48
Bile acids in the urine, a new test for, 442
Billings, Dr. J., on the Principles of Ventilation and Heating, and their Practical Application (review), 161
Birkenhead, infectious disease hospital at, 613
Birmingham, newspaper medical discussions in, 189; Poor-law medical relief in, 718
——— coroner, the, and the medical profession, 757
——— Medical Benevolent Society, 1041
——— Medical Institute, 632, 691
——— Medical School, 1044
Bisulphide of carbon and chloride of sulphur, poisoning by, 113
"Black" cataract, 1084
Black, Dr. J. G., on digitalis as a depressomotor, 886
Blackpool, health of, 819
Bladder, needle in the, simulating stone, removal by lithotomy, 310; sarcomata of, 428; calculus and tumour of the, 617; surgical treatment of tumour of the, 991; cocainisation of the, 1007, 1148; communication between the small intestine and the, resulting in death, 1164
Blamey, Mr. J., on cocaine as a local anæsthetic, 86
Blindness, the prevention of, 957; for twenty years, recovery of good sight after, 1030
Blomfield, Mr. J. E., on case of vertebro-meningeal rheumatism, 152
Blood, circulation of the, 99, 146
Blood-poisoning treated by hypodermic injection of carbolic acid, 784
Blyth, Mr. A. W., on action of disinfectants on microzooids, 621
Board School certificates, fees for, 502
Boarding out of pauper children, 267
Boldo and boldine, 722
Bombay, medical education in, 957; puerperal fever in, 1008
Bones, malignant disease of, in a child, 844
Bootle Hospital, extension of, 594
Borg, Dr. F., on permanganate of potash in functional amenorrhœa, 925
Bousquet, Dr., on a case of absence of the uterus and occlusion of the vagina, 753
Bowel obstruction relieved by operation, 478
Bower and Keates fund, the, 359
Bowlby, Mr. A., on the Uxbridge tragedy, 40, 78, 175; on tumour of the pituitary body, 252
Boza, Dr. R. D., La Hijiene de la Escuela (review), 67
Brachial monoplegia, 709
Braden, Mr. J. G., on an easy method of applying the forceps, 370
Bradley, Dr., the case of, 165, 227, 356, 363, 540, 1005
Bradshaw, Mr. Oswald George Dyx, obituary notice of, 779
Brailey, Dr. W. A., on new ophthalmoscopes, 112; on ciliary nerves in certain diseases of the eye, 938
"Brain," a Journal of Neurology (review), 318, 1040
Brain, excision of a tumour from the, 13, 23, 88; breech-pin in the, 170; tumour of, 844; syphilitic disease of the, 846
Braine, Mr. W., on chloroform *v.* ether, 539
Braithwaite, Dr. J., on cases of gastrotomy for extra-uterine gestation, 7; on fibroid tumour (sessile) in the anterior wall of the uterus, 255
———, Dr. William, obituary notice of, 275
Branch councils, further consideration of the recommendations of the, 994
Breast, amputation of the, 1002
Breech-pin in the brain, a, 170
Brentford urban district, health of, 636
Bressa prize, the, 491
Brick-burning, nuisance from, 265
Bride, Mr. J. G., on unusual case of constipation, 597
Briggs, the convict, case of, 124, 717
Bristol, commission on the poor, at, 531; Medical School, 1019; address at, 1023; urban district health of, 491
Bristowe, Dr. J. S., A Treatise on the Theory and Practice of Medicine (review), 66; on visceral syphilis, 331, 372; on typhus in Camberwell, 401; on slow pulse with epileptiform seizures, 447; on the out-patient question, 572; on intra-thoracic diseases, 835, 881, 929; on hysteria and its counterfeit presentments, 1069, 1113
British Dental Association, 1178; Midland Branch of the, 770
——— Gynæcological Society, the, 17
——— Medical Association, the, 1049
——— Medical Benevolent Fund, the, 40, 185
——— Medical Temperance Association, 1064
Broadbent, Dr. W. H., on the British Medical Benevolent Fund, 40
Brodhurst, Mr. B. E., on congenital dislocations of the hip, 271, 362
Brodribb, Mr. C. A., case of abdominal section, 888
Bromide of zinc, 722
Brompton Hospital for Consumption, 1063
Bronchial asthma, treatment of, at Mont-Dore, France, 1161
Brooks, Dr., on the development of the azygos bloodvessels, 754
———, Mr. J. H., honour conferred on, 359
Brown Institution, 815
Browne, Dr. W. A. F., obituary notice of, 490
———, Mr. E. A., a hollow eye-speculum, 1169
Browning as a scientific poet, 805
Brunton, Dr. T. L., on the disorders of digestion, 53, 144, 239; Text book of Pharmacology, Therapeutics, and Materia Medica (review), 1168
Brussels, a new hospital in, 174; degree, the, 735
Buchanan, Dr. G., on aneurysm of the upper third of the brachial artery, 147; healing by faith 1117
Budget, the, 859
Buenos Ayres, pharmacy in, 632; epidemic of measles at, 765
Bulkley, Dr. D., Eczema and its Management (review), 755
Bullet, strange adventures of a, 581
Bullying at school, 810, 956
Bullock, Mr. J. G., on pruritus vulvæ, 413
Burglars and doctors' houses, 349
Burnet, Dr. R. W., on ulcerative endocarditis, 801
Burnett, Dr. C. H., a Treatise on Diseases of the Ear (review), 347
Bursa, enlargement of the, beneath the semi-membranosus after injury, suppuration extending to the knee-joint, aspiration, amputation, recovery, 427
Buszard, Mr. M., on the case of Dr. Bradley, 540
Buxton, Dr. D., on chloroform *v.* ether, 587
Buxton, sewage works at, 731
Byass, Dr. T. T., presentation to, 231

Cæsarean section, a case of, 155, 323
Caffeine, 188, 235, 322; in Bright's disease, 413
Cairns, Lord, the death of, 677
Calais and Dover, the boats between, 92
Calcium, uses of sulphide of, 64
Calculi, enormous, 814, 959, 1141; collection of, 1039; and pyo-nephrosis, multiple renal, autopsy, 250
Calcutta, sanitary condition of, 119, 570, 1141; prevalence of epidemic roseola in, 385
Campbell, Dr. M. C., on a case of brachial monoplegia, 709
Camberwell, outbreak of typhus in, 357, 401
Cambridge, University of, 14, 320, 826; chemical laboratory at, 352; physiology at, 531
Camden Town tragedy, the, 534
Cameron, Sir Charles Alexander, 1097
Cancer, the genesis of, 674; alveolor in the treatment of, 814
Cantor lectures, 172, 212
Cape Colony, irregular practice in, 720
Carbonic oxide, two cases of poisoning by, 561
Carbolic acid, blood-poisoning treated by hypodermic injections of, 784; existence of warts amongst workers in, 1189
Carbuncle, in railway porters, cases of, 320; prevention of, in cattle, by vaccination, 64
Cardew, Mr. G. A., on a case of aneurysm by anastomosis on the head, 698
Cardiac murmurs in thoracic aneurysms, 824
Cardiff, measles in, 217; Medical Society, 232
Carey, Mr. J., on measles in Guernsey, 604
Carlisle urban district, health of, 584
Carpet, a poisonous, 1093
Carriage tax, the, 267
Carrington, Dr. R. E., on cancer in a cirrhotic liver and adrenals, with pigmentation of skin and viscera, 251; on cases of phlegmonous pharyngitis, 313; on the atrophy of the liver, 662
Carter, Mr. R. B., on eyesight in schools, 942
Cartmel, Mr. H., on an easy method of applying the forceps, 370
Cascara sagrada, 369, 839, 877; in obstinate constipation, 502, 782
Cassan fund, the, 46
Catalepsy, a case of, 1068
Cataract operations in aged patients, eight cases of, 249
———, traumatic, disappearance of lens, without operation, 514
Catarrhal jaundice, the nature of, 319
Catheter fever, a case of so-called, 1161
Caudwell, Mr. E., on cocaine tablets, 1020
Caunt, Mr. John, obituary notice of, 824
Cavalry horses, health of, 859
Cayley, Dr. W., on a case of hæmoptysis treated by artificial pneumothorax, 984
Central nervous system, diseases of the, in which no naked-eye changes are found at the post-mortem examination, 1028
Cephalalgia, 387
Cerebellar embolism, supposed, 478
Cerebellum, case of osteo-enchrondroma of the, 841
Cerebral abscess, due to chronic suppuration of the middle ear, 13
——— cortex, excitability of the, 1095
——— localisation of function, cases illustrating some points in, 797
——— pathology, 118
——— surgery, cases illustrative of, 881, 893, 973
——— tumours, excision of, 891, 966
Cerebro-spinal meningitis epidemic, 1159
Cervical caries, treatment of, 619
——— stenosis, diagnosis of, 992
——— tumour, 477
Cervix uteri, treatment of cancer of, 846
Ceylon, the, 232
Champagne jelly, 1189
Champneys, Dr. F. H., on the diagnosis of cervical stenosis, 992
Chancre, hard, cauterisation of the, 581
Chapman, Mr. W., on barbed wire fences, 38
Charbon, treatment of, 48
Charcoal, sanitary flake, 114
Charley Kingston's Aunt (review), 534, 582
Charcot's disease, 41, 56, 85, 106
Charity Organisation Society, 185, 253
Cheese, Mr. J., on hysterical pyrexia, 467

Cheltenham appointment of medical officer of health for, 719, 772
Chesshire, Mr. A. E., on the value of cocaine as a local anæsthetic for operations on the eye, 160
Chester, measles in, 874
Chesterfield rural district, health of, 585
Chester-le-Street, health of, 724
Cheyne, Mr. W., on tubercle bacillus and the pathology of phthisis, 108; Manual of the Antiseptic Treatment of Wounds (review), 897
Cheyne-Stokes' breathing, the pathology of, 221; "renal" pulse associated with, 1183
Chilblain, Indian aconite and hydrochlorate of cocaine in the treament of, 235
Children, protection of, 1153
China, medical mission work in, 1007
Chittenden, Mr. C., on Ramsgate Corporation Bill, 139
Chloroform, deaths under, 276, 1045; narcosis, recovery after apparently fatal, 449; v. ether, 539, 587, 1147
Cholecystotomy, coexisting renal and biliary calculi, necropsy, 563
Cholera, commission in India, report of the, 35, 69, 221, 300; epidemics in Fort William, extinction of, 38, 225; in rags, 75; outbreak of at Yport, 83; epidemic at Edinburgh, 92; germs, the trade in, 169; on the Bolan route, 219; and tank water, 220; Government precautions as to, 262, 768; tannic acid injections in, 352; conference on, 353, 911, 955; hospitals in Bombay, 355; importations into Liverpool in 1884, 481; microbes of Koch and Emmerich, 482, 1052, 1070; vaccinia, 489, 587, 812, 1013; some brief notes on the late outbreak of, in Paris, 511; etiology, pathology, and treatment of, 563; the debate on, 57, 615, 625; new remedy for, 659; ptomaines in, 719; American precautions against, 780; its cause and method of propagation, 803; in Europe, 814, 1097; and its prevention, 877; the treatment of, 1094; in Spain, 1135, 1177; chemistry of, 1141; in Valencia, 1151
Chorea, school work and discipline as a factor in, 9; in a man aged fifty-six, case of, 337; experimental production of, 400, 985, 1001; chronic, of forty-one years' duration, nerve-stretching for relief of pain, 742
Choreiform movements of long duration, 566
Christ's Hospital School, 490
Churchyard, Mr. J., on hydrochlorate of cocaine, 504, 597, 692
Churton, Dr. T., effect of syphilis on the nervous system, 255
Cicatricial band, successful operation on a remarkable, 516
Cigar smokers, a fact for, 235
Cigarette smoking, effects of excessive, 368
Cinchonamine, sulphate of, 723
Cinchonidine and picrotoxine, 360
Cirrhosis, hypertrophic, 252
Cirrhotic liver and adrenals, cancer in a, with pigmentation of skin and viscera, 251
City Dispensary, the, 193
—— of London Truss Society, 780
City-road Chest Hospital, 1109
Clark, Mr. B., on cases of gastrostomy, 750
———, Sir Andrew, 1098; on the natural history of primitive dry pleurisies, 549, 559, 649; on fibroid phthisis, 712
Clarke, Dr. Fairlie, memorial to, 588
Claus, Dr. C., An Elementary Text-book of Zoology (review), 160, 1168
Clavicle, complete excision of the, for osteo-sarcoma, and partial excision for necrosis, 1167
Cleaver, Mr. W. J., on infantile diarrhœa, 210
Cleft palate, effects upon the voice of operating for, 385
Clifford, Mr. M., on reform at the College of Surgeons, 772
Climate in its relation to health, 172
Clinical Society, the president's address, 405
Clothing, the contamination of, 1137
Clouston, Dr. T. S., on lunacy law reform, 176
Club-foot, cheap and ready way of treating, 160; the radical cure of, 294
Coal, exhaustion of English, 353; gas, poisoning by, 633
Cobbold, Dr. C. T., on the admission of patients suffering from fits to asylums for idiots, 413
———, Dr. T. Spencer, on a case of hæmaturia due to Bilharzia hæmatobia, 985
Coca, valoid of, 34; and cocaine in skin diseases, 76
Cocaine, hydrochlorate of, 323, 546, 597, 647; the price of, 30; as a local anæsthetic, 86, 130, 160, 1065, 1015, 1067; in rectal surgery, 123, 220; in dental surgery, 168; the use of, in minor surgery, 226; action of, upon deep-seated parts, 314; antiseptic solutions of, atropine, and other alkaloids, 315; in chronic cystitis and irritable bladder, 315; the physiological action of, 439; the pharmacy of, 488, 646; as a hæmostatic, 580; for the Soudan, 633; in hay fever, 925; in operations for fistulous canals, 1033; as an anodyne, 1052; in "snuffles," 1097; does it affect deep-seated parts? 1112; spurious, 909
—— tablets, 974, 1020
—— spray producer, a, 1080
—— fungus, 224, 504
Cocainised eye, 113
Coccygeal congenital tumour, 210
Cochlea, exfoliation of the, without causing deafness, 29
Cod liver oil and milk, Carnrick's peptonised, 805
Coffee roasting, 412
Coffin, Mr. M., on treatment of septicæmia by ammonia and chlorate of potash, 104
Cohnheim, Prof., the late, 1095
Coke fumes, poisoning by, 306
Colchicine, 723
Colchicum, poisoning by, 536
Collective investigation of disease, 358
College of Physicians of Philadelphia, Transactions of (review), 481
Colley, Mr. D., on cases of colotomy with delayed opening of the bowel, 522
Colloquial linguistic faculty, the, 850, 917
Coloboma, 939
Colon, acute perforating ulcer of the ascending, 424; acute ulceration of, 750
Colotomy, with delayed opening of the bowel, 522; lumbar, 892
Colour-blindness, 764; in Germany, 140
Colson, Mr. E., on the effects of handling dynamite, 645
Comma bacillus, the, 223, 482, 1052, 1070; of Koch, Finkler, and Prior, 111; in cheese, 163
Conscience money, 734
Concussion, dislocation, or merely a faint, which was it? 368
Condylotomy by the osteotome for the treatment of knock-knee, 1167
Confectionery, poisonous, 47
Congenital deformity, 518
——— dislocations of the hip, 271
Congestion, the cerebral arteries in states of, 748
Congo, Dr. Comber on the, 766
Conline, synthesis of, 723
Conium maculatum, 360
Conjunctiva and cornea, the use of carbolic acid in purulent affections of the, 266
Conolly, Mr. Paul Bennett, obituary notice of, 824
Constipation, unusual cause of, 457, 507
Contagious diseases, mismanagement of, 217; cards, 677, 828, 877
——— Diseases Act, 582, 1058
Contrexéville and Royat-les-Bains, notes of visits to, 1121, 1160
Convalescent dinners, 28
—— home, the working men's, 44
Cooke, Mr. J. P., the New Chemistry (review), 211
Cooper, Mr. A., on Syphilis and Pseudo-syphilis (review), 569; on large doses of potassium iodide, 876
Copeland, Mr. W., on personal experience of cocaine as an anæsthetic, 966
Coppinger, Dr. R., on the Cruise of the *Alert* (review), 804
Corfield, Mr. W. H., on Dwelling Houses (review), 1089
Cork, health of, 679
Cornea, wound of the, with prolapse of the iris, 155; and iris, tuberculosis of, 567
Cornutine and ergotinine, 1051
Coroner's inquest in Wales, 1176
—— Witnesses Act, the, 88
Coroners and medical evidence, 488; and post-mortem examinations in workhouses, 829
Coroners' inquests and medical advice, 1049
Corporal punishment on board training ships, 268
Corrosive sublimate as an antiseptic agent, alleged dangers in the use of, 397
Cottage hospital construction, 20
Cotterell, Mr. E., on electric illumination of the various cavities of the human body, 458; on smearing the laryngoscopic mirror with glycerine, 503; On some Common Injuries to Limbs (review), 1088
Coupland, Dr. S., on atrophy of adrenals with Addison's disease, 251; on malignant endocarditis, 477
Cousins, Dr. J. W., on a new aural inflator, evacuator, and injector, 1031
Coventry, the sewage of, 544; sanitary progress in, 811
Cowell, Mr. G., on purulent ophthalmia in infants, 385; on cases of injury from the dynamite explosion in Westminster Hall, 466
Cowper, Countess, Help at Hand (review), 1089
Creighton, Dr. C., on tubercle bacilli at the Royal Medical and Chirurgical Society, 130
Cremation, in Austria, 26; in England, 581; and jurisprudence, 259; unnecessary and injudicious, 809
Cretinism, sporadic, 799
Crew, Mr. W. T., on a rare case of spina bifida, 425
Crieff, medical etiquette at, 458
Crocker, Dr. R., on diffuse symmetrical scleroderma, 191, 237, 927, 975
Crookshank, Mr. E. M., on the cholera bacillus of Koch, 1070
Croonian trust, College of Physicians and the, 1091, 1135
"Crowded out," 323
Cruise, Dr. F. R., on notes of visits to Contrexéville and Royat-les-Bains, 1121, 1160
Cuban cure for neuralgia, 1175
Cubebs, spurious, 829
Cullimore, Dr. D. H., on Indian aconite and hydrochlorate of cocaine in the treatment of chilblain, 235; on cascara sagrada in obstinate constipation, 502
Cunningham, Surgeon-General, the new work of, on cholera, 391
Curran, Dr. W., on infective phthisis, 727; on death by hanging, 1057
Cyprus, 222
Cyst, growing from the wall of the intestine, 750
Cystic goitre, an unusual mishap in the treatment of, 596
Cysticercus in the vitreous, 813
Cystinuria, 307
Cystitis, perineal section for, in fractured spine, 346

Dairies and sewage farm products, 74
Dalby, Mr. W. B., on affections of the throat and nasal passages associated with disease of the middle ear, 51; on perforation of the mastoid cells, 204; on aural exostoses, 1059, 1147
Dalton, Dr. J. C., Typographical Anatomy of the Brain (review), 711
———, Dr. N., on infiltrating growth in liver and adrenals of an infant, 251
Dalzell, Mr. J. B., on four twin births in succession, 189
Damrosch, Dr., death of, 454
Darenth small-pox camp, the, 33, 130, 410; administration of the, 120
Darkness and Dawn, the Peaceful Birth of a New Age (review), 897
Darwin memorial, the, 1064, 1094
Davies, Dr. Herbert, obituary notice of, 135
———, Mr. H. R., "renal" pulse associated with Cheyne-Stokes' respiration, 1183
———, Mr. T. L. K., on cascara sagrada for constipation, 782, 830
———, Mr. W. R. D., on the treatment of spinal injury by extension, 412
Davis, Mr. T., on the new Scottish conjoint examination, 348
Davy, Mr. Edward, obituary notice of, 730
———, Mr. R., on the radical cure of club-foot, 294
Day, Mr. C., on pathological relations of fibrous disease, 611
———, Mr. E. O., presentation to, 233
Dead body, right of searching a, 77
Deaf, training the, 1064
Death, what was the cause of? 353, 539; inconclusive evidence of the cause of, 1093; and the doctor, 535
—— certificates, 1048; in cases of injury, 31
De Candolle, Mr. A., on the Origin of Cultivated Plants (review), 211
Degeneration amongst Londoners, 264
Delirium tremens, a coroner on, 308
De Méric, Mr. H., on the Contagious Diseases Acts, 1058
Democracy and the profession, the, 215
Denham, Dr., of Dublin, testimonial to, 454
Dental Register, the, 579
Dentists Act, prosecution under the, 185, 481
De Renzy, Dr. A. C. C., on the extinction of cholera epidemics at Fort William, 225; on prevention of heat apoplexy, 620
Devonshire Hospital and Buxton Bath Charity, 55, 732, 874
Dewsbury responsible for small-pox in Leeds, 581
De Vrij's ext. cinchonæ liquida liq., 114
Diabetes in the dog, 1098
—— mellitus, glycerinum acidi carbolici in, 736
Diabetic cataract, spontaneous disappearance of, 938
Diarrhœa, infantile, 210
Diaphoretic treatment of nephritis, 1177
Dickinson, Dr. W. H., on Renal and Urinary Affections (review), 525; on renal lithotomy, 800
Dietetic treatment of disease, the, 528
Digestion, disorders of, 53, 144, 239
Digitalis as a depresso-motor, 886
Diphtheria, 1111; treatment of, 1188
Disease, a premium on, 169
Disinfectants, 782

Disinfecting chambers, 735, 829, 877
Disinfection and disinfectants, 957
Dixon, Dr. E. L., on abortion, phlegmasia dolens, and septicæmia, 248
Dobbin, Dr. W., on a case of lumbar colotomy, 982
Docker, Mr. Joseph, death of, 443
Doctor, a, fined for not reporting case of small-pox, 443
——, the title of, 784, 877, 1008, 1066; for London medical students, 951, 1014, 1149, 1155
Doctor's wife, the, 93
Doctors *v.* physicians, 1022, 1067
Dog, parasites of the, 762
Dolan, Dr. T., on a case of Cæsarean section, 323; on cocaine tablets, 974
Donbavan *v.* Morrison, 682
Doncaster Infirmary, the election of house-surgeon at the, 357
Doran, Mr. A., on non-ovarian dermoid tumours, 798
Doremus, Mr. F. P., on vegetable food for children, 690
Dover, compulsory notification at, 922
Drink, Lord Brainwall on, 765; Bill for 1884, the, 580
Drinking paraffin oil, 876, 972
—— water, examination of, 407
Drunk and dying, 311
Dublin hospitals, proposed amalgamation of some of the, 305
——, University of, 44
Duckworth, Dr. Dyce, on a case of disseminated cerebro-spinal sclerosis in an early stage, affecting exclusively the right extremities, 879; on sick nursing, 1177
Dudley, Lucelle, 309
Duffey, Dr. G. F., on disinfecting chambers, 829
Duncan, Dr. W., on extirpation of the uterus, 208, 524
Dundee, scheme for a medical school in, 1173
Dunn, Mr. H. P., on a cocaine spray producer, 1080
Durdin, Mr. R., on amenorrhœa, 322
Durham case, the, 482
——, University of, 805; Faculty of Medicine, 583
Dustbins, the law as to, 1008
Dwellings of the people, the, 120, 305
Dynamite, effects of handling, 645, 689; explosion in Westminster Hall, 362, 466
Dysentery, ipecacuanha in, 476
Dyson, Dr., on leucocythæmia, 755

Eadie, Mr. J., on an old Poor-law medical agreement, 828
Eales, Mr., on concomitant internal strabismus, 569
Earache, acute, treatment of, by the injection of glycerinum acidi carbolici, 703
Ear, middle, affections of the throat and nasal passages associated with disease of the, 51
Ear-disease, implication of the mastoid process in, 1038
East, Mr. E., on the British Medical Benevolent Fund, 188
East-end Jews, sanitation among the, 487
——, small-pox at the, 1047
Edinburgh, correspondence from, 89 *passim*
—— Graduates' Club, the, 910
——, University of, principalship of, 89; the dramatis personæ of the tercentenary festival of the, 678; Royal Infirmary of, 89, 185
—— and St. Andrews Universities, the representation of the, 1004, 1089
Education, Conferences on (review), 622
—— muddle, the, 1172
Edwards, Mr. S., on treatment of urethral stricture, 336
Elbow-joint, dislocation of the, with division of main artery and vein, healed, with restoration of all movements, 473; new splint for the treatment of compound injuries at or about the, 1125
El Dorado for medical men, an, 170, 734
Electric illumination of the various cavities of the human body, 385, 458, 470, 512
—— light, for hospital ships, 643; for houses, portable, 503
Electricity, death from, 440
Electrolysis, removal of superfluous hair by, 502
Ellis, Dr. J., on Los Angeles for invalids, 324
——, Mr. T. S., on the physiology of the feet, 189
Elphick, Mr. G., on unsound meat, 47
Elsberg, Dr. Louis, death of, 492
Embolism of right middle cerebral artery, simultaneously with embolism of right brachial, gangrene of right thumb and little finger, 1125
Emerson, Ralph Waldo, 316
Emetics, neglect of, in the treatment of disease, 664
Emond, Dr. Emile, on the treatment of bronchial asthma at Mont-Dore, France, 1161
Emphysema treated by the compressed air bath, 385
Empyema, treatment of, 387
Endocarditis, ulcerative, 105, 801; in a child, affecting the pulmonary valves, with certain congenital defects in the heart, necropsy, 516; malignant, 415, 459, 477, 504; following slight injury to knee, with speedy fatal result, 1165
Enfield, well water of, 674
England, cremation in, 581
English Conjoint Board, the, 139
—— nurse, a courageous, 500
Enteritis, toxic, caused by corrosive sublimate as a surgical and obstetric application, 626
Enterotomy, artificial anus cured by, 74
Epilepsy, 755; experimental, 721; treatment of, by simulo, 925
Epileptics, care of, 1111
Epileptiform seizures, case of, with unusually slow pulse, 10
Epithelioma, cutaneous, 1037
Epping, water-supply of, 803
Epsom College, 780
Ergot, 35
Ergotinine de Tanret, 114
Erichsen, Mr., 954
Error in diagnosis, cases illustrating liability to, 1025
Erysipelas, antiseptics and, 676; the etiology of, 1092; in Paris, 1174
Erythromelalgia, 398
Eshelby, Dr. D., on treatment of foul wounds by hot air, 178
Essex and Chelmsford Dispensary and Infirmary, 594
Ether, death during the administration of, 178
Ethmoid cells, inflammation, abscess, and new growths of the, 64
Ethmoiditis, necrosing, and mucous polypi, 619
Eudoxia longifolia, 1051
Evans, Dr. W. H., on agoraphobia, 783
Excelsior gymnasium, the, 46
Exostoses, multiple, 1037
Eye, heredity and tumours of the, 719; aphakic, supposed accommodation in an, 756; ciliary nerves in certain diseases of the, 938
Eyeball, rupture of the, 939
Eyelids and orbital tissues, nævoid conditions of the, 1085
Eye-speculum, hollow, 1130, 1169

Facial carbuncle, case of, death, 889
Factories Act, shortcomings of the, 763
Faith-healing, 397, 1093; with reference to a visit to the grotto of Lourdes, 1117
False titles and their base uses, 783
Fareham, isolation arrangements for, 220
Farquharson, Mr. R., on the Medical Bill and Scotch universities, 726, 773
Fatal injury without external marks, 1066
Fatty tumours, 1083
Faversham Joint Hospital Board, the, 673
Favus of the upper eyelid, 566
Febrile state, the diet of the, 418, 433
Feet, the physiology of the, 140, 189
Felce, Mr. S., "The Little New Zealander," 323
Fellows, Members, and Council of the Royal College of Surgeons, 953
Femur, evacuation of the, 491
Fenwick, Dr. S., on stricture of the ileo-cæcal valve, 1, 49
——, Mr. E. H., on cocaine fungus, 224; on cocainisation of the bladder, 1148
Ferguson, Dr. G. B., on a case of aneurysm by anastomosis on the head, 608
Ferrán, Dr., inoculations of, 1178
Fever as a symptom, the treatment of, 1049
Fibroid tumour (sessile) in the anterior wall of the uterus, 255
Fibrous disease, pathological relations of, 611
Field, Mr. G., aural exostoses, 980, 1102
Fifeshire Medical Association, 971
Finlay, Dr. D., on a case of progressive anæmia, 374
Finlayson, Dr. J., on laryngeal paralysis and inequality of the pupils as tending to aid and also to mislead in the diagnosis of thoracic aneurysm, 3
Fire at an American asylum, 185
Fish, curing unsound, 73
Fisher, Mr. F., on lateral deviation of the spine, 378
Fits, the admission of patients suffering from, to asylums for idiots, 369
FitzPatrick, Mr. T., on the colloquial linguistic faculty, 917
Fleming, Mr. G., a Text-book of Operative Veterinary Surgery (review), 347
Flies, a plague of, 1111
Floating dispensaries for fishermen, 646
Flower mission, the, 1176
Fœtal head at term, position of, 1004
Foley, Mr. J., an improved fracture box, 692, 783
Folkard, Mr. R., jun., on Plant Lore, Legends, and Lyrics (review), 161
Food, palatable, predigested, 647
Food and drugs, adulteration of, 72; Act, the, 454
Foot, curious hereditary malformation of the, 597; high amputation for gangrene of the, obstruction of the popliteal artery by hydatid cysts, 658
Football, the perils of, 810
Forceps, an easy method of applying the, 328, 370, 413
Ford, Mr. G., the death of, 276
Forearm, dislocation of, after eight weeks' standing, reduction, 705
Forensic medicine, 436, 638
Forfar diseased meat prosecution, the, 235
Fort William, the improved sanitary state of, 128; the extinction of cholera epidemics in, 38, 225
Foster, Mr. R. Le Neve, existence of warts amongst workers in carbolic acid, 1140
Fothergill, Dr. J. M., on malt as food, 611
Foul wounds, treatment of, by hot air, 178
Fowler, Dr. J. K., on functional and false murmurs, 101, 148; on Addison's disease, 988
Fox, Dr. C., on thrombosis of vena cava and primary sarcoma of adrenal, 662; on pityriasis circiné, 708; on cases of Raynaud's disease, 991
——, Dr. W., on tubercle bacillus and the pathology of phthisis, 107
——, Mr. H., on the Brussels degree, 735
Fracture box, improved, 682, 735, 783
France, the decrease of population of, 92, 307; the protection of abandoned children in, 532
Franchise, the, and medical thrift, 1061
Fraser, Dr. D. Manson, obituary notice of, 1186
Free nursing for infectious diseases, 388
French hospital and dispensary, 520
—— hospital, shocking occurrence in a, 732
Frerichs, Prof. von, death of, 531
Freyer, Dr. P. J., on one hundred and eleven cases of litholapaxy, 375, 421, 467
Friend, Mr. F., on real disease or malingering, 828
Friends, Society of, longevity in the, 73
Friendly societies, medical association, a new exaction of, 235; and the hospitals, 1097
Frontal lobes, lesions of the, 109
—— sinus treated by incision and drainage, 842
Frost, Mr. A., on the influence of vapours of bisulphide of carbon and of chloride of sulphur on the vision and general health, 113; on the supposed accommodation in an aphakic eye, 756
——, Mr. W., on early treatment of concomitant squint, 620
Fruit as an article of daily diet, 673
Functional and false murmurs, 101, 148

Gaillard, Dr. E. S., death of, 359
Gairdner, Dr. W. T., on a case illustrating liability to error in diagnosis, 1025
Gall-bladder, extirpation of the, 969
Gangrenous gut, treatment of, 759
Ganglia, pathological histology of semilunar and superior cervical sympathetic, 798
Gant, Mr. F. J., on the College of Surgeons election, 1146, 1183
Garratt, Dr. C., on Myths in Medicine and Old Time Doctors (review), 389
Gastric dilatation, 1047
Gastrostomy, cases of, 750
Gastrotomy for extra-uterine gestation, two cases of, 7
Gem, Mr. W., on cardiac murmurs in thoracic aneurysms, 924
General Medical Council, the, 677, 994, 1041; and the revision of regulations of medical education, 394; and medical students, 897; the session of, 897, 940; and its financial troubles, 952; and the universities, the penal action of, 1004
Genesis of disease from an evolutionary point of view, 103
Germ theory of disease, 297
German Hospital, the, 276, 874
Germany, collective investigation in, 33
Gervis, Dr. H., annual address at the Obstetrical Society of London, 281
Gibbings, Dr. A. T., on slow pulse with epileptiform seizures, 288
Gillbee, Mr. William, obituary notice of, 450
Girls, the traffic in, 1175
Gladstone, Mr., health of, 77; an earldom for, 1134
Glanville, Mr. H. C., on cascara sagrada, 87
Glasgow water-supply, 970
—— Royal Infirmary School of Medicine, 731
—— University Medico-Chirurgical Society, 731

Glaucoma, acute, 388
Glen, Mr. C., on the Local Government and Public Health Orders relating to Urban and Port Sanitary Authorities (review), 755
Glioma, secondary, 988; double retinal, 1085
Glossitis, rheumatic, 220
Gloucestershire, health report on, 312
Glover, Mr. P., on death during anæsthesia, 316
Gluteal artery, rupture of the, 12
Glycerine as a solvent for podophyllum resin, 413
——, Mr. T., on removal of a portion of gun barrel from the nose, 502
Godlee, Mr. J. R., on simple fracture of the skull in infants, followed by pulsating tumour, 62; on a case of obturator hernia, 655
Goitre, etiology of, in England, 1074
Gonorrhœa, thrombosis of veins from, 987; the treatment of, by a new drug, 406
Gonorrhœal ophthalmia, the hollow eye speculum and douche for the treatment of, 1130
Gordon, Dr. C. A., Medical Reports of the Chinese Customs Service (review), 623
——, General, 308; Memorial Hospital, the, 529, 1045; and the anti-vaccinationists, 1005
Goude, Mr. H., on small-pox risks, 917
Gouty obesity and dyspepsia, a new remedy in, 745
Governor-General of India, medical staff of the, 306
Grant, Mr. J., on rapid spontaneous resolution of a depressed fracture of the parietal bone, 647
Granville, Dr. M., on a new remedy in gouty obesity and dyspepsia, 745; on tauro-cholate of soda pills, 917
Grasslands Sanatorium, 232
Graves, Dr. R., Clinical Lectures on the Practice of Medicine (review), 180
Green, Dr., on tubercle bacillus and the pathology of phthisis, 107
Greene, Mr. F. W., on a case of catalepsy, 1068
Gresham College, an arrest of development, the, 1047
Gribbon, Surgeon-Major, on case of enlargement of the bursa beneath the semi-membranosus after injury, suppuration extending to the knee-joint, 427
Grierson, Mr. F., obituary notice of, 318
Griffith, Mr. A. L., on a case of intussusception, 973
Growths, uncommon, a series of, 843
Gubb, Mr. A. S., on caffeine in Bright's disease, 413; a practical suggestion, 1189
Guernsey, measles in, 647, 691, 811
Gumma, intra-ocular, 1085
Gunshot wound, fracture of arm, 775
Guy's Hospital, 767
Gwynn, Dr. E., on small-pox hospitals, their influence on surrounding populations, 253
Gwynne, Dr., on the treatment of empyema, 387

Habitual Drunkards Act, 170
Hadden, Dr. W. B., on choreiform movements in infantile spasmodic paralysis, 616; on obstruction of arteries and veins extending over many years, 893; on Addison's disease, 988
Hæmatemesis, recurrent, with urticaria, 109
Hæmatocele, extra-peritoneal, colotomy in a case of, 203
Hæmaturia from Bilharzia hæmatobia, 985
Hæmoglobinuria, 1038; experimental, 115
Hæmophilia, 387; the hereditary nature of, 801
Hæmoptysis, treated by artificial pneumothorax, 891; fatal, 384; from hydatid of lung, 528
Haines, Dr. C., a case of double ovariotomy, 795
Hains, Mr. L., on cocaine as a local anæsthetic, 86
Hair, bleaching of the, 279
Halfpenny a week, a, 536, 691
Halifax combined district, health of, 585
Haly, Mr. C., on sanitary administration in Ireland, 324
Hamilton, Dr. J. B., on lock hospitals in India, 279
Hampstead small-pox hospital, the, 544
Hand, perforating ulcer of the, 676
Handford, Dr. H., on chronic cardiac aneurysm, 198; on syphilitic induration of a cicatrix resembling morphœa, 1022
Hanging, three attempts at, 400; nine cases of death by, 657, 701; death by, 1057
Hanley, health of, 1012
Hannay, Mr. J., on four twin births in succession, 92
Hardie, Mr. J., on congenital tumours, 785
Hardy, Mr. H. N., on caffeine, 188, 322; on reform at the College of Surgeons, 772
Hare, Dr. C., on emetics, 661
Harkin, Dr. A., on pruritus vulvæ, 278
Harmar, Mr., presentation to, 826
Harmless lunatics to be sent back to workhouses, 121
Harrison, Mr. J. B., on the micro-organisms of yellow fever, 405
——, Mr. R., on case of lithotomy where the nucleus of a large phosphatic calculus was the whalebone mouth-piece of a tobacco pipe, 287; on some surgical aspects of renal tuberculosis, 699; on the College elections, 821
Harrogate, proposed new hospital at, 186
Harveian Society of London, 252
Harvey's manuscript lectures, 271, 1057
Hassall, Dr. A. H., on the Inhalation Treatment of Diseases of the Organs of Respiration, including Consumption (review), 666
Hastings, certification of infectious disease at, 124; health of, 819
Hawkins, Mr. Cæsar, the late, 414, 457
——, Mr. H., on after-care of mental convalescents, 850
——, Mr. Justice, on insanity, 307
——, Mr. Thomas, obituary notice of, 689
Hay fever, cocaine in, 1021
Head, severe injury to the, 993
Health assurance associations, 1103, 1155
—— Exhibition, awards at the, 457
—— Lectures for the People (review), 1010
Hearing, tests for, 279
Heart, fatal wounds of the, 26; congenital disease of the, 157; injuries of the, 190; malformations of the, 371; atheroma of the, 1038; and arteries, and examination of the supposed action exerted by the antagonism between acids and alkalies in modifying the tonicity of the, 6
Heat apoplexy, prevention of, 620
Heath, Mr. C., Practical Anatomy: a Manual of Dissections (review), 480
Heddy, Mr. W., on twin birth in which one child was an anencephalus, 648
Hellier, Dr., on hysterical ischuria, 255
Helminthology, the chair of, at the Royal Veterinary College, 1179
Hemianæsthesia from congenital brain disease, 205, 218, 272
Hemiplegia in a child, 992
Hemsted, Dr. Stephen, obituary notice of, 824
Henle, Professor, health of, 959
Herefordshire combination, health report on, 312
Hermaphroditism, transverse, 829
Hern, Dr., presentation to, 1018
Hernia, non-malignant tumours of the spermatic cord, and their diagnosis from, 792, 857; strangulated, 387, 858
——, treatment of gangrenous intestine in, 750
——, strangulated umbilical, 381
——, umbilical, removal of the sac after ligature of the neck, recovery, 747
——, strangulated omental, 680, 772
——, strangulated congenital, 479
——, strangulated femoral, 746; operation, recovery, without constipation, 984
——, intra-parietal strangulated inguinal, 983
Heron, Dr. G., on comma bacilli of Koch, Finkler, and Prior, 111
Herschell, Dr. G., on agoraphobia, 828
Heroic girl, a, 813
Heslop, Dr. Thomas Pretious, obituary notice of, 1185
Hewetson, Mr. H. B., on the treatment of acute earache by the injection of glycerinum acidi carbolici, 703
Hewitt, Dr. G., on the question of the importance of flexions and displacements of the uterus, 243, 284
——, Mr. F., on a new method of administering nitrous oxide gas, 840
Hexham, health of, 1055
Hicks, Dr. B., clinical memoranda: two cases of chronic vaginitis, 610
——, Mr. A. B., on the preservation of the dead in mortuaries and elsewhere, 226
——, Mr. J., on cocaine as a local anæsthetic, 86
—— *v.* Bedford and others, 540, 639
Hill, Mr. B., on the Royal Medical and Chirurgical Society, 179
Hime, Dr. W., on the germ theory of disease, 297
Hip, the determining tendon in dorsal dislocations of the, 1183
Hip-joint, amputation at the, 12, 707; dislocated, 519; congenital dislocation of the, 271, 314, 362, 477; disarticulation of the, without anæsthesia, 1008
Hobson, Dr., on congenital obstruction of intestine, 429
Hodgson, Mr. A., on an easy method of cure for salivary fistula, 682
Holborn, sanitation in, 874; Union, new workhouse for the, 731
Hollis, Dr. W. A., on the new edition of the Nomenclature of Diseases, 638
——, Mr. A., Ralph Waldo Emerson, 316
Hollow eye-speculum, 1169
Holmes, Mr. T., on strangulated omental hernia, 680
Holsworthy rural district, health of, 636
Homeless and nomadic population, the health of the, 671
Homerton Hospital, expenditure at the, 439, 627
Honest criticism, 721
Hong-Kong, 1181
Hood, Mr. D. C., on epidemic influenza, 362
Hopkins, Mr. R., obituary notice of, 643
Horrocks, Dr. P., a case of convulsions during pregnancy, treated by injections of pilocarpine, 1079
Hospital appointments, election to, 47
—— elections, 268
—— Saturday fund, 267, 633
—— ships, 334, 347
—— Sunday, 33, 219, 1090; fund, 1141, 1181
Hospitals, Christmas at the, 28; improved diet at, 76
—— Association, the, 500
Houses, unhealthy, 767
Housing of the working classes, report of the Royal Commission on the, 643, 953, 1043
Hovell, Mr. D. de B., on carbolic oil, a remedy against mosquitoes, 546
How to carry unaided an insensible man, 503, 547, 597
"How to reduce weight," 219
Howe's Classified Directory to the Metropolitan Charities for 1885 (review), 299
Huddersfield, health of, 636, 867
Hudson, Dr. T. J., on treatment of urethral gleet by medicated metal bougies, 1031
Hueppe, Dr. F., Die Methoden der Bakterien-Forschung (review), 897
Hughes, Mr. R., on mincing machines, 1068
Hull and Caiger, Messrs., on the M.D. examination at the London University, 227
Human body, electric illumination of various cavities of the, 588
—— mind, genesis of the, 30
Humanity, for the good of, 1155
Humerus, subspinous dislocation of the, 14
Humphry, Prof., on the anatomy of spina bifida, 557; on old age and the changes incidental to it, 831
Hunter, Dr. J. D., fatal injury without external marks, 1066
Hunterian Museum, the, 971
—— oration, the, 325
—— Society, 276
Huntingdon rural district, report of, 446
Hurry and exertion, death from, 357, 410
Hutchinson, Mr. J., on amputation at the hip-joint, 707; on transverse hermaphroditism, 829
——, Mr. P. S., on death during the administration of ether, 178
Hydatid, intra-cranial, 802; disease of liver and spleen, 387; of lung, hæmoptysis from, 528
Hydrocele, acute, pleurisy and pericarditis, death, necropsy, 748; in the female, two cases of, 423
Hydrocotyle Asiatica, 441
Hydrology and Climatology, International Congress of, 678
Hydrophobia, alleged successful treatment of, 535; deaths from, 908, 1109
Hyoid bone and larynx, fracture of the, 429
Hyoscine, the physiological action of, 535
Hyoscyamine in delirium tremens, use of, 346
Hypodermic medication, pocket cases for, 851
Hypospadias, 749
Hysterectomy, 1086
Hysteria and its counterfeit presentments, 1069, 1113
Hysterical ischuria, 255
—— pyrexia, 395, 457

Ices, poisoning by, 1091
Ileo-cæcal valve, stricture of the, 1, 49
Ileus, treatment of, 1136
Ilio-femoral aneurysm treated by instrumental compression, cure, 472
Illegible prescriptions, 691
Illingworth, Dr. C. R., on whooping-cough, 782; on treatment of septicæmia by iron and quinine, 916
Illinois, State sanitary survey in, 858
Illnesses, avoidable, 119
Illuminating gas, poisoning by, 633
Imbecility and insanity, the social aspect of, 479
Ince, Dr. J., on Darenth small-pox camps, 130; on the Metropolitan Asylums Board, 869
India, wild animals and snakes in, 94; lock hospitals in, 279; report on sanitary measures in, 171; second report of the special cholera commission in, 171

Indian health statistics, 667, 768
—— medical service, 261; promotion in the, 188
Indigestion, death from, 354
Industrial insurance, 762
Inebriates, homes for, 454
Inebriety, Society for the Study and Cure of, 644, 687
Infectious diseases, what is the explanation of acquired immunity from? 655, 696, 1103; removal of, 814; hospital for, the value of a, 492
Infirmary nurses and medical teaching, 732
Inflammations, virulent, 163
Influenza, epidemic, 342
Injuries, extensive and fatal, with few and slight external evidences, 999, 1056
Inquiry, a convenient mode of, 122
Insane, general paralysis of the, 316; population of the United States, 503
Insanity, the premonitory symptoms of, 644; after ovariotomy, 639
Insects, why not eat? 907
Insomnia, a cause of constipation, 598
Insurance and child mortality, 167
Intemperance and pauperism, 441
Intemperate advocacy of temperance, 450
International Encyclopædia of Surgery, the (review), 710
—— Health Exhibition (review), 622, 675
—— Inventions Exhibition, 860
—— Medical Congress, 100, 1009, 1053, 1099
—— Sanitary Conference, the, 911, 914, 1009, 1053, 1099, 1131, 1144
Intestinal obstruction, treatment of, 39, 85, 131; acute, a new method of treating, 310
Intestine, congenital obstruction of, 429; resection of the, 620; cyst growing from the walls of the, 750; large, resection of the, for scirrhous growth, 60; large, congenital malformation of the, 203; small, communication between the, and the bladder, tuberculosis, death, 1164
Intra-cranial syphilis, 1157
—— tumours, the forthcoming exhibition of, 959
Intra-ocular gumma, 1085
Intra-thoracic diseases, significance of a peculiar murmur in relation to the diagnosis of, 835, 881, 929
Intussusception, a case of, 973
Iodide of potassium, large doses of, 876
Ipecacuanha in dysentery, 476; the history and use of, 640
Ireland, correspondence from, 43, *passim*; sanitary administration in, 263, 324; health of, in 1884, 1011; Academy of Medicine in, 185; Pharmaceutical Society of, 489
Iris, adhesions of the, to the cornea, treatment of, 197; absence of, in both eyes, 479
Irish Graduates' Association, 545
—— Medical Association, 1054
Iron houses, 734
Irregular practitioners, the prosecution of, 965
Ischuria, hysterical, 255
Isle of Thanet, sanitary condition of, 634
—— of Wight, health of, 915
Isolation hospitals, the value of, 491; plans of, 993

Jackson, Mr. A., on a case of strangulated hernia, 387
——, Mr. J., on large doses of potassium iodide, 876
——, Mr. V., on a cheap and ready way of treating club-foot, 160
——, Mr. W. T., on cocaine as an anæsthetic, 1067
James, Dr. P., on cocaine as a local anæsthetic, 130; on the Therapeutics of the Respiratory Passages (review), 666
Japan, the Medical and Chirurgical Society of, 1010; cholera in, 1054
Japanese native village in London, a, 124
Jarrow, health of, 1012
Jativa, pseudo-cholera at, 677
Jaundice, emotional, 32; on the affinity of simple and malignant, 560
Jaw, removal of the, for tumours, 1077; upper, tubular epithelioma of, 157
Jeaffreson, Mr. C. T. "personal experience of cocaine as an anæsthetic," 1015
Jenner, Sir William, 767, 814, 911; and the question of degrees, 668
Jennings, Mr. C., on artificial circulation as a means of resuscitation after apparent death, 245, 289
Jequirity in the treatment of rodent ulcer, 1188
Jerusalem, the British Ophthalmic Hospital at, 14
Jessett, Mr. F. B., on cancer of the tongue, 207
Jessop, Mr. W., on cocainised eye, 113
Johns Hopkins Laboratory, Studies from the (review), 850
Johnson, Dr. G., the etiology, pathology, and treatment of cholera, 563
Johnston, Mr. B. R., on a case of monstrosity, 547
Jones, Dr. H., on cerebral arteries in states of congestion, 748
——, Mr. Derry, obituary notice of, 231
——, Mr. R., a new splint for the treatment of compound injuries at or about the elbow-joint, 1125
——, Mr. T., on insanity after ovariotomy, 639; on an instrument for the transfusion of defibrinated blood, 745
——, Mr. T. W. C., on transfusion in a case of chronic phthisis, 1?; apparatus for the transfusion of defibrinated blood, 664
——, Mr. W., on the circulation of the blood, 99, 146
Journal of Anatomy and Physiology (review), 298

Keetley, Mr. C. B., Students' Guide to the Medical Profession (review), 804
Kenyon, Mr. G. A., on contagious disease cards, 828
Kesteven, Mr. H., on the genesis of disease from an evolutionary point of view, 103
Kettering, health of, 724
Kidd, Dr. P., a caseous gland impacted in the trachea and causing sudden death, 342; on fatal hæmoptysis from hydatid of lung, 520; on destructive disease of the lung, 749
Kidderminster epidemic, official report on the, 302
Kidney, excision of the, for ruptured ureter and urinary abscess, in a child three years and eight months, 95; the surgery of the, 303; cancer of the right, congenital absence of the left, 661; sarcoma of the, nephrectomy, 936; single, remarks on two cases, 979
Kiernander, Mr. H., on a monstrosity, 596
Kimberley scandal, another, 1173
Kindness to animals, 860
King and Queen's College of Physicians, 368, 503
King's College, 185; Hospital, 971
—— Norton rural district, health of, 635
King's wheaten flour for infants, 805
Kingston-on-Thames, health of, 1055
Kingzett, Mr. C., Nature's Hygiene (review), 756
Kinkhead, Dr. R. J., on nine cases of death by hanging, 657, 701
Klein, Dr., on the cholera bacillus, 268
Knapp, Dr. H., on Cocaine and its Uses in Ophthalmia and General Surgery (review), 849
Knee-joint, resection of the, 596; union by first intention, 473
Knock-knee, osteotome for the treatment of, 1167
Knox, Mr. M., on cases of hernia of the lungs into the neck, 515
Koch, cholera bacillus of, 1070
Kussmaul's coma, 358

Lactic acid, creatine and urea in muscular tissue, 933; creatine, urea, and glucose, physiology of, 1046
Lady doctor, sad death of a, 594
Laffan, Mr. T., the Lunacy Amendment Bill, 547
Lancashire, lunacy in, 732
Lanchester, Dr. T. H., obituary notice of, 183
Landois's Text-Book of Human Physiology (review), 19
Lane, Mr. A., on fracture of the first right rib, 62; on pressure in the spinal column, 341; on fracture of hyoid bone and larynx, 429; on displacement of lumbar vertebræ, 748
——, Mr. J. E., on the hereditary nature of hæmophilia, 801; on suppuration in joints in congenital syphilis, 157
——, Surgeon I. R., death of, 582
Laryngeal paralysis and inequality of the pupils, as tending to aid and also to mislead in the diagnosis of thoracic aneurysm, 3
Laryngoscopic mirror, the, 503, 546
Larynx, the, in tabes dorsalis, 620; case of fracture of the, 936; thyrotomy for papilloma of, 1038
Latham, Dr. P. W., on the origin and formation of lactic acid, creatine, and urea in muscular tissue, 933; why does salicylic acid cure rheumatism? 1119, 1158
Lawson, Mr. G., on Diseases and Injuries of the Eye (review), 162; on a case of secondary glioma, 989
Lay press, discussions of medical questions in the, 93
Leach, Mr. H., the Ship Captain's Medical Guide (review), 623
—— and Rooke memorial fund, 588
Lead-poisoning, 263, 388
Leake, Mr. R., and the anti-vaccinationists, 370, 393, 449

LECTURES.

ANDERSON, Dr. MCCALL:—
Clinical Lectures (Abstract of) on Intracranial Syphilis.
Lecture I., 1157

BARKER, Mr. A. E.:—
Clinical Lectures on Cases Illustrating Renal Surgery.
Lecture I., 95
Lecture II., 141

BRISTOWE, Dr. J. S.:—
Cavendish Lecture on Hysteria and its Counterfeit Presentment, 1069, 1113

BRUNTON, Dr. T. L.:—
Lettsomian Lectures (Abstract of) on Disorders of Digestion, their Consequences and Treatment.
Lecture I., 53
Lecture II., 144
Lecture III., 239

CLARK, Sir Andrew:—
Lumleian Lectures on some Points in the Natural History of Primitive Dry Pleurisies.
Lecture I., 549
Lecture II., 599
Lecture III., 649

COWELL, Mr. G.:—
Clinical Lecture on Two Cases of Injury from the Dynamite Explosion in Westminster Hall, 466

CROCKER, Dr. H. R.:—
Clinical Lectures on Scleroderma.
Lecture I., 191, 237
Lecture II., 927, 957

DALBY, Mr. W. B.:—
Lecture on Affections of the Throat and Nasal Passages associated with Disease of the Middle Ear.
Lecture III., 51.

DUCKWORTH, Dr. Dyce:—
Clinical Lecture on a Case of Disseminated Cerebro-spinal Sclerosis in an Early Stage, affecting exclusively the Right Extremities, 879

FENWICK, Dr. J.:—
Clinical Lectures on Cases of Difficult Diagnosis.
Lecture II., 1, 49

FINLAYSON, Dr. J.:—
Remarks on Laryngeal Paralysis and Inequality of the Pupils, as tending to Aid and also to Mislead in the Diagnosis of Thoracic Aneurysm, with some Observations on the State of the Pupil after Death and the Effect of Atropine, 3

GAIRDNER, Dr. W. T.:—
Clinical Remarks on a Case illustrating Liability to Error in Diagnosis, 1025

GERVIS, Dr. H.:—
Annual Address delivered at the Obstetrical Society of London, 281

HARDIE, Mr. J.:—
Clinical Lecture on Congenital Tumours, 785

HUMPHRY, Professor:—
A Museum Lecture on the Anatomy of Spina Bifida, 557
The Annual Oration delivered on May 7th at the Medical Society of London on Old Age and the Changes incidental to It, 831

LEE, Dr. R. J.:—
Clinical Lecture on Malformations of the Heart, 371

MARSHALL, Mr. J.:—
Hunterian Oration delivered at the Royal College of Surgeons of England, 825

OSLER, Dr. W.:—
Gulstonian Lectures on Malignant Endocarditis.
Lecture I., 415
Lecture II., 549
Lecture III., 505

REYNOLDS, Dr. J. R.:—
Address to the Students of the Medical School and University College, Bristol, 1023

WEBER, Dr. H.:—
Croonian Lectures on the Hygienic and Climatic Treatment of Chronic Pulmonary Phthisis.
Lecture I., 464, 508
Lecture II., 604
Lecture III., 693, 737

Lee, Dr. R., on malformations of the heart, 371
——, Mr. A. B., the Microtomist's Vade-mecum (review), 896
——, Mr. H., on the radical cure of varicocele, 695
Leech, Mr. D. J., on sweet spirits of nitre, 597
Leeds, sanitation at, 631; General Infirmary, 545
Lees, Mr. A., on palatable predigested food, 647
Leeson, Dr. J. R., on cocaine as a local anæsthetic, 131
Lefroy, Canon, on the lunacy laws, 216
Legacies of 1884, the, 75
Legg, Dr. J. W., on the affinity of simple and malignant jaundice, 560; on Addison's disease, 1027
Leicester, the anti-vaccinationists at, 358, 377; health of, 914; the late medical officer of health for, 1096, 1183
Leipsic pathological chair, the, 78, 220
Leslie, Mr. W. M., on singular medical evidence, 1104
Lettsomian lectures, the, 260
Leucocythæmia, 755, 1086
Lewers, Mr. A. H., on spurious vaccination, 188
Lewes, health of, 679; lunacy case, the, 859
Lewis, Mr. W., on the application of midwifery forceps, 690
——, Surgeon C. B., the late, 171; obituary notice of, 318
Licking adhesive stamps and envelopes, 959
Life assurance offices and medical examinations, 757
Life-saving from drowning by self-inflation, 11
Lightning, deaths from, 414
Lincoln, the water-supply of, 358, 731; health of, 914
Ling, Dr. G., on cholera and its prevention, 877
Lister, Sir Joseph, 216
Litholapaxy, one hundred and eleven cases of, 375, 421, 467
Lithotomy, tobacco pipe mouthpiece forming the nucleus of the stone, 287; in the adult, cases of, 884, 930; renal, 800; supra-pubic, 1177
Lithotrity, use of cocaine in, 124; a case of, 704
Little, Dr. James Lawrence, death of, 768
Liver, atrophy of the, 662; clinical study of the, viewed through the urine, 700, 741; carcinoma of the, with great contraction of the stomach, necropsy, 747; primary carcinoma of, 844; infiltrating growth in, and adrenals of an infant, 251
Liverpool, isolation in Greater, 120; hospital for infectious diseases in, 167; proposal to rate hospitals in, 1050
Llanelly, health of, 636, 1055
Local Government Board, the report of the medical officer of, 35, 125; medical inspectors of, 304; medical and engineering inspectors at, 351
Locke, Mr. G., on pruritus vulvæ, 235
Locomotor ataxy, without disease of the posterior columns of the spinal cord, 430; with joint disease, 1038; hereditary, 383
London, open spaces in, 32; smoke, an apology for, 764; seasonal prevalence of continued fevers in, 993; the proposed new teaching university for, 86, 390, 575, 1134; the port of, 672
—— Fever Hospital, the, 33
—— Hospital, 1064
—— medical students, university degrees for, 677, 818, 852
——, University of, 25, 273, 351, 586, 861, 907, 1008; the M.D. examination at the, 132, 179, 716; convocation of, 267; the degree of B.Sc. of the, 1067; reform of the constitution of the, 1170; and the proposed teaching university, 390
Londoners, degeneration of, 369
Longstaff, Dr. G. B., on the seasonal prevalence of continued fevers in London, 993
Lord Mayor, the late, 718
Los Angeles for invalids, 324
Low, Mr. C., on the explosion at Shoeburyness, 597
Lower Thames Valley drainage, 643, 1109
Lowndes, Mr. F., on forensic medicine, 638
Lowson, Dr. D., on displacement and fracture of the axis, 294
Lozano, Dr. G. G., on the mortality of Madrid, 1095
Lucas, Dr. J., on the boats between Calais and Dover, 92; on cascara sagrada, 369, 502; on the Arabs wounded in the Soudan, 457
——, Mr. R. C., on fractures of the skull followed by collections of cerebro-spinal fluid beneath the scalp, 129; the determining tendon in dorsal dislocations of the hip, 1183
Lückes, Eva, Lectures on Nursing (review), 299
Lumbar colotomy, a case of, 982
Lumley, Mr. W. G., the Public Health Act, 1875 (review), 298
Lunacy Amendment Bill, the, 547, 626, 668, 806, 814
——, certificates in, 123; fees for, 924
——, deadlock in, 537
—— law reform, 12, 72, 118, 176, 257; and Poor-law medical officers, 267
—— laws at home and abroad, 573
Lunatics, imprisoned, 77, 355, 766, 810, 876; custody of, 862, 868; fractured ribs and scurvy in, 857; and workhouses, 1050
Lung, bullet wound of, 292; rupture of the, and probably of the liver, 661; destructive disease of, 749; obliteration of one, with displacement of the heart, 1048; and brain, sarcoma of, 844
—— diseases in wild animals, 341
Lungs, hernia of the, into the neck, 515
Lunn, Mr. J. R., on calculus and tumour of the bladder, 618; on osteitis deformans, 893; on a case of aneurysm of the abdominal aorta, 705
Lupton, Mr. H., on a case of intra-cranial hydatid, 802
Lupus, nature and treatment of, 254
Lush, Dr. W. J., on conscience money, 734
Lustgarten, Dr. S., on the bacillus of syphilis, 609
Lying-in hospital mortality, 534
Lymphadenosis, with multiple growths from the dura mater, 247

McArdle, Mr., on anomaly of the arch of the aorta, 754
Macaroni infection, 140
McAvoy, Dr. J., on glycerinum acidi carbolici in diabetes mellitus, 736
Macclesfield General Infirmary, 109
Macdonald, Mr., G. C., on a case of so-called catheter fever, 1164
McCulloch, Mr. T. C., on drinking paraffin oil, 972
McDonald, Mr. P. W., on two cases of single kidney, 979
McDonnell, Dr. C., presentation to, 184
——, Dr. R., on the nature and treatment of lupus, 254
Macdougall, Mr. A., on chronic chorea of forty-one years' duration; nerve-stretching for relief of pain, 742
McEwen, Dr. W., cases illustrative of cerebral surgery, 881, 934
Mackenzie, Dr. H., on a case of laryngeal and pulmonary tuberculosis, originating in simple chronic laryngitis, 286
M'Keown, Dr., on the prevention of ophthalmia neonatorum, 345
Maclagan, Dr. J., on Charcot's disease, 85
Maclean memorial, the, 269, 442
McLearn, Dr. J. C., on a case of chorea in a man aged fifty-six, 337
McLeod, Dr. K., on the prevalence of epidemic roseola in Calcutta, 386
McMunn, Mr. J., on the application of midwifery forceps, 457
Macpherson, Dr., on the use of ipecacuanha in dysentery, 476
"Mad doctors," worrying the, 954
—— dogs at large, 674
Madness, a magistrate's opinion on, 166
Madras, hospital for caste women in, 905
Magnetism, physiological effects of, 413
Maguire, Mr. W. R., on disinfecting chambers, 829
Mahomed memorial fund, 83, 127, 318, 409, 494, 686, 770
Maitland, Mr. C. B., on bullet wound of lung, 292
Male nurses for men, 630
Malignant growth in the forearm of an infant, 342
—— endocarditis following a slight injury to the knee, followed by death within fourteen hours of admission into hospital, 1165
Mallins, Mr. H., on high amputation for gangrene of the foot, obstruction of the popliteal artery by hydatid cysts, 658
Malt as food, 611
Manchester, correspondence from, 132 *passim*; horseflesh as food in, 630; Medical Society, 185, 186; Medico-Ethical Association, 320; Royal Eye Hospital, 320; Royal Infirmary, 43; and Salford Sanitary Association, 232
Manners, Lady John, and toothless paupers, 395
Manson, Mr. R., Zigzag Ramblings (review), 756
Maori cigarettes, the, 34
Market Weighton, sanitary condition of, 310
Marseilles and Toulon, report of THE LANCET Special Sanitary Commission on, 1142, 1179
Marshall, Dr. J. G., on Charcot's disease, 41
——, Dr. L., on amputation at the hip-joint, 707
——, Dr. W., the late, 76
——, Frederick, the case of, 268
——, Prof. J., the Hunterian Oration, 325, 755; on the late Mr. Cæsar Hawkins, 457
Marston, Deputy Surgeon-General, on the extinction of cholera epidemics in Fort William, 38
Martin, Dr. Henry A., obituary notice of, 275
Martindale, Mr. W., on tincture of aconitum ferox, 280
Marylebone, health report on, 312
Mastoid cells, perforation of the, 204
Matthews, Dr. J. W., presentation to, 364
Maxwell, Mr. T., a warning, 736
Mazzoni, Mr. Costanzo, obituary notice of, 318
Meat, unsound, 47, 87, 217
Medal, an old, 690, 736
Medical advertisements, a new form of, 503
—— Attendance Assurance Association, 1001
—— Bill and Scotch Universities, the, 726, 773
—— certificates, 323
—— Chronicle, the (review), 348
—— Directory for 1885, and the North-west London Hospital, 93, 138, 189
—— etiquette, at the East-end, 280; at Crieff, 369
—— Education and the Regulation of the Practice of Medicine in the United States and Canada (review), 389
—— evidence, singular, 1050, 1104
—— fees, 46
—— heroes, 536
—— honours, 1097
—— legislation, 960; the prospect of, 349
—— man censured, a, 909
—— men, remuneration of, a county court judge on the, 633; wills of, 270 *passim*
—— missions and missionaries, 308, 861, 925
—— notes in Parliament, 409 *passim*
—— officer of health not wanted, 442
—— officers of health, and private practice, 138, 164, 225; status of, 160, 713; remuneration of, 166; annual reports of, 308; and their relation to sanitary authorities, 625; Association, 544
—— poets, 1180
—— profession, admission of women to the, 350
—— Register and its lessons, the new, 528
—— relief and disfranchisement, 1044

MEDICAL SOCIETIES.

ABERNETHIAN SOCIETY.—Sir James Paget on St. Bartholomew's Hospital and School fifty years ago, 1128

ACADEMY OF MEDICINE IN IRELAND.—Inaugural address; Melanotic sarcoma of the rectum, 56—Cardiac disease; Osteoma; Cancerous stricture in the sigmoid flexure of the rectum; Strangulation within a hernial sac; Removal of a hard calculus from the tonsils; Mammary tumour, 11—Three cases of ovariotomy, 209—Nature and treatment of lupus, 254—Congenital dislocation of the hip-joint; Cervical tumour; Bowel obstruction relieved by operation, 477—Transplantation of skin flaps without pedicle for the cure of cicatricial ectropia, 568—Inaugural address; Sewer gas and disease, 622—Gangrene of leg; Endocardial concretion; Tropical dysentery; Aneurysm at base of brain; Pericarditis in a horse; Anomaly of the arch of the aorta; Development of the azygos bloodvessels; An Andaman skeleton, 753—Operations for flat-foot; Removal of an ivory exostosis from the auditory meatus; Trichiasis, 848—Sloughing of the rectum; Acute pneumonia; Multiple exostoses; Cutaneous epithelioma, 1036—Treatment of uterine fibro-myomata, 1086—Complete excision of the clavicle for osteo-sarcoma and partial excision for necrosis, 1167

CAMBRIDGE MEDICAL SOCIETY.—Dislocation of hip; Myopia; Adenoid growths of the naso-pharynx, 209—Use of hyoscyamine in delirium tremens; Perineal section for cystitis in fractured spine, 346—Supposed cerebellar embolism; Fracture of pelvis with wound of artery, 478—Severe injury to head; Bullet wounds of skull; Sarcoma of ovaries, 993

CARDIFF MEDICAL SOCIETY.—The measles epidemic, 569.

CLINICAL SOCIETY.—Conclusion of the discussion on Charcot's disease, 14—Lesions of the frontal lobes; Recurrent hæmatemesis, with

urticaria, 109—Hemianæsthesia from congenital brain disease; Scrofulous gland disease with phthisis; Stricture of the œsophagus and a new method of using the œsophageal catheter, 205—President's address; Myxœdema; Sudden death in phlegmonous pharyngitis, 343—Locomotor ataxy without disease of the posterior columns of the spinal cord; Arrested rickets; Nephro-lithotomy, 430—Thrombosis of basilar artery; Insanity after ovariotomy; Colotomy with delayed opening of the bowel, 521—Treatment of spina bifida; Choreiform movements in infantile spasmodic paralysis; Carcinoma and calculus of the bladder; Pistol-shot wounds, 616—Amputation at hip-joint; Pityriasis circiné, 707—Sporadic cretinism; Inguinal aneurysm; Renal lithotomy, 799—Obstruction of arteries and veins extending over many years; Osteitis deformans; Hæmoptysis treated by artificial pneumothorax; Removal of calculus from vermiform appendix, 893—Report on spina bifida; Successful œsophagotomy; Raynaud's disease; Surgical treatment of tumour of the bladder, 989

EPIDEMIOLOGICAL SOCIETY.—Constitutional requirements for tropical climates, with special reference to temperaments, 159—Prevalence of epidemic roseola in Calcutta, 385—Prevention of heat apoplexy, 620—Seasonal prevalence of continued fevers in London; Plans of isolation hospitals, 993—Variola and the varioloid diseases of animals, 1036

HARVEIAN SOCIETY.—Presidential address, 252—Labour complicated by vaginal hernia; Purulent ophthalmia in infants; Effects upon the voice of operating for cleft palate; Emphysema treated by the compressed air bath; Early treatment of concomitant squint; Resection of the intestine, 620—Apparatus for the transfusion of defibrinated blood; Neglect of emetics in the treatment of disease, 664—Ulcerative endocarditis; Hereditary nature of hæmophilia, 801—Diagnosis of cervical stenosis; Use of the ophthalmoscope in medical practice, 992; Porro's operation; Electrical diagnosis in nervous diseases, 1086

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.—Fibroid tumour (sessile) in anterior wall of uterus; Hysterical ischuria; Laceration of arm treated by transplantation; Effect of syphilis on the nervous system; Spina bifida, 255—Lead-poisoning; Acute glaucoma; Pleural abscess cured by incision and drainage, 388—Tuberculosis; Fæcal fistula; Compound dislocation of astragalus; Coca and its alkaloid, 896

MEDICAL OFFICERS OF HEALTH SOCIETY.—The status of the medical officer of health as a criterion of sanitary progress, 160—Small-pox hospitals, their influence on surrounding populations, 253—Action of disinfectants on microzooids, 621

MEDICAL OFFICERS OF SCHOOLS ASSOCIATION.—Rules for the prevention of infectious and contagious diseases in schools, 64—Comma bacilli of Koch, Finkler, and Prior; Aphasia without lesion of Broca's convolution, 111—Eyesight in schools, 802

MEDICAL SOCIETY OF LONDON.—Trephining for depressed fracture; Statistics of cancer of the tongue, 207—Discussion on renal surgery, 295—Total amputation of the penis; Progressive anæmia; Cases of paralysis agitans; Necrosis of labyrinth, 345—Electric illumination of the various cavities of the human body, 385—Annual general meeting; Diet in the febrile state, 433—Remarks from the president; Ipecacuanha in dysentery; Infective endocarditis (mycosis endocardii), 476—Constitutional treatment of diseases of the uterus and its appendages, 523—Repair after gangrene of scrotum; Choreiform movements of long duration, 565—Treatment of cervical caries; Necrosing ethmoiditis and mucous polypi; The larynx in tabes dorsalis, 619—Myxœdema; Uncomplicated brachial monoplegia from lesion of internal capsule, 709—Treatment of gangrenous intestine in strangulated hernia, 750—Syphilitic disease of the brain; Treatment of cancer of the cervix uteri, 846

MIDLAND MEDICAL SOCIETY.—Ligature of the common carotid artery for hæmorrhage from the external auditory meatus, 346—General paralysis of the insane; General summary of conclusions from 1000 cases of abdominal section, 346—Inversion of the uterus; Muscular atrophy due to lead, 388—The social aspect of imbecility and insanity—Strangulated congenital hernia; Absence of iris in both eyes, 479—Angular ankylosis of wrist; Squibb's apparatus for the estimation of urea; Concomitant and internal strabismus, 568—Spinal meningitis, 661—Necrosis of radius; Pachymeningitis cervicalis hypertrophica; Perforating ulcer of foot; Intra-cranial hydatid; Germ theory of phthisis, 802—Locomotor ataxy with joint disease; Thyrotomy for papilloma of the larynx; Collection of calculi, 1038

OBSTETRICAL SOCIETY.—Exhibition of specimens; Extirpation of the uterus, 207—Prevention of ophthalmia neonatorum and its ravages, 345—Extirpation of the uterus for cancer, 524—Sequel to a case of ovariotomy; Circulation in the uterus; Absence of uterus and occlusion of vagina, 751—Ulceration of lupus of the female generative organs, including perforations, pits, and excavations; Uterine fibroid complicating labour and treated by enucleation, 933—Serous perimetritis; pseudo-osteomalacic pelvis of Naegele, 1166

OPHTHALMOLOGICAL SOCIETY.—Influence of vapours of bisulphide of carbon and of chloride of sulphur on the vision and general health; Cocainised eye; New ophthalmoscope, 112—Prevention of blindness from ophthalmia neonatorum; Nævus of choroid; Favus of the upper eyelid; Tuberculosis of cornea; Evisceration of the globe of the eye, 596—Ciliary nerves in certain diseases of the eye; Spontaneous disappearance of diabetic cataract; Nævus of choroid; Reflex ophthalmitis; Periodic paralysis of third nerve; Coloboma; Rupture of eyeball, 938—Congenital changes in vitreous body; "Black" cataract; Nævoid conditions of eyelids and orbital tissues; Intraocular gumma; Double retinal glioma, 1084

PATHOLOGICAL SOCIETY.—Fracture of the first rib; Simple fracture of skull in infants, followed by pulsating tumour, 62—Malignant disease of spermatic cord; Congenital disease of heart; Synostosis of dorsal vertebræ; Tubular epithelioma of upper jaw; Suppuration in joints in congenital syphilis, 157—Cancer in a cirrhotic liver and adrenals, with pigmentation of skin and viscera; Atrophy of adrenals with Addison's disease; Infiltrating growth in liver and adrenals of an infant; Addison's disease; Tumours of pituitary body; Hypertrophic cirrhosis and congenital disease of kidneys, 251—New growths in intestines; Spondylolisthesis and other results of pressure on the spinal column; Lung disease in wild animals; Sudden death from impaction of trachea by a bronchial gland; Malignant growth in the forearm of an infant; Renal cancer associated with calculi, 340—Rhino-scleroma; Sarcomata of bladder; Congenital obstruction of intestine; Adeno-sarcoma of pineal body; Fractures of hyoid bone and larynx; Tubercular pyo-salpinx; Peculiar form of nephritis, 428—Aneurysm of splenic artery rupturing into stomach; Congenital deformity; Osteitis deformans; Synovial cysts in connexion with joint disease; Primary sarcoma of penis; Dislocated hip; Fatal hæmoptysis from hydatid of lung, 518—Violet pigment discharged from the mouth; Atrophy of the liver; Rupture of aorta; Deposit of bone in testis; Thrombosis of vena cava and primary sarcoma of adrenal; Congenital sarcoma of testis; "Red-water," 662—Displacement of lumbar vertebræ; Cerebral arteries in states of congestion; Hypospadias; Destructive disease of lung; Acute ulceration of colon; Cyst growing from wall of intestine; Cases of gastrostomy, 748—Tumour of brain; Malignant disease of bones in a child; Sarcoma of lung and brain; Primary carcinoma of liver; Hypertrophied callus of tibia and fibula; Chronic cerebro-spinal meningitis; Actinomycosis; Typhoid fever in animals, 844—Varicella gangrenosa; Thrombosis of veins from gonorrhœa; Addison's disease; Atrophy of adrenals; Rodent ulcer; Secondary glioma; Calculus in both ureters, 987

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Discussion on the tubercle bacillus and on the pathology of phthisis, 107, 155—Perforation of the mastoid cells; Simultaneous double distal ligature for innominate aneurysm, 204—Displacement and fracture of the axis; The radical cure of club-foot, 284—Hereditary locomotor ataxy; Fatal hæmoptysis, 383—Annual general meeting; President's address, 428—The treatment of acute peritonitis by abdominal section, 475—Discussion on cholera, 563, 615—Aneurysm of abominal aorta treated by distal compression; Localisation of motor centres in spinal cord, 705—Non-ovarian dermoid tumours; Pathological histology of semilunar and superior cervical sympathetic ganglia, 798—Excision of cerebral tumour, 891—Hæmaturia from Bilharzia hæmatobia; Experimental production of chorea, 985—Fatty tumours; Lympho-sarcoma of tongue, 1083

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—Aortic disease; Cardiac disease; Tumour of the brain; Urticaria, 17—Cocaine as a local anæsthetic; Cystic sarcoma of tibia; Congenital coccygeal tumour; Stricture of ureter; Scirrhous enlargement of left lobe of liver; Infantile diarrhœa, 210—Strangulated hernia; Hæmophilia; Genu valgum; Natural drainage in otorrhœa; Hydatid disease of liver and spleen; Cephalalgia; Treatment of empyema, 387—Perihepatitis; Chorea disease; Thoracic aneurysm; Enlarged heads; Fracture of cervical vertebra, 665—Leucocythæmia; Aortic stenosis; Epilepsy, 755—Pneumothorax; Enlarged spleen; Implication of the mastoid process in ear disease; Atheroma of heart; Hæmoglobinuria, 1038—Hysterectomy; Pseudo-hypertrophic paralysis; Leucocythæmia, 1086

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—Sewage disposal, 847

WEST HERTS MEDICAL ASSOCIATION.—Cause and method of propagation of cholera, 833

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—Sympathetic ophthalmia; Uses of sulphide of calcium; Inflammation, abscess, and new growths of the ethmoid cells, 63—Peritoneal abscess following attacks of enteric fever; Hemiplegia in a child, 992

WOLVERHAMPTON DISTRICT MEDICAL SOCIETY.—Cheap and ready way of treating club-foot; Value of cocaine as a local anæsthetic for operations on the eye, 150—Puerperal fever, 208—Radical cure of inguinal hernia; Epithelial cancer of tongue; Puerperal fever, 569—Climacteric disorder, 666

YORKSHIRE ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—Germ theory of disease, 207

Medicine in art, 24
Medico-political outlook, the, 391
Medico-Psychological Association, the, 910
Medway guardians and the lunacy laws, the, 881
Melanosis, the parasitic nature of, 633, 736
Melbourne, Hospital of, 688; University of, 77
Meningitis, in school children, 395; acute cerebral, 13; chronic cerebro-spinal, 845
Meningocele, case of, 890
Menstruation in an infant, 170
Mental convalescents, after-care of, 648, 850
——— disease, small hospitals for, 760
Mercer's Hospital, 366
Merces, Mr. J., on osmic acid in sciatica, 5
Mercuric chloride as a disinfectant, 721
Metaphysics of natural history, the, 523, 624
Meteorological influences and enteric fever, 904
Metropolitan Asylums Board, 162, 869, 1176
——— Board of Works as a theatre licensing authority, 675
——— Free Hospital, 185
——— hospitals, 1089
——— local death-rates, 716
——— water-supply, 71
Micro-biology, 171
Micro-organisms of yellow fever, the, 405
Microscopes, new, 1089
Microscopical Science, Quarterly Journal of (review), 1088
Microtome, a combined ice and ether spray freezing, 4
Microzooids, action of disinfectants on, 621
Midland Medical Society, 922
Midwifery coincidence, a, 139
——— forceps, the application of, 457, 593, 646, 690
Migraine, with paralysis of the third nerve, 57
Milk epidemic in the State of New York, 245
Military clubs, the, 578
Militia surgeons, 581, 861
Millar, Dr. J., on two cases of poisoning by carbonic oxide, 561
Mills, Mr. Frederick Anthony, obituary notice of, 318
Milton, health of, 819
Mincing machines, 1088
Mind and matter reconciled, 1097
Minns, Mr. A., on cases of carbuncle in railway porters, 323

MIRROR OF HOSPITAL PRACTICE. BRITISH AND FOREIGN.

BIRMINGHAM GENERAL HOSPITAL.—Subspinous dislocation of the humerus, 14

BOURNEMOUTH COTTAGE HOSPITAL.—A case of bullet wound of the skull; recovery, 61—Sequel to the case of bullet wound of the skull; necropsy, 154

BRISTOL GENERAL HOSPITAL.—Cases of aneurysm in the lower extremity treated by digital compression, 983

CHARING-CROSS HOSPITAL.—Case of late congenital syphilis of the throat; treatment with mercury and rectal alimentation; cure; remarks, 613—Traumatic aneurysm of the ulnar artery; operation; recovery, 796—Popliteal aneurysm; operation; cure, 1033

CITY OF LONDON INFIRMARY.—Carcinoma of liver, with great contraction of stomach necropsy, 747

DUNDEE ROYAL INFIRMARY.—Malignant endocarditis following a slight injury to the knee; death within fourteen hours of admission; necropsy, 1165

DUNEDIN HOSPITAL, NEW ZEALAND.—A case of nephrectomy for calculous pyelitis and pyonephrosis; cure, 1081

FRENCH HOSPITAL.—Dislocation of forearm of eight weeks' standing; reduction, 705

GREENOCK INFIRMARY.—Penetrating wound of abdomen, with protrusion of stomach and intestines; reduction of hernia after enlargement of wound; death, 1083

GUY'S HOSPITAL.—Eight cases of cataract operations in aged patients, cure, 249—Distension of frontal sinus treated by incision and drainage; cure, 842—Surgical cases, 983

HALIFAX UNION INFIRMARY.—A case of Cæsarean section; death; autopsy, 155

HOSPITAL FOR EPILEPSY AND PARALYSIS, REGENT'S-PARK.—Sequel to the case of excision of a tumour from the brain, 13

HULME STATION HOSPITAL.—Enlargement of the bursa beneath the semi-membranosus after injury; suppuration extending to the knee-joint; aspiration; amputation; recovery, 127

KENSINGTON INFIRMARY.—Ovariotomy, with recovery, 1126

KIDDERMINSTER INFIRMARY.—Compound depressed fracture of skull; exudation of cerebral matter; trephining; recovery, 294

KING'S COLLEGE HOSPITAL.—Simple depressed fracture of skull; trephining; recovery, 202—Embolism of right middle cerebral artery simultaneously with embolism of right brachial; gangrene of right thumb and little finger; recovery, 1125

LEEDS FEVER HOSPITAL.—Death after the use of antipyrin; necropsy; remarks, 382

LEEDS GENERAL INFIRMARY.—Two cases of fracture of the astragalus, and a case of separation of the upper epiphysis of the radius, 518

LEEDS UNION INFIRMARY.—Three cases, with post-mortem examination, illustrating some points in cerebral localisation of function, 797

LEICESTER INFIRMARY AND FEVER HOUSE.—Acute hydrocele; pleurisy and pericarditis; death; necropsy, 748—Strangulated femoral hernia without constipation; death; necropsy, 981

LEITH HOSPITAL.—Compound depressed fracture of the skull; exudation of cerebral matter; recovery, 293

LIVERPOOL ROYAL INFIRMARY.—Case of compound dislocation of the elbow-joint, with division of the main artery and vein, healed, with restoration of all movements; remarks, 473—Dislocation of shoulder; reduction followed by aneurysm; treated successfully by ligature of subclavian, 704—Suicidal wound of neck treated by tracheotomy and the insertion of deep sutures, 842—Cases of abdominal section; convalescent, 1035

LONDON HOSPITAL.—Transverse fracture of patella; aspiration of joint; suppuration; antiseptic incisions into joint; wiring of fragments; recovery, 153

MANCHESTER ROYAL INFIRMARY.—Two cases of spinal injury, 338—Coexisting renal and biliary calculi; cholecystotomy; death; necropsy; remarks, 563

MIDDLESEX HOSPITAL.—A very large uterine fibro-myoma, together with the uterus, its appendages, and both ovaries, successfully removed by abdominal section, 562—Strangulated femoral hernia; operation; recovery, 746—Strangulated umbilical hernia; operation; removal of sac; recovery, ib.

NEWCASTLE-ON-TYNE INFIRMARY.—Wound of the cornea, with prolapse of the iris; removal of foreign bodies from the orbit; cure, 155—Primary sarcoma of the retro-peritoneal glands; death; necropsy; remarks, 937

NOTTINGHAM HOSPITAL FOR WOMEN.—Syphilitic stricture and ulceration of the rectum; colotomy; recovery, 202—Extra-peritoneal hæmatocele; rectal constriction; colotomy; recovery, 203.—Sarcoma of scapula; excision of the tumour and portion of bone involved in the growth; recovery, with useful arm, ib.

NOTTINGHAM CHILDREN'S HOSPITAL.—A case of meningocele; operation; death; necropsy; remarks, 890

RADCLIFFE INFIRMARY, OXFORD.—Ulcerative endocarditis in a child, affecting the pulmonary valves, with certain congenital defects in the heart; necropsy, 516—A case of ataxic arthropathy; remarks, 890

ROYAL SOUTHERN HOSPITAL, LIVERPOOL.—Cases of stricture of the urethra, with complications, 1127

ROYAL UNITED HOSPITAL, BATH.—A needle in the bladder simulating stone; removal by lithotomy; recovery, 340

ST. GEORGE'S HOSPITAL.—A case of rupture of the gluteal artery and one of amputation at the hip-joint, illustrating more recent methods of arterial compression, 12—Strangulated umbilical hernia; operation; radical cure; recovery; remarks, 381—Eight cases of fracture of the patella, put up in gum bandages as soon after the accident as possible; remarks, 659—A case of facial carbuncle; death; necropsy, 889

ST. MARYLEBONE INFIRMARY, NOTTING-HILL.—A case of ulcerative endocarditis, 105

ST. MARY'S HOSPITAL.—Stricture of the urethra cured by external urethrotomy; subsequent development of epithelioma of the bladder and general dissemination of the growth; death; necropsy, 292—Former destructive arthritis of the knee-joint; dislocation with bony and fibrous ankylosis; resection; union by first intention and without suppuration, 473

ST. SAVIOUR'S INFIRMARY, NEWINGTON.—Case of sword swallowing; death from injury to the œsophagus; necropsy, 249

ST. THOMAS'S HOSPITAL.—A case of resection of the large intestine for scirrhous growth, 60—Three cases of sarcoma of the testis; castration; recovery, 125—A case of lithotrity, 701—Sarcoma of the kidney; nephrectomy; cure, 936—Communication between the small intestine and bladder; tuberculosis; death; necropsy, 1164

SHEFFIELD GENERAL INFIRMARY.—Congenital malformation of the large intestine; Littré's operation; autopsy; remarks, 203—A series of uncommon growths, 843

SUNDERLAND INFIRMARY.—Case of traumatic tetanus; recovery, 382

UNIVERSITY COLLEGE HOSPITAL.—Renal calculus; nephro-lithotomy; cure; remarks, 1081

WEST KENT HOSPITAL, MAIDSTONE.—Rapidly-growing sarcoma of thigh; death; necropsy, 1034

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Multiple renal calculi and pyo-nephrosis; autopsy, 250—Cancer of the right kidney; congenital absence of the left; necropsy; remarks, 661—Rupture of the lung and (?) rupture of the liver; recovery; remarks, 661

YORK COUNTY HOSPITAL.—A case of Charcot's joint disease, 106

Missed labour, a case of, 783
Mitchell, Dr. Weir, In War Time (review), 134; Lectures on Diseases of the Nervous System (review), 896
Mitral insufficiency, retardation of the pulse in, 576
Mivart, Mr. F. St. G., on a case of epileptiform seizures with unusually slow pulse, 10
Monckton, Mr. T., on the metaphysics of natural history, 624
Money, Dr. A., on experimental production of chorea, 985
——, Mr. P. F., on medical certificates, 323
Monographs, Selected (review), 1128
Monstrosities, 547, 596
Mont-Dore, France, treatment of bronchial asthma at, 1161
Montrose sanitary district, health of, 495
Moore, Dr. G., on Mr. Leake and the anti-vaccinationists, 449
——, Dr. J. W., on the relations of the medical profession to the sanitary organisation of Ireland, 622
——, Dr. N., on cases of new growths in the alimentary canal, 340
Moore, Surgeon-General, on constitutional requirements for tropical climates, 159
Morfit, Mr. C., on whole-meal bread, 226, 794
Morgan, Dr. J. E., on Dr. Weber's Croonian lectures, 821
——, Mr. J. H., on the operative procedures in cleft palate and their effects upon the voice, 386
Morning Post on the death of Lord Cairns, the, 670
Morphia in peritonitis, tolerance of, 1050
Morphiomania, the teeth in, 911
Morris, Dr. A. B., presentation to, 614
——, Mr. H., on renal surgery, 295; on a case of aneurysm of abdominal aorta, 705
Morse, Mr. T. H., on a case of thyroidectomy, 1163
Mortimer, Mr. C. W., on Southern California as a home for consumptives, 279
Morton, Mr. A. S., on the Medical Council and general practitioners, 1066
Mortuaries, preservation of the dead in, 276
Mosquitoes, carbolic oil a remedy against, 546, 617
Mouat, Dr. F. J., on the improved sanitary state of Fort William, 128
Moxhay, Mr. William Watkinson, obituary notice of, 989
Moxley, Mr. J. H. S., on the micro-organisms of yellow fever, 405
Moxon, Dr. W., on tubercle bacillus and the pathology of phthisis, 107
Muir, Sir William, death of, 1051; obituary notice of, 1107
Mules, Dr., on treatment of sympathetic ophthalmia by evisceration of the globe of the eye, 567
Murchison's Treatise on Continued Fevers (review), 14
Murphy, Dr. H. H., on ringworm, 829
——, Mr. Shirley, testimonial to, 761, 823, 871
Murray, Dr. C., on amenorrhœa treated by permanganate of potash, 189, 647; on application of midwifery forceps, 598
——, Dr. W., on unsound meat, 87
——, Mr. J. C., on the title of doctor, 877
Muscle grafting and regeneration of muscular fibres, on, 214
Muscular atrophy due to lead, 388
Myoctonine, 1051
Myxœdema, 343, 709; in a woman aged seventy-six, 889

Naegele, pseudo-osteomalacic pelvis of, 1167
Nævus of choroid, 566, 938
Naphthaline in cystitis, 360
Naso-pharynx, adenoid growths of the, 210
Nasmyth, Mr. T., on the improved fracture-box, 735
National Aid Society, the, 809
—— Hospital for Epilepsy and Paralysis, 561, 731
Navy, estimates of the, 435; health of the, 493
Neale, Dr. R., on pruritus vulvæ, 235
——, Mr. J. H., on the surgery and pathology of tenesmus of the rectum, 57
Needle-holder, Hagedorn's, 162: for vaginal operations, 1169
Nelson, Sir Thomas, the late, 310
Nephrectomy, 295, 303, 936, 1081; in Leyden, 1137; and nephrotomy, successful, 630
Nephritis, peculiar form of, 429; diaphoretic treatment of, 1177
Nephro-lithotomy, 295, 303, 432, 1081
Nervous diseases, electrical diagnosis in, 1086
—— sufferers, influence of the weather upon, 92
Netley, Army Medical School at, 299; the Royal visit to, 955
Neuber's method, treatment of neuralgia by, 1096
Neuralgia, a Cuban cure for, 1175; osmic acid in, 1189
Neuroglia of the retina of the vertebrata, researches on the, 264
Neve, Mr. A., on the physiology of the feet, 140
Nevitt, Mr. J. G., on the use of the tricycle in pregnancy, 973
Newcastle-upon-Tyne Infirmary, results of amputations at the, 471
New disease, a, 92
—— Windsor, health of, 867
—— year, the, a forecast, 21
—— York, Medico-legal Journal (review), 299; pneumonia in, 721

NEW INVENTIONS.—New self-adjusting tongue depressor, 20—Hagedorn's surgical needles and needle-holder, 162—A new obstetric bag, 1041—New microscopes, 1089—Sanitary seamless steel saucepans, ib.—The hollow eye speculum and douche for the treatment of gonorrhœal ophthalmia, 1130—A new needle-holder for vaginal operations, 1169—Patent postage-stamp affixer, ib.

Nickels, Mr. B., on disinfectants, 782
Nitrite of amyl in intermittent fevers, 911
Nitre, sweet spirits of, 444
Nitro-glycerine pills, capsuled, 34
Nitrous oxide gas, a new method of administering and economising, 840
Noble, Dr. Daniel, obituary notice of, 231
"No doctors among the peers," 908
Nomenclature of Diseases, the new edition of the, 638, 853
"Non-combatants," 441, 878
Northampton, health of, 1055
North-Eastern Hospital for Children, 1018
Northern counties notes, 42 *passim*
North-Western Association of Medical Officers of Health, 185, 366, 732, 1019, 1153
Norwich, enteric fever in, 398, 814; an insanitary locality in, 581; Hospital, pay principle in the, 32
Nose, removal of a gun breech and bolt from the, after five years, 378; removal of a portion of a gun barrel from the, 502
Notification of infectious diseases, fees for, 535
Notley, Dr. W., on the proposed new Teaching University for London, 86; on syncope and a method of averting it, 472, 597; on the Birmingham Medical Institute, 691; on successful œsophagotomy in removal of a half-penny swallowed three years previously, 966
Nottingham, an infectious disease hospital for, 1094
Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques (review), 1087
Nude, the, 1008
Nurses, training school and home for, 971
Nursing, as a fine art, 391; the poor, 354

OBITUARY.—Dr. Herbert Davies, F.R.C.P., 135—Thomas Buchanan Washbourn, M.D., F.R.C.P.Lond., 136—Evan Buchanan Baxter, M.D.Lond., F.R.C.P., 181—H. T. Lanchester, M.D.Lond., F.R.C.S.E., 183—Daniel Noble, M.A., M.D., M.R.C.S., 231—Derry Jones, M.R.C.S., L.R.C.P.Edin., ib.—Charles Culledge Balding, M.R.C.S., L.S.A., 275—William Braithwaite, M.D., ib.—Henry A. Martin, M.D.Boston, Mass., ib.—Costanzo Mazzoni, 318—Francis Grierson, M.B., C.M., 319—Frederick Anthony Mills, ib.—Surgeon G. S. Lewis, M.A.Cantab., ib.—William Gillbee, M.R.C.S., 453—W. A. F. Browne, M.D., LL.D., &c., 499—Ebenezer Pye-Smith, F.R.C.S., 543—Charles Palmerston Turner, 592—Rees Hopkins, L.R.C.P., M.R.C.S., 643—James Whitehead, M.D., F.R.C.S., 687—Thomas Howkins, M.R.C.S., ib.—Edward Davy, M.R.C.S., 730—Edward Wells, M.D. Oxon, ib.—George Sankey, M.R.C.S., L.S.A., 731—Oswald George Dyx Bradshaw, M.R.C.S., L.R.C.P., 779—Paul Bennett Conolly, Army Medical Staff, 824—Stephen Hemsted, M.R.C.S., ib.—John Caunt, M.R.C.S., ib.—Edward T. Tibbits, M.D.Lond., 872—Dr. Diomede Pantaleoni, 921—William Watkinson Moxhay, M.R.C.S., L.S.A., 969—Seth B. Watson, M.D., ib.—John More Young, M.A., M.B., C.M.Glas., &c., 1062—Sir William Mure Muir, M.D., K.C.B., 1107—James Moncrieff Arnott, F.R.C.S., F.R.S., ib.—Joseph Bunny, M.D., ib.—John Thorburn, M.D., F.R.C.P., 1152—Thomas Pretious Heslop, M.D., F.R.C.P., 1185—D. Manson Fraser, M.A., M.D., 1186—Robert Rattray, M.D., M.R.C.S., ib.

Obstetric bag, a new, 1041
Obstetrical Society of London, 536; annual address at the, 281
Obstetrics, the bichloride douche in, 677
Obturator hernia, case of, 655
Odontological Society of Great Britain, 185
O'Dwyer, Mr. J. J., a correction, 878
Œsophagotomy, successful, 989; for removal of a halfpenny swallowed three years previously, 908
Œsophagus, removal of artificial teeth from the, 123; stricture of the, 205
"Official fib, an," 766
Ogston, Prof., visit to the Soudan, 958
O'Hara, Mr. Daniel Murray, 973
Old age, 854; and the changes incidental to it, 831
O'Leary, Surgeon-General Thomas, the death of, 311
Oliver, Dr. G., on the clinical study of the liver viewed through the urine, 700, 741, 838, 976, 1078
——, Mr. J., on acute perforating ulcer of the ascending colon, 424
Omental hernia, strangulated, 902
Ontario, small-pox regulations in, 579
Open space question, the, 354
Ophthalmia, sympathetic, 63; purulent, in infants, 385
—— neonatorum and its ravages, prevention of, 345; prevention of blindness from, 567
Ophthalmoscope, use of the, in medical practice, 992
Ophthalmoscopes, new, 112
Orchard, Mr. J. C., on the application of midwifery forceps, 890
Organic tissues, imitations of, 958
Ormsby, Dr. L. H., on the administration of anæsthetics, 226; no doctors among the peers, 1021
Ormskirk rural district, water-supply in the, 268
Ormerod, Dr. J. A., on hereditary locomotor ataxy, 383
Orthopædic march past, an, 720
Osborn, Mr. S., on two cases of hydrocele in the female, 423
Osler, Dr. W., on malignant endocarditis, 415, 459, 504
Osmic acid in neuralgia, 1189
Osseous lesions, the urine in, 958
Osteitis deformans, 518, 893
Osteo-sarcoma, complete excision of the clavicle for, 1167
Otology in relation to general medicine, on, 335
Otorrhœa, natural drainage in, 387
Otoscope, a new, 32
Ovaries, sarcoma of, 993
Ovariotomist, a lady, in China, 139
Ovariotomy, 46, 209, 1126; in China, 139, 278; insanity after, 522; sequel to a case of, 751; in Rome, 1123; case of double, 795
Overlaying, 492
Over-pressure in board schools, 321, 677
Overtime in Government establishments, 533
Overwork in telegraph offices, 576, 734
Owen, Mr. J. F. H., on heart injuries, 190
——, Mr. W. B., on the risk of small-pox, 1111
Owens, Mr. C. A., on cocaine in hay fever, 925
Oxford men, a word of warning to, 357
—— University, 186; medical examinations at, 139; physiology at, 486, 639; medical degrees at, 1092; Graduates' Medical Club, 826
Oxley, Dr. M., on caries of the spine, with partial paraplegia treated by application of Sayre's jacket, 745
——, Dr. R., presentation to, 1187

P. and O. Company's medical service, the, 46, 93
Pacini, Filippo, 218
Paddington, a mortuary for, 320
Paddington-green Children's Hospital, 780
Page, Mr. F., on results of amputations at the Newcastle-upon-Tyne Infirmary, 471
——, Mr. H. W., on Injuries of the Spine and Spinal Cord (review), 804; on surgical scarlet fever, 887
Paget, Mr. S., on synovial cysts in connexion with joint disease, 529
——, Sir James, on St. Bartholomew's Hospital and School, 1128
Palmar ganglion, the treatment of, 1171
Palmer, Mr. A., on the case of Dr. Bradley, 227
Panfilo Custaldi and the art of printing, 369
Pantaleoni, Dr. Diomede, obituary notice of, 921
Panum, Prof., death of, 857
Paraffin oil drinking, 876, 972
Paraldehyde, 723; action of the new hypnotic, 201
Paralysis, infantile choreiform movements in, 616; periodic, of the third nerve, 938; pseudo-hypertrophic, 1086
—— agitans, cases of, 345
Parietal bone, rapid spontaneous resolution of a depressed fracture of the, 647
Paris, correspondence from, 43 *passim*; flying ambulances in, 76; hotels, the inspection of, 358; erysipelas in, 1174
Parisian sewerage system, 320
Parker, Mr. R. W., on some complications of tracheotomy with illustrative cases, 150, 193, 241; on removal of a gun-breech and bolt from the nose, after five years, 378; on strangulated omental hernia, 680, 902; on pneumothorax for hæmoptysis, 965
Parkes Museum of Hygiene, the, 320, 348, 1018
Parochial medical legislation in the United States, 356
Pasteur, his Life and Labours (review), 803
Patella, treatment of fracture of the, by wiring the fragments, 153; eight cases of fracture of the, put up in gum bandages as soon after accident as possible, 659
Patent medicines stamp tax, the, 531, 399, 492, 856
Pathological serial, a new, 168
—— Society, 74
Patient, family doctor, and consultant, 714
Paul, Mr. F. T., on a new splint for the treatment of talipes, 424
Pavy, Dr. F. W., on ferrocyanic test pellets for albumen, 1071
Payne, Dr. J. F., varicella gangrenosa, 987
Peabody buildings in 1884, the, 396
Peers, no doctors among the, 1021
Pekin Hospital, the, 440
Pelvis, fracture of, with wound of artery, 47
Pemphigus, the bullæ of, 981
Pel, the case of, 1135
Penis, total amputation of the, 345; primary sarcoma of, 521
Penny dinners, 47, 491
Penny, Mr. H. J., on floating dispensaries for fishermen, 646
Pepper, Mr. A. J., on myxoma of the spermatic cord, 157
Peppermint, oil of, 34
Perimetritis, serous, 1166
Perineum, rupture of the, 1176
Peritoneal, abscess following attacks of enteric fever, 902
Permanganate of potash in functional amenorrhœa, 925
Perry, Mr. F. F., on removal of the jaw for tumours, 1077
Peru, health matters in, 1050

PHARMACOLOGY AND THERAPEUTICS.—The St. Dalmas' chest and back plasters; Cinchonidine and Pierotoxine; Naphthaline in cystitis; A spurious cubeb; Conium maculatum, 340—"Constant" Tinctures; Sweet spirits of nitre; Hydrocotyle Asiatica, 443—Bromide of zinc; Boldo and boldine; Colchicine; The active principle of senna leaves; Detection of alkaloids; Thalline; Sulphate of cinchonamine; Benzole in rodent ulcer; Paraldehyde; Synthesis of coniine (p. 722—Experimental researches on antipyrin; Verbascum; Myoctonine; Walnut-tree bark; Rudia longifolia; Purgatives; Cornutine and ergotinine; Cocaine as an anodyne; Agaricin in the sweating of phthisis, 1051

Pharmacopœia, the new British, 946
Pharmacy, South London School of, 770
Philip Mr. J. A., on small-pox and chicken-pox, 973
Phillips, Dr. S., on sporadic cretinism, 799
——, Mr. W. F., on health assurance association, 1103, 1155
Phlegmonous pharyngitis, sudden death in a case of, 343
Photography and medical jurisprudence, 64
Phthisical, care of the, 574
Phthisis, bacillary doctrine of, 213; etiology of, 565; the contagiousness of, 959; in the army, 857; chronic, transfusion in a case of, 11; hygienic and climatic treatment of chronic pulmonary, 484, 505, 606, 737; chronic pulmonary, 604; infective, 727
Phylloxera, a remedy for the, 139
Physical and mental suffering, relief in, 579
Physiologie, Lerbuch der (review), 989
Pigmentary syphilide, the, 721
Pilocarpine, case of convulsions during pregnancy treated by injections of, 1079
Pineal body, adeno-sarcoma of, 429
Pistol shot wound, 618
Pit villages, the mortality of, 629
Pitts, Mr. B., on a case of tumour of the bladder, 991
Pituitary body, myoneuroma of the, 32; tumour of the, 246
Pityriasis circiné, 708
Pleural abscess cured by incision and drainage, 388
Pleurisies, primitive dry, some points in the natural history of, 549, 559, 649
Pleurisy, atrophy of muscles in, 856
Pneumonia, acute, 1036; coccus, the, 920
Pneumothorax, 1038; for hæmoptysis, 97, 908, 1014
Poisons Bill, the new, 575, 633; opposition to the, 676
Police, health of the, 811; and workhouse regulations, 32
Policemen, the injured, 220
Political crisis, the, and medical legislation, 1090
Pollard, Mr. B., on renal cancer associated with calculi, 342
Pollock, Mr. J., on treatment of functional amenorrhœa, 132
Poor, homes of the, 1005
Poore, Dr. G. V., on climate in its relation to health, 172
Poor-law medical agreement, an old, 82
—— medical officers and the Medical Register, 445
Popliteal aneurysm, case of, 1033; sinuating sarcoma, 166
Poplar, health of, 867; Hospital for Accidents, the, 544
Porro's operation, 400, 1084, 1098; successful case of, 1140
Porter, Dr., on epilepsy, 755
Port Said, British hospital at, 280
Port sanitary authority and infectious diseases, 1009
Postage-stamp affixer, 1169
Potassium iodide, tolerance and advantage of large doses of, 717, 876

Potter, Mr. H. P., on street illness and bad police and workhouse regulations, 93
Pounds, Mr. H., on the result of extension after tenotomy, 189
Power, Mr. D., on a case of synovial cysts in connexion with joint disease, 520
Pregnancy, vomiting in, 537; use of the tricycle in, 973
Preliminary scientific examination, 76, 950
Prescriptions, elligible, 691
Preservation of the dead in mortuaries and elsewhere, 226
Preston Sanitary Association, the, 489
Price, Mr. J. A., on Addison's disease, 252
Pringle, Dr. J. J., on recurrent hæmatemesis with urticaria, 110
——, Dr. R., on small-pox hospitals and camps, 195; on small-pox risks and revaccination, 1014
Printers' Pension Corporation, 1153
Private practice and charitable institutions, 214
"Probably apoplexy," 536
Professional advertisements, 715
—— secrets, 491
Proselytising in hospitals, 171
Providence in medical men, 70
Provident dispensaries, remuneration of medical officers of, 310
—— medical arrangements and medical charities, 1133
—— Surgical Appliance Society, 454
Prudden, Dr. M., on the frog's bladder as an object for study of the emigration of white blood-cells, 199
Pruritus vulvæ, 188, 235, 278, 368, 413
Pryn, Mr. W., on case of missed labour, 783
Pseudo-osteomalacic pelvis of Naegele, 1186
Pseudo-scientists in religion, 487
Public health, legislation for the, 1884, 74; (Members and Officers) Bill, the, 767
—— prosecutions, the director of, 763
—— schools, illness and death at, 351
Puerperal fever, 298; prevention of, 24
Pulmonary diseases in wild animals, 439
Pulse, remarkably slow, with epileptiform seizures, 288
Purcell, Dr. F. A., on vaginal extirpation of the uterus, together with right ovary, for malignant disease, 200
Pure water company, the, 624
Purgatives, 1051
Pye, Mr. W., on repair after gangrene of the scrotum, 565
Pyloric stenosis, operations for, 903
Pylorus, excision of the, 859
Pyo-salpinx, tubercular, 429
Pyrexia, nervous, 578

Quain's (Dr. R.) Dictionary of Medicine (review), 211
—— (Mr. R.) Clinical Lectures (review), 347
Quarterly Journal of Microscopical Science (review), 348
Queen Charlotte's Hospital, 44
Queensland, the Contagious Diseases Act in, 186
Quettah, sanitary condition of, 581
Quinine, the cheapness of, 359

Rabbeth, Mr. Samuel, the late, 731; memorial fund, 767, 1051
Ramsgate Corporation Bill, 139
Rattray, Dr. R., obituary notice of, 1186
Raynaud's disease, 989
Rayner, Dr. E., on revaccination, 406
Real disease or malingering, 828
Rectum, successful removal of the lower portion of the, for cancer, 27; melanotic sarcoma of the, 65; stricture of the, as a cause of prolapsus, 169; a case of excision of the, for cancer, 560; sloughing of the, 1036
Red water," 663
Reed, Dr. S. C., on medical missions as first aids to Christianity amongst the heathen, 925
Reflex ophthalmitis, 938
Reflexes, cutaneous and deep, 955
Refrigerants, powerful, 441
Registrar-General, the weekly returns of the, for 1885, 121; annual report of the, for England, 1134
Religion and science, the relations between, 436
Religious newspapers and quack advertisements, 124
Renal calculi associated with cancer, 342
—— calculus, 250
—— surgery, cases illustrating, 95, 141; discussion on, 295
Respiration in compressed air, 1189
Resuscitation after apparent death, artificial circulation as a means of, 245, 289
Retro-peritoneal glands, primary sarcoma of the, 937
Revaccination, 406, 634

REVIEWS AND NOTICES OF BOOKS.

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Reynolds, Dr. J. R., the Harveian Oration (review), 389; address at the Bristol Medical School, 1023
Rheumatism, vertebro-meningeal, case of, 152; why does salicylic acid cure? 1119, 1158
Rhigolene, a local anæsthetic, 75, 101
Rhino-scleroma, 428; micro-organisms of, 718
Rib, fracture of the first right, 62
Rice, Mr. G. R., on the case of Dr. David Bradley, 363
Richardson, Dr. B. W., on rhigolene, amyl hydride, 101; the tricycle in relation to health and recreation, 1089; on medical poets, 1180
——, Dr. W., presentation to, 594
Richmond water-supply, the, 44
Rickets, treatment of, 1095; arrested, 430
Rindfleisch, Dr. E., the Elements of Pathology (review), 1039
Ringer, Dr. S., and Dr. D. Buxton, on the antagonism between acids and alkalies in modifying the tonicity of the heart and arteries, 6
Ringworm, 829, 876
Rivington, Mr. W., on Charcot's disease, 56; cases of lithotomy in the adult, 884, 934
Roberts, Dr. F. T., a Handbook of the Theory and Practice of Medicine (review), 666
——, Dr. J. B., Surgical Delusions and Follies (review), 1039
——, Dr. W., on a Practical Treatise on Urinary and Renal Diseases (review), 433
Robinson, Dr. W., Endemic Goitre, or Thyrocele (review), 1088
——, Mr. G. S., on ulceration of the appendix vermiformis, followed by pyæmia, 333
Robson, Mr. M., on laceration of the arm treated by transplantation, 255; on spina bifida, 255, 616
Rochester urban sanitary district, health of, 584
——, Hospital Sunday at, 826
Rodent ulcer, 988; use of benzole in the treatment of, 723; jequirity in the treatment of, 1188
Rogers, Dr. J., on the Coroner's Witnesses Act, 88; on Hicks v. Bedford and others, 540; on Donbavan v. Morrison, 682
Rolleston, Dr. G., Scientific Papers and Addresses (review), 255
Rose, Mr. W., on trephining for depressed fracture, 207
Rouse, Mr., on renal lithotomy, 800
Routh, Dr. C. H., on constitutional treatment

of diseases of the uterus and its appendages 523
Royal Asylum of St. Anne's Society, 511
—— College of Physicians of London, the, 231, 275, 628, 823, 869, 1017, 1106; Fellowship of, 257, 261; the presidency of, 580
—— College of Surgeons of England, the, 183, 231, 410, 438, 498, 711, 779, 821, 919, 1106; reform at, 21, 772; Council of, 69, 115; Association of Members of, 67, 713, 723, 726, 761, 852, 962, 1097; election of Councillors of, 965, 1050, 1091, 1131, 1146, 1170;—in Ireland, 14, 83, 126, 276, 366, 490, 641, 688, 960
—— Free Hospital, 364
—— Hospital for Women and Children, 410
—— Institution, 624
—— London Ophthalmic Hospital, 500
—— Medical and Chirurgical Society, 179, 364, 389, 400, 531; presidential address at the, 428
—— Medical Benevolent Fund of Ireland, 1109
—— National Lifeboat Institution, 633, 922
—— South Hants Infirmary, 247
—— Surrey County Hospital, proposed enlargement of the, 119, 500
—— University of Ireland in Parliament, representation of the, 356
Royat-les-Bains and Contrexéville, notes of visits to, 1121, 1160
Royle, Dr. O. N., on idiopathic tetanus, 1080
Rupture of the perineum, 1176
Russell, Mr. A. G., on cocaine in hay fever, 1021
—— , Mr. T. J., on instruments for irrigating the uterus, 876
Russia, the practice of medicine in, 93; syphilis in, 910
Russian hospitals, 48
—— manual of laryngology, a, 909
Rutherford, Dr. W., on a combined ice and ether spray freezing microtome, 4

Sainsbury, Dr. H., on Addison's disease, 251
St. Andrews Graduates' conversazione, 1138
St. Bartholomew's Hospital Reports (review), 480
—— Hospital, Rochester, 971
St. Dalmas chest and back plasters, 360
St. David's, unsatisfactory inquest at, 400
St. George, Mr. G., a remarkable superstition, 1189
St. George's (Hanover-square), report of, 446
St. Luke's Hospital, proposed removal of, 514
St. Marylebone, health of, 491
St. Mary's Hospital, 500
St. Pancras, the late medical officer of health for, 580; Poor-law management in, 1054
St. Petersburg, cocaine in eye operations in, 860; trichinosis in, 862
St. Thomas's Hospital, 1153; Reports of (review), 623
Salford, health report on, 312
Salicylic acid, why does it cure rheumatism? 1119, 1158
Salivary calculus in a medical man, 632
—— fistula, an easy method of cure for, 682
Salvation Army, and small-pox, 722, 773; and lunacy, 960
Sanctuary, Dr. T., concerning the action of certain remedies in functional amenorrhœa, 59
Sandefjord sulphur baths, 324
Sanitary Inspectors, Association of, 44
—— Institute of Great Britain, 932
—— jurisdiction over dairy farms, 391
—— matters, responsibility in, 29
—— Protection Association, 454
Sankey, Mr. George, obituary notice of, 731
——, Dr. W. H. O., Lectures on Mental Diseases (review), 66; on lunacy law reform, 176
Sarel, Mr. H. A., on measles in Guernsey, 691
Saucepans, sanitary seamless steel, 1089
Saundby, Dr. R., on migraine with paralysis of the third nerve, 57; on hysterical pyrexia, 457; on the effects of handling dynamite, 689
Saunders, Dr. C. E., on cholera, 803
——, Mr. E., on the cholera epidemic in Edinburgh in 1848-49, 92; on caffeine, 235
Savage, Dr. G. H., Insanity and Allied Neuroses (review), 66
Scapula, sarcoma of the, 203
Scarlet fever, with extensive sloughing of left anterior triange of neck and exposure of vessels, 380; the prevention of the spread of, 766; infection of, 354; convalescents, 1136; conveyance of, by a third person, 1173
Scarpa's triangle, removal of tumours from, 1175
Scent, 29
Scheme for a medical school in Dundee, 1173
School attendance, infectious disease and, 1140
—— Boards and medical certificates 456
School hygiene, 438
Schools, over-pressure in, 30, 216, 812; infectious and contagious diseases in, 31; preventive medicine in primary, 31, 76; discussion on the medical code of, 64; medical regulation of, 116; eyesight in, 802; defective supervision in, 908; corporal punishment at, 1005
—— for imbeciles, 414
Sciatica, osmic acid in, 58
Scleroderma, in relation to filaria sanguinis hominis, 380; diffuse symmetrical, 191; circumscribed and mixed, 927, 975
Sclerosis, disseminated cerebro-spinal, 879
Scotland, housing of the working classes in, 1096
Scottish conjoint examinations, the new, 273, 318
—— university reform, Lord Reay on, 258
Scrofulous gland disease, with phthisis, 206
Scrotum, gangrene of, repair after, 565
Scurvy, 118; the blood in, 1131
Seamen's Hospital Society, 454, 731
Seaside sanitation, 196
Seasonal Map (review), 623
Seaton, Dr. E., on medical officers of health and private practice, 225
Sea-voyaging, the influence of, upon the genito-uterine functions, 909
Sea-water, flushing sewers with, 1188
Sectarian sisterhoods in hospitals, 1174
Self-inflation, saving of life from drowning by, 11
Self-inflicted wounds causing death, case of, 178
Selling an infected bed, 594
Selous v. the Wimbledon and Croydon sanitary authorities, 168
Semon, Dr. F., on electric illumination of the cavities of the human body, 470, 512, 588
Senna leaves, the active principles of, 723
Septic organism, a new, 355
Septicæmia, 767; treatment of, by ammonia and chlorate of potash, 104; treatment of, by iron and quinine, 916; and hæmorrhage, death from, 73; abortion, phlegmasia dolens, and, 248
Serous perimetritis, 1166
Services, examinations for the, 312
Sewage, as food for fishes, 27; disposal of, 847
Sewer-men and typhoid, 533
—— ventilation, 235
Shadwell, Mr. B., an instrument for the removal of false membrane after tracheotomy, 541
Sharkey, Dr. S. J., on diseases of the central nervous system in which no naked-eye changes are found at the post-mortem examination, 1028
Sheffield Medico-Chirurgical Society, 17
Shillitoe, Mr. B., on spurious cubebs, 829
Shirtliff, Mr. E. M., on extensive and fatal injuries with slight external evidences, 999
Shirres, Mr. G., on a new long splint for fracture of the thigh, 152
Shoeburyness explosion, the, 526, 597
Should an inquest be held? 675
Shoulder, dislocation of, reduction, followed by aneurysm, successfully treated by ligature of subclavian, 704
Shuter, Mr. C. Y., on spontaneous evolution, 645
Sick and wounded in war, care of the, 25
—— children, hospital for, 594
—— nursing, Dr. Dyce Duckworth on, 1177
Sieveking, Dr. E. H., on Harvey's manuscript lectures, 271, 1057
Signs of death, 576
Silcock, Dr. Q., on tubercular pyo-salpinx, 429; on case of osteitis deformans, 519
Silk, aseptic, 400
Silverlock's Medical and Surgical Emergency Reference Book (review), 481
Silverthorne, Mr. A., on London and Provincial Water-Supplies, with the latest Statistics of Metropolitan and Provincial Waterworks (review), 256
Silvester, Dr. H., on life saving from drowning by self-inflation, 11
Simpson, Dr. J. H., on the use of cocaine in minor surgery, 226
——, Mr. S., on how to carry an insensible man unaided, 547
"Simulo" in epilepsy, 722
Sir P. Dun's Hospital, 184
Sittingbourne, health of, 819
Skerritt, Dr. E. M., on pneumothorax for hæmoptysis, 1014
Skilled opinion, 219
Skull, bullet wounds of the, 61, 154, 993; simple fracture of the, in infants, followed by pulsating tumour, 62; fracture of the, followed by collections of cerebro-spinal fluid beneath the scalp, 129; simple depressed fracture of the, 202; compound depressed fracture of the, exudation of cerebral matter, 203, 204
Sleep and death, poisoned, 124
Sleeplessness, 75
Slight, Staff-Surgeon, death of, 722
Slow pulse, with epileptiform seizures, 447
Small-pox, breaking out after full development of vaccination, 92; outbreak of, at the Three Counties Asylum, 126, 440; in London and the provinces, 310, 359, 398; risks, 580, 1111; and vaccination, 681; in India of ancient and modern methods of treating epidemics, 913; diagnosis of, 1005; Bass's experience in the treatment of, 1006; and chicken-pox, 973
—— hospitals, 77, 172; and camps, 16; their influence on surrounding populations, 253
Smith, Dr. Pye, Syllabus of Lectures (review), 756
——, Dr. W., on the nature and treatment of lupus, 254; on acute pneumonia, 1068
——, Mr. A., on ringworm, 876
——, Ebenezer Pye, obituary notice of, 58
——, Mr. F. P., on autumnal stone, 87
——, Mr. G., on cases of abdominal section in the Bristol Royal Infirmary, 104
Smythe v. Pond, 121
Snow, Dr. W. I., on a case of excision of the rectum for cancer, 560; on treatment of cancer of cervix uteri, 846
Snyder, Dr. C. W., on medical practice in the United States, 926
Soap in blood, 910
Social Science Association, 796
Society for Relief of Widows and Orphans of Medical Men, 703, 1063
Soldiers' rations, experiments on, 676
Soot clouds, the cause of, 122
Soudan, with the troops in the, 632, 683, 731, 855; recreation for the soldiers in the, 679; the war in the, 809; our war correspondents' experiences in the, 816, 883; the army in the service in the, 905, 1008; the army in the, 906
Southborough Waterworks, 1048
South Devon and East Cornwall Hospital, 366
South-East Lancashire, the members for, and the vaccination question, 266
Southend, small-pox at, 677
Southern California as a home for consumptives, 279
Spain, cholera in, 722, 1050, 1177
Spanish Hygienic Society, the, 580
—— prize essays, 688
Specific origin of general disease, 788
Spermatic cord, myxoma of the, 157; on malignant tumours of the, and their diagnosis from hernia, 792
Spermatozoa, monstrous, 1136
Spina bifida, 255, 1042; a rare case of, 42; the anatomy of, 557; treatment of, 615; report of the committee on, 989
Spinal cord, localisation of motor centres in, 705
—— injury, two cases of, 338; treatment by extension, 412
Spine, lateral deviation of the, 378; caries of the, with partial paraplegia, treated by excision of Sayre's jacket, 745
Spleen, enlarged, 1038
Splenectomy in the rabbit, the results of, 70
Splenic artery, aneurysm of, rupturing into stomach, 518
Spondylolisthesis and other results of pressure on the spinal column, 341
Spontaneous evolution, 645
Spooner, Dr. F. H., on small-pox at the Scots Army barracks, 773
Sporadic cretinism, 799
Spurious cubebs, 390
—— vaccination, 188
Spurway, Mr. C., on a summer Alpine health resort, 1067
Squint, concomitant, early treatment of, 52
Squire, Dr., on small-pox and vaccination, 682
——, Mr. Peter, the late, 922, 970
—— and Sons, Messrs., on constant fires, 547
Startin, Mr. J., on imprisoning an unfortunate lunatic, 876
Starvation and suspended animation, 177
Statistical Society, 1138
Steele, Mr. C., on treatment of intestinal obstruction, 85
Stephenson, Mr. C., on unsound meat, 5
Sternberg, Dr. G., on what is the explanation of acquired immunity from infectious diseases? 655, 696
Stevenson, Dr. T., on sewage disposal, 847
Stewart, Dr. G., on Lectures on the Nervous System (review), 238
——, Dr. W., on the history and use of ipecacuanha in dysentery, 840
——, General, the wound of, 217, 338, 399, 532
Stoke Bruerne tragedy, the, 492
Stoker, Mr. G., on the laryngoscope, 546
——, Prof. T., on pathology of multiple exostoses, 1037
Storrar, Dr., 581
Story, Dr. W., death of, 287

Strahan, Dr. S. A. K., on the new Lunacy Bill, 1015
Straits Settlements, sanitation in the, 961
Strange story, the, 1007
Strahan, Dr. S., on the action of paraldehyde, the new hypnotic, 291
Street illness and workhouse regulations, 93
—— noises, a remedy for, 94
—— orderlies wanted, 18
Street's Indian and Colonial Mercantile Directory, 1884-85 (review), 162
Stretford, health of, 867
Stroud urban district, report of, 446
Strychnine, the removal of, from the organism, 311
Sturges, Dr. O., on school work and discipline as a factor in chorea, 9
Sturt, Mr. C., curious hereditary malformation of the foot, 597
Suakim, expeditionary force, 527; the sick and wounded at, 633
Subperiosteal amputation, 117
Suckling, Dr. C. W., on a case of lymphadenosis with multiple growths from the dura mater, 247; on Squibb's apparatus for the estimation of urea, 568; myxœdema in a woman aged seventy-six, 889
Sugar-beets, cultivation of, in England, 167
Suicide, 497
Sulemani, Mr. S. J., on a new remedy for cholera, 659
Sumner, Mr. W., on a midwifery coincidence, 139
Sunderland, measles in, 580
Sunstroke, 775; protection against, 413
Superstition, a remarkable, 1189
Supra-pubic lithotomy, 1177
Suprarenals, pigments of the, 169
Surgeons-Major, examination of, 29
Surgery and rose-coloured urinary pigments, 809
Surgical apparatus for the poor, prompt supply of, 32
—— scarlet fever, a note on so-called, 887
—— psychology, 1132
Sutherland, Mr. H., on agoraphobia, 131, 828
Sutton, Mr. B., on fatty tumours, 1083
——, Mr. J., on pulmonary diseases in wild animals, 341
Swan, Mr. R. L., on condylotomy by the osteotome for the treatment of knock-knee, 1167
Swanzy, Mr., on transplantation of skin flaps for cure of cicatricial ectropia, 568
Sweet spirits of nitre, 503, 597
Swete, Dr. H., on Worcester urban district, 783
Swiss drunkenness and that of other countries, 123
Sword-swallowing, death from injury to the œsophagus, necropsy, 249
Sydney, new university medical school at, 321
Symes, Mr. C., on hydrochlorate of cocaine, 546, 647
Symonds, Dr. C. J., on a case of nephrolithotomy, 432; on removal of calculus from vermiform appendix, 895; on malignant stricture of the œsophagus with new method of using the œsophageal catheter, 206
Sympathetic ganglia, histology of, 813
"Sympathy" between twins, 169
Syncope, and a method of averting it, 172, 548, 907
Synovial cysts in connexion with joint-disease, 20
Syphilide, pigmentary, 721
Syphilis, effect of, on the nervous system, 255; the spleen in, 536; in hoofed animals, 814; hæmoptysis in, 1050; intra-cranial, 1157
Syphilis, the bacillus of, 604
——, congenital suppuration in joints in, 157; congenital, of the throat, treatment with mercury and rectal alimentation, case of, 613
Syphilitic induration of a cicatrix resembling morphœa, 1022
—— stricture, colotomy, 202
Syria, the American mission in, 633

Tabes dorsalis, œdema of the glottis in, 1096; and syphilis, 396
Tactic laryngeal crises, 631
Tail of the human embryo, 1178
Tait, Mr. L., on acute peritonitis by abdominal section, 1102
Tapes, a new splint for the treatment of, 24
Tapeworms and hydatids, 1140
Taro-cholate of soda pills, 917
Taylor, Dr. C. B., on the action of cocaine upon deep-seated parts, 311, 1112
——, Dr. S., on arrested rickets, 132; on Addison's disease, 988
Teaching University for London, the proposed, 48, 303, 370, and the University of London, 5; Association for promoting a, 813
Telephone and telegraph wires, 768, 874, 960
Temperance Hospital, 958
——, intemperate advocacy of, 358;
Tenesmus of the rectum, the surgery and pathology of, 57
Tenotomy, on the result of extension after, 189
Testicle, trophoneurosis of the, 31; strapping the, 1138
Testis, sarcoma of the, castration, cases of, 425; deposit of bone in, 662; congenital sarcoma of the, 663
Tetanus, traumatic, case of, 382; idiopathic, 1080
Teucrium scordium, 34
Thalline, 723
Thames, the state of the, 545; sewage commission, 957; valley, drainage of, 37, 851
Therapeutic applications of the permanganates, 70
Thermo-electric prostatotomy, 582
Thigh, a new long splint for fracture of the, 152; rapidly growing sarcoma of, 1034
Thin, Dr. G., on the bullæ of pemphigus, 981; on rodent ulcer, 988
Thomas, Mr. H. O., on treatment of intestinal obstruction, 86
Thompson, Dr. J. H., on ovariotomy in Rome, 1123
——, Mr. C. J., on glycerine as a solvent for podophyllum resin, 413
——, Mr. T. W., is alcohol a food? 743, 828; on a new obstetric bag, 1041
Thoracic aneurysm, death, 614
Thorburn, Dr. J., obituary notice of, 1152
Thornton, Mr. P., on an unusual mishap in the treatment of cystic goitre, 596
Thorowgood, Dr., on cases of peritoneal abscess following attacks of enteric fever, 992
Thrift, unappreciated, 1139
Thrombosis of basilar artery, 521
Thruston prize, 123
Thudichum, Dr. J. L., on inflammation, abscess, and new growths of the ethmoid cells, 61
Thursfield, Dr. W. N., on the etiology of goitre in England, 1074
Thyroid, functions of the, 25
Thyroidectomy, a case of, 1163
Tibia and fibula, hypertrophied callus of, 845
Tibbits, Dr. E. T., the late, 869; obituary notice of, 872; memorial fund, 972, 1096, 1189
Tinctures, constant, 443, 503, 547, 596
Tokio Medical Library and Museum, the, 435
Tomkins, Dr. H., on the late outbreak of cholera in Paris, 511
Tongue, cancer of the, 207; lympho-sarcoma of, 1139
Tongue-depressor, a new self-adjusting, 20
Tonsil, fibro-enchondroma of the, 389
Too ready to attach blame, 218
Torquay, health report on, 312, 679
Tottenham, preventable diseases in, 676
Trachea, sudden death from impaction in the, of a bronchial gland, 342
Tracheotomy, some complications of, with illustrative cases, 150, 193; instrument for the removal of false membrane after, 541; wound of neck treated by, 812
Traffic in girls, the, 1175
Train, a hospital, 31
Trained Nurses' Annuity Fund, 308
Transfusion of blood, 664, 673, 745
Transplantation, laceration of the arm treated by, 255
Trephining for depressed fracture, 207
Treves, Mr. F., on the treatment of intestinal obstruction, 39; on scrofulous gland disease with phthisis, 206; On Intestinal Obstruction (review), 480; on a case of congenital deformity, 518; on the resection of the intestine, 620; on strangulated omental hernia, 772
Trewman, Mr. G. T., a warning, 236
Trichiasis, 848
Tripe, Dr., on small-pox, its influence on surrounding population, 254
Trophic disorders, 580
Tropical climates, constitutional requirements for, 159
—— dysentery, 753
Troublesome patient, a, 31
Tricycle, use of the, 925
Tubercle bacilli, 1048; cultivation of the, 36; at the Royal Medical and Chirurgical Society, 130; and the pathology of phthisis, 107, 155
Tubercular infection from sexual connexion, 124
Tuberculosis in large ruminants, 122
——, laryngeal and pulmonary, originating in simple chronic laryngitis, 286; surgical aspects of renal, 699
Tumours, congenital, 785; non-ovarian dermoid, 798; removal of, from Scarpa's triangle, 1175
Tunbridge, a Local Government Board inspector at, 490
Turin, science at, 220
Turnbull, Dr. L., on Hydrochlorate of Cocaine (review), 850
Turner, Dr. C., on adeno-sarcoma of pineal gland, 429; on the rupture of the aorta, 663
Turner, Mr. C. P., obituary notice of, 592
——, Rev. Dawson William, the late, 265
Turton, Mr. J., the title of "Doctor" for London medical students, 1188
Twin birth, in which one was an anencephalus, 648
—— births, four, in succession, 92, 189
Tyne port district, report on health of, 402
Typhoid, neglected nuisances and, 910; in animals, 846

Ulnar artery, traumatic aneurysm of the, 796
Umbilical tumour, 48
Universities and the Conjoint Board, the, 261
University College, London, 410, 581, 1018; reform of the, 1170; Hospital, 358, 643, 765, 922
——degrees for London medical students, 484, 493
United States, the, medical education in, 171, 807; medical practice in, 692, 782, 926
Ureters, calculus in both, 989
Urethra, stricture of the, with complications, 1127; a new form of dilator for stricture of the, 46
Urethral gleet, treatment of, by medicated metal bougies, 1031
—— stricture, on treatment of, 336
Urethrotomy for stricture, subsequent development of epithelioma of the bladder and general dissemination of the growth, 292
Uric acid calculus of enormous size, 814
Urine, clinical state of the liver viewed through the, 838, 883, 976, 1078; new tests for sugar in, 1137
Uterine disease, the constitutional treatment of, 534
—— intrinsic circulation, displacements of the, 761
—— fibroid, treated by enucleation, 939
—— fibro-myomata, treatment of, 1086
Uterus, vaginal extirpation of the, 200; extirpation of the, 208, 485, 521; the importance of flexions and displacements of the, 243, 284; inversion of the, 388; the circulation in the, with some of its anatomical and pathological bearings, 752; absence of the, and occlusion of the vagina, 753; instrument for irrigating the, 876; and its appendages, constitutional treatment of diseases of the, 523; successful removal of the, 562
Uxbridge tragedy, the, 33, 40, 78, 138, 175

Vaccination, 494; the value of, 483; alleged death from, 628, 682; and small-pox, 1046
—— laws, 442
Vaginal hernia, labour complicated by, 385
Vaginitis, chronic, clinical memoranda of two cases of, 610
Vallance, Dr. T. J., on the Lunacy Amendment Bill, 1148
Varicella gangrenosa, 987
Varicocele, 1067; the radical cure of, 695; treated by the subcutaneous wire loop, one hundred cases of, 978
Variola and the varioloid diseases of animals 1036
Varix of the upper extremity, 1177
Vegetable food for children, 631, 690
Vena cava, thrombosis of, and primary sarcoma of adrenal, 662
Ventilation abolished altogether, 218
Ventnor Hospital, the, 276, 320, 631
Verbascum, 1051
Verbena hastata, 34
Vermiform appendix, removal of calculus from, 895
Vertebræ, dorsal synostosis of, 157; lumbar, displacement of, 748
Veterinarians and food inspection, 720
Victor Hugo, 1006
Victoria University, 186, 780, 821
Violet pigment discharged from the mouth, 662
Virchow, Professor, on croup and diphtheria, 490
Virchow's *Archiv*, 812
Visceral syphilis, 331, 372
Vital statistics, 36, *passim*
Vitreous, cysticercus in the, 813
—— body, congenital changes in the, 1084
Vivisection return, 1096
Voigt, Mr. J. C., on a constant antiseptic vapour dressing, 793
Volunteer Medical Staff Corps, 537, 675, 1021, 1181; examinations in the, 926
Vulva, ulceration of lupus of the, 939

Wales, coroner's inquest in, 1176
Walford, Mr. C., on a Statistical Chronology of Plagues and Pestilences, as affecting Human Life (review), 289
Walker, Mr. G. E., on treatment of adhesions of the iris to the cornea, 197; on recovery after apparently fatal chloroform narcosis, 449; on recovery of good sight after twenty

years' blindness, 1030; on chloroform *v.* ether, 1147
Wallasey medical charities, 185
Walnut tree bark, 1051
Walsham, Mr. W., on treatment of cervical caries, 619; inguinal aneurysm, 799
Walshe, Dr. W. H., on the Colloquial Linguistic Faculty (review), 850
Walters, Dr. F. R., on insomnia a cause of constipation, 598
War with nature, 398
Ward, Mr. C., on resection of the knee-joint, 596
Wardell Convalescent Home, 30, 1136
Warning, a, 236, 736
Washbourn, Dr. T. B., 135
Water companies, the powers of, 264
Waters, Mr. G., on the comma-shaped bacillus, a zymogenic, not pathogenic, entity, 223
Watford, diphtheria at, 171; health of, 819
Watkins, Dr. A., on a case of unusual cause of constipation, 457
Watson, Dr. E., on non-malignant tumours of the spermatic cord, 792, 837
——, Dr. Morison, death of, 582
——, Dr. Seth B., obituary notice of, 969
——, Mr. Spencer, sympathetic ophthalmia, 63
Watteville, Dr. A. De, on the cure of writer's cramp, 790
Waylen, Mr. C. W., on disinfecting chambers, 877
Weatherly, Mr. F., on physiology in Oxford, 639
Webb, Dr. G., death of, 874
Weber, Dr. H., on tubercle bacillus and the pathology of phthisis, 107; on chronic pulmonary phthisis, 464, 508, 601; on treatment of hygienic and climatic treatment of chronic and pulmonary phthisis, 693, 737; the Croonian lectures of, 821
Weir, Dr. J., on a case of athetosis, 369
Welford, Mr. G., on personal experience of cocaine as an anæsthetic, 1015
Wellington College and Rugby speech days, 1172
Wells, Dr. Edward, obituary notice of, 730; the late, 768
Welsh libel case, the, 276
West, Dr. S., on aphasia without lesion of Broca's convolution, 111; on fatal hæmoptysis, 384; on aneurysm of splenic artery rupturing into stomach, 518
——, M. J. G., on Hicks *v.* Bedford and others, 639
Westcott, Mr. W., on suicide, 497
West Bromwich, new workhouse infirmary at, 682
—— Ham, small-pox in, 814
—— Indian fevers, 721
—— Kent Medico-Chirurgical Society, 545
Westminster Hospital Medical School, 455; Medical and Surgical reports (review), 481
—— Sanitary Aid Association, 232
—— Union, the, 718
Weston-super-Mare urban district, report on health of, 402
Wheat-meal bread, 26, 226; its alimentary value compared with that of white flour bread, 794
Wheeler, Mr. W. I., on complete excision of the clavicle for osteo-sarcoma, 1167
"When doctors disagree," 263
Wherry, Mr. G., on successful operation on a remarkable cicatricial band, 516
Whipham, Dr., on myxœdema, 709
White, Dr. W. H., on lesions of the frontal lobes, 109; on a case of myxœdema, 343; on cases of phlegmonous pharyngitis, 344; on the pathological histology of semilunar and superior cervical sympathetic ganglia, 798
——, Mr. E., on treatment of functional amenorrhœa, 235; on constant tinctures, 596
——, Mr. J. R., on the admission of patients suffering from fits to asylums for idiots, 369, 458
——, Mr. R., on pruritus vulvæ, 368
——, Mr. Walter, retirement of, 544
White blood cells, emigration of the, 199
Whitefoord, Dr. W., what was the cause of death? 539; on death from vaccination, 682
Whitehead, Dr. J., obituary notice of, 687
Whitney, Mr. W. A., on the dynamite explosion in Westminster Hall, 362
Whittle Hutchinson fund, 502
Whooping-cough, 691, 782
Wickham, Mr. W., on the effects of handling dynamite, 689
Widnes, measles in, 492
Wilks, Dr. S., on the therapeutic value of arsenic in anæmia and atrophic conditions, 653; on Addison's disease, 988, 1101
Willcocks, Dr., on hypospadias, 749
Willesden, health of, 1012
Williams, Dr. C. T., on emphysema treated by the compressed air bath, 386
——, Dr. J., on the circulation in the uterus, with some of its anatomical and pathological bearings, 752
——, Mr. G., on a case of scarlet fever, with extensive sloughing of left anterior triangle of neck and exposure of vessels, 380
——, Mr. J., on recreation of the soldiers in the Soudan, 690
——, Miss, presentation to, 922
Willoughby, Mr. E. F., on Hygiene, its Principles as applied to Public Health (review), 389; on variola and the varioloid diseases of animals, 1036
Wills of medical men, 270, *passim*
Wilson, Dr. E. T., on small-pox hospitals, their influence on surrounding populations, 253
——, Mr. H., on drinking paraffin oil, 876
Wind and weather permitting, 737
Windley, Mr. T., the late medical officer of health for Leicester, 1183
Wine, detection of copper and lead in, 166
Wirrall Children's Hospital, 22:
Witthaus's Medical Students' Manual of Chemistry (review), 19
Wladimiroff's operation, 165
Woakes, Dr., necrosing ethmoiditis and the nasal polypi, 619
Wolverhampton, health of, 914; and Staffordshire Hospital, 12, 320, 594
Woodford urban district, 416
Woodhead, Dr. G. S., Practical Pathology (review), 570
Woodland, Mr. J., porter, gardener, and dispenser, 1156
Woods, Mr. T., on bleaching of the hair, 27
Woolwich, sanitation at, 267, 396; the fatal bayonet wound at, 311; refusal of, to appoint a medical officer of health, 1174
Worcester, health of, 678, 783
Workhouse, false imprisonment in the lunatic wards of a, 491
Workhouses, children in, 674
Working classes, the wages of the, 166; the Prince of Wales and the, 1175
Wray, Mr. L., jun., on collecting and preserving vaccine lymph, 222
Wright, Dr. W. M. A., on sloughing of the rectum, 1036
——, Mr. A., on perforating bullet wound of abdomen, 248; on treatment of gunshot wounds, &c., by a new drug, 406
——, Mr. C. St. John, on the title of doctor for medical students, 1014, 1149
Writer's cramp, on the cure of, 790

Xanthelasma, 1049
Xanthoma, multiple, 763

Year-book of Pharmacy for 1884 (review), 56
—— of Treatment, the, 199, 489
Yellow fever, on board a Newcastle steamer, the prevention of, 323, 860; the micro-organisms of, 405
Yeo, Dr. Burney, on the etiology of phthisis, 1
York, typhoid fever at, 724
Young, Mr. A. H., on the Clinical Society's president's address, 405
——, Mr. John Moore, obituary notice of, 1062

Zeitschrift für Biologie (review), 29
Zoological Society of London, 72, 25
Zoology, Elementary Text-book of, 1058

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